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# LECTURES
## ON THE
# EXPERIMENTAL INVESTIGATION OF THE ACTION OF MEDICINES.

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## V.—RESPIRATION.

*Respiration in Unicellular Organisms; in the Cells composing higher Organisms.—Distinction between Respiration in an Amœba and a Fixed Cell.—Internal Respiration.—External Respiration.—Internal Respiration may be diminished or arrested by Diminution or Arrest of the Circulation generally or locally.—Pathology of Fatty Degeneration, by lessening or destroying the power of Hæmoglobin to act as an Oxygen-carrier. (a) Action of Carbonic Oxide; (b) Action of Nitrites; Action of Phosphorus.—Examination of the effect of Drugs on Hæmoglobin.—Colour.—Spectrum-reducing Agents.—Absorption of Oxygen.—Action of Carbonic Oxide.—Ozonising Power of Blood.—Formation of Acid in Blood.—External Respiration.—Respiratory Movements.—Respiratory Nervous Centre; Excitants to this Centre.—Venosity of Blood.—Dyspnœa.—Apnœa: two opposite meanings of this term.—Effect of Temperature on this Centre.—Effect of Drugs: Tartar Emetic, Chloral, Opium.*

THERE is a great deal of truth in the oft-repeated comparison between an animal body and a steam-engine. In both, the motion which is their characteristic function is kept up by combustion, and for combustion there is necessary a free supply of fuel and a free supply of oxygen. Simple organisms, such as the amœba, which consists of a single cell or minute mass of protoplasm only, derive their oxygen, as well as their nutriment, from the fluid in which they swim, and the individual cells which compose the tissues of the higher animals are nourished in much the same way. As Bernard strikingly puts it, "we do not live in air" any more than a number of amœbæ swimming about in a glass of water live in air. The cells of which our bodies are composed live, like the amœbæ, in a fluid—the intercellular fluid or lymph in which they are bathed; and our skin may be compared to the glass in which the amœbæ and the water in which they swim are contained. There is, however, a very great difference between the amœba and the cells composing the bodies of the higher animals, for it can swim about freely, whereas they are for the most part fixed. The amœba can thus obtain fresh supplies of nutriment and oxygen by moving through the water in which it lives, while in higher organisms the fluid moves over the cells. This fluid, or lymph, is the liquor sanguinis, which passes out of the capillaries and supplies all the tissues with nutriment and oxygen, at the same time that it removes from the system carbonic acid and the products of tissue-waste.

The interchange of oxygen and carbonic acid between the tissues and the blood is termed *internal respiration*.

But this interchange would soon remove all the oxygen from the blood and load it with carbonic acid, unless it had some means of absorbing oxygen and giving off carbonic acid to the atmosphere. This is effected in the lungs, and the interchange of gases between the blood and external air is termed *external respiration*.

The blood, therefore, acts as an oxygen-carrier between the blood and the tissues. A certain amount of the oxygen taken up by the blood is simply dissolved in it; but the amount of this is not sufficient to supply the wants of the tissues, and the greater part of the oxygen which they require is carried to them by means of the hæmoglobin, or colouring matter of the blood. This substance forms a loose compound with oxygen in the lungs, and gives it off to the tissues when it reaches the capillaries, and on again passing through the lungs it takes up a fresh supply. The carbonic acid which is formed in the tissues by their oxidation is taken up by the blood in the capillaries and given off in the lungs; but it seems to be carried from the tissues to the lungs, not by the hæmoglobin, but by some one or other of the salts in the blood. Both internal and external respiration are essential for the maintenance of life, and it may be destroyed by putting a stop to either one or other of them.

1. Internal respiration may be completely stopped by preventing supplies of fresh blood from reaching the tissues. The stoppage may be general or local. General stoppage of internal respiration is produced by arresting the circulation in the whole body, by stopping the action of the heart, or obstructing the flow of blood through the large vascular trunks which are connected with it. Internal respiration may be arrested locally in any part of the body by compressing or tying either its arteries or veins. Thus, if the arteries going to the head be tied, so that no fresh blood can reach it, or the veins coming from it be ligatured, so that the deoxygenated blood cannot leave it, the blood which is present in the capillaries of the brain loses all its oxygen and becomes charged with carbonic acid. The nervous centres are thus effectually suffocated, although the lungs may be working vigorously, and the blood in the rest of the body may be richly arterialised. That the loss of function which follows stoppage of circulation in a part is due to the want of the oxygen carried to it by the blood, rather than to the want of nutriment, is well shown by the experiment of Kronecker, who found that contractility could be restored to the excised gastrocnemius muscle of a frog, after exhaustion by repeated contractions, by passing through its vessels a solution of permanganate of potash, which supplied oxygen to the interior of the muscle, but conveyed to it no nutrient matter.

When the circulation is diminished but not completely arrested, as, for example, by weakening the heart, or by contracting without obliterating the lumen of the blood-vessels, or when the oxidising power of the blood is impaired, internal respiration will be diminished, but not stopped.

The tissues, or at any rate the albuminous tissues, in all probability do not undergo combustion directly; *i. e.*, the albumen does not combine at once with oxygen. It is first split up by the action of a ferment into nitrogenous substances, which, after being oxidised, form urea and non-nitrogenous substances, such as fat, and probably also glycogen. When internal respiration is imperfect, the nitrogenous substances may not be oxidised, and appear in the urine instead of being converted into urea. The non-nitrogenous substances may also continue unoxidised, and, instead of being converted into carbonic acid, remain in the tissues as fat, giving rise to fatty infiltration or fatty degeneration. This is seen in the heart when the size of the coronary arteries is diminished by atheroma. The supply of blood being insufficient to keep up perfect combustion in the muscular fibres, the non-nitrogenous products of decomposition accumulate and cause the heart to become fatty.

When there is little hæmoglobin in the blood, as in anæmia, internal respiration is diminished, and there may frequently be noticed a tendency to the deposit of fat in anæmic girls. The peasantry in some parts of Germany are acquainted with this fact, and bleed their cows so as to induce an artificial anæmia whenever they wish to fatten them.

2. Internal respiration may be arrested by the action of substances which deprive hæmoglobin of its power to take up and give off oxygen easily, and thus render it useless as an oxygen-carrier. *a.* Certain gases—for example, carbonic oxide and nitric oxide—do this by driving out the oxygen from its combination with hæmoglobin, and forming compounds with it themselves. These compounds resemble those with oxygen, but are more stable, and are not decomposed during the passage of the blood through the capillaries, nor by the action of reducing agents added to the blood, as oxyhæmoglobin is. *b.* The oxygen-carrying power of hæmoglobin has been shown by Dr. Arthur Gamgee to be also destroyed by nitrites, but in a different way. Instead of driving out the oxygen from its combination with hæmoglobin,

the nitrites combine with the oxyhæmoglobin, and as it were lock up the oxygen in it, so that the oxygen no longer separates from the hæmoglobin when the compound is placed in a vacuum, nor can it be driven out by the action of carbonic oxide. At the same time, the blood which has been acted on by nitrites is deprived of its power of absorbing any more oxygen. But, although the nitrites lock up the oxygen in oxyhæmoglobin so firmly that it cannot be driven out by carbonic oxide, they do not prevent its removal by reducing agents. These first break up the nitrite compound, and then deoxidise the hæmoglobin; and, when this is next exposed to air, it takes up oxygen in the normal way. On this account, the action of nitrites in impeding or arresting internal respiration is only transitory; for, when the blood on which they have acted once becomes deoxidised during its passage through the capillaries, it is restored to its normal condition. The action of carbonic oxide, on the contrary, is permanent, the blood with which it has combined remaining unaltered during its circulation either through the body or the lungs; and, if the greatest part of the hæmoglobin have been acted upon, life can only be saved by the transfusion of fresh blood into the vessels, although, in slighter cases, a fatal issue may be averted by the diligent use of artificial respiration. Internal respiration is also diminished by phosphorus; and the fatty degeneration produced by this substance has been shown by Voit and Bauer to be partly due to this action. It is not due to this alone, however, for the phosphorus has a double action: 1. It causes the albuminous tissues to split up more rapidly; 2. It lessens the combustion of the products of decomposition. The increased rapidity of albuminous decomposition causes more urea to appear in the urine; and, if the nitrogenous compounds be not sufficiently oxidised, leucin and tyrosine may appear instead of urea. Fat is also formed from albumen more rapidly, as well as more slowly oxidised, than in the normal condition.

In order to ascertain whether the hæmoglobin of the blood has been altered by the action of a drug: 1. If it be poisonous, examine the blood from the arteries and veins of an animal which has been poisoned by it, and note whether its colour is normal in both sets of vessels or not. 2. Dilute a portion of this blood with water, examine it with the spectroscope, and see what spectrum it presents. Shake it with air, and observe if the bands of oxyhæmoglobin alone are present, and if they are of their normal intensity and in their normal place. Take another portion of the diluted blood and add to it a deoxidising solution, such as sulphide of ammonium or Stokes's fluid,* and see if the spectrum of reduced hæmoglobin appears. 3. Take two portions of normal blood, or of a solution of hæmoglobin, and add to one of them the drug to be tested, or pass it through, if it be a gas. Note, as before, whether any change is produced in the colour or spectrum, or in its behaviour to oxygen or reducing agents. 4. Take two equal portions of diluted blood or solution of hæmoglobin in small test-tubes, shake them with air till they are thoroughly oxygenated, and add to one of them the drug to be tested. Then add to each an equal quantity of deoxidising solution. Let the test-tubes be full, and cork them so as to exclude the solutions from contact with air. Note the length of time which elapses before the spectrum of oxyhæmoglobin disappears and is replaced by that of reduced hæmoglobin in each. 5. Take two equal portions of normal blood, and act on one of them with the drug. Bring them into contact with equal portions of oxygen or air, and let them remain so for some time. Then ascertain how much oxygen has been absorbed and how much carbonic acid has been evolved by each, by seeing whether any alteration has taken place in the volume of the gas, and by analysing it in order to determine its composition. 6. Act on a portion of normal blood with the drug; arterialise it completely, and then determine the amount of each gas which it contains by extracting them by means of warmth and a vacuum, and analysing the mixture thus obtained. 7. Oxygenate a portion of blood thoroughly, act on it by the drug, and then ascertain whether the oxygen can be driven out by carbonic oxide. To describe the methods of gas-analysis would occupy more space than can be devoted to it here; and I must, therefore, refer to Bunsen's or Frankland's text-books on the subject, or to Sanderson's *Handbook for the Physiological Laboratory*; for an excellent example of the mode of ascertaining the action of a drug on the blood, to Dr. Gamgee's paper on the Action of Nitrites in the *Philosophical Transactions of the Royal Society* for 1858, p. 589-625; and to Dr. Harley's paper on the Action of Alkaloids, etc., in the *Transactions* for 1864, p. 687.

The object of adding the drug to the blood before arterialising, as in 6, and after arterialising, as in 7, is to discover whether it prevents the blood from taking up oxygen in the former experiment, or of giving it off in the latter. Normal blood has the power to produce ozone, or to withdraw it from substances which contain it, and transfer it to others which are easily oxidised. Arterial respiration may be modified, and the process of oxidation diminished, by the action of certain substances which deprive blood of this power. The usual test for ozone is fresh tincture of guaiac (1 part guaiac to 6 of alcohol), which is oxidised by it with extreme rapidity. It shows the progress of the oxidising process with great distinctness by the blue colour which it assumes. A few drops of tincture of guaiac are put upon a piece of porous paper, allowed to become almost quite dry, and a drop of blood or solution of hæmoglobin is then placed on it. In a few minutes, the drop becomes surrounded by a blue ring from the formation of ozone and the oxidation of the guaiac in its neighbourhood. The formation of ozone is independent of the oxygen contained in the hæmoglobin; and carbonic oxide-hæmoglobin will produce it as well as oxyhæmoglobin, provided air be present. When the hæmoglobin itself contains oxygen in the form of oxyhæmoglobin, the presence of air is not necessary to the reaction. The oxidation of guaiac by means of blood alone is, however, not nearly so easily observed as when another substance containing ozone is added to it, such as peroxide of hydrogen or oil of turpentine which has been kept for some time. The hæmoglobin takes the ozone from these substances, and yields it up again to the guaiac.

The method adopted by Briz, in order to test the influence of drugs on this ozonising power of hæmoglobin, is to take a mixture of tincture of guaiac with a few drops of ozonised oil of turpentine, and divide it into two parts. A few drops of a solution of the drug to be tested is added to one of them, and a few drops of solution of hæmoglobin then dropped into both. If the drug increase the oxidising power of the hæmoglobin, the solution containing it will become blue more quickly than the other, but more slowly if the oxidising power be diminished.

Another process more simple than that of analysing the gases of the blood has been used by him and his scholars Zuntz and Schultz, in their observations on the effect of drugs on oxidation in the blood. This process is based on the fact, noticed by Zuntz, that, immediately after blood has been drawn from the body, an acid begins to form in it, so that its normal alkalinity goes on decreasing. The formation of acid is most abundant during the first few minutes after the blood has been drawn, and before coagulation has taken place, so that Zuntz considers it a vital phenomenon; but it continues, though in a less degree, till putrefaction commences. They take the rapidity with which acid is formed as an index of the rapidity with which oxidation takes place in the blood; and, when they find that the addition of a drug to the blood has diminished the formation of acid in it, they consider that the drug has diminished oxidation in the same proportion. The following method is the one which they employ. Three equal portions of the same blood, of fifty cubic *centimètres* each, are measured out. The alkalinity of the first portion is then determined at once. To a second portion, the drug to be tested is added. The solution of the drug must be neutral; or, if it be acid, the amount of its acidity must be determined and allowed for in the final calculations. To the third portion, nothing is added. The second and third portions are then kept for one or two hours at a temperature of about 40 C. They are then allowed to cool, and the alkalinity of both portions is determined. If acid have been formed in either of these portions during this time, the alkalinity will of course be less than that of the first portion, and the amount of acid formed is estimated by the diminution which the alkalinity has undergone. The alkalinity is ascertained by noting what quantity of a standard solution of phosphoric acid must be added to the blood before it begins to give a red colour to blue litmus paper. But, if phosphoric acid were used alone, the red colouring matter of the blood would be apt to stain the litmus-paper, and it would be almost impossible to say when the reddening was due to it, and when to free acid. In order to prevent this, a quantity of chloride of sodium is added to the acid. The salt prevents the corpuscles from being dissolved, and the hæmoglobin from disturbing the reaction. The acid and salt are gradually added to the blood, and the reaction tested from time t time by putting a drop of the blood on a piece of fine satin-pape coloured with litmus. The paper should be first moistened with tolerably strong salt solution, the drop of blood allowed to remain o it for a few seconds, and then wiped off with blotting-paper. Th point of saturation is held by Schulte, who has also employed this pro cess, to be reached whenever the blue litmus-paper becomes distinctl reddened, even though the red colour should disappear again immedi ately. This transient reddening is due to carbonic acid; and Schult prefers it to the first permanent reddening, because it can be mor easily observed. This does not give the absolute amount of alkalinity but all that is wanted is the comparative alkalinity of the three portion and this is got accurately enough if they be all treated in the sam manner as regards temperature, shaking, etc. In this way, Zunt Scharrenbreich, and Schulte, find that quinine lessens oxidation in t blood, and Binz finds that it does the same in a solution of hæmoglobin.

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* Stokes's fluid consists of a solution of protosulphate of iron, to which is added a sufficient quantity of tartaric acid to prevent precipitation, and then as much ammonia as will render it decidedly alkaline.

External respiration, or the interchange of gases between the blood and the atmosphere, takes place whenever they come into sufficiently close relation with one another, as they do in the capillaries of the skin, intestinal canal, or lungs. In the frog, respiration is carried on by the skin to such an extent, that it can live for a considerable time after the lungs have been excised; but in mammalia respiration is carried on almost entirely by these organs, and any interference with their function quickly puts an end to the life of the animal. In order that the blood which circulates through the body may get rid of its carbonic acid and take up oxygen sufficient for the wants of the tissues, fresh portions of it must constantly be brought into contact with the air, and therefore it must constantly circulate through the pulmonary capillaries. But the air in the lungs would soon become saturated with carbonic acid and deprived of its oxygen by the blood which comes into contact with it, and all farther diffusion would be arrested, unless it also were constantly renewed. This is effected by the respiratory movements. These consist in the alternate enlargement and diminution of the thoracic cavity, after the fashion of a pair of bellows, by the motion of its walls and of the diaphragm. These movements are kept up in a rhythmical manner by a nervous centre, situated in the medulla oblongata and upper part of the spinal cord, which sends off periodic motor impulses to the diaphragm and inspiratory muscles. When the breathing is quiet, expiration is usually a passive act performed by the elasticity of the lungs and ribs, and by the weight of the thoracic walls. But when it becomes excited, active expiratory muscles are brought into action, and they receive their motor impulses from the respiratory centre alternately with those of inspiration. It is probable, though not certain, that the respiratory centre is not a mere reflex apparatus, which simply transmits impressions which it receives from sensory nerves to motor ones; for its activity continues, although its connections with sensory nerves be almost entirely destroyed. The periodic impulses which it imparts to the motor nerves of the respiratory muscles are not due to its being periodically excited by impressions from afferent nerves, but to its being constantly excited by the venosity of the blood circulating in it; while some resistance within itself prevents the excitation from being constantly transmitted to motor nerves, and only allows it to be so at periodical intervals.

The venosity of the blood consists in the absence of oxygen and the presence of carbonic acid, and it is not certain whether or not both of these act as excitants to the respiratory centre; but it seems not improbable that the presence of carbonic acid is the excitant, while the amount of oxygen simply alters the excitability of the centre. According to this view, when there is much oxygen in the blood, the excitability of the centre will be slight, and little affected by any irritant applied to it, whether this be carbonic acid or anything else. When the amount of oxygen in the blood is small, the centre will be very excitable and easily affected by any irritant. In venous blood, there is both little oxygen and much carbonic acid, so the centre is both rendered more sensitive, and is more strongly excited by the acid. The more venous the blood, the greater is the excitation of the respiratory centre, and the more active the respiratory movements. When other interfering circumstances are excluded, it would appear that greater excitement of the respiratory centre causes the respirations to become quicker, and, at the same time, deeper. This excited respiration is termed dyspnœa, and it occurs when the blood becomes venous in the respiratory centre. As the venosity increases, the ordinary muscles of respiration are no longer employed alone, but the expiratory and accessory muscles are called into play; and, lastly, all the muscles of the body are affected by clonic convulsive movements, called asphyxial convulsions.

When the blood which circulates in the respiratory centre is not at all venous but is perfectly arterialised, as it is when artificial respiration vigorously performed, the centre is both rendered less sensitive, and the irritant, viz., the carbonic acid, is at the same time diminished or removed, the centre is not excited at all, and respiratory movements cease.

This condition, in which no desire for respiration is felt, and respiratory movements cease, is termed "apnœa" by German writers, and it must be carefully distinguished from the "apnœa" of English authors, which is simply extremely great dyspnœa; so great, that the blood is hardly aërated at all.

The activity of the respiratory movements and the amount of air respired in a given time, depend on the degree of excitement of the respiratory centre. As we have just seen, this excitement depends on two factors; 1. The excitability of the centre; and 2. The amount of excitation applied to it. In general, the venosity of the blood determines both factors, and it is not the venosity of the blood in the general circulation which does this, but only of that blood which courses through the vessels of the medulla. This was shown by Hering, who passed a stream of arterialised blood through the vessels of the head while venous blood was circulating in those of the body. The respiratory movements then ceased exactly in the same way as if the whole blood in the body had been perfectly oxygenated. When he reversed these conditions, and passed arterialised blood through the body and venous blood through the head, asphyxial convulsions took place. This shows that the degree of activity of the respiratory centre in the medulla oblongata depends on the greater or less venosity of the blood circulating through it, and not on an irritating action exerted by venous blood on the ends of afferent nerves in the lungs, or other viscera.

The excitability of the respiratory centre may be greatly modified; 1. By the temperature of blood in it; 2. By the action of drugs upon it. When the blood becomes warmer, the excitability of the respiratory centre is greatly increased; the movements of respiration become much more vigorous, and it is no longer possible, by the most active artificial respiration, to produce a state of apnœa. Certain drugs, as tartar emetic, or apomorphia, when injected into the veins, also prevent the production of apnœa, but whether they do so by increasing the excitability of the centre, or by acting as irritants to it, is uncertain.

Other drugs, such as chloral, greatly diminish the excitability of the respiratory centre, so that the respirations become fewer, notwithstanding the increase of carbonic acid in the blood to which their diminution gives rise, and if the dose be large they may stop altogether. Apnœa may also be produced by means of artificial respiration with great ease after their administration, and it may last so long, that one is sometimes inclined to think that the animal is not going to breathe again at all.

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# FOUR CASES OF AFFECTION OF THE VERMIFORM APPENDAGE, WITH FATAL ISSUE.

By JOSEPH COATS, M.D.,
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THESE cases are brought forward, not as offering any thing very new, but as illustrative of affections of the vermiform appendage, which are not very uncommon, but which, perhaps, are not sufficiently borne in mind in ordinary practice. The cases are, themselves, so illustrative, that their description involves almost all that need be said of the conditions involved.

CASE I. *Concretion in the Vermiform Appendage, consisting of Inspissated Fæcal Matter. Inflammation of the Appendage, resulting in General Peritonitis.*—This was the case of a middle-aged man, who, while apparently in perfect health, was attacked by symptoms resembling those of ileus, and which were at first supposed to be due to some internal incarceration of the bowel, or to strangulated hernia. A surgeon was consulted with a view to the latter question; the bowels were, however, freely moved by enemata, but without relief to the symptoms, and the patient died on the fourth day. On opening the abdomen, there were evidences of very acute recent peritonitis. The intestines were everywhere glued together with soft lymph, and the great omentum was adherent by its lower margin to the folds of intestine at the brim of the pelvis. The lymph was everywhere soft, but towards the right iliac region it was much softer than elsewhere, and there was here even fluid pus. On removing the lymph and pus, the vermiform appendage was found lying on the surface of the colon, in the form of a turgid black coiled up mass. It was much dilated, and most intensely congested, so as to have an almost gangrenous appearance. In the dilated appendage, which was congested through its entire thickness, a solid body about the size and shape of a cherry-stone was discovered. This foreign body was about the consistence of half-dry clay, and had a similar brownish yellow colour. On being cut into, this body, which, from its appearance, evidently consisted of dried fæcal matter, was seen to be stratified. The dilated portion of the appendage, in which the body was lying, did not appear to communicate with the peritoneal cavity—at least, no perforation could be discovered. The mucous membrane of the intestines was perfectly normal, and the calibre in no part obstructed.

In this case, it appears as if the small mass of inspissated fæcal matter had found its way into the vermiform appendage—possibly when of small size, as the stratification seems to indicate that it was of gradual growth, and the successive layers may have been added after its passage into the appendage. The mass acted as a foreign body, producing an intense inflammation of the appendage, which passed from its mucous to its serous surface, and thence to the general serous surface of the abdomen. The peritoneal inflammation centred around the vermiform appendage, where alone there was a distinct formation of pus. It has been often said, that cherry-stones are apt to pass into the vermiform appendage and set up inflammation there. The foreign body, in the present case, resembled a cherry-stone both in shape and in size; and, if it had been just a little harder, might readily have been mistaken for one. It may be a matter of speculation how many of the reported cherry-stones were actually composed of inspissated fæcal matter.

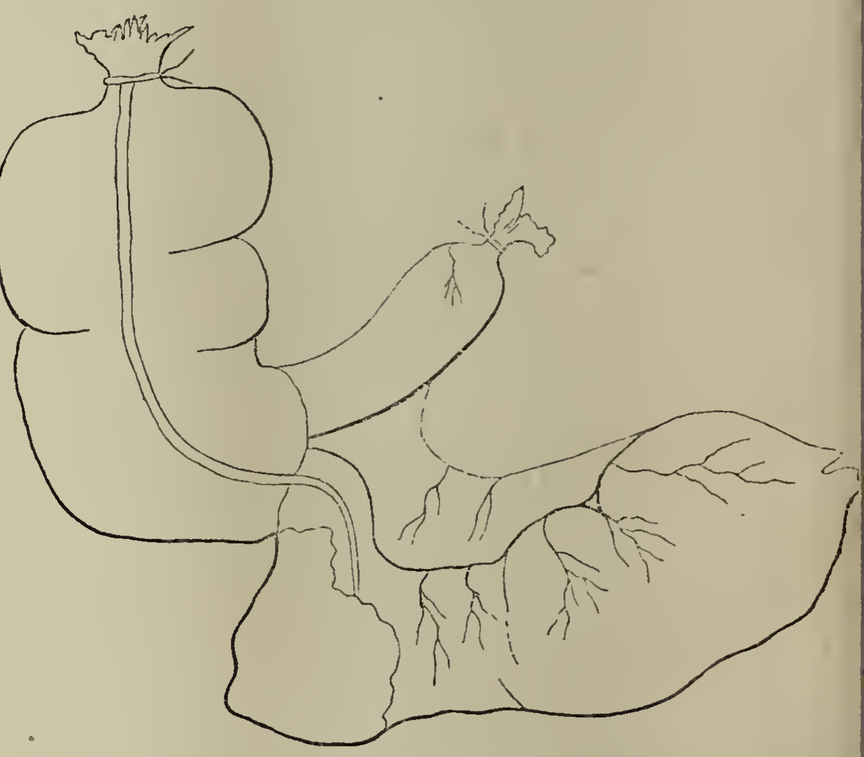
Case II. *Phthisis Pulmonalis. Ulceration of the Vermiform Appendage and Abscess around it. General Peritonitis.*—Mary C., aged 16, was the subject of advanced phthisis pulmonalis, with cavities in both lungs. An acute attack supervened, which proved fatal. On opening the abdominal cavity, it was found to contain a considerable quantity of creamy pus, and the intestines were generally glued together by a very soft lymph, which was in great part breaking down into pus. A more defined abscess was discovered in the right iliac region, surrounding and lying between the folds of the vermiform appendage. The abscess, which was about the size of a walnut, contained glutinous pus, and matter of an exactly similar character distended the vermiform appendage, although it was doubtful whether any considerable communication existed between the two. The mucous membrane of the appendage was ulcerated; and, at its opening into the caput cæcum, there was an ulcer with fungating prominent granulations. The ileum was the seat of numerous so-called tubercular ulcers, and there were also a few in the large intestine.

Here we have another case of general peritonitis resulting from disease of the vermiform appendage, but a very different disease from that in the first case. There was here ulceration of the appendage, similar to that often met with in the intestine, along with phthisis pulmonalis. It is very probable that, just as in the case of cavities in the lungs where perforation of the pleura takes place, so here a partial perforation had occurred, but its effects were confined by adhesions, and the result was the small abscess around the appendage; but, after a time, the inflammation extended from the abscess and became general over the peritoneal surface. This case reminds me very forcibly of one in which there was an ordinary diverticulum of the intestine, at the very extremity of which was situated a small ulcer, which had caused perforation. There were other ulcers in the intestine of the same nature as those in this case, but none of them seemed near causing perforation. Considering how rarely these so-called tubercular ulcers lead to anything like general peritonitis, and how seldom any actual perforation occurs, we must look on the relations of the vermiform appendage in the one case, and those of the diverticulum in the other, as predisposing to this complication.

Case III. *Adhesion of the Extremity of the Vermiform Appendage to the Ileum. Incarceration of the Intestine.*—Jane H., aged 60, was admitted to the Royal Infirmary on July 1st, 1871, under Dr. McCall Anderson. About three weeks before, she had first experienced a severe pain in the right hip and in the abdomen, especially the right iliac fossa. This continued till admission, becoming neither better nor worse, and she described it as a smarting pain, leaving off at times. About twelve days before admission, an eruption of small blisters appeared on the hips, and the crusts remained like those of herpes zoster on admission. The right iliac fossa was very painful on pressure; the bowels were stated to be regular. On the evening of August 7th, she became much worse, and next morning was in a state of collapse, from which she did not recover, but died at 2.30 P.M. On opening the abdomen, the peritoneum was found to contain about a pint of red fluid. The lower part of the ileum was at once seen to be of a very deep red colour, and distended with gas and fluid fæces. The rest of the small intestines was also somewhat distended. The deeply congested appearance of the ileum was distinctly defined, commencing abruptly about two feet above the valve, and ending about an inch above that structure. Just above the commencement of the congested part, the free extremity of the vermiform appendage was firmly adherent to the peritoneal surface of the ileum, and the whole ileum beneath that point had slipped beneath the appendage, which thus acted as a constricting band. On opening the ileum, the affected portion was seen to be intensely hyperæmic in all its coats. The general peritoneal surface was distinctly but not excessively hyperæmic.

In this case, some doubts may exist as to the exact course of events. The fatal issue seems to have been directly caused by the incarceration of two feet of the small intestine which had passed under the vermiform appendage; but the exact significance of the earlier symptoms, which existed for eight weeks before death, is more difficult to be sure of. These symptoms all pointed to some affection in the right iliac region or neighbourhood of the right hip. Now, the adhesion of the vermiform appendage was so firm that we can hardly suppose that it was only of two months' duration, or that these symptoms were due to an inflammation resulting in this adhesion. It is difficult, however, to make any very certain statement in such a case, and possibly these symptoms may admit of such an explanation. On the other hand, the portion of small intestine may have been gradually slipping beneath the appendage during these weeks; but, as the passage was pretty wide, although the gut may have been subjected to considerable pressure and irritation, yet no actual obstruction may have taken place till just before death. This seems, on the whole, the more likely explanation, as the pain was stated to have come on suddenly, and to have been very severe. The occurrence of an attack of what appears to have been herpes zoster, in connection with this local irritation, must be an interesting point in connection with the supposed relation of this disease to affections of the nerves. The fatal issue then, was, the indirect result of a simple adhesion of the tip of the vermiform appendage to an approximate loop of small intestine; and the observation readily suggests itself, that if the exact condition could have been made out during life, a very simple operation, though a dangerous one, might have relieved the patient and averted the unfortunate result.

Case IV. *Hydrops Appendicis Vermiformis. Transformation of the Appendage into a Large Cyst.*—In this case, the very marked affection of the appendage was only discovered after death; no symptoms during life having attracted attention to its existence. The patient died of renal disease and pericarditis. The vermiform appendage was converted into a large bulky cyst, whose general appearance is shown in the diagram. The shape of the cyst may perhaps be best described as somewhat like that of an egg attached by one of its extremities to a short cylinder. The oval part formed the free extremity, and the other end was attached to the cæcum by a short process at right angles to the long axis of the cyst. The cyst, which had thus an elongated shape, measured about five and a-quarter inches in length, and about tw inches in thickness at the widest part, which was the middle of the eg shaped portion. The cyst had a short mesentery, which was attache above to the terminal portion of the ileum, and thence passing dow wards, became broader as it spread along the upper border of th cyst. The cyst-wall was generally pretty thick, comparable in this r spect to the wall of the half-distended large intestine. At some parts was thicker than at others, and in one of these places had an opaque whit almost aponeurotic appearance. This part was towards the attached en and is outlined in the sketch. A few vessels ramified on the surface the cyst. The contents were a yellow tenacious material, which d not flow out on a small aperture being made, and which appeared to of about the thickness of jelly.



Cases of this kind have been described, and it is generally suppos that they originate in an obstruction of the orifice of the appenda and the accumulation of the secretion within the canal. The obstr tion may be due to the existence of a foreign body, such as inspissa fæcal matter, or mucus. The obstruction leads to accumulation of mucous secretion of the appendage, which dilates the canal and c verts it into a cyst. With this dilatation, the coats usually become th and by and bye ulceration occurs and perforation, with, it may be, a general peritonitis. In certain cases, however, and this seems to be one, the coats become thicker as the dilatation proceeds, and the secretion is retained while the cyst attains very large dimensions. The thick colloid contents represent the mucous secretion of the glands of the appendage.

## CLINICAL REMARKS ON A CASE OF STRANGULATED FEMORAL HERNIA.

By T. H. BARTLEET, F.R.C.S.,
Surgeon to the General Hospital, Birmingham.

For the following brief notes of the case, I am indebted to Mr. Shipworth, Resident Surgical Assistant.

Thomas Jones, aged 43, married, a smith, was admitted November 10th, 1874. He had had a swelling in the right femoral region, which occasionally disappeared, for the last seven years. On November 1st, the swelling increased without any special cause. His bowels were constipated; and he took aperient medicine, which produced two motions. On November 2nd, he vomited several times. On the 3rd, the vomiting continued, and he was unable to pass flatus. On the 4th, he described the vomiting as being fæcal. Constipation and fæcal vomiting continued until his admission on November 10th, when he was found to have a small painless hard tumour in the right femoral region. There was no impulse. The belly was distended, but not painful or tender. The patient's aspect was distressed; his temperature was 99 deg., and his pulse 85. The taxis was tried with great care, but ineffectually. Under chloroform, a transverse incision of one and a half inches was made over the neck of the sac, down to which the intervening tissues were divided on a director. The seat of stricture was the falciform margin of the saphenous opening, a few fibres of which were divided; and the contents of the sac were returned, the sac itself not being opened. The sac, which seemed likely to be drawn up by violent respiratory efforts, was held to the wound by a hare-lip pin passed through the edges of the latter, and including a piece of areolar tissue attached to the sac. The wound was dressed and rolled in the usual way.

November 10th. Vomiting had continued two or three times after the operation. He took twenty minims of tincture of opium, which relieved the vomiting, and was followed by a good night. He had passed flatus. Temperature normal; pulse 75. He had no pain.

November 13th. There was slight discharge from the wound. He had passed a firm and very copious motion.

November 28th. The wound had been dressed with tenax, and was all but healed; it measured now barely an inch.

Remarks.—The case seems to me to present the following points of interest: the length of time during which symptoms of obstruction had lasted; the lengthened duration of fæcal vomiting; the mode of operation; the after-treatment.

*Symptoms of complete obstruction* had lasted for nine days. The condition of the hernial tumour did not justify the opinion that strangulation had lasted thus long. I believe that the hernia was, at the beginning at all events, *incarcerated*, not strangulated. Now, what is an incarcerated hernia? It is a hernia in which the constriction affects only the calibre, and not the walls, of the gut; that is, the passage through the intestine is entirely closed, but the intestinal walls are not sufficiently constricted to stop the circulation through them, and consequently to cause them to sphacelate.

*Fæcal vomiting* was present for four days. This symptom, though a common one in long standing cases of strangulated hernia, is justly considered one of serious importance. It is supposed to be due to the long continued and ineffectual peristaltic action of the intestine above the stricture, inducing a backward current of the contents of the bowel in the centre of the tube.

*The Operation.*—I have for some time given up the long vertical incision over the whole or greater part of the sac. I make a short transverse incision over the neck of the sac, by pinching up the integuments and transfixing; the incision being rarely as long as two inches. I divide the tissues on a director until I am able to insert a nail under the stricture. I find it rare, even in old standing and in inguinal herniæ, to be unable to relieve the stricture without opening the sac. Occasionally the stricture is caused by a few fibres in the sac; and these I have, in one or two cases, very carefully divided from the outside instead of from the inside of the sac.

Herniotomy without opening the sac is an operation free from danger. No important tissues are cut through or displaced. The danger, as far as the *operation* is concerned, is due to the opening of the sac; for we then make an open track for the admission of air, and sometimes of fingers, into the peritoneal cavity. I think needless alarm is often felt about the condition of the bowel, or of its strangulation by a band or by omentum, when the sac is not opened. In cases of recent strangulation, it seems to me as great a mark of unwisdom to open the sac to examine its contents, as it would be to trephine the skull to look for a possible clot underneath, in every case of injury of the skull with insensibility. Opening the sac is a *certain* risk; leaving it unopened is an *uncertain* risk. Moreover, in recent cases of strangulated hernia, it is customary to attempt reduction by taxis. Now, if it be safe to reduce a strangulated hernia by taxis, it is surely safe to do so by an operation which is as safe and simple as is extraperitoneal herniotomy. I am aware that the present case is not one of *recent* strangulation. The symptoms of obstruction and even fæcal vomiting had lasted many days. It may be fairly asked why I did not deem it necessary to open the sac and examine the condition of its contents. My examination of the hernia before and during the operation did not favour the belief that it was gangrenous. Pain was not, and had not been, complained of. The integuments were not emphysematous, œdematous, or red; the sac was not flaccid. Had the sac or its contents been long gangrenous, the superficial tissues would have resented the presence of dead matter, as of any other foreign body. Unfortunately, there is no way of telling whether or not the contents of the sac are *just dead;* and I consider it better, in the absence of definite symptoms, to face this risk rather than that of peritonitis, so frequently consequent upon opening the sac. After I had returned the contents of the sac, the violent efforts of vomiting seemed likely to draw the sac itself up into the abdominal cavity. This was undesirable, since, had symptoms of strangulation still continued, I might have wished to open the sac and to bring into view the intestine or omentum it had contained, and which, in the paralysed state of the intestines, would almost certainly be found lying near the crural ring. I therefore kept the sac near the wound by transfixing a tag of areolar tissue attached to it (not the sac itself) by a hare-lip pin, with which I closed the wound. The necessity did not arise in this case, but the manœuvre might be useful in other cases.

With regard to after-treatment, one dose of tincture of opium relieved the sickness, and gave a good night, which the novelty of the patient's position in hospital might have prevented. After this, he had no medicine—above all, no aperient. He was kept to milk and broth diet until his bowels were open, which they were on the fourth day after the operation and the fourteenth day of constipation. The wound was dressed with tenax—an excellent dressing for these deep wounds, as it prevents the accumulation of pus, and consequently favours the contraction and healing of the wound.

## THE SLEEPING SICKNESS OF WESTERN AFRICA.

By ALBERT A. GORE, M.D., F.R.C.S.I., Surgeon-Major.

Some time since, I read, in the "Notes and Queries" of a contemporary, a few brief remarks on this rare disease. As the subject is one of some interest to those who may travel in these distant regions, and to the medical officers who have to treat our West Indian soldiers, I have jotted down the following *résumé*, which may probably contain a summary of all our present knowledge on the matter.

Lethargy, from the Greek terms λήθη and ἀργὸς, is placed by the older writers under their division *Neurotica*, and defined as a "mental and corporeal torpitude, with deep quiet sleep". The occasional causes being congestion or effusion in the brain by violent mental commotion, as that of fright or furious anger; by retrocedent gout, or repelled exanthems; but more generally by long continued labour of body or severe exercise of mind, cerebral exhaustion. Celsus regarded it as a nervous affection; Forester and Cheyne as chiefly dependent upon plethora or congestion. According to Mason Good, it is not unfrequently a strictly nervous affection connected with an irregular or debilitated state of the mind. The common causes of sleep, therefore, whether natural or morbid, are in many cases causes of lethargy. The older writers classified the disease under three heads.

(*a.*) *Lethargus absolutus*, or genuine lethargy, without intervals of sensation, waking, or consciousness.

(*b.*) *Lethargus cataphora*, or remissive lethargy, with short remissions or intervals of imperfect waking, sensation, and speech.

(*c.*) *Lethargic vigil*, or imperfect lethargy, perfect lethargy of the body, but imperfect lethargy of the mind, wandering ideas, and belief of wakefulness during sleep.

The first variety of the ancients is the later "constitutional lethargic slumber" of Blanchet and other French observers. Examples have occurred lasting forty days (Platt), seven weeks (Bang, Collection), months (Blanchet), at intervals during five years (Good). In one instance it was stated to have resulted from insolatio, or exposure to the direct rays of the sun. The second variety, the *coma somnolentum* of many writers, has been an accompaniment of many fevers and other diseases of great debility. In a case mentioned by Good, the patient, a young lady of delicate constitution, during the irregular remissions, sighed, ate reluctantly, and instantly relapsed into sleep. The third variety is the typhomania of the Greek writers, and an occasional sequel of fevers and other causes of great nervous debility, where the sensorial power has not recovered its regularity of current or stability of balance. In a case mentioned by Cook, in his treatise on *Nervous Diseases*, the paroxysms ultimately ended in derangement of the mind. Some of the symptoms of that convulsion of the mind known as *melancholia attonita*, or its paralysis, as seen in acute or chronic dementia—viz., an impassive or motionless body, vacant stupid expression, involuntary passage of urine and fæces, and a passive resistance to the action of others, are occasionally seen in the last stages of African lethargus.

My attention was first called to this curious disease when quartered upon a solitary island at the junction of the Rio Jeba and Rio Grande, in Portuguese Senegambia, in 1866. I had just returned from shooting, when a native was brought to my bungalow with an enlargement of the glands of the neck, which he was anxious to have removed. My servant, a Portuguese, informed me that he stated he was afraid he was about to get the "sleeping sickness". Upon further inquiry, I found that this was really the case, and that among the people of the neighbourhood this enlargement of the glands was considered a premonitory sign of African lethargus. My servant, who appeared to be quite *au fait* with the subject, further informed me that the native doctors always excised or destroyed the enlarged lymphatic glands as a measure of precaution, a process accounting for the numerous scars which marked the neck and other parts of the bodies of their patients. Upon returning to headquarters, and looking over our medical records, I found a case of the disease, which terminated fatally, noted down as early as 1833, at Sierra Leone, by Assistant-Surgeon McDonald, of the Royal African Corps, the patient being a private of his regiment; and, three years later, the following interesting and graphic description of another, by Dr. William Fergusson, surgeon of the corps, principal medical officer, and afterwards governor of Sierra Leone. It is headed "Lethargus".

Dr. Fergusson goes on to say: "It is a disease rarely met with here, and it occurs more frequently among the class of recently arrived liberated Africans than among any other body of the population. In the course of the last fourteen years, I have seen four cases of it, three of which were liberated Africans, and one a maroon. There was no variety in the symptoms of these four cases, and one only of them terminated favourably. The disease substantially consists of a strong and irresistible desire, or rather tendency, to fall asleep under any circumstances—an inability to keep awake is perhaps the most suitable definition. I have not seen it tested under the circumstances of passion or strong mental emotion, and am rather inclined to think that the passions are obliterated, as it were, in the general tendency to rest which seems to pervade the whole system. The maroon boy above mentioned used to fall asleep standing, amidst all the noise and excitement of a school conducted upon the monitorial system; and I have seen Private George Gannus, 2nd West India Regiment, the subject of this case, lying fast asleep with a mouthful of half-chewed victuals in his cheek; he had, in fact, fallen fast asleep, while eating his dinner. He was taken into hospital on March 1st, 1836; his comrades stated that he was always sleeping; that, whenever he sat down for a few minutes, he was sure to fall asleep. He was well purged, and on the 5th discharged cured. He was again brought to hospital on the 15th with the same complaint of constant sleepiness; his look was stolid. He made no complaint of pain; ate well. The pulse was 72; tongue clean, except a small spot of fur in the centre. A dose of drastic medicine was given, and repeated upon the second day. He was kept in hospital until April 5th, during which time he had a dose of colocynth and calomel about once in three days. He was discharged to duty, not having had any return of the sleepiness. In the early part of May, symptoms of another return of the disease became manifest, necessitating his being again taken into hospital on the 8th of the month; recourse was again had to the system of drastic purging which had succeeded so well on former occasions. It was, however, but too clear that the drastic mode of treatment had entirely lost its power. Five dozen of leeches were now applied to the forehead and temples, and a large blister to the shaven scalp, without any advantage. He slept almost continuously; when roused at meal-times, he made a scanty meal, and sometimes fell asleep over it. He was now put upon the use of a small daily dose of calomel, and a blister was applied to the nape of the neck; his bowels had all along been kept free, and, up to this period he had made regular use of the night-chair. He now slept constantly; decubitus on his back; his alvine evacuations were passed involuntarily. He sank gradually, and died on June 1st.

"The dura mater was found to be in a healthy state; the arachnoid membrane was red, and highly vascular; this condition was not confined to any particular part of it, but prevailed throughout. The pia mater appeared healthy; the substance of the brain was particularly firm, and not one drop of blood appeared on a section of any part of it; the sinuses were unusually deficient in the quantity of blood; the lateral ventricles contained about a drachm and a half of serum; the thoracic viscera did not present any unusual appearance. In the stomach were found many patches of a red colour near the pylorus; these did not extend into the duodenum. A portion of small intestines, about three feet in length, was of a very dark colour, and the *calibre* of the canal at that part was much contracted; this part of the canal contained a considerable quantity of thick sanguineous serosity, and its mucous coat was highly injected. The liver, spleen, and kidneys were in a healthy-looking state."

The following is the only other case the details of which I have been enabled to obtain: they are given by Surgeon-Major Morphew. "No. 166, Private J. M., 1st West India Regiment, twenty-eight years of age, was admitted into the military hospital, Nassau, Bahamas, June 27th, 1865, for dementia and lethargus. Some months prior to admission, he had been in a singular way. When on guard duty, he was constantly in the habit of falling down in a semicomatose state, and, upon the return of consciousness, he would invariably state that he had seen a "spirit". This delusion had unquestionably something to do in bringing him to the state in which he was upon admission. From his appearance, I was of opinion that he would become a subject of the disease, so common among Africans, called lethargus; and into a lethargy he fell on the 10th instant. For a few days previously, he spent most of his time sleeping, but during the last eleven days of his life he never awoke; he expired about one o'clock in the morning. All medical treatment in these cases is useless as a rule, and in this case was not tried beyond attending to the state of the alimentary canal. Two years subsequently, a private of the same regiment died in the gaol at Freetown suffering under symptoms of lethargus. This delusion of having seen a spirit is a common one among Africans." Dr. Morphew's remarks as to the fatality of the affection is fully borne out by statistics to be presently quoted.

The next contribution to the history and pathology of the disease is from a writer in the *Medical Times and Gazette* of the 24th October of the present year. He goes on to state: "The first intimation is a swelling of the glands about or around the neck, accompanied by a gradual inclination to sleep, which increases; and the person so affected wil fall asleep at all times and in all places, no matter what he may be doing—working, eating, walking, talking, or anything else, only awaking at short intervals. Sometimes the body swells in the progress o the disease, and at other times in its first stage. The skin becomes dr and dusty; the strength palpably decays; and the most massive forn becomes reduced. This continues for six or twelve months, more o less. Just before death, the patient suddenly ceases to sleep; this i the forerunner of death always. I have never known a Congo die c any other disease. It carries off many natives; and even the Americ Liberians do not escape from it." The Congos to whom the writer re fers are among the lowest type of negro in mind and body inhabitin the shores of West Africa. When they were liberated in large num bers at Sierra Leone, the disease came far more frequently under ob servation in the colonial hospital, as will be seen from the followin returns. For the four years ending March 31st, 1850, 112 cases lethargus or sleeping sickness were treated; for the seven years endin December 31st, 1866, only 67 were treated. Of the 179 cases ac mitted, 132 died, 47 recovered—a very high ratio of mortality. Burtor and most other writers on Western Africa, allude to the disease as medical curiosity; the former states that Europeans have died of i The cases of African sleeping sickness which I have seen in the col nial hospital at Sierra Leone, two of them in the last stage of the di ease, presented similar features to those already described; the patien lay upon a mat sleeping their existence away. One was very mu emaciated; he lay quite motionless, and apparently unconscious; on appeared to notice when severely shaken, then merely raised the ey lids and gazed vacantly. The sphincters had already become relaxe the urine and fæces were passed involuntarily; and for some days p vious to death he lay quite passive, refused all nourishment, and di at last, as in the cases already described. While recently on the Gold Coa I had under treatment in hospital a private of the 2nd West In Regiment, who appeared to suffer under lethargic prodromata.

was constantly sleeping, and with difficulty was made to take food and medicine. He afterwards passed from under my notice.

The treatment of African lethargy has been, as a rule, eminently unsatisfactory in the severer forms. Stimulants, alteratives, depurants, and counterirritants have equally failed to arrest the onward progress of the disease. Celsus, who contemplated lethargus as a nervous affection, confined himself to external and internal pungents, shaving the head, fomenting it, and afterwards applying some rubefacient epithems. Others, such as Good, advised cupping, blisters, purgatives, the voltaic current from the occiput to the sacrum, and metallic tonics. Such a line of treatment appeared to afford a temporary relief. If the glandular enlargement observed were due to leuchæmia and hypertrophy of the spleen, conditions sometimes associated with lethargic symptoms, quinine, ferruginous tonics, and antiperiodic medicines might be of value. Except by supposing that the enlarged lymphatic glands in the vicinity of the arteries of the neck pressed upon and deranged the cerebral circulation, thus diminishing and interfering with the blood-supply of the brain, one could not reconcile the Portuguese idea of its pathology with the facts observed. The etiology of the disease is still curiously obscure.

## REPLY TO DR. MACLEAN RESPECTING MALARIAL FEVERS.

By T. INMAN, M.D.Lond.,
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IN looking over Dr. Maclean's communication in the BRITISH MEDICAL JOURNAL of December 19th, I find that the author speaks of Dr. Oldham and his followers not attempting to explain the fevers suffered from in the Ashantee expedition. As yet, it is probable that a sufficient time has not elapsed for Dr. Oldham to obtain the necessary information, he being in India. And this cannot be wondered at; for, though anxious to obtain definite knowledge myself upon the subject, I have been unable to find any. As a friend of Dr. Oldham, and one who has taken a deep interest in his theory, I venture to stand forwards on his behalf until he is able to see Dr. Maclean's attack and to parry it for himself.

In writing this, it is not my intention to support Dr. Munro's hypothesis that "certain electrical conditions" influence the productions of so-called malarial diseases; but I most cordially agree with him "that there is no such poison as malaria".

I may, at the outset, state that I have not had any personal experience of malarious disease; but I have travelled more than once through the most malarious districts of Italy, and have had the advantage of conversing on the subject with individuals whose business has led them to reside in Sierra Leone, the large trading stations on the great Western African rivers, the swamps of the Southern United States, and other parts of the world, which are said to be most fatal to human life in consequence of "malaria". My informants have been both medical and lay, and what testimony I have got has not been brought out by the putting of "leading questions". I am not, therefore, simply "a parlour-judge".

As I am perfectly familiar with Dr. Oldham's exhaustive treatise upon *Malaria*, the first thing which strikes me in Dr. Maclean's letter is, that the critic does not know the work of which he speaks slightingly. Had he done so, he would not have committed himself to the illogical arguments which he uses. In the paragraph wherein he speaks of fevers breaking out at Hong Kong and Paris, consequent upon turning up the soil for building purposes, there is the expression, "If the soil did not give birth to a fever-generating poison in all or any of the above cases, what did?" This reasoning is on a par with the assertion that "Tenterden steeple produced the Goodwin sands; and, if it did not, what did?" Dr. Maclean wants an explanation of this difficulty of his. Dr. Oldham has already given it; but I would desire to supplement what he has said by calling attention to the vicious style of observation and argument exposed by Lord Bacon nearly two hundred and fifty years ago. The "idols of the tribe", to which that learned author referred, include a propensity to stick through life to opinions adopted in youth, to explain away everything which militates against them, and to give undue weight to apparent evidence in their favour. Dr, Maclean has not yet learned to avoid this pitfall. Dr. Oldham very justly lays down the law, that the cause which produces "malarious fevers" in rocky and sandy districts, where there is no vegetation and *no soil whatever*, must be analogous to the cause producing the same effects elsewhere. This is a strictly logical assertion.

If, then, Dr. Maclean declares that "soil" produces malarious disease, he must show that such complaints never occur in the Sahara, on bare mountain-rocks, and on ships at sea. But at Aden, where there is no soil, and in rocky tropical localities, fevers are as common as and even more severe than on the Pontine Marshes or the Maremma district. *E.g.*, on the march to Magdala in East Abyssinia, Consul Hutchinson, in his recent work on Peru, has mentioned that ague and malarious fevers have occurred more than five thousand feet above the sea amongst the navvies digging a proper bed for a new railway. If Dr. Maclean had seen his observations, he would not have needed to inquire, "If the soil did not produce the disease, what did?" for the consul, himself a medical man, and one who has had intermittent fever nearly forty times, gives a very feasible account of the reason why.

To explain all this, however, to Dr. Maclean and the members of the British Medical Association, would require almost a treatise. I may be pardoned, then, if I try to explain Dr. Oldham's views in a short manner. The gist of his argument is, that the so-called malarious diseases are due to cold or chill after exposure to great heat, especially after it has been accompanied with exhausting labour.

Than this hypothesis, nothing can be more simple. Every doctor in Great Britain is aware how frequently bronchitis, pneumonia, and other severe affections, are attributed to cold—borne by a person who has been previously exhausted by exercise in a hot atmosphere—or by the sweating which labour produces, even in winter. If we see a navvy, teeming with perspiration, lie down and sleep in a draught, or on a cold stone, we say to ourselves, "that he will be lucky if he do not require a doctor".

There is, then, *à priori*, something reasonable in the idea, that an excess of heat and cold will produce analogous and more severe results. Now, in England, the difference between the day temperature and the night, is barely twenty; 90 degs. in the shade by day is about 70 degs. in the shade by night; but, in malarious districts, the temperature by day for those working in the sun (and it is those who get the fever), is about 140-150 degs.; at night, this falls to about 50-45 degs. Again, it is known, that during frost, such as the French Army experienced in the retreat from Moscow, the cold is bearable; but when a thaw sets in, and the cold is moist, not dry, frost-bite is common.

Every notoriously malarious district is marshy; consequently, those who live therein, are subject to more severe variations of temperature than those who live in dry places. During the day, the hot air over a marsh or lagoon is saturated with dissolved water as soon as the sun is low, and still more after it sets. This water is *precipitated*, and we have a cold dew—did ever anyone hear of a hot one?

I have emphasised the word "precipitated" because it involves a most important point. If the word be used correctly, there can be no emanation from the ground during the time the aqueous particles are falling. As I presume that Dr. Maclean is familiar with the cause of dew, I need only point out, that terrestrial emanations only take place by day, and must cease at night; yet night is the fatal half of the four-and-twenty hours. Night is also the coldest part of the day in every country, and the cold is most intense when there is nothing to intervene between the earth and stars.

It is well known that the Pontine marshes are only dangerous after sundown, and only then to anyone who cannot keep himself warm. Dr. Oldham tested the malarious theory, by sleeping, for many months together, on a bed placed in a swamp, and barely two feet from the ground. There were atrocious stinks, and his nostrils suffered accordingly; but he always wrapped himself up warmly, and never got fever that way. He did get it once before, and that was in the room of his superior officer, and under the following circumstances. He had ridden, in the heat of an Indian day, to deliver a report, and was perspiring; when he arrived, the room occupied by the colonel was cooled with a punkah, and the doctor was suddenly chilled, and could not leave the house, for he instantly was struck down by fever. His book contains many such cases.

This will serve to introduce to Dr. Maclean the reason why fever has attended disturbance of the soil. Men work hard, under a hot sun during the greatest part of the day; when night comes they are tired, glad of something to drink, take too much, and sleep too heavily, to be awakened by the cold. The blood has, so to speak, been boiling all day, at night it is chilled almost to the freezing-point—hence the fever, which may show itself as intermittent or remittent; or as the attendant of dysentery, hepatitis, pneumonia, etc.

Consul Hutchinson in Peru noticed these causes in operation, and was not surprised at their results. In some parts of South America, to "catch a cold" is "to get an ague", the expressions being synonymous.

In the Ashantee expedition, the alternation between daily heat and moist nightly cold was enormous; and any one who has read of the excessive exertion, and consequent fatigue, undergone by the men, whilst the sun was above the horizon, and the cold which they had to endure when that source of heat had set, can readily understand why the fevers which the soldiers had were so severe. Had the men not been partially sheltered, by the forests which they traversed, from the radiation of their heat into space, matters would have been infinitely worse. Even horses who sleep in the open air in Arabia become diseased; all the valuable ones are sheltered during the night by some sort of cover, which prevents chill. Dr. Maclean, had he read Dr. Oldham's book, would readily see how forcibly his own statements support the latter's doctrine; *e. g.*, Dr. Maclean quotes from Colonel Gordon how the blacks of the Soubate go indoors at dusk, light fires, and try to live in the smoke. Surely, he will acknowledge that the smoke of a fire is warm, and that the effect of the fires, kindled in every hut, kept by the nearly naked Africans, is to make them, as respects warmth, somewhat comfortable. This warmth it is that prevents their getting fevers. A friend of mine, who lived at Sierra Leone for years, never had even a touch of fever; for, during the wet season, he habitually warmed his rooms with a stove, and always was warmly clad.

These observations have a practical bearing; for, if there be such a poison as "malaria", we cannot absolutely guard ourselves against it; but, if it be true that the diseases attributed hitherto to malarious miasms are really due to severe chill after great heat or great exertion, we can arm ourselves against them. How severe and sudden may be the effect of chill, the following will show. A medical friend of mine, living in Cheshire, saw, one day in May, a maid of his, who had been engaged in washing, and was bathed with perspiration, standing in a draught of air to cool herself. He sent her away from the door, but, ere the day was over, the woman had general dropsy; the urine passed in twenty-four hours amounted only to half an ounce, and was full of tube-casts, though not albuminous. Surely, no one would say that she had imbibed a poison from the soap-suds; nor, had she been delving, would one say that she had been poisoned by the terrestrial effluvia. Until the teachers of our youth have a larger capacity for inquiring into old facts, with the light of modern science, and for basing their instruction upon logical deductions, rather than what are called "time-honoured facts"—because they have been asserted for a century or two, though not facts at all—the practice of our profession will not improve, not being based upon sound knowledge.

If a soldier be taught that agues, etc., come from "soil", he takes no precaution when no "soil" is present to produce them; and then, when a *medico* finds his detachment ill with intermittents or remittents, he feels helpless to prevent the spread of the disease. On the contrary, had he been taught truly, he would study the air as well as the earth, and remember the dictum of the Indian colonel, who said to Dr. Oldham, "You doctors may talk of marsh-poison as you like; but my experience has taught me that hot days and cold nights are certain to produce fever".

## THERAPEUTIC MEMORANDA.

### IODIDE OF POTASSIUM IN ASTHMA.

THE notes of the following case, showing unusual results from the administration of iodide of potassium, may be sufficiently interesting to warrant me in asking for their insertion.

Last summer, I was called to see A. B. She complained of cough accompanying attacks of asthma, coming on regularly about 2 A.M., and lasting for an hour or two. I ordered the iodide in four-grain doses, with ipecacuanha wine and squills, every three or four hours. The asthma was better during the night; and the next day the cough and breathing were also better, and the medicine was taken less regularly. The same evening, my patient was seized with intense pain across the loins, more severe on the left side; also inability to pass urine unless in very small quantities, and accompanied with very great pain. Relief was obtained from the use of hot baths, diluent drinks, and large doses of the bicarbonate of potash and liquor potassæ. During the next fortnight, no medicine was given, the asthma continuing better; but at the end of that time a fresh attack occurred. The iodide was given in the same doses, and was followed in a few hours by threatenings of the same pain and discomfort. A short time afterwards, two-grain doses of the iodide were tried; but a few doses were sufficient to show that the system would not tolerate the medicine, although after its use the asthma was invariably better. My patient complained of no other symptoms peculiar to a state of "iodism", unless a very salt taste in the mouth while taking the iodide. The urine was highly acid while the pain lasted, and relief was only obtained as this secretion became alkaline. This bears out the theory that rheumatism, eczematous eruptions, or gravel, often replace asthma, or may in turn be replaced by it. My patient has inherited a strong rheumatic tendency. She also suffers from a patch of eczema on one arm, which always followed the fortunes of the asthma as it got better or returned. This case seems one in which asthma and eczema act as safety-valves for a system having a strong rheumatic diathesis; and the curative effects of the iodide on the former serve to intensify the latter by increasing the amount of uric acid to be eliminated by the kidneys. Iodide of potassium acts by promoting the action of these glands, most probably by its primary power of causing the absorption of additional waste nitrogenous matters into the blood, which are eliminated partly as uric acid. Hence we can understand how this additional work, thrown on glands already injured by constant work at high pressure, should have the effect of paralysing their efforts at elimination—should be followed by a severe attack of gravel.

J. MITCHELL WILSON, M.B., Chatteris.

### THE THERAPEUTIC VALUE OF IODIDE OF POTASSIUM.*

As I have for several years paid considerable attention to the action of iodide of potassium, I venture to offer the following remarks as supplementary to Mr. Spurgin's article in the JOURNAL of September 5th, 1874. This medicine has been accredited with many modes of action: thus, in struma as an alterative, in asthma as a sedative, and in diphtheria as an antidote. To all these titles it may have a claim which different observers may think fairly borne out; but certainly the one distinct and indisputable action of iodide of potassium which I have noticed, is that of *stimulating the mucous membranes;* thereby influencing their action and promoting their secretions. Thus, as the results of its use, there are pain and sense of fulness across the eyes; increased secretion from the nares, mouth, fauces, and bronchi; leucorrhœa and menorrhagia are greatly aggravated; and in persons very susceptible of its influence, diarrhœa is induced, not so much of a cathartic as of a dysenteric kind; that is, rather an increase of mucus with tenesmus than of serum with catharsis.

In a person suffering from an attack of chronic winter cough, the first symptoms are great difficulty in breathing, amounting to a sense of suffocation; hard, dry, racking cough, which the patient says he cannot subdue; while he expresses a belief that relief would be obtained if something could be brought up. The suffocation complained of has been attributed to a swollen state of the air-passages, obstructing the respiration; but there is a fair probability that the dry congested condition of the membranes is unfavourable to the interchange of gases requisite for blood-aëration, and the situation of the patient such that, however he may fill his lungs, his sufferings remain unrelieved. Whatever the actual state of matters at this point, certain it is, that as soon as expectoration sets in, the breathing is improved; and, although the disease has by no means gone, the patient is so far better. Many hours of severe suffering may be obviated by taking advantage of the power of iodide of potassium to restore and promote the secretion of the bronchial membranes, thereby greatly relieving the congested blood-vessels, producing comparative tranquillity of breathing, and getting the patient over the first stage of the disease much sooner than he otherwise would. This, however, is possibly not its only value. For, here again, however opinions may differ as to the cause of the emphysema which from an early period exists in these cases, no one can have witnessed the severe and straining cough at the onset of the attack, without feeling that it is at least possible for either dilatation of the air-cells or rupture of the tissue of the lung to take place—complications much less likely to occur, so far as the cough is concerned, when the sputum has been rendered easier of expectoration and the irritability of the congested membranes removed by free secretion. It is further to be remarked that the action of the iodide of potassium changes the purulent character of the sputa in chronic bronchitis to a much healthier appearance. From this view of its operation, it follows, as a matter of course, that when free secretion of mucus has set in the medicine should be used with caution or altogether abandoned; and, therefore, when in the treatment of bronchitis—capillary or chronic—moist *râles* are fairly established, the further management of the case should be on the principle of preventing a too abundant secretion, at the same time employing such means as may assist expectoration and maintain the strength.

In asthma, iodide of potassium is recognised as a valuable medicine. Here the explanation of its action generally given, is that of a sedative relieving bronchial spasm; evidence of the presence of spasm being found in the wheezing and whistling sounds heard in auscultation,

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* Extracted from a paper read before the Glasgow North-Western Medical Society in the winter of 1872.

Either of these sounds, however, fairly suggests the question, how far a fit of asthma is dependent on, or, at all events, greatly aggravated by, an abnormally dry condition of the mucous membranes, acting as in the diseases already mentioned, which is relieved by the iodide restoring the secretion.

In diphtheria, iodide of potassium is looked upon by many practitioners as the best remedy we possess. Here its alterative and sedative actions are laid aside, and we have it doing duty as an antidote to the diphtheritic poison; although, so far as can be seen, it exercises no new influence. In this disease, while there is free secretion from the nares, the breathing and cough-sounds are usually not very alarming, nor is respiration greatly impeded. It is not till the nares become dry—and doubtless the pharyngeal, laryngeal, and tracheal secretions diminished —that the formation of false membrane proceeds with fatal rapidity; hence, it does not seem too much to assume, so long as an iodide can keep up these secretions in such profusion as to prevent them from remaining on the parts sufficiently long to undergo membranous change, so long will its action be beneficial. The idea of an antidote might be more satisfactory; but it cannot be substantiated; nor does this view of its action afford any indication as to what extent the medicine should be given; whereas, by paying attention to the degree of influence exerted upon the mucous secretions, the dose and frequency of administration may fairly be ascertained; if not, indeed, the knowledge acquired as to whether or not it is doing any good.

Without at present entering into a consideration of the influence of iodide of potassium on digestion and assimilation—the real sources of its so-called alterative power—I may state as my conviction, that in all the various manifestations of struma, etc., where this medicine is of service it acts, so far as the iodine is concerned, in stimulating the mucous membrane of the stomach and duodenum—possibly, by sympathetic action, the liver and pancreas also—to increased secretion, whilst its alkaline base tends to promote the digestion of fat and starch.

For the dose no absolute rule can be laid down, because, in few respects, indeed, do constitutions and temperaments differ more than in the relative irritability of the mucous membranes, and, consequently, the power of iodine to influence their action. Persons of the bilious temperament usually resist its power to a wonderful degree, whilst in those of the lymphatic, sanguineous, and, above all, the nervous, a few doses of two grains each will often suffice to cause coryza, ptyalism, pharyngeal irritation, and cough. In such diseases as diphtheria, the object should be to produce its influence as rapidly as possible, whilst in others, as struma, small doses long continued are preferable.

James Lawrie, M.D., Glasgow.

## CLINICAL MEMORANDA.

### THE ALBUMINURIA OF CHOLERA.

In the report given of the inaugural meeting of the Epidemiological Society of London for the present session in the British Medical Journal of 26th December, 1874 (p. 815), the Secretary is represented as intimating that "Dr. Schlimmel had communicated the important observation of the occurrence of *albuminuria* during the *invasion stage* of *cholera*"; and it is added that in all the cases observed "the albumen disappeared in two days". Upwards of twenty years ago, I drew attention to the fact that albumen is an invariable constituent of cholera urine, or nearly so, at later stages. As resident physician of the City Cholera Hospital of Edinburgh, I had no opportunity of examining the urine in the invasion or early stages. But careful systematic examination of the urine was made from the date of admission of each patient—usually in the collapse stage—with the following results as to albuminuria.

In the description of the chemico-microscopical characters of cholera urine, given in my Clinical Notes on Cholera, in the Association Medical Journal for April 21st, 1854 (p. 350), I state that "heat and nitric acid almost invariably prove the presence of albumen". This refers to the urine first passed after collapse, or drawn off by the catheter. "In the urine secreted when the renal functions begin to be duly re-established, the chief circumstances to be observed is the gradual disappearance of albumen......The coagulability, as a general rule, disappears in from one to three days. Sometimes it continues for weeks, either regularly decreasing in intensity or intermitting, and reappearing to a visible extent and at irregular intervals. In rare cases, the urine first passed has been said to be non-coagulable, while that subsequently voided may be albuminous."

In the section treating of the urine in a paper on the chemico-microscopical character of The Cholera Evacuations in Man and the Lower Animals, published in the *Edinburgh Medical Journal* for February and March, 1856, it is stated (p. 16 of the reprint): "Whether voided naturally, or artificially drawn off, the urine first passed was... invariably albuminous;...at subsequent stages of the disease...the albuminosity gradually disappeared."

W. Lauder Lindsay, M.D., F.R.S.E., Perth.

### POISONOUS MUSHROOMS.

I may add to the remarks by Dr. Drummond in reply to Mr. Cuffe, that the "eight or ten carefully chosen small young mushrooms" previously reported as eaten by my patient were freshly gathered, and of agreeable flavour and odour. I noticed a few fragments in the vomited matter having the ordinary black under-surface of cooked mushrooms, which could not be taken as evidence to prove that all the mushrooms eaten were free from poisonous qualities, even if the black under-surface do prove it, for it must be impossible to detect the external appearance of each mushroom eaten when it has been in the stomach at least six hours after the most careless mastication. Mushrooms were so plentiful on my patient's farm this year, that he frequently ate them without any previous pain or discomfort. On this account, I was in doubt if some of the apparently edible fungi eaten by him were not poisonous, and, for other reasons previously given, recorded the case.

Some authorities assert that it is difficult to detect edible from poisonous fungi; the practical question, however, is, Can cooks, or others who are not fungologists, detect poisonous from edible fungi by any certain rule? Is the popular notion correct, that all mushrooms of good odour are edible, if, when cooked, the under-surface be turned black; but, if the under-surface turn light-coloured by cooking, they are poisonous? James Sedgwick, M.R.C.S., Boroughbridge.

## REPORTS
OF
## MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

### GUY'S HOSPITAL.

#### SATURNINE GOUT.

(Under the care of Dr. S. Wilks.)

A young man, aged 29, had worked since he was a lad in an oil-cloth factory, and had had much to do with white lead. On two occasions, he had had colic, but rapidly recovered under treatment. For some weeks, he had not felt well, being weak, and having flying pains about him; but he had continued his work until a few days before admission, when his present colicky symptoms appeared, which, increasing in severity, obliged him to come to the hospital.

On admission, his principal symptom was colic. He was a spare, pale young man, with a well-marked blue line on the gums; his left foot was painful, from inflammation of the ball of the great toe, which exactly resembled gout. The urine was slightly albuminous, and the radial artery was somewhat hard. He was first ordered opium, and afterwards croton oil; and, when free of the colic, iodide of potassium.

*Clinical Remarks by Dr. Wilks.*—You may observe here two sets of symptoms; those directly due to the poisonous effects of the lead, and those due the gout induced by the lead. There are apparently, therefore, two different classes of symptoms due to lead, the direct and the indirect.

The symptoms due directly to lead are especially seen in the anæmia and atrophy, which persons long subject to its influence so markedly show. The atrophy may be due to the same action long continued, of which we make use beneficially in arresting hæmorrhage, and to the power which this metal exerts, through the nervous system, in contracting the arterioles, and so stopping the flow of blood. At all events, those who are poisoned by lead soon begin to waste away, and their muscles become smaller and smaller, until they are unable to stand, or raise their hands to their heads. This wasting of the muscles exactly resembles what is seen in the idiopathic progressive muscular atrophy, and, what is very remarkable, is amenable to remedies. The most extreme cases of muscular atrophy of this kind which I have seen have been cured, and more especially by galvanism; the continuous current being the most beneficial, as faradisation has very little influence over the wasted muscle. When a patient has muscular atrophy, dropped wrist, or colic, your suspicions of lead-poisoning are aroused; but I would have you to remember, that persons who are working continuously in lead, or grinding it, often suffer more rapidly and acutely from the metal; though, as no marked symptoms exist, you might easily overlook the cause. An example of the kind was lately under our notice in Mary Ward. A young woman had been working for some months in a lead-factory, when, becoming weaker and weaker, she was obliged to desist. When she came to the hospital, she was seen to have a pale waxy appearance, and was very thin. She complained only of debility. On mentioning her occupation, a blue line was found on the gums. We believed, therefore, that she was suffering from plumbism; we gave her iodide of potassium and nourishing diet, and she slowly regained her strength. Besides the anæmia and muscular atrophy, if the poisonous effects still continue, the nervous centres become affected, and the patient becomes generally paralysed and demented, or may have convulsions.

As regards the blue line, it is true that it is more marked on an inflamed gum around a decayed tooth, but in this case the line was well marked on a perfect set of teeth. It may be distinguished from the discoloration caused by carbon or other pigments, by the dotted appearance when seen under a lens. It is also said that when the lead circulates afresh in course of elimination by means of the iodide, that the patient may again have colic; this I have not noticed, but I have seen the blue line on the gums become much more marked under treatment.

One of the most interesting facts, however, in connection with lead-poisoning, is the production of gout, and apparently true gout; since the arthritic inflammation is due to the deposit of urate of soda in the joints. I have seen this gouty condition so very often, that I have no hesitation in confirming the statement of Garrod and others, by whom the remarkable connection was first observed; for, in several of my cases, the patients were young, and the ordinary predisposing and exciting causes were not present. I believe the observation is comparatively recent, for the great authority on lead, Tanquerel des Planches, does not refer to it. It is true, that he has a chapter on saturnine arthralgia; but he evidently does not refer to the joints, but to the limbs, as his equivalent expression is "douleurs neuralgiques des membres", referring to nerve-symptoms, which, I may tell you, were known to the Greeks as one of the effects of lead.

It is remarkable, too, that, not only is genuine gouty inflammation of the joints caused by lead, but of a necessity all the other usual concomitants of gout. Therefore, it is constantly observed that workers in lead not only have chalky joints, but have granular kidney, thickened blood-vessels, and the other changes constantly met with in gout, and which are almost synonymous with those of Bright's disease. In the present case, the urine was slightly albuminous, and the arteries slightly rigid and tense, suggesting the early condition of the change which I name.

This connection of lead and gout is so remarkable, that we naturally try to discover where it lies. We must first ask ourselves what we mean by gout. We generally mean by it that morbid condition of system which is due to the production of an excess of urate of soda, owing to a malassimilation of food. Now, this may occur under various circumstances from different causes; as, for example, the taking of too much nitrogenous food or wines, which directly favour its production; or, in other cases, from want of exercise, and consequent failure to get rid of the effete material; and, in other cases, to simple atony of the stomach in nervous and weakly subjects. The question, therefore, which we have to ask is, in what way lead-poisoning so affects the digestive and assimilative processes as to favour the production of this salt. This, we believe, is the question to be asked, and not a simple chemical one, because we find attacks of gout caused by disturbances of the nervous system, and relieved by such remedies as quinine, mineral acids, and colchicum; causes and remedies which can only indirectly affect the functions before named, and do not act by simple chemical methods. When we think we can solve difficult questions in pathology and therapeutics by known laws, let us ask ourselves how lead causes gout, and how colchicum cures it.

## GLASGOW ROYAL INFIRMARY.

### CASE OF CIRRHOSIS OF THE LIVER.

(Under the care of Dr. GAIRDNER; reported by Dr. FINLAYSON.)

*Ascites and Œdema: Habits not Intemperate: Tube-Casts without Albuminuria: Paracentesis: five or six pints of Bloody Fluid removed. Death and Post Mortem Inspection: Atrophy of Liver: Congestion of Intestines, with Slate-Coloured Pigmentation of Colon: Fatty Degeneration of Renal Epithelium.*—JOHN E., aged 47, hammerman, was admitted February 7th, 1874. The chief complaint was of abdominal dropsy; there was also some swelling of the feet. The patient had always enjoyed good health till one or two attacks of bronchitis about ten years ago, from which, however, he recovered; and was fit for regular employment till April, 1873, when he brought up a quantity of blood by the mouth, without either cough or vomiting; the discharge lasted eight hours in a continuous flow, it was said, and its source remained in doubt, even after conference with Dr. Millar, who attended him. Since then, his strength had failed, and his colour had been bad; Dr. Millar, indeed, thought his complexion had been rather dingy for the last three or four years at least, although there was no suspicion of liver-complaint, or, indeed, of indigestion. He took food in small quantity (his teeth had been nearly all lost by an accident seventeen years ago), but he seemed to suffer no inconvenience from eating. Dr. Millar had attended him three or four months before admission for a feeling of gastric oppression without actual pain. Two months after this bleeding, the man was fit again for his work, and he continued at his employment till the beginning of January 1874, when the swelling began to appear in the belly and legs, and some abdominal pain was also experienced. On admission, in addition to various signs of bronchitis, marked peritoneal effusion and œdema of the lower limb were noted. The hepatic dulness seemed displaced upwards, but no very accurate results could be arrived at by percussion, owing to the distension of the abdomen. A few small spots of ecchymosis were found on the legs; there were also some traces of piles. There was no history of intemperance or syphilis. The urine was scanty, ten ounces or less in the twenty-four hours, and of good specific gravity—1,022; it showed no trace of albumen, although the tests with heat and nitric acid in the cold were frequently and carefully applied; on several occasions a few tube-casts were found, mostly perfectly hyaline, or with only a few pale granules contained in them; some, however, contained renal epithelium; pus-corpuscles were also found in some specimens. The urine usually contained copious deposits of red lithates; in some of the specimens, especially towards the end of the case, the colour was extremely bright. The tube casts in the non-albuminous urine were brought repeatedly under the notice of the clinical class by Dr. Gairdner; due care was taken to avoid any fallacy from impurities. On February 19th, the usual tests for albumen gave a more doubtful result; no reaction was obtained by nitric acid in the cold, but heat produced a very slight turbidity, not dissolved by the addition of acid. There was some suspicion of jaundice in the patient, as the conjunctivæ, as well as the skin, were yellowish; but, if present at all, the jaundice was certainly slight.

The treatment was by diuretics, including four ounces of gin, and by purgatives; but the distress and suffering of the patient increased from the growing distension, and much pain was complained of in the abdomen. On February 22nd, as the condition seemed urgent, Dr. Mackerrow, the resident assistant, tapped the patient at 3 A.M. with a small cannula and trocar, and five or six pints of bloody fluid were drawn off, with the effect of giving much temporary relief, but the man soon began to sink, and he died in a couple of days. The fluid drawn off was highly albuminous; this was due, in part at least, to the presence of blood, which was uniformly diffused through it at the time of its being drawn off; the blood-corpuscles settled down, after standing, into a dense layer, leaving the supernatant fluid of a straw-colour, with a specific gravity of 1,012. After fifty hours, the reaction to test-paper seemed neutral. In addition to blood-corpuscles, the microscope revealed cells three or four times the size of these, with large nuclei contained in them.

The inspection was made by Dr. Joseph Coats. The liver was found to present the most typical appearance of advanced cirrhosis, with contraction and deformity of the organ; it weighed two pounds eleven ounces. The spleen was moderately enlarged, the pulp firm, and the Malpighian bodies small and atrophied. The stomach presented appearances of catarrh. There was pretty general hyperæmia of the intestines, especially of the ileum and colon, with very marked slate-coloured pigmentation of Peyer's patches and of the general mucous membrane of the colon, with concentration of the pigment at particular spots in the latter, corresponding presumably with the solitary follicles. No hæmorrhage was found anywhere except in the peritoneum, and no special source of this hæmorrhage could be discovered, as the blood was quite diffused through the fluid, and no localised disorganisation was discoverable. There were a few flakes of lymph. There was no appearance of cancer. The kidneys were normal in size. On section, a certain amount of paleness could be noticed in the deeper layers of the cortical substance. Microscopic examination revealed well marked fatty degeneration of the renal epithelium, chiefly in the pyramids, and mostly towards their bases, but extending also into the cortical substance and involving the straight tubules alone. In a longitudinal section, the dark fatty straight tubules (pyramids of Ferrein) could be seen alternating with the transparent convoluted ones.

REMARKS BY DR. FINLAYSON.—This case of cirrhosis of the liver seems worthy of record, on account of—1, the absence of any history of intemperance; 2, the bloody character of the dropsical effusion; 3, the peculiar nature and disposition of the intestinal congestion; and 4, the presence of tube casts in the non-albuminous urine.

1. Repeated inquiry of the patient and his wife left no doubt as to the truthfulness of the statements made regarding his habits. The man was not an abstainer, nor even, perhaps, rigidly abstemious, and he had been known to have taken too much drink on a rare occasion; but he was in no sense a drunkard, nor was he addicted to the habitual use of spirits in excess.

2. The bloody character of the ascitic fluid drawn off raised, at the time, the suspicion of cancerous disease, especially in the absence of any history of intemperance. The blood seems to have transuded without any distinct points of rupture. This character of the dropsical effusion, although certainly uncommon, does not seem to be altogether unknown. (See Frerichs' *Diseases of the Liver*, London, 1861, vol. ii, p. 43, and vol. i, p. 270.)

3. The marked congestion of the lower part of the intestinal tract (ileum and colon), and the slate-coloured pigmentation of the Peyerian patches, and of the mucous membrane of the whole of the colon, seem to afford some confirmation of the doctrine at which I lately arrived from a survey of the literature of the subject; namely, that obstruction of the portal circulation from cirrhosis of the liver tends especially to congestion of the large bowel; the more deeply pigmented solitary follicles in this case are also of interest in view of the opinion held by Dr. Parkes that dysenteric ulceration has often its beginning in these structures. (See my paper On the Relationship of Abscess of the Liver to Gastro-Intestinal Ulceration, *Glasgow Medical Journal*, February 1873, pp. p. 177-179.)

4. The presence of tube-casts in the non-albuminous urine in this case raises questions of much interest. This subject has of late been much under our notice at the Infirmary, in connection with the habitual appearance of tube-casts in cases of jaundice, quite apart from albuminuria, and also in connection with some other affections (see BRITISH MEDICAL JOURNAL, June 27th, 1874, p. 841). Indeed, it is possible that the tube-casts would have escaped notice if attention had not been specially directed to this subject at the time. It seemed impossible to account for the casts in this case on the ground of jaundice; indeed, the existence of jaundice was very doubtful, as the yellowness of the eyes may have been due to other causes; and the urine, instead of having the jaundiced tinge, presented the brilliant red appearance which has been often noticed in hepatic cases. If jaundice really were present, it was certainly slight; but the occurrence of casts in jaundiced urine seems directly related to the depth of the biliary colour. Hence some suspicion of renal disease was entertained during life, and some affection of the kidney was actually found after death; but further observations on the significance of tube-casts in non-albuminous urine are required, before we can safely assign to the above facts their proper connection.

## SOUTH DEVON AND EAST CORNWALL HOSPITAL.

### A CASE OF DIABETES MELLITUS TREATED WITH OPIUM.

(Under the care of Dr. CLAY.)

FOR the following report we are indebted to Mr. C. C. GIBBES, M.B., C.M.

J. R., aged 16, a farm labourer, was admitted March 10th, suffering from diabetes mellitus. He complained of great debility and loss of flesh, constant thirst, and frequent passage of urine. There were no signs of phthisis present. His weight on admittance was 98¼ lbs. During his first week in the hospital, the average amount of urine passed was 9½ pints; the specific gravity varied from 1044 to 1060, and it contained a large quantity of sugar—no albumen. He was put on diabetic diet, and ordered mineral acids and bark. After about a month on this treatment, he was put on half a grain of opium in pill, three times a day, together with the diabetic diet. The opium was gradually increased to one and a half grains three times a day, when it was decreased, and eventually left off. For about a fortnight of this time, the treatment had to be suspended, on account of an attack of ephemera coming on. The patient remained on diabetic diet alone for about a week; but as this did not appear to agree with him, he was ordered one grain of opium three times a day, and mixed diet; as this did not agree with him as well as the diabetic diet alone did, he was ordered diabetic diet together with the opium. Under this plan of treatment he improved very much, and left the hospital on September 15th, to resume his occupation, having gained 19¼ lbs. in weight, passing on the average eight pints eight ounces of urine less than he did when he was admitted, and there being a very great diminution in the amount of sugar.

# REVIEWS AND NOTICES.

CLINICAL SURGERY: An Address delivered in the University of Glasgow. By GEORGE BUCHANAN, A.M., M.D., Professor of Clinical Surgery. Pp. 32. Glasgow: J. Maclehose. 1874.

DR. BUCHANAN'S address is an inaugural one. The professorship is a new foundation, and the University authorities "have taken the opportunity to found a new chair, that of clinical surgery, with the object of attaching to their medical school a professor who should devote his time to the teaching of clinical surgery, to the exclusion of any other branch of medical science. It is to be presumed that the future occupants of this chair will be men who have gained experience as practical surgeons, and naturally their services will be much in request, both by the public and their professional brethren. It follows, therefore, that only a limited portion of their time will be available for teaching, and that will be concentrated on clinical work. In this respect, clinical teaching differs from the systematic teaching of most of the fundamental branches of medical science. Anatomy,* physiology, chemistry, botany, and zoology, are best taught by men whose attention is not distracted by the anxieties of professional practice, and who have time to work out and think out the problems which are constantly springing up in the advancement of science. Their appropriate place is the laboratory and the study, and the facts which they deal with can be elucidated without any direct reference to the inroads of disease as seen in the living subject. Accordingly, for the professors of these branches to engage in medical practice would seriously interfere with their usefulness in investigating and teaching their several departments in science. But with clinical lecturers it is different. An extended practical experience in the treatment of disease is necessary to make their instruction of real value. Theoretical knowledge, however extensive, and by whatever means of study acquired, is of no essential use, unless it has been put to the test of experience—an experience gained by the practice of surgery both in public and in private."

The advantage, nay, even the necessity, of such a professorship is obvious; and the University of Glasgow could have made no worthier choice than that of the distinguished surgeon who now inaugurates the chair, giving as he does in this address, with all becoming simplicity and modesty, his credentials for the post by describing the improvements which it has been his good fortune to introduce into the various departments of surgical practice which we shall proceed to notice. First, however, let us quote from Dr. Buchanan's address the practical arrangements which are made for the teaching of clinical, as distinguished from theoretical surgery at this great Scotch school—arrangements which strike us as eminently practical where the end to be reached is to give the maximum number of students as much instruction as possible out of the minimum number of cases. There are three main difficulties in the way:—1. The limited time at the lecturer's disposal in which to make his diagnosis, and explain the case to the students; 2. The imperfect acquaintance which the students have with the case in particular and with the science of surgery in general, and the consequent difficulty they experience in understanding the lecturer and in profiting by his attempts to instruct them; 3. The number of students rendering it impossible to address them each individually, and impossible even for each of them to get access to the patient's bed, or to see the features of the case to which the professor is alluding. The first difficulty can only be got over by the professor himself. One man can find out more, and say more, about a given case in five minutes than another would in an hour; and we doubt not that the distinguished clinical teacher who is now professor at Glasgow is an adept in this most necessary part of his art; yet it is a serious difficulty for any one, however acute and experienced, and it has this further drawback—that it leads the professor to concentrate his attention on the rarest and most difficult—the interesting—cases, to the exclusion of those which are more familiar, and which will form almost exclusively the stock of his pupils' practice hereafter. One of the advantages of the apprenticeship system, to which Dr. Buchanan alludes only to denounce it, and of which, as he says, "the days are numbered", was, that it brought the student into familiarity with the very class of practice which he would afterwards manage for himself, instead of leading him so far into the *apices chirurgiæ*—the amputations, ligatures, excisions, etc.—as to forget the humbler ulcers, sprains, and eruptions, with which his future experience would be mainly concerned. One suggestion which Dr. Buchanan makes to remedy this defect we must notice, but only to deprecate any attempt to carry it into practic, *i.e.*, "an extension of our dispensary arrangements, by which senior students would be sent to attend poor people in their own houses, and in difficulty appeal for assistance to the dispensary staff". Surely we see enough of the mischiefs of careless and inefficient attendance on out-patients, without turning over the unfortunate clients of our dispensaries to youths who are confessedly ignorant of the principles of surgery, and who would be not only unfit to face a difficulty, but who still more would not know where the difficulty was. If the apprenticeship system is so worthless and so effete as Dr. Buchanan represents. the only resource is to utilise those hospitals to which as yet no schools are attached, and to see that no student is admitted to examination without ample practical familiarity with the personal management of cases. The differences between house and hospital practice on which Dr. Buchanan remarks (page 10) are no doubt real, but they are of minor importance. A good hospital dresser or house-surgeon, with a knowledge of his work and a love of it, will in no long time make an excellent private practitioner, and easily acquire all the minor arts which distinguish house from hospital practice; but what can supply the want of all practical instruction? A man can no more be lectured into being a surgeon than into being a carpenter, and it is singular to see sometimes how poorly the best pupils and prizemen of the schools acquit themselves when brought face to face with any common call of practice. This is a matter which the authorities of our large schools would do well to look to. The second difficulty—that of making cases intelligible to those students who have little previous knowledge of the rudiments of their profession—is not explicitly handled in Dr. Buchanan's address; yet it is one which all clinical teachers must have painfully felt. It seems to us to be best met by some method of familiar examination, so as to see that the students really understand the terms used, and follow the professor's reasoning. Such methods of teaching are no doubt laborious and difficult for busy men to carry out, but they ensure that the class at any rate gathers something from the exposition, which a mere lecture or demonstration does not always do. To meet the third difficulty—the number of the class—Dr. Buchanan, after describing the ordinary clinical comments at the patient's bedside, or in the clinical lecture theatre after adjourning from the bedside, thus gives the heads of a plan, which is also, we believe, carried out at Edinburgh, and with much success.

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* In passing, we would beg to enter our decided protest against this doctrine, as applied at any rate to anatomy. Chemistry, botany, and zoology, if the latter form any necessary part of medical education, are doubtless as well, or perhaps better, entrusted to men not in practice: but anatomy, the basis of all practical surgery, can only be properly taught to students preparing for practice by those who know the exigencies of practice, and the bearings of anatomical and physiological facts upon practice.

"Inasmuch as all are not equally fortunate in getting near the bedside—though arrangements will be made for attaining that position in rotation—a different mode is adopted at the regular weekly lecture on clinical surgery, a plan to make the instruction equally available to all who are present in the theatre; that is, to bring the patients from the wards into the place of lecture. The patient is placed in a chair, or, if he be unable to walk, remains on the bed which has been brought from the ward. He is then examined just as formerly described, and removed to an adjoining apartment. A commentary is then given on the disease, and, frequently at the end or during this description, he is brought back to enable the surgeon to point out anything important which may have escaped notice. The patient being removed, the treatment is explained, and any operation necessary may be described in all its details without any reserve. If an urgent operation be required, it is performed at the end of the lecture; if not, it is done in the presence of the students on the next operating day. At a subsequent lecture, the students are informed of the result of the operation, and in the interval they have the opportunity of visiting the case in the ward. In this way, a clinical lecture is a condensed commentary on a particular example of disease which is presented before the students. It differs from the systematic lecture by concentrating into a focus all the essential points, and is in fact, as nearly as possible, a guide to the management of a similar case which may happen in the future practice of the hearers. By a series of these isolated lessons, the student gathers his general principles, and has his mind stored with vivid examples which he never forgets. It must be obvious, therefore, that clinical instruction is the most vital part of a student's education."

These arrangements are admirably adapted for their purpose—that of "clinical instruction"; but we must again and again protest that clinical instruction is far from being "the most vital part of a student's education". As in the teaching of anatomy, one hour that the student spends in accurately and painfully dissecting for himself is ten times more valuable to him than half-a-dozen hours spent in the lecture-room, though in the former he may only have succeeded in displaying (and that, perhaps, only imperfectly) one-tenth as much of the subject as has been glibly and perfectly demonstrated to him in the latter: so in the practical pursuit of surgery, two or three very simple cases, handled, dressed, annotated, and personally attended by the student himself, are worth twenty cases, however interesting or striking, which he only looks at from an upper bench in the theatre, and hears the professor talk about. Dr. Buchanan does not omit to urge on his students the importance of dressing and note-taking; but, if we may be allowed to say so, we think his mind is on this occasion naturally a little too much filled with the new duties that he has undertaken, and he seems to give to formal instruction a preference over practical work, which, in our view, is the great vice and danger of the medical education of the present day. We have no objection to the method of appointing one special professor of clinical surgery, instead of the plan more commonly adopted in the London hospitals—for each surgeon to give clinical lectures in his turn—if it be thought that the clinical teaching gains thereby in method and definiteness; but we confess that we are surprised in Dr. Buchanan's address to see no mention of any other surgical teaching than that of the professors of theoretical and of clinical surgery. Admirable as those professors doubtless are, it is no slight to them to say, that the most efficient teachers of practical surgery ought to be the surgeons of the hospital, and of these we find no mention at all in this address, other than the two professors, and nothing at all of the rich instruction that can be obtained in assisting the house-surgeons and in the out-patient rooms. All the more striking cases, however, are to be brought under the notice of the students, and everything that is possible is to be done to give them the benefit of practical instruction, as is evident from the following.

"You will have abundant opportunity for clinical observation and instruction; you will lose no time in going from the hospital to your class-rooms; and, if during the day, anything of interest or importance should occur in the wards, which it would be for your advantage to see, a message can be sent in a few minutes to the University, and, at the close of your lecture-hour, you can go down to the hospital. I think it very likely that we shall adopt the plan of having two or three of the dressers alternately on duty to assist the house-surgeons in receiving and attending to the accident and emergency cases. In fact, we are now in a position to utilise to the utmost the facilities afforded by the proximity of the hospital."

Thus it appears that everything which experience and surgical capacity can do in the way of oral instruction will be done for the students, and that the limited number who can be accommodated as dressers will have some opportunity of doing something for themselves; but the very perfection of the plan for instruction shows the prevalent weakness of the surgical tuition of the day. Students flock more and more to a few favourite centres, and there is not, and cannot be, enough hospital material to afford even the tithe of them anything like adequate opportunities for doing things for themselves. In Edinburgh, it is said there are eight hundred students; at some of our great London schools attached to hospitals, the number of the beds is less than that of the students. How is it possible for men to dress, examine, and attend to cases for themselves under such circumstances?

The observations which Dr. Buchanan makes on various parts of surgery in which improvements have been introduced in modern times are both interesting in themselves, and show how large a share he has himself had in introducing or perfecting those improvements. Thus we learn (page 16) that Dr. Buchanan was the first person in Scotland on whom (he being then a first year's student) anæsthesia was produced by sulphuric ether; and in connection with this topic he relates a striking instance (page 17), in which a patient of his, on whom he was to have operated, fell down dead suddenly at the exact time fixed for the operation, which had been accidentally postponed—another illustration, in addition to some previously recorded, showing that some at least of the deaths attributed to chloroform may have been natural deaths accidentally coinciding with the administration of the anæsthetic. On page 25, we learn that the method of inflating the tympanum through the Eustachian tube, which the profession owes to Politzer of Vienna, who published it in 1862, had been discovered and practised by Dr. Buchanan two years previously, though not published. In tracheotomy for croup, Dr. Buchanan's services to surgery have been fully recognised; and at page 19 we have the following summary of his experience. "I have now operated more than forty times, and saved over one-third of the patients; and, when it is remembered that, in every case, medical treatment had proved of no avail, and death from suffocation was imminent, it must be conceded the results have been most gratifying." In lithotrity, again, Dr. Buchanan appears to have been active, though we are certainly surprised to hear that he only operated for the first time in 1866 (and apparently the operation was then a novelty in Scotland), and that all he can say about its use even at the present day is, "that others are adopting it in preference to lithotomy in suitable cases". No doubt this tardy adoption of a great advance in modern surgery is due to the opposition of Mr. Syme to any modification of the treatment of stone by lateral lithotomy. At the same time, Dr. Buchanan speaks of his namesake's operation with the rectangular staff as a great advance on the old operation, which is by no means the verdict of southern surgeons.

We can only find space for one more extract, referring to an operation less known than perhaps it deserves to be.

"Cancer of the tongue most frequently begins at the side, caused by friction against a broken tooth, or the irritation produced by smoking a short pipe. Its progress is gradually to creep backwards, but it rarely crosses to the other side till it has invaded almost the whole of that in which it began. A case of this disease was admitted under my care in the Infirmary in May 1865, which gave me the opportunity of putting my idea into execution. I followed the first steps of Mr. Syme's proceeding. I then cleft the tongue from the tip to the hyoid bone, and removed the whole of the diseased half by a lateral cut. Examination of the excised half showed that my knife had gone quite beyond the disease. The patient made a good recovery, and is alive and well at the present day in Lochranza, in Arran; she is known to almost every one on the island. I consider that the plan of removing the lateral affected half, instead of the whole organ, which I have now frequently performed, is not only free from danger, but promises most satisfactory results."

In conclusion, we would say, that the whole address is well worth the study of clinical teachers, as embodying a very careful and efficient scheme of tuition. If we have thought it our duty to call attention to some of the defects of such tuition, it has been in no carping spirit, and certainly in no spirit of disrespect to Dr. Buchanan, who, we have no doubt, will carry out his work as successfully as the crowded condition of his school will permit.

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### THE ELEMENTS OF EMBRYOLOGY. By M. FOSTER, M.A., M.D., F.R.S., Fellow of Trinity College, Cambridge, and F. M. BALFOUR, B.A., Fellow of Trinity College, Cambridge. London: Macmillan. 1874.

THIS is the first instalment of a work which the authors propose to make a somewhat comprehensive account of the developmental phenomena of the animal kingdom. It contains a very detailed exposition of the structure of the embryo of the common fowl, from its earliest to its latest stages. The work is characterised by its thorough originality, and by the absolutely practical use to which its authors clearly intend that it shall be applied. Both of them have, as we know, most carefully followed the steps in the development of the chick by the application of the most approved methods of staining and section-cutting; the subject-matter is, therefore, one with which they are thoroughly familiar, and, when they discuss or quote the opinions of Remak, His, Delacher, and Götte, it is not as mere compilers, but as competent critics—themselves contributors to the stock of embryological observations. This feature seems to us really to mark out Messrs. FOSTER'S and BALFOUR'S book from among the crowd of manuals and treatises on various sciences, which too often are the production of persons who are dexterous as *précis* writers, but have no living knowledge of the subject which they treat. Further, as to our second point: this book is not written to air the opinions, however valuable, of its authors among a select circle of embryologists, nor prepared solely to enlarge the scientific reputation of either of them. It has a far more valuable and worthy object. It is a practical guide for students; it may be placed n the hand of any tolerably well instructed second-year's man in a London school, or in our universities, with the certainty that, if the ordinary appliances of a histological laboratory be at his disposal, and f he follow the instructions and master the discussions here put forward, he cannot fail, by the expenditure of a very moderate amount of ime and industry, to obtain a really solid knowledge of the modes of hought and the modes of experiment which belong to the science of mbryology—a science which all biologists admit to be of first-rate importance, and of which, we must say, very few indeed in this country have any true first-hand knowledge.

In Chapter 1, the facts as to the structure of the hen's egg when laid, nd its earlier history, from the time of its ripening in the ovary, are given, including the impregnation, yelk-cleavage, and first formation of he germinal disc. Then follows, in the second chapter, a brief summary of the whole history of incubation; the story to be told is rapidly ketched in an "argument". The subsequent six chapters are each evoted to a minute account of the changes occurring on the first day, econd day, third day, and so on to the sixth, with which all the subequent period is merged, since by this time the various organs have efinitely taken up their positions and adult relations. In the last hapter, we have a special account of the development of the skull. t is calculated to induce the young student to make the chick his introduction to that wonderful fascination of cranial morphology which has measured the strength, as it has elicited the best work, of successive generations of philosophical zoologists—Goethe and Oken, Owen and Carns, Huxley and Gegenbaur.

Without disparaging in the smallest degree the excellently clear descriptions of the text, we may say that, next to the seventy-one woodcuts, executed under constant supervision, and at no small expenditure of care on the authors' part, we value the Appendix, containing "Practical Instructions for studying the Development of the Chick". The recipes are as precise as those of a cookery-book, and are evidently meant to be put in practice in a straightforward and unpretentious way. One caution or word of advice we would add to what our authors have here so well said. He who will study the embryology of any organism must provide himself with two things, which may not at first seem necessary, and must use them in combination. The first thing is a practically unlimited supply of eggs at any desired stage of development; the second is time, free from all other engagements. These two things, brought into co-operation by large patience, make an embryologist.

We trust that this book will bear the fruit for which its authors look. It should greatly facilitate, wherever the English language is read, the study of development; it may be expected to bring into life numberless young embryologists, and to raise the nucleus of an English army of workers which shall fairly compete for honours with the German and Russian hosts now active and productive in that all-important study. It is, perhaps, worth pointing out, that this book is an exemplification of what is called the "practical spirit" of the English. There is no work of the kind in any continental language, and even the German student who wants a judicious statement of the facts of the chick's development, with directions to enable him to verify or reject the statements made, must turn to the "elements" of Messrs. Foster and Balfour.

One thing is urgently needed in connection with this book, and might readily be supplied by either author; it is a synonymy and glossary, carefully drawn up, so as to show what terms used by various German authors during the progress of the study have received identical or partially identical significations, and what may be the English equivalents adopted in the present volume.

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### SMALL-POX. By J. SUMMERFIELD CONRAD, M.D., Resident Physician at the Marine Hospital, and Professor of the Theory and Practice of Surgery, Washington University, Baltimore.

THE pamphlet which Dr. CONRAD has sent us is the result of experience gained during an epidemic of small-pox in Baltimore in the years 1871, 1872, and 1873. The total number of cases that came under his observation was 1246. Some of these presented appearances which, in the author's opinion, rendered them inadmissible into any of the classes into which small-pox is usually divided by most English writers on the subject, and he, therefore, describes them under a new class, to wit, "flat variola". These are cases in which the duration of life is about seven days, in which the rash is discrete, in which the papules become rapidly flat and umbilicated, showing in their centre a black spot at an unusually early period. A very characteristic feature in these cases is the absence of delirium. Dr. Conrad states that he can find no description of them by English authors, and accounts for this by observing that nearly all that came under his notice were among negroes, and not among whites. It appears to us, however, that he is simply describing a class of cases which were common enough in England during the last epidemic; cases usually included under malignant small-pox, and by some writers separated from the worst of all forms of this disease; viz., that which is characterised by an absence of vesicle, and by the presence of hæmorrhage in the skin, beneath the conjunctiva, and from the mucous tracts.

The mortality shown in Dr. Conrad's tables is very heavy, amounting to 42 per cent. of all the cases treated. Even when we find that, of the 1246 patients, 250 only had any satisfactory evidence of vaccination, it leaves a high death-rate. It is, however, interesting to observe that, among the properly vaccinated, the mortality was only 2 per cent., while among the unvaccinated 53 per cent. died. There was not a single death in the whole number treated where the patient had a good mark from vaccination done after puberty.

Dr. Conrad regrets that the different modes of treatment he adopted were attended with unsatisfactory results, but inclines to the belief that the internal administration of vinegar had some power in modifying the eruption. We may, perhaps, trace its beneficial effects to the fact, that it was used at the latter end of the epidemic, when the cases would be less severe and the mortality smaller than at its commencement.

# REPORTS OF SOCIETIES.

## PATHOLOGICAL SOCIETY OF LONDON.

Tuesday, December 1st, 1874.

Sir W. Jenner, Bart., K.C.B., M.D., President, in the Chair.

*Chondroma of the Lacrymal Gland.*—Mr. Butlin showed a chondroma of the lacrymal gland. It had been removed by Mr. Vernon from a woman 28 years of age. It had been growing nine years, and five years ago a small portion of it had been removed. The eye protruded downwards and forwards, and the vision was impaired. An incision was made through the upper eyelid, and the tumour shelled out readily. The eye went back into its place. The vision is good, and there is no dryness of the eye. In histological structure the tumour was cartilaginous, and contained various cells, round and stellate. Trabeculæ ran through it, containing remnants of the original structure of the gland.—The President asked if there were tears still.—Mr. Hulke said that the removal of these tumours did not interfere with the secretion. In two cases he had found dribbling of tears to be the consequence.

*Osteoma of the Upper Jaw.*—Mr. Butlin showed an osteoma of the superior maxilla. It was removed by Mr. Eddowes of Stamford from a man 39 years of age, who had been knocked down by a wooden bottle eighteen years ago. A hard swelling appeared at the seat of the injury. The left eye was pushed upwards and forwards by the growth. There was another osteoma of the alveolar process. On September 11th, he removed the left superior maxilla, and on the 30th, made a flap from the eyelid. Photographs were exhibited. The structure of the tumour was that of ordinary exostosis. The interest of this case lay in the long duration of the growth.—Mr. Christopher Heath asked if the hard part of the tumour had been microscopically examined. He thought it possible that the hard part might consist of odontine, or tooth-tissue.—Mr. Butlin answered that the tumour was not yet in a fit condition for the hard part to be subjected to microscopical examination.

*Tumour of the Pia Mater.*—Dr. Cayley exhibited a tumour of the cerebral pia mater. It was found in a woman who was a patient at the Middlesex Hospital. She had hemiplegia, with imperfect articulation. She had also œdema and albuminuria, with severe headache. She died in a few days. On the *post mortem* examination, a tumour of the size of a small orange was found near the corpus callosum. On the right side, a nodule protruded into the right hemisphere. It was loosely attached, and came away readily. The tumour was firm, yellowish-white in colour, and resembled brain-matter. On microscopic examination, it was found to consist of round and oval cells about the size of blood-corpuscles. A microscopic section was exhibited.

*Popliteal Aneurism.*—Mr. Hulke brought forward a case of popliteal aneurism cured by pressure. It had occurred in a short fat man, who presented himself at the Middlesex Hospital in April last with an aneurism in his ham about the size of an orange. By means of compression, the aneurism was solidified in a fortnight. A fortnight ago, the man died from an aortic aneurism, which ruptured into the pericardium. The aorta was much dilated.—In answer to a question from Mr. Howard Marsh, as to what method of compression was used in this case, Mr. Hulke said two tourniquets were used, one above the other below the tumour, and they were only relaxed at intervals.—The President asked what was the patient's age, and if there were only one aortic aneurism.—Mr. Hulke said that the man was 44 years of age; the other question he could not answer, as the necropsy was not made by him.

*Excision of the Hip and Elbow.*—Mr. W. Adams showed parts after resection of the hip- and elbow-joints. Three specimens of hip-cases were exhibited. The first was a case of caries and necrosis, in a girl aged 14, in which the head of the femur was destroyed. She had been ill seven years. The acetabulum was almost normal. The result was good. The next case was not so satisfactory. Here the head of the femur was not much affected; but the acetabulum was much diseased, and contained a sequestrum. The patient, a female aged 17, died ultimately of pelvic abscess, together with disease of the lungs and kidneys. The third well illustrated primary necrosis of the head of the femur, which contained several sequestra, one a large one. The pelvis was not much implicated. The patient went away improved. This series showed how the ultimate results of operation were associated with the seat and locality of the disease. Then followed a specimen from an elbow-excision. The patient was underfed and overworked in a foreign school, and had suffered for two years from disease in this joint. Good and perfect union followed the operation.—Mr. Howard Marsh said that Mr. Adams had not dealt with the most interesting part of the question. Opinions were divided on the matter of excision of the hip; and large returns were not yet made. The cases were very difficult to follow. Limbs often remained useless.—Mr. Carr Jackson said that there was frequently an atrophic condition of the bone at the point of section in these cases. A patient of his, a man aged 21, did well after an excision at the hip; but after some months, secondary abscesses formed, and he amputated at what had been the hip. The patient made a good recovery, but ultimately died of phthisis. He thought that atrophy often interfered with the utility of the limb, but that the operation was often performed in order to save life rather than to attempt to secure an useful limb.—Mr. C. Heath said that he had seen some cases which had healed perfectly. When there was atrophy of the femur, they could not be called successful cases. The bone was very thin, on section, in cases which were ultimately amputated. Where there was osteomyelitis, amputation at the hip was to be preferred to excision, if the object were merely to save life, and especially if the limb were useless after excision.—The specimen was referred to the Morbid Growths Committee.

*Aneurism of the Arch of the Aorta.*—Dr. Dowse exhibited an aneurism of the arch of the aorta, which he removed from a man aged 31, who was under his care in the Central London Sick Asylum at Highgate. The clinical signs and symptoms were hæmoptysis, angina, urgent dyspnœa, and dysphagia, but no dysphonia. There was dulness upon percussion over a widely increased cardiac area, with a well marked systolic thrill, felt upon palpation. A rough systolic grind was heard over all the valves, but more particularly over the arch of the aorta: there was also a diastolic aortic murmur. Upon opening the thorax, the pericardium was found to be adherent by old organisations to an ill-shaped mass, caused by a very considerable enlargement of the aorta, which took a course to the right, and in front of the right auricle. The aorta was completely changed by atheromatous disease, and the sac of the aneurism was formed by great thickening of the tunica adventitia. The valves were for the most part healthy, and the heart was neither markedly dilated nor hypertrophied.—Dr. Dowse also exhibited another aneurism of the arch of the aorta, which caused the patient's death by rupture into the pericardium. It was removed from a woman aged 31, who was admitted into the Central London Sick Asylum, Highgate, on the 5th of May, and died on the following day. During life, a pulsating tumour, of the size of an orange, was seen occupying the right half manubrium of the sternum. The clinical features of the case were wanting on account of the patient's sudden death. At the *post mortem* examination a large aneurism was found, which involved the ascending and transverse portions of the arch of the aorta. It was essentially sacciform in outline, and free from any fibrinous deposit in its true cavity. At what might be considered the upper wall of the arch a false aneurism commenced, extending superiorly to the top of the sternum, and for a considerable distance on each side. In this portion, formed by the outer coat of the artery, was a large mass of laminated fibrine, about the size of a cricket-ball, flattened from before backward. This blood-tumour was non-adherent to the sac, except at its upper part, so that the blood circulated freely around it.—Mr. Butlin said that the patient was once in St. Bartholomew's Hospital, and was kept on Tufnell's treatment for five months. During the first month there was no change, but after six weeks the aneurism grew less and harder, and seemed in a fair way to do well. The patient, however, one day said that she had had enough of starvation, and left the hospital. He would like to know how long after this it was that she came under Dr. Dowse's notice.—Dr. Dowse could not tell. The sac was well filled with fibrine, and there was a free channel for the blood-current.—Dr. Cayley said it was not clear to him what the patient died of. Had there been rupture into the pericardium?—Dr. Douglas Powell made a remark as to the occurrence of hypertrophy of the left ventricle in aortic aneurism. In his experience he had seen little of it, and thought it was not essential.—Mr. Myers said that he had found hypertrophy of the left ventricle always present in aortic aneurism in soldiers. The first specimen he thought aortic rather than cardiac aneurism. In cases of large aneurisms of the ascending aorta, diastolic *bruits* were found.—The President said the name of the first specimen was a mistake: it was an aneurism of the ascending aorta. He thought that hypertrophy of the left ventricle was not always found in aortic aneurism. In this respect his experience did not coincide with that of Dr. Myers. Hypertrophy was found in aneurisms where the aortic orifice was diminished In his opinion, the hypertrophy was due rather to the general arteria condition than to the aneurism.

*Rupture of the Trachea.*—Mr. Godlee exhibited a specimen of rupture of the trachea. It arose from an accident. The boy, seven year old, was run over by a cart-wheel, which also broke some of his ribs At the *post mortem* examination, the right pleura was found to hav many old adhesions. The rupture took place about an inch above th bifurcation of the bronchi.—The PRESIDENT asked if there had been any cough.—Mr. GODLEE said the boy died too soon for them to observe that, or to make a physical examination.—Mr. HOWARD MARSH said that a case of rupture of the left bronchus had recently been brought into St. Bartholomew's Hospital. The pleura was full of air. Mr. Thos. Smith punctured the thoracic wall, and a good current of air followed, giving the patient much relief. Death took place ten days afterwards. In this case there was also cutaneous emphysema.

*Ovarian Cyst.*—Mr. THORNTON showed an ovarian cyst which had been removed at the Samaritan Hospital. It was taken from a married woman aged 23, who had had no children. At first, it was thought to be an unilocular cyst; but Mr. Spencer Wells had seen it, and thought it to consist of several cysts. It was too large for a single cyst. The operation presented no difficulties; the fluid was watery, and the cyst-walls were easily removed. The ovary was so close that it had to be removed with the cyst. There was found one large cyst, with a number of smaller ones. Fibrous trabeculæ often project into an unilocular tumour, and create the impression of the cyst being multilocular. Large vessels ramified over the tumour, but the arteries were not distributed on the plan of ovarian arteries. The ovary was enlarged, and the hylus was spread out over the base of the tumour. When an ovum was encapsuled in the broad ligament, an unilocular cyst resulted.

*Calculi from Female Bladder.*—Mr. CHRISTOPHER HEATH showed three calculi from the female bladder. They were from three different women. He had removed them by incision through the vagina. The first was one ounce in weight. It had three nuclei, which were massed together by phosphates. They had formed in a pouch in the bladder, and the symptoms came on after they were dislodged. The second was one ounce and a half in weight: of this no section had been made. The third was part of a stone: much phosphatic matter was broken off in removal. The first and third cases did well. In the second case, the phosphatic urine prevented the wound from healing by first intention. He preferred a free incision, as in small incisions the edges became bruised and did not heal well. He would not suggest vaginal incisions for young patients, but in adults with capacious vaginæ it was the best plan.

## MEDICAL SOCIETY OF LONDON.

MONDAY, NOVEMBER 30TH, 1874.

VICTOR DE MÉRIC, F.R.C.S., President, in the Chair.

*Dislocation of Patella.*—Mr. J. ASTLEY BLOXAM exhibited a boy, ten years old, having a dislocation of the patella, which had existed five years. There was no pain; only a slight feeling of weakness. The dislocation occurred every time the knee was flexed, reduction taking place with extension. The patient's family was generally affected with rickets.—Mr. WM. ADAMS remarked that the case was one of dislocation of the patella, accompanied with only slight knock-knee; this lesion being generally associated with a marked degree of knock-knee. Dislocation of the patella seldom caused synovitis among children; it was the result of a loose condition of the ligaments and the surrounding tissues. He remembered an instance of a young gentleman who had both patellæ dislocated. He recommended the knees to be kept extended in leather splints for one or two years; the patient entirely recovered the use of his limbs.—Mr. DAVY knew no cases so difficult to manage as these. He related a case of a man, aged 40, on whom a splint was used for a whole year, and on its removal the deformity returned as badly as ever. Mr. Davy considered that some mode of appliance by which the action of opposing muscles could be equally balanced, was highly desirable.

*Cystic Sarcoma of the Neck.*—Mr. BLOXAM exhibited a woman, from whom he had removed the zygoma and styloid process in the extirpation of a cystic sarcoma. Nine years previously, Mr. Hulke had excised half the lower jaw for the same disease. During the operation, Mr. Bloxam had to tie the external carotid artery and the internal jugular vein, both of which were divided. He pointed out the peculiarity of the growth returning after such a lapse of time.—Mr. LEIBREICH remarked that the want of seclusion of the eye observable in this case was due to two causes—(1) the destruction of the seventh nerve, and the orbicularis muscle, the eye could only be protected by turning it upwards; (2) the destruction of the fifth nerve, causing loss of sensation of the conjunction, followed by corneitis and ulceration. There was no doubt that cataract had formed. He considered that the eye should be completely closed by stitches, forming an artificial symblepharon as a means to prevent further destructive changes.—Mr. BLOXAM said cataract had formed, and extensive paralysis of the fifth and seventh nerve had taken place since the last operation.

*Excision of the Knee-Joint.*—Mr. HENRY SMITH showed a specimen of excision of the knee-joint, remarkable for the fact that when first admitted the patient seemed to have little or nothing the matter with him; after awhile, he complained of great pain and starting of the limb, and Mr. Smith diagnosed ulceration of the cartilages of the knee-joint.

*Excision of the Knee-Joint.*—Mr. R. DAVY narrated seven cases of excision of the knee-joint operated on by him in the Westminster Hospital. In cases No. 4 and 7, sinuses existed. Necessarily, shortening of the limb occurred in every case; but all the patients could walk with the aid of a high-heeled boot, and the improvement in health and the reduction in deformity had been marked. The average stay in hospital of the patients was eighty-two days, contrasting favourably with the two hundred and six days' stay of other excision cases (*vide* Holmes's *System of Surgery*, vol. iii, page 822). The author found Esmarch's bandage a great boon in these operations. The transverse incision over the line of articulation was strongly enforced. The ends of the femur and tibia projecting (on forced flexion) like the muzzle of a double-barrelled gun, especial care was given to the posterior ligament of the knee-joint, as it acted as a hinge to the two bones. The author sliced off the ends of the bones until accuracy of adaptation resulted in a straight line. Sutures of stout silver wire are used, restrained by large shot or lead tubes. No dressings whatever were requisite, but to brush the wound over with weak solution of Condy's fluid or carbolic acid, and attend to the temperature of the ward and enforce surrounding cleanliness. The cases were illustrated by four of the children who were present; also by casts, splints, instruments, etc. Mr. Davy attributed the success which had attended the results to Esmarch's bloodless plan as adopted at the Westminster Hospital, to the simplicity of the after-treatment, and to the stern enforcement of maintained rest.

## CAMBRIDGE PHILOSOPHICAL SOCIETY.

MONDAY, NOVEMBER 30TH, 1874.

G. M. HUMPHRY, M.D., F.R.S., in the Chair.

*Right-Handedness.*—A paper on Lopsided Generations, or Right-handedness, by W. AINSLIE HOLLIS, M.D., was read by Professor HUMPHRY, in the absence of Dr. Hollis. The antiquity and universality of the preferential use of the right hand was shown by reference to the Biblical and other records, and to Egyptian, Assyrian, and other monuments, as well as to various members of the Semitic and Aryan groups of languages. All modern nations, with one or two questionable exceptions, are right-handed, and have words to signify "left-handed" corresponding with the French "gauche" and the Italian "mancino". It appears to be a peculiarity of the human race, even the apes using the right and left limbs indiscriminately, and is associated with the higher and more elaborate muscular actions of the limbs in man; and, there being no other structural difference between man and the lower animals to account for it, the cause of the peculiarity must be sought in that part of the system, viz., the brain, in which he excels other animals. The left side of the brain was stated to be the larger in man; and it, through decussation of the nerve-fibres, presides over the right side of the body, and seems from recent observations also to preside over the complex and delicate muscular actions upon which articulation depends. The preponderance of the left side of the brain—the lopsidedness of the organ—thus engendered by the preferential use of the right hand, by the movements in speech, and by much of subsidiary brain-work directly associated with speech, is not without its evil; and instances were adduced, including those of Johnson and Swift, in which the left side of the brain had suffered and paralysis of the right side of the body had been induced, apparently, as a consequence of this overwork. The inference was drawn that such result might have been avoided had a more equal duty been required of the two sides of the brain by a more equal use of the two limbs; and in these days of high pressure it is of especial importance to attend to such points, and by more equal education of the two sides of the body, to lead to a fairer distribution of work between the cerebral hemispheres.—Professor PAGET thought that more evidence should be adduced respecting the greater size of the left hemisphere of the brain, and of the statement that in cases of aphasia the left side of the brain is likely to be affected in right-handed persons, whereas in the left-handed it is the right side of the brain, which is more likely to be found diseased.—Mr. ANNINGSON questioned whether lopsidedness was really a part of right-handedness, forasmuch as the left hand is employed not only as a helpmate to the right, but for many purposes in which the right hand is less efficacious.—Mr. CARVER thought that observations in the nursery showed that right-handedness was acquired rather than innate; children having commonly a propensity to use the left hand, which it required some difficulty to counteract.—Professor HUMPHRY said he believed an advantage gained by preferential use of the right hand was a greater aptness and precision of movement requisite for delicate manipulations than could have been attained had both limbs been equally employed. Left-handed persons, being prevented by social custom from concentrating their attention on the left hand and being compelled to give a frequent preference to the right, are at some disadvantage in this respect. He could see no anatomical reason for the preference of the right limb, the slight advantage in circulation to the right arm through the innominate artery and vein applying, in nearly equal degree, to the right side of the brain. He agreed with Mr. Carver that right-handedness was much a matter of education, and followed from the multifarious single-handed offices which are associated with the higher mental endowments.

*The Omentum in Man and Vertebrates.*—Dr. WILSON made a communication on the disposition of the peritoneum in man and other vertebrata. He gave a brief account from his own dissections of the anatomy of the peritoneum, and more particularly of its omental sac in man and many mammals, reptiles, amphibians and fishes. He showed that in many of these the omental sac is divided into two parts—a gastro-hepatic and a gastro-colic part—by a constriction corresponding with the upper border of the stomach. This he first observed in the dissection of a narwhal, and had found it marked to a variable extent in man, most evident in a young hippopotamus, distinct in the rat and in the human fœtus about the third month. In reptiles and amphibians, the omentum does not extend below the level of the stomach. There is, therefore, only a more or less complete representative of the gastro-hepatic part of the omental pouch of man. One or more of the hepatic lobes usually project into the gastro-hepatic part of the sac. In man, it is the lobulus Spigelii. He described the relation of the spleen to the omental pouch, and stated that his observations were, on the whole, in accordance with the old and commonly received view regarding the mode in which the colon is embraced by the two recurrent layers of the omentum which pass on to form the transverse meso-colon.—Professor HUMPHRY remarked on the thorough manner in which Dr. Wilson had investigated the anatomy of the omentum, which was of much interest with reference to the development of parts. The increasing size of the omental pouch in the higher animals and in man must also be taken in connection with the recent investigations of Dr. Klein, respecting the relations of the peritoneal cavity to the lymphatic system.

## MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

WEDNESDAY, DECEMBER 2ND, 1874.

RUTHERFORD HALDANE, M.D., President, in the Chair.

*Case Simulating Inguinal Hernia.*—Mr. ANNANDALE showed a boy, aged 8, whose case had been supposed to be one of double inguinal hernia, along with distension of the abdomen. There was an impulse on coughing, and the scrotal tumours could be returned into the abdomen. By puncturing one tunica vaginalis with a trocar, about eighteen ounces of a serous fluid were withdrawn; the fluid came from the tunica vaginalis of the other side and from the abdominal cavity as well, proving that all three cavities were in communication with each other. The urine was scanty, and diuretics were of little avail. Mr. Annandale believed the case to be one of dropsy.

*Excision of the Hip.*—Mr. ANNANDALE showed a girl, the head of whose femur he had excised for hip-disease. The patient seemed to be making a good recovery, though the limb was not yet fit to use in walking.

*Separation of the Heart.*—Dr. LITTLEJOHN showed a heart, which, in a railway accident, had been severed at the base. The spinal column was also crushed, yet the skin over the injured parts was unbroken.

*Pleuropneumonia in an Infant.*—Dr. LITTLEJOHN showed the lungs from a child, aged three days. It was illegitimate, and had died suddenly. There was marked evidence of acute pleuropneumonia, and the greater part was condensed; yet the entire thoracic viscera floated freely in water. The infarctus of the kidney with uric acid was well marked, and exhibited to the Society.

*Epithelioma of the Lower Lip.*—Mr. ANNANDALE showed the parts removed in a case of epithelioma of the lower lip and jaw. He had divided the soft parts freely, and then divided the jaw at the symphysis, and finding the whole thickness of the jaw was not affected, he had removed merely the outer layer of the bone; he had then brought the edges of bone together again with wire sutures. Unfortunately, the patient died of bronchitis, but the wound was looking well.

*Calculus of Female Bladder.*—Mr. ANNANDALE showed a calculus, shaped like a pencil, which he had removed from the female bladder by forceps after dilating the urethra. It had no nucleus.

*Modification of Catheter.*—Mr. ANNANDALE showed a catheter with a small piece of India-rubber tubing fastened to its end by string, the ends of the string being knotted so as to act instead of eyelet-holes. This is to be used in cases where it is necessary to tie in a catheter, which may not be provided with the ordinary eyelets. He believed it to be an original idea.—Dr. P. H. WATSON remarked that he had for long been in the habit of employing the mode of tying in a gum-elastic catheter described by Mr. Annandale. In addition to the use of this plan, he could recommend that the India-rubber tube should be long enough to pass over the bedside, so as to hang over a chamber-pot, with a few coils on the bed, so as to admit of movement on the patient's part. He also fixed a clip on the tube, by which the patient could relieve himself without rising or altering his position.

*Excision of Bones of Foot.*—Dr. WATSON showed the foot of a patient, from whom, in March 1874, he had removed the scaphoid, cuboid, three cuneiform bones, and base of the metatarsals, to illustrate the amount and kind of consolidation which occurs after this operation.

*Instruments for Internal Urethrotomy.*—Dr. WATSON showed two urethrotomes for internal urethrotomy, which he had recently had constructed in accordance with designs of his own. The instruments were essentially the urethra staff for external urethrotomy as employed by Mr. Syme, with a concealed knife of the size of the common tenotomy-knife closing into the thin portion of the staff and hinged at its base. A screw in the handle protruded the knife after the instrument was introduced, so that the withdrawal of the instrument divided the stricture from behind forwards. The first instrument, which was as large as a No. 4 catheter, had been constructed for him by M. Mathieu of Paris; the second, of smaller calibre, by Mr. Young of Edinburgh.

*Ovarian Tumour.*—Dr. THOMAS KEITH showed an ovarian tumour, which he had removed from a patient in the fifth month of pregnancy. It had been frequently tapped before; but the occurrence of pregnancy and the fragility of its walls led him to operate. He stated that he had now performed ovariotomy one hundred and ninety times, with a mortality during the last three years of less than 10 per cent.

*Lodgment of False Teeth in Œsophagus.*—Dr. SINCLAIR showed the tongue, pharynx, and part of the œsophagus of a patient, who had accidentally swallowed a set of three false teeth. They had lodged in the upper half of the œsophagus; and, after some manipulation, Dr. Sinclair extracted them. Fourteen hours afterwards, the patient died from severe hæmorrhage. The point from which the bleeding came was not discovered; but there was extensive laceration of the left arytæno-epiglottidean fold.

*Cases of Suffocation.*—Dr. LITTLEJOHN read an account of two cases of suffocation under suspicious circumstances, of which the following is an abstract. The body of a man was found lying on the public street about 1 A.M.; and it was soon ascertained that he had either fallen or been thrown from a window on the third storey, which was open. No light was seen in the room. On the police going upstairs, they found the occupants of the house in bed and unconscious of anything having occurred. A lodger was missing who slept in a bed-closet with a companion. This bed-closet communicated with the room, the window of which was open. The companion, on being roused, was confused, and stated that he knew nothing of what had become of deceased, and that both had retired to rest the previous night on good terms. An inspection of the room showed no disorder of the furniture, but several marks of blood close to the bed and on the floor between the bed and the window. In one of these lay a knife covered with blood. The glazed cover of the table was missing, and was found lying close to deceased in the street, while the looking-glass, which usually stood on the sill of the window, had been removed and placed on a chest against the wall. Deceased presented several wounds on the head; and at first it was supposed that he had been assaulted with the knife by his companion; and, to escape further violence, had leapt over the window. Dr. Joseph Bell, in the absence of Dr. Littlejohn, was summoned by the authorities to assist them in investigating this suspicious case. Dr Bell carefully examined the supposed assailant, and found some spots o blood on his hands, and also a large number of spots of blood on th pillow, bolster, and sheet. These spots were peculiar, and Dr. Bell a once suspected that they were not due to fresh drawn blood, but rathe to blood which had lodged in the air-passages, and had been violentl ejected by coughing or sneezing, and he regarded it as highly probabl that deceased was either phthisical and had been seized with hæmorrhag in the lungs, or else that an aneurism had burst into the throat or ai passages, and produced violent expulsive efforts; and that deceased, i his desire to get rid of the blood without soiling the furniture of th room, had sprung from bed, and, removing the looking-glass, had seize the table-cover to protect the muslin of the window sill. In order t vomit freely, deceased leant forward over the window, overbalance himself, and fell to the ground, bearing the slippery table-cover wi him. On dissection, deceased was found to have sustained fracture the skull and other severe internal injuries, such as a fall could alone account for. The wounds of the scalp were lacerated, and could not have been inflicted with the knife, which it was believed had fallen accidentally from the table into the blood when the table-cover was removed. What added to the interest of the case, was the fact that the accused (who was kept for some days in prison until all the circumstances were ascertained) had had a quarrel with deceased a few days previously, and had been requested by the landlady to leave. A reconciliation, however, had taken place, and ultimately deceased agreed to take the accused back again as his sleeping companion. The accused was a strong robust man, of quiet, rather sullen, temper; had been in Australia; and had recently been an inmate of a lunatic asylum. The second case was one of sudden death, where a wife was found dead beside her husband, who was unconscious of any movement or struggle. The previous day she had complained of sore-throat, and late at night some pus had been discharged, to her great relief. A doctor saw her shortly after, and prescribed some simple remedies. He was naturally surprised when he was summoned at seven o'clock next morning and found her dead. On dissection, both tonsils were found swollen and infiltrated with pus. The trachea was filled with purulent matter, and the lungs and heart presented the usual appearances characteristic of obstructed respiration. Dr. Littlejohn, in conclusion, contrasted these cases, and showed how variable were the symptoms in cases of asphyxia, according as the asphyxiating agent acted quickly or slowly.

*Case presenting Symptoms of Renal Calculus.*—Mr. ANNANDALE related a case, in which aggravated symptoms of renal calculus had been cured or relieved by an exploratory incision. No calculus had been discovered. [The report of this case was published in the JOURNAL of December 19th.]

## MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS IN IRELAND.

### WEDNESDAY, NOVEMBER 18, 1874.

JAMES F. DUNCAN, M.D., President, in the Chair.

*President's Address.*—The President delivered an inaugural address. The Public Health (Ireland) Act, 1874, he characterised as a measure which, if properly and effectively administered, was likely to prove one of the most beneficial pieces of legislation ever introduced into Ireland. The State had only recently concerned itself with the great subject of public health. From the present Act, he looked for climatic changes in many districts of the country; a marked improvement in the sanitary conditions of our cities and towns; a beneficial effect on the habits and morals of the people, and an elevating influence on the future prospects and position of the medical profession. It was possible that the Act might be rendered inoperative by the ignorance and apathy of some, or the open hostility of others; but the danger was to be averted by the members of the medical profession throwing their energies heartily into the cause, giving a right tone to public opinion on the subject, and showing, as opportunity enabled them, the various important advantages—personal, social, moral, and commercial—that are sure to follow from proper care being taken of everything bearing on the health of the community. One of the greatest errors to be combated was the notion that sanitary measures were necessary only in times of threatened epidemics, or of the prevalence of the more dangerous zymotic diseases. Great delicacy and tact would be required in dealing with sanitation in the face of the prejudices of the lower orders, and even of the rate-paying classes. The President then considered at some length the text in the epistle of St. James, on which the "Peculiar People" rely in their treatment of the sick. He showed that the passage (St. James v, 14 and 15) was not to be interpreted as *prohibiting* the use of ordinary rational means to restore the sick, but that God addressed us as reasoning creatures, and took it for granted that ordinary means would be taken as a necessary condition to His answering prayer. As to the other point, "and the prayer of faith *shall* save him", this promise meant that, if it be for the sick man's good as well as for the Divine glory, God would restore him to health in answer to the prayers of His people, but not otherwise. The reduction of the question of the efficacy of prayer to a crucial test was as absurd and unphilosophical as it was unscriptural. The President, in the closing passages of his address, alluded to the retirement of Professor Apjohn from the chair of Chemistry in the University of Dublin.

*Cheyne-Stokes' Respiration.*—Dr. HAWTREY BENSON detailed a case in which this peculiar form of respiration had been a prominent symptom. The patient, a gentleman aged 45, a year ago had three sharp attacks of acute bronchitis. These were followed by repeated attacks of spasmodic asthma, and finally by a group of cerebral symptoms, including temporary loss of memory, mental confusion, giddiness, headache, thickness of speech, tingling sensations in the extremities, and incomplete left hemiplegia. The hypertrophied heart now commenced to fail, and the Cheyne-Stokes' respiration appeared. The phenomenon lasted twenty-seven days, until within a few hours of the patient's death. Unfortunately, there was no *post mortem* examination. —Dr. HENRY KENNEDY had arrived at the conclusion that this peculiar symptom was more or less connected with the nervous system generally, rather than with any particular organ in the chest. The change in the respiratory characters during sleep, the cerebral breathing in fever, and the variable respiration of hydrocephalus, were facts which pointed in the same direction.

## DUBLIN OBSTETRICAL SOCIETY.

### SATURDAY, NOVEMBER 21ST, 1874.

EVORY KENNEDY, M.D., President, in the Chair.

*Report of the Thirty-sixth Session.*—Dr. J. R. KIRKPATRICK, honorary secretary, read the annual report, from which it appeared that the number of members was now a hundred and sixty, including twelve honorary members. The financial statement was extremely satisfactory, for, whereas there was a small deficit at the beginning of the past session, there was now a balance in hand of £28 18s. 8d.—Dr. T. MORE MADDEN moved and Dr. GRIMSHAW seconded the adoption of the report. The motion was carried unanimously.

*President's Address.*—Dr. EVORY KENNEDY delivered an address, choosing for his subject "Biology, in its Relations to Disease". He pointed out how deplorable it was that men devoted to the exploration of science—especially the science of geology—should have their equanimity disturbed by considering the possible influences which the elucidation of truth might exercise upon particular schools of religious thought. God is a God of all truth, and shrinks from no exposition of His own works. The propounder is no part of the discovery, neither is his sect his creed. On the other hand, scientific men should not be induced to tread rashly upon sacred ground, or to provoke attacks upon the various sciences. Free investigation in nature and science may be regarded as the obvious duty of man. The influence exercised by the laws of evolution, and "natural selection", in resisting the decadence of the vital powers, formed the groundwork of the remainder of the President's address. The ill results in scrofula and gout arising from the neglect of hereditary selection, were next commented on. The concluding portion of the address contained several most interesting illustrations of the action of "ideagenous molecules" in the human brain, in accordance with Professor Huxley's statement, that "each sensory impression leaves behind a record in the structure of the brain, which is competent, under certain conditions, to reproduce, in a fainter condition, the state of consciousness which corresponds with that sensory impression; and that it is these ideagenous molecules which are the physical basis of memory". The President's illustrations went to show that each repetition of the sensient impression renders more permanent, and more easily summoned, the idea, until it becomes almost (so to speak) omnipresent. Lastly, the law of instinct might be explained by the application of the principle of hereditary influence, and in this field of investigation we were often aided by abnormal experience or diseased action.

*Election of Officers.*—The President announced that the following members have been chosen by ballot as officers of the society for the session 1874-75. *President:* Lombe Atthill, M.D. *Vice-Presidents:* Thomas Darby, F.R.C.S.I., and John Cronyn, F.R.C.S.I. *Committee:* Fleetwood Churchill, M.D., John Denham, M.D., George Johnston, M.D., George H. Kidd, M.D., Alfred H. McClintock, M.D. *Treasurer:* H. S. Halahan, L.K.Q.C.P. *Honorary Secretary:* J. Rutherford Kirkpatrick, M.B.

*Votes of Thanks.*—The chair having been taken by Dr. Atthill, the incoming president, a vote of thanks to Dr. Kennedy, the retiring president, was proposed by Dr. Kidd, seconded by Dr. Denham, and unanimously carried. Dr. Kennedy returned thanks. A vote of thanks to the visitors, moved by Dr. H. Kennedy, seconded by Dr. Mac Swiney, and carried, was responded to by the respective Presidents of the Colleges of Physicians and Surgeons, the Governor of the Apothecaries' Hall, and Mr. A. M. Sullivan, M.P. Several clergymen, including the Dean of the Chapel Royal, Dublin Castle, and the Dean of St. Patrick's Cathedral, were also among the visitors.

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AN examination of Surgeons in the Royal Navy, who are eligible and who may be desirous of qualifying for the rank of Staff-Surgeon (second-class), will be held at the Royal Naval Hospitals at Haslar and Plymouth on Thursday.

## BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1875.

SUBSCRIPTIONS to the Association for 1875 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

# BRITISH MEDICAL JOURNAL.

SATURDAY, JANUARY 2ND, 1875.

## REGISTRATION OF BIRTHS AND DEATHS.

ON January 1st came into operation the Registration Act of last session, which passed on August 7th. The law of registration is not very materially altered under the new Act; but it may be useful to notice a few of the modifications which have been made in the mutual obligations of the public, the registrar, medical men, coroners, and others more indirectly concerned in registration.

After January 1st, in the case of every child born alive, and of every death that occurs, it will be the duty of one of those persons who are specified as legal informants under the new Act to attend at the recognised office of the registrar, to give the necessary information respecting the birth or death, and to sign the register. Under the old Act, the registrar could be required to attend at the house in which the birth or death had taken place for the purpose of registering. Now, if an informant desire the attendance of the registrar at his house, or at the house in which the birth or death took place, for the purpose of registering, he must send a written requisition to that effect to the registrar, who, on attendance to register, will be entitled to a fee of one shilling. The number of legally qualified informants for both births and deaths is, under the new Act, considerably increased; and, in order to obviate as far as possible the hardship of informants having to travel long distances to attend at the registrar's office, the appointment of registration stations in districts of large area, at which the registrars will be obliged to attend at stated times, has been sanctioned and required. These stations, and the hours for the registrars' attendance thereat, have been proposed by the local registrars, approved by the superintendent registrars, and sanctioned by the Registrar-General. The arrangements as to these stations, and the times of the registrar's attendances thereat, will be locally published.

The registration of births is now for the first time made compulsory. An informant is bound, under a penalty of forty shillings, to give information of a birth, and to sign the register within forty-two days; and, after the expiration of that period, in case of non-registry, the registrar may, by notice in writing, require any of the persons constituted as qualified informants by the Act to attend personally at the registrar's office to register the birth. After the expiration of three months, and at any time within twelve months of the birth, it may be registered in the presence of the superintendent registrar, as well as of the registrar, both of whom will have to sign the entry. After the expiration of twelve months, no birth can be registered except on the written authority of the Registrar-General, the fact of such authority being entered in the register. These are, however, additional facilities for registration, as, under the old Acts, no entry of a birth could be made after six months from the date of the birth.

A provision is also made under the new Act which will afford considerable convenience to the public in registering births. In the case of a person whose duty it is to give information concerning a birth, and who moves out of the district in which the birth takes place previously to its registration, the information can be given to the registrar into whose district the informant has removed. The particulars relating to such births are to be entered upon forms provided for the purpose, attested by the registrar to whom the information is given, and then transmitted to the registrar of the district in which the birth occurred for entry in his birth register-book.

The new Act gives additional facilities for adding or altering the Christian name or names of a child after the child has been registered either with or without name. According to the Act lately in force, such alteration or addition could only be made within six months of registration, and on the production of a baptismal certificate. With regard, however, to children born after the 1st of January, the time wherein this alteration or addition of name can be effected is extended to twelve months, and registrars are authorised to register such alteration or addition on the production of a "certificate of naming", signed by "the father, mother, or guardian of the child, or other person procuring the name of the child to be given or altered", as well as on the production of the certificate of baptism, as formerly. This enables persons who do not practise the baptismal rite to add after registration, or to alter, the name of a child.

We may mention one more alteration which affects the birth-register. No mother of an illegitimate child born after the 1st of January can have the name of its putative father inserted in the register at her sole request; this information can only in future be inserted "at the joint request of the mother, and of the person acknowledging himself to be the father of such child, and such person shall, in such case, sign the register, together with the mother".

With regard to the registration of deaths under the old Act, it was more or less compulsory, as any minister who officiated at the burial of a person whose death was then unregistered incurred a penalty if he did not give notice of the fact to the registrar of the district in which the death occurred. Moreover, there is a very wide-spread popular impression that a body cannot be buried unless the death has been registered, and a certificate of registry produced to the officiating minister. The new Act will, however, impose upon the public, with regard to the registration of deaths as well as of births, much more definite responsibilities. As before mentioned, the number of persons legally qualified, and who may be required to give information of, and to register, deaths is largely increased. One of these persons must, within *five days* of the death, take one of the three following courses of action—either go to the registrar and give the necessary information, produce the medical certificate, and sign the register; or send to the registrar a written notice of the death, accompanied by the proper medical certificate; or send a written requisition to the registrar to attend at the house where the death has occurred, or at the residence of the informant, to register the death, in which case the registrar will be entitled to a fee of one shilling, as in the case of registering births under similar circumstances. When a written notice of a death, accompanied by a medical certificate, is received by a registrar, he is required to give a "certificate of notification of the death", which will as much entitle the officiating minister to bury the body as the production of a "certificate of registration": in these cases the actual registration of the death will have to be effected by one of the qualified informants within *fourteen days* of the death. This power of delaying the registration of a death for fourteen days appears to be fraught with objection from a sanitary and statistical point of view. If any considerable number of deaths be not registered until fourteen days after they have occurred, the weekly returns of registered deaths will lose much of their value to the health-officer and the statist; as, however, it will give the public almost as much trouble to obtain a notification from the registrar as to go and register the death, which must be done afterwards, we do not anticipate that any considerable delay will take place in the registration of deaths in consequence of this modification under the new Act. After the expiration of fourteen days, if a death be still unregistered, a registrar may issue a requisition, calling upon any duly qualified informant to attend at his office or station to give the necessary information and to sign the register. The penalty for not giving information in the first instance, or for not attending to such requisition, is forty shillings.

The regulations under the new Act as to the burial of still-born children are much more stringent than formerly, and will, doubtless, serve as a salutary check upon infanticide. Any person who wilfully buries, or causes to be buried as still-born, the body of any child who was born alive, incurs a penalty of £10. Moreover, the burial of a still-born child in any burial ground after the 1st January is forbidden, without the production either of a written certificate that such child was not born alive, signed by a registered medical practitioner who "was in attendance at the birth, or has examined the body of such child"; or a declaration, signed by a person who under the Act would have been legally qualified to have acted as informant at the registry of the birth, had the child been born alive, to the effect that the child was not born alive, and that "there was no registered medical practitioner present at the birth, or that his certificate cannot be obtained"; or, if there have been an inquest, an order from the coroner.

The new Act requires all registered medical practitioners to give a certificate of the cause of the death, according to "the best of their knowledge or belief", of any person upon whom they may have been in attendance during their last illness. This certificate must be signed and given to "some person required by this Act to give information concerning the death", and the refusal to give such certificate will render a registered medical practitioner liable to a penalty of forty shillings. As the new form of medical certificate was recently described in these columns, we need only again state here that it is entirely free from all the objections which have often been urged against the form lately in use. The name of the certifying medical practitioner will in future be entered in the death-register, which will not only add considerable value to the certification, but act as a check upon the issue of certificates by unqualified practitioners.

With regard to the registration of deaths, respecting which inquests have been held, the most useful modification made by the new Act is a clause which renders it incumbent on the coroner to send to the registrar a "certificate of the finding of the jury", commonly called a coroner's information paper, within five days of the conclusion of the inquest. This will in future prevent the frequent delay which has hitherto occurred in the registration of inquest cases. Coroners have in many instances been in the habit of forwarding their information papers to the registrars in batches, once in three months, which seriously interfered with the value of periodical returns of registered deaths, whether weekly or monthly.

The only other clause of the new Act which it is necessary or desirable here to mention, is the one which regulates the furnishing, for sanitary purposes, particulars relating to deaths registered. The Act says that "every registrar, when and as required by a sanitary authority, as defined by the Public Health Act (1872), shall transmit by post or otherwise a return certified under the hand of such registrar to be a true return of such of the particulars registered by him concerning any death as may be specified in the requisition of the sanitary authority". The Act goes on to specify that for such return the registrar "shall be entitled to a fee of twopence, and to a further fee of twopence for every death entered in such return, which fee shall be paid by the authority requiring the return". This clause will put an end to a very anomalous state of things as regards these returns of deaths to sanitary authorities. Registrars were not *bound* to furnish such returns at all under the old Act, and both the furnishing of the returns and the price to be paid for the service was a matter of private arrangement between the registrar and the sanitary authority. It is easy to imagine that the result was not in all cases satisfactory.

It is much to be regretted that the Act, so far as it related to the furnishing of these returns for sanitary purposes, was not made operative throughout the metropolitan area, which area was not dealt with by the Public Health Act (1872). In this way the difficulty which has been placed by the London vestries in the way of remunerating the metropolitan registrars for furnishing weekly returns of deaths for the use of medical officers of health, would have been obviated.

On the whole, the alterations and modifications in the law of registration which came into force on the 1st of January, although not of a sweeping character, and although not including some of the improvements which have from time to time been suggested and urged, may be regarded as satisfactory alike to the public and the registrar. Perhaps the most regrettable feature in the result of the new Act is, that no alteration has been made in the schedule of the birth and death registers, whereby additional facts, important alike to the interests of sanitary progress and State medicine, might have been recorded.

## STATE MEDICINE QUALIFICATIONS.

WE are being deluged with announcements of projects of examination on State Medicine and Public Health. Some of these examinations are to be conducted by universities, having the prescriptive right to grant degrees or certificates of qualification in any department of learning or science which can be taught or studied in an university. But it appears, that such examinations are also proposed by various licensing bodies, consisting solely of medical practitioners, each of which bodies, being a rival for the grant of medical diplomas, very naturally desires to add to its programme any and every subject which may induce its candidate licentiates to complete their preparation for office as well as for general practice. Thus, subjects which are by no means essential to the efficient and successful practice of any therapeutic branch of our art, are, it seems, to be introduced into the medical curriculum of each purely professional body.

Now, it is not to the point to argue that public and private medicine are inseparable, and that subjects of preventive and legal medicine can be successfully studied only by those who are thoroughly qualified in the therapeutic, as well as in the scientific principles, of curative medicine. All this may be granted, without claiming—as many of our practitioner friends claim—that no special qualification for public office shall be granted to any one, except as part of a general scheme of qualification to be required of all practitioners. Still less does it justify the ridiculous demand, that every one aspiring to public office shall accomplish, within the period legally required for the attainment of an ordinary qualification for practice, a knowledge of all those additional subjects which may be required for special public offices. Yet this is virtually the demand which every College of Physicians, every College of Surgeons, and every Society of Apothecaries or general practitioners, is about to make, and which some have already made.

To what extent these rival claims of competing licensing bodies may be supplied, or perhaps superseded, by any conjoint scheme, we do not pretend to say, nor can any of these bodies say, until the said conjoint scheme is completed and in operation.

The last novelty is an announcement of the Society of Apothecaries, that it is about to institute, of itself, examinations in Public Health, so that candidates passing these examinations may be enabled to offer evidence of their fitness to hold office, more valid than that of so-called "testimonials". Now, once admit that each licensing body may, by itself, accomplish everything which may be required by all of them jointly or separately; and we see no reason why the Society of Apothecaries, or any college of practitioners, should be excluded from the general competition for special qualifications; but, to admit so much, is to throw overboard the whole of the original work of the General Medical Council, and of our Committee, on a "State Medicine Qualification, and to allow that the desideratum may be safely left to the working of the ordinary political principle of demand and supply". The late efforts of the universities are not altogether open to criticisms, which are inevitable when the matter is taken up by individual medical corporations.

The report of our State Medicine Qualification Committee (see BRITISH MEDICAL JOURNAL, August 22nd, 1874) has not received from the educational leaders of the profession, we are sure, that consideration to which it was fairly entitled; and we hold that this Committee has a just ground of complaint. No properly selected deliberative body can be expected to devote, without some moral encouragement, earnest, laborious, and continuous efforts to the settlement of a question, which may be shelved by official indifference or prejudice, or may be frittered away by a kind of *reductio ad absurdum*, among a number of conflicting corporations.

We may have more to say about the recent proposals of the University of Cambridge; and there is also something pending in that of London, to which we may call attention.

## RAILWAY PATHOLOGY.

THE case of Maldon *v.* the Great Northern Railway Company is one of a class which is familiar to those engaged in railway cases. Great and continuing nervous disorder suggests to the pessimist the probability of local lesions destined to end in nervous paralysis. The absence of positive indications of such lesions, encourages the optimist to take a hopeful view. The real truth is, that neither side really understands the nature of the case; and they know it. We do not say that, in the present state of neurotic pathology, an adequate explanation is to be found by the most impartial critic. But we think that, were the "railway" element disregarded, the affinities of such cases to an important clinical group might be discovered. This comparison might, indeed we believe does, throw some light upon a confessedly dark diagnostic and therapeutical spot.

There is not a single symptom or sign in this, and the many similar cases, which does not appear in Dr. Golding Bird's category of those endured by persons suffering from oxaluria, with excess of urea in the urine. We are not concerned with the accuracy or adequacy of his theoretical explanation of this condition; all we contend for is, that such a condition of the urine is often to be found, in private practice, clinically associated with a group of symptoms such as it was admitted that Mr. Maldon presents. The combination of such symptoms, with the characteristic urine, has occurred on more than one occasion within our own knowledge in railway cases. We know that in such cases the patient, apart from any question of compensation, honestly entertains the most exaggerated apprehensions. He fears paralysis, insanity, consumption, etc. His medical attendant, too, should he be ignorant of his patient's real condition, may not be indisposed to fear the worst. But in private practice these apprehensions are not realised; nor are they in railway cases. Correct, though often tardy, recognition of the nature of the disorder is followed by appropriate treatment, and pretty certain often speedy cure. Unrecognised, these cases are often most inappropriately treated. Anxiety, too, is an undoubted factor in this form of oxaluria; hence it is often a most sound opinion, though the explanation is unknown to those who propound it, that the claimant's mind being relieved from the anxiety of an impending trial, he will speedily recover.

We hope that, attention having been called to the point, it may be fully investigated by those whose duty it is to make themselves specially familiar with "Railway" pathology. We venture to predict that, when this has been done, some of the pathological and diagnostic speculations which were aired in Maldon's case, will not be again propounded by men of admitted eminence. For, even should the urine in any particular case not present the peculiarities alluded to, the remaining symptoms being such as are known to disappear completely, the probabilities of recovery and the improbability of organic lesion are much greater than they are commonly represented to be in a court of law.

MR. LENNOX BROWNE, Surgeon to the Royal Society of Musicians, has been appointed also Aural Surgeon to the Society, in place of the late Dr. Peter Allen.

THE Custom House returns show that, in the financial year 1873-74, there were 14,992 lbs. of chloral hydrate imported into the United Kingdom.

AT the next meeting of the Pathological Society of London (January 5th), it will be proposed to alter the hour of meeting from eight to half-past eight in the evening.

WE learn that the Registrar-General purposes during the ensuing year to include the suburban metropolitan postal districts in his weekly bills of mortality, which will therefore henceforth include a population of upwards of four million souls.

WE are informed that Sir Henry Thompson has resigned the office of Surgeon at University College Hospital. This early retirement of Sir Henry Thompson from the public duties of the hospital is, we believe, due to the pressure of private professional work, which will be the more severely felt now, owing to the untimely death of the late Mr. John Foster, who had for many years rendered him great assistance.

### THAMES VALLEY BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

WE see with pleasure that it is proposed to form a Thames Valley Branch of the British Medical Association, in order to bring into scientific relation and social union the medical practitioners of a large number of towns and villages for whom the Metropolitan Counties and South-Eastern Branches fail to offer inducements and facilities. The towns included necessarily differ, by their relations to the Thames, as to their county; but they form a natural grouping, easily accessible one with the other by railway, which it is desirable to bring into accord for all the purposes for which the Association exists. Dr. Atkinson, of Silverdale, Kingston, has kindly undertaken the duties of Honorary Secretary *pro tem.* An early meeting will be called to inaugurate the Branch, if a sufficient number of gentlemen signify their willingness to join. Dr. Langdon Down, of Normansfield, Hampton Wick, is taking an active part in promoting the movement. We believe it to be a very desirable and useful one, and we hope that the new Branch will flourish.

### MILITARY HONOURS TO ARMY AND NAVY MEDICAL OFFICERS.

A CORRESPONDENT, whose letter we publish in another column, calls attention to the fact that the grant of military honours to the medical officers of the army and navy was the immediate result of a series of memorials and representations to the government by the officers and branches of the British Medical Association, and especially to Lord John Russell in 1850; who, soon after the presentation of a memorial from the general meeting of the Association at Hull in that year, granted the claim set forth in the documents laid before them.

### SOCIAL TIPPLING.

"I NEVER was the worse for liquor in my life", is the frequent and honestly meant declaration with which the physician is often met in the frequent cases in which it is clear to him that polite tippling is the source of fatal disease. At the Medical Society of London lately, in the course of an interesting discussion on a frequent form of dyspepsia and brain-disease, Dr. Theodore Williams observed that most of these cases occurred among people with tippling habits, whose practice it was to take stimulants between meals whenever they felt what they call "low". The result was bad in two ways. Firstly, the alcohol introduced into the stomach caused a large secretion of gastric juice, which, having no food to act on, irritated the mucous membrane and gave rise to flatulence, distending the stomach, and thereby disordering the heart's movements; hence, palpitation and irregular supply of blood to the brain, with its accompanying symptoms. Secondly, the waste of gastric juice prevented a proper amount from being forthcoming at meals; the food was only partially digested, and escaped assimilation; hence, starvation of the blood and consequent anæmic symptoms. The treatment most successful, therefore, in these cases, was a careful combination of food with stimulants, and a reduction of the latter as much as possible. Dr. Routh agreed with the author (Dr. Thorowgood) as to the common occurrence of these cases among women. Chronic alcoholism he noticed chiefly among matrons, and he treated it by two methods: the hankering after stimulants he satisfied by a harmless one in the form of assafœtida or valerian; or he gave raw beef-juice, prepared by rubbing beef through a sieve, and flavouring it with a little celery. Three claret-glasses a day of this juice were given, and it allayed the desire for spirits.

### HOSPITAL OUT-PATIENTS.

The report of the St. Bartholomew's Hospital, Chatham, contains the following satisfactory paragraph.

The patients steadily increase in number, causing some anxiety; for whilst there is every desire on the part of the trustees to afford aid to every person in want of hospital assistance, there is the fear lest the independence of the people be sapped by gratuitous benefits proffered them, and the trustees are of opinion that one of two courses will have to be pursued, viz., to institute a vigorous examination into the circumstances of every applicant, or to regard subscriptions from working men in the light of provident payment. Should the latter course be adopted, the medical profession could no longer be asked to render honorary services, and an increase in the amount of subscriptions will be necessary to enable the trustees to meet the increased expenditure due to payment for medical services.

### THE DANGERS OF CHLOROFORM.

The crusade against "chloroform-deaths" which we have carried on during the last two years, has had the effect of bringing very prominently into notice the superior safety of ether, and, for short operations, of nitrous oxide. We had, indeed, the satisfaction of witnessing an "ether-revival". The ether-revival has, however, not extended either so widely or so deeply as it should have done, or as it will, we believe, yet do. It is, indeed, necessary to hit the same nail on the head many times and oft before it is well driven in. We have had the pain of chronicling recently two fatal cases of death from chloroform and from bichloride of methylene, which we believe to be a yet more noxious agent. We observe the record of two further chloroform-deaths abroad; and next week we shall republish an analysis of the ether discussion which was last year carried on for many months in our columns, as it will, we believe, be desirable to renew the influence of the articles and letters which we then published. We are very glad to see that some of our medical contemporaries are now disposed to give their aid in the matter, and we hope that a chloroform discussion may be raised at some of the principal societies in London and elsewhere.

### PRIZES OF THE ROYAL COLLEGE OF SURGEONS.

As showing how little ambition influences the profession, or rather the members of the Royal College of Surgeons, who only are allowed to compete for the Collegial Triennial and Jacksonian Prizes, in the gift of the College, we understand that only two essays have been sent in for the latter, and that, too, on such an interesting, important, and practical subject as "Tracheotomy, with particular reference to the Causes of Death after the Operation, and the Rules for rendering the Operation more generally successful". Only one of the two essays received can be read, inasmuch as the author of the other failed to comply with the regulations by sending it in before Christmas-day—not, in fact, delivering it until midnight on that day. The subject for the Collegial Triennial Prize is, "The Radicles of the Lymphatic System in relation to the External and Internal Surfaces of the Body", the essays for which are to be sent in before Christmas-day 1876. The prize consists of the John Hunter Medal, executed in Gold to the value of fifty guineas, or, at the option of the successful author of the dissertation, of the said medal executed in bronze, with an *honorarium* of £50. The subject for the Jacksonian Prize for the ensuing year is, "The Use of the Galvano-caustic in the Removal of Morbid Growths", the essays for which must be delivered before Christmas-day 1875.

### HARVEIAN SOCIETY OF LONDON.

The President and Council have issued cards of invitation to a *conversazione* to be held in the Society's rooms, Titchborne Street, Edgware Road, on Thursday evening next. The following is a list of the names of gentlemen proposed by the Council as officers of the Society for the year 1875. *President:* W. H. Broadbent, M.D. *Vice-Presidents:* J. Hall Davis, M.D.; O. A. Field, Esq.; W. Tilbury Fox, M.D.; T. Carr Jackson, Esq. *Treasurer:* Henry Power, Esq. *Honorary Secretaries:* Robert Farquharson, M.D.; H. E. Sewill, Esq. *Council:* James R. Lane, Esq.; E. Parker Young, Esq.; Septimus Gibbon, M.B.; A. J. Balmanno Squire, M.B.; G. De G. Griffith, Esq.; J. Lennox Browne, Esq.; W. F. Teevan, Esq.; W. H. Day, M.D.; John Easton, M.D.; E. Symes Thompson, M.D.; G. G. Gascoyen, Esq.; E. Cripps Lawrence, Esq. *Trustee* (in the place of the late Dr. T. Ballard): James E. Pollock, M.D.

### THE BRITISH MUSEUM.

After much inquiry, we are led to the conclusion that the death of the late Mr. Warren was directly connected with the unhealthy atmosphere in which he was forced to sit—in spite of his remonstrances, backed by the authority of his medical attendant; and, as we believe, also, that it is not unlikely that a similar fate may befal others who are unnecessarily submitted to the same unwholesome conditions, we feel it desirable to state some facts and conclusions. We are the more inclined to do so, because we doubt whether the trustees, with the best intentions, were in the right way to get at the real facts. Mr. E. A. Warren was head of the transcribing department. He had under him about ten transcribers or junior assistants, men engaged in copying titles written by senior assistants; also about a dozen attendants, and a staff of binders. All the titles written by the two dozen senior assistants and copied by the ten junior assistants passed through his hands. His work required great patience, memory, linguistic attainments, etc. He had been more than twenty years in the British Museum. During the greater part of the time, he was the head of the department. For some years, he had to sit in the lowest gallery around the reading-room. In all the galleries, the air is hot and heavy, and close and dry. But Mr. Warren and his staff sat on the actual ground-floor, in a windowless kind of tank, lighted by skylights. There, in winter, in the afternoons, the air becomes actually fetid, being tainted by the breaths of the twenty or thirty people employed. Even in the gallery on the ordinary first floor of the British Museum, the air is very trying. People who sit in it all day and every day feel it severely. They often gasp for breath; their temples throb; their skin on the forehead feels tense; nausea is often felt; the hands and feet are cold. A medical man who came to see a patient, asked to be taken out quickly. (He was not quite well that day.) If windows be opened to relieve these symptoms, cold draughts produce colds, rheumatisms, etc. Museum men become morbidly sensitive to cold, and they catch colds also from wet, etc., there being no room in which they can dry their clothes if wet, though many have to come long distances. The intermediate authorities, we are informed, repress complaints, saying they feel no bad effects themselves. But the heads of the printed book department have for more than twenty years had their private room and open fire, and are therefore exempted from the sufferings of their subordinates. The amount of sickness among the junior assistants is alarming. Several have died; several are suffering in health, and are justly alarmed as to the ultimate effects. Mr. Warren complained repeatedly, on their and his behalf. He received neither sympathy nor redress; at last, his medical man visited his room, and condemned it. Mr. Warren renewed his complaint, and quoted his authority. We are informed that the answer he received was: "How dare you bring a medical man into the Museum without leave of the trustees!" Nor did he ever get redress. After a long time, consent was given to a window being cut in the wall of the room in which Mr. Warren sat. This got rid of the foul air a little, but it let in killing draughts of cold air. Mr. Warren went on complaining for a time, then despaired, and slowly sank. His strength, originally good, became lowered. He caught cold after cold, got a cough, and was at length laid up. Pleurisy, pneumonia, bronchitis, came in turns. He had not strength to shake them off. And, so he died at the early age of thirty-eight, looking more like forty-eight, leaving a widow and two children. He constantly predicted that the Museum air would kill him, and wanted his colleagues to cry out and get something done. So also Mr. Deutsch used to predict his own death, and say, "When I die, there will be something done." Several of the junior assistants are in the hands of medical men, and are likely to follow Mr. Warren to the grave if not protected. The authorities seem disposed to stick up a screen here, a ventilator there. But there is no reason why the men should sit in such a hole. They sat upstairs for some time, till the authorities sent them down. Some time ago, before the cold set in, the trustees visited the room. They came about 1.30, when it was empty, when the window had been wide open for half-an-hour, and when the paper-indicators to mark draughts had been removed. They asked no questions of the victims, but found all sweet and good. It is not only the junior assistants who complain; the senior assistants also suffer greatly from colds, headaches, etc. The trustees, we fear, are insufficiently acquainted with their sufferings and complaints. The senior officers sit in their private rooms, beside their fires, and go home at mid-day to their dinners; while their subordinates are shivering in the long galleries, and unable to get even a cup of tea. It should be understood that this refers to the position of the assistants in the printed book department only: from the other departments we hear no such complaints.

### CLINICAL SOCIETY OF LONDON.

THE following is the list of officers and council. The gentlemen whose names are marked with an asterisk (*) did not hold the same office during the preceding year. *President:* Sir William Jenner, Bart., M.D., K.C.B., D.C.L., F.R.S. *Vice-Presidents:* George Johnson, M.D., F.R.S.; *Henry Thompson, M.D.; Hermann Weber, M.D.; George W. Callender, F.R.S.; Timothy Holmes; *Jonathan Hutchinson. *Treasurer:* E. Headlam Greenhow, M.D., F.R.S. *Council:* Thomas Buzzard, M.D.; William Cayley, M.D.; Wm. Selby Church, M.D.; William Howship Dickinson, M.D.; *Dyce Duckworth, M.D.; *Charles Hilton Fagge, M.D.; *John Harley, M.D.; *J. Braxton Hicks, M.D., F.R.S.; Walter Moxon, M.D.; R. Douglas Powell, M.D.; Henry Arnott; *Edgar Barker; Richard Barwell; R. Brudenell Carter; John C. Langmore, M.B.; George Lawson; Arthur Treherne Norton; *James Rouse; *J. Soelberg Wells; Alfred Willett. *Honorary Secretaries:* Reginald Southey, M.D.; Thomas Pickering Pick.

### UNQUALIFIED AND INCOMPETENT MIDWIFERY.

ON Monday, Mr. Richards, the deputy coroner for East Middlesex, held an inquiry at the Bricklayers' Arms, Bethnal Green, concerning the death of Mary Ann Prosser, aged 34, which arose during her confinement through being deprived of skilled treatment. The deceased was the wife of a labourer, residing at 2, Cumberland Place, Bethnal Green. On the 9th instant, she was taken in labour, and her husband called in Mrs. Corduroy and another female, named McCarthy, to attend her. The woman Corduroy, who gains a livelihood as nurse and midwife, delivered the deceased of a still-born premature child, and, after informing the husband that the deceased, who was covered merely by an old shawl and a bed-sheet, required stimulants and other attention, left. At half-past two o'clock the same day, the deceased having had attention of no kind for about three hours, Mr. Mainwaring was called, and found her dead; the husband having, in the meantime, been in search of medical aid from the parish authorities. Susan Corduroy stated that she had attended the deceased previously, and had successfully delivered her. She (Corduroy) was not a midwife of the Maternity Charity, but received from the persons whom she attended whatever sum they could afford. The result of a *post mortem* examination by Mr. Mainwaring, showed that the brain and membranes were normal; the lungs congested, and the heart large and flabby and feeble; the liver was fatty, and the kidneys fatty and congested; the other viscera were healthy. The uterus was relaxed, and contained but little blood. The cause of death was syncope. The medical testimony fully proved that, had the deceased been seen by a medical man, and had stimulants administered to her, her life would in all likelihood have been spared. The woman Corduroy was cautioned against practising in future without the necessary qualification, and the inquiry closed with a verdict in accordance with the evidence.

### THE LATE DR. CHARLTON.

A PUBLIC meeting has been held at the Wood Memorial Hall, Newcastle-on-Tyne, Mr. A. Potter, the Mayor, in the chair; at which it was resolved, "That, with a view to perpetuating the memory and the remembrance of the late Edward Charlton, M.D., D.C.L., it is desirable to found a scholarship in medicine at the University of Durham College of Medicine, Newcastle-on-Tyne, of which body he was president and joint lecturer on medicine, and also to place a bust in marble, or a portrait in oil, in the library of the Newcastle-on-Tyne Infirmary, of which institution he was senior physician, and chairman of the medical board". A committee, a treasurer, and two honorary secretaries, were then appointed, and a subscription list opened.

### MEDICO-PSYCHOLOGICAL ASSOCIATION: THE W. AND S. TUKE PRIZE ESSAY.

SOME of the descendants of William and Samuel Tuke (the former of whom proposed the establishment of the York Retreat in 1792, and the latter wrote the "Description" of the humane system of treatment commenced there) having placed at the disposal of the Medico-Psychological Association the sum of one hundred guineas, the association offer a prize of this amount for "The best series of original cases and commentary, illustrative of the Somatic Ætiology of various Forms of Insanity, accompanied, when possible, in fatal cases, by reports of *post mortem* examinations and microscopical preparations—their bearing on the symptoms being pointed out." Cases not seen by the writer may be cited, but must be distinguished from those actually witnessed by himself. The W. and S. Tuke Prize is open to all without restriction as to country, profession, etc., but the right is reserved to withhold it, should there be no essay of sufficient merit. Essays to be written in English, and not in the author's handwriting, must be sent with a sealed envelope, bearing the motto of the essay, and containing the name of the writer, to the honorary secretary, W. Rhys Williams, M.D., Bethlem Royal Hospital, not later than June 30th, 1876. The microscopical preparations, but not the essay, are to belong to the association.

### DEATHS IN LONDON FROM THE COLD WEATHER.

THE Registrar-General states, that it was well established by the researches of Villermé and Edwards that young children die in considerable proportions by exposure to cold, and it was known in a general way that the winter is more fatal to old people than to young. The weekly tables carry us much further, and show that the mortality after twenty increases with age rapidly, and that after a determined law. Thus if we divide life into vicennal stages, then beginning at twenty, forty, sixty, eighty, the result in London in the six weeks of very cold weather, ending February 24th, 1855, was found to be that the mortality due to cold, at the four ages, was 2.0, 7.5, 44.9, 181.8; so rapidly did the power of resistance decline with age. Taking the increase of mortality by cold between twenty and forty as one, then the mortality became two, four, eight, and so on "doubling every nine years." The effects of the cold of the five weeks that ended on December 19th, have been tested in the same way, by comparing the deaths at each age with the deaths in the five previous average weeks. The deaths were raised from 6,967 to 9,871; so the excess due to cold was 2,904 in the five weeks, and on an average 581 weekly. The mortality, higher than before, increased with age at the same rate; it was in every 1,000 living at the four ages, 2.2 at twenty to forty; 9.4 at forty to sixty; 46.9 at sixty to eighty; and 218.3 at eighty and upwards. The mortality from cold increased 8 per cent. for every year of age; or it doubled every nine years from the age of twenty, as it did in 1855. There is thus a law of mortality from excess of cold. But it must not, therefore, be assumed that the mortality is beyond control. The air we inhale at 28 deg. or lower, is raised not to blood-heat but to something approaching 98 deg. when it is exhaled; and as about a gallon of air is thus heated every minute, and as the evaporated vapour in the breath also carries off a considerable quantity of heat, the loss by the lungs is large, however warm the clothing may be. The cold is most effectively combated by exercise which excites the heating energy of the system; and warmth is sustained by nutritious food; by artificial heat; by warm woollen or fur clothing; and by the respirator, which retains the heat exhaled by respiration. The aged poor in this cold season of pressure require all these helps, and have claims not only upon their kindred, but upon their wealthier brethren.

### PATHOLOGICAL SOCIETY OF LONDON.

THE following is the list of officers and council proposed for election for the year 1875. The gentlemen whose names are marked with an asterisk (*) were not on the council, or did not hold the same office during the preceding year. *President:* *George D. Pollock. *Vice-Presidents:* Lionel S. Beale, M.B., F.R.S.; *Wilson Fox, M.D., F.R.S.; Charles J. Hare, M.D.; *Sir William Jenner, Bart., M.D., K.C.B., D.C.L., F.R.S.; *Campbell De Morgan, F.R.S.; Carsten Holthouse; John W. Hulke, F.R.S.; Henry Lee. *Treasurer:* Charles Murchison, M.D., F.R.S. *Honorary Secretaries:* *Henry Green, M.D.; *William W. Wagstaffe. *Council:* *William Cayley, M.D.; Henry H. Crucknell, M.B.; Arthur Leared, M.D.; John W. Legg, M.D.; Joseph F. Payne, B.A., M.B.; Arthur J. Pollock, M.D.; R. Douglas Powell, M.D.; Philip H. Pye-Smith, M.D; *Henry G. Sutton, M.B.; *C. Theodore Williams, M.D.; *Henry Arnott; W. Morrant Baker; *Marcus Beck; W. Fairlie Clarke, M.A.; M. Berkeley Hill, M.B.; *T. Carr Jackson; *Henry W. Kiallmark; Henry J. H. Lawrence; Francis Mason; *W. Spencer Watson.

### HOSPITAL CONSTRUCTION.

AMONG the subjects brought forward for discussion before the American Public Health Association, at its recent meeting in Philadelphia, says the *Boston Medical Journal*, that of hospital construction occupied a prominent place. Several papers were read, testifying to the increasing interest which this matter has awakened in the minds of physicians and sanitarians. These contributions show that the drift of medical opinion is strongly towards single storey pavilions and small wards. Fortified by statistics of the mortality in large metropolitan hospitals, as compared with that in field-hospitals, barracks, and private practice, the advocates of the reform in hospital construction have a strong position against those who would perpetuate the system of building piles of masonry, which sacrifice sanitary qualities to architectural display. It is noteworthy that of the five papers read at Philadelphia on this subject, only one was in any degree conservative on the question. Dr. William Pepper declared that the arguments which had been adduced had failed to convince him of the propriety of tearing down many of the large "palatial" hospitals, or of avoiding the building of similar structures in future, but had only shown him the necessity of remedying certain defects of construction, and of repressing certain abuses of administration, such as overcrowding wards, and keeping them constantly occupied. He conceded the utility, however, of having tents or temporary pavilions as outlying wards of large hospitals, in which to treat such cases as those of erysipelas, gangrene, and the contagious fevers. Assistant-Surgeon J. S. Billings, U.S.A., presented a very interesting paper, in which he took a decided position in favour of single-storey pavilions, built of inexpensive materials. The essay contained many practical points and suggestions, the fruit of careful study and an extended experience. It is gratifying to record that the indications of a reform in hospital construction do not consist of well-conceived theories merely; but that hospital governments are disposed to apply the practical test of utility. The Massachusetts General Hospital has had two isolated single-storey pavilions under trial for some time, and the results are satisfactory. The extensive Presbyterian Hospital of Philadelphia will carry out the scheme with admirably planned details. The City Hospital of Boston, in the contemplated additions to its system of pavilions, will also adopt the advanced principles of construction upon the unanimous endorsement of the staff of the hospital. Other institutions will doubtless follow the example of those bold enough to accept the innovations urged by sanitarians, and we may confidently expect an improvement in the death-rates after surgical operations in hospitals.

### RECENT URBAN MORTALITY.

DURING last week 4434 births and 4455 deaths were registered in London and twenty other large towns of the United Kingdom. The annual death-rate was 31 per 1000 in Edinburgh, 50 in Glasgow, and 27 in Dublin. The highest rates of mortality in the eighteen English towns were as follows:—In Birmingham 31 per 1000, Hull 31, Leeds 33, Norwich 34, Newcastle-on-Tyne 35, Liverpool 36, Nottingham 37, Oldham 39, Salford 40, Bradford 41, and Manchester 41. Scarlet fever continues fatally prevalent in Bradford, Hull, and Sheffield, and measles caused 20 deaths in Manchester and Salford. In London 1840 births and 1646 deaths were registered. The births were 509 and the deaths 113 below the average. The annual death-rate, which in the three previous weeks had been equal to 33, 32, and 30 per 1000, further declined last week to 25. To the seven principal zymotic diseases 165 deaths were referred, being 131 below the corrected average number of the week. Scarlet fever caused 65 of these deaths. The deaths referred to diseases of the respiratory organs were 685. The mean temperature of the air at Greenwich was 29.9 or 8.3 below the average. The mean was considerably below the average on each day of the week, and was lowest on Wednesday, when it was only 23.5, and the deficiency so great as 14.6.

## SCOTLAND.

### LECTURESHIP ON AURAL SURGERY IN GLASGOW UNIVERSITY.

AN arrangement has been come to in connection with this subject, similar to that indicated as the proper course in this JOURNAL a week or two ago. A committee has been formed, containing some very influential names, for the purpose of founding a lectureship on aural surgery. It is proposed that the lectureship should be in connection with the University and Western Infirmary. The committee propose to raise a sufficient sum of money to endow a lectureship, and to transfer the Dispensary to the Western Infirmary. An arrangement of this kind can hardly fail to meet the wishes of all concerned, and the proposed institution will be an important addition to the medical school.

### GLASGOW MATERNITY HOSPITAL.

THE report read at the annual meeting of the contributors and subscribers to the Glasgow Maternity or Lying-in Hospital, shows that during the year 1,291 women have availed themselves of the benefits of the institution, being an increase of twenty-six, as compared with the number of last year. The increase was entirely in the number of outdoor cases, there being, as compared with last year, a decrease of seven in the internal department. This decrease was accounted for by the fact that certain parochial boards who annually sent a number of patients, no longer did so, as they had confinement-wards fitted up in their own hospitals. Three cases of death occurred in the hospital during the year. In each of these cases, the antecedent condition of the patient rendered a successful issue almost hopeless. The first case was one of puerperal convulsions, and the patient had been in a state of complete insensibility for several hours before her admission. She was safely delivered of a stillborn child, and although, after two days, consciousness returned, and she appeared to be doing well, she finally, on the eighth day, sank from nervous exhaustion. In another, the woman had been weakly and suffering from chest-disease before her confinement; while the third case was one of pelvic deformity, with severe labour, and, although she was safely delivered, death resulted from puerperal fever. The percentage of fatal cases in the house was somewhat under 1 per cent. of the whole number treated; while in Glasgow, during the twelve months ending October 31st, 1874, a period almost conterminous with that over which the report extends, and, at all events, quite comparable with it, there were 19,814 births and 113 deaths of mothers registered as from "metria and child-birth", giving a percentage of fatal cases of fifty-seven for the whole city. The percentage of deaths in the reported out-door cases was nearly the same as that of those delivered in the house. During the year there was no occurrence of septic or epidemic disease in the hospital, a result, doubtless to a great extent, due to the systematic and complete ventilation of the entire building, and the pains taken to secure the thorough cleanliness of the patients and their surroundings. The prevalence of epidemic disease in the city during the latter part of the year rendered the immunity enjoyed by the hospital a very gratifying circumstance. As a school for instruction in practical obstetrics, the institution had, during the past year, been more largely taken advantage of by students of medicine, and women in training for midwives and monthly nurses, than in any former year. "It remains to be seen whether the opening of the Western Infirmary, and the consequent comparative isolation of the University medical students to the western districts of the city, will have any effect in diminishing the attendance at our hospital. There need, we think, be no fear for the future, if the hospital continue to be conducted as hitherto, as its advantages as a field for clinical study are so great, and in Glasgow so unique, that it will always attract a fair share of students desirous of acquiring practical instruction in midwifery, which is one of the most important branches of our profession."

# IRELAND.

SCARLATINA still continues its ravages in Belfast, thirty deaths being registered last week; and during the past five weeks the mortality from this affection has amounted to 141.

DR. QUINAN, who acted for many years as Honorary Secretary to the Irish Medical Association, has resigned; and the Council of that body, in accepting his retirement, record the strong feelings which it entertains of the value of the arduous and self-denying services which he has rendered to the Association during the past twenty-three years.

## ROYAL COLLEGE OF SURGEONS.

MR. JOHN HAMILTON, surgeon to the Richmond, Hardwicke, and Whitworth Hospitals, etc., has signified his intention to come forward as a candidate for the vice-presidency of this college. The election, which is in the hands of the fellows, will not take place until June next: but several months' notice is usually given by those wishing to contest the post. At present, no other candidate has offered to oppose Mr. Hamilton.

## COLLEGE OF PHYSICIANS: NEW CHARTER.

A MEMORIAL from five Fellows of this Institution has been presented to the Lord-Lieutenant in reference to the proposed new charter, by which it is intended that the power of election by ballot of Fellows and Officers shall be obtained, and that a new grade between Licentiates and Fellows, styled members, shall be instituted. The memorialists, who are men of position and influence (Sir Dominic Corrigan, M.D.; Edward B. Sinclair, M.D.; Robert D. Lyons, M.B.; Francis R. Cruise, M.D.; Samuel Haughton, M.D., F.R.S.), object strongly to these changes; and show, in reference to the first point, that from its foundation, in 1692, to 1828, upwards of one hundred and thirty years, there was open voting; but in 1828 the College assumed the power of voting by ballot; and they state that, since that period, candidates have been rejected who should not have been black-beaned or excluded by secret voting. The College consists at present of fifty-five Fellows; but, of these, some are resident abroad, others have left the profession for other pursuits, and some cease to attend the College meetings; and, during the year 1873, the average attendance, except on one occasion, was only fifteen; and the memorialists say that, with so small a body of Fellows and such small attendances, the power of election by ballot could be controlled by a very small number, and could be diverted to any purpose. They also assert that there is a monopoly of offices in the possession of a small handful of the Fellows, which at present diminishes greatly the influence and prestige which a body constituted like the College of Physicians was intended to exercise. That there is a select majority of the electors who share year after year in the emoluments of the institution there can be no denial, as the records of the College will show, the same names filling one office or another repeatedly.

## STEEVENS' HOSPITAL.

ON Saturday last, the students of Steevens' Hospital presented Dr. Boskey, senior demonstrator of anatomy and formerly house-surgeon of the hospital, with a handsome clock and illuminated address, as a token of their esteem for him as a friend and teacher. Dr. Boskey has been attached to the institution ever since he became a qualified practitioner, and was previously one of the most distinguished pupils of the hospital and school. He is held in high esteem not only by the pupils, but also by his colleagues and the profession generally.

## THE LATE DR. SHIELL.

THE following resolution was recently passed at a meeting of the Governors of the District Lunatic Asylum at Enniscorthy:—"That we cannot separate without recording our sincere respect at the lamented death of Thomas Wildridge Shiell, M.B., who was the talented, kind, and courteous resident medical superintendent of this institution from its opening in January 1868, to 19th October 1874, during which period his continuous attention was devoted to the welfare of the patients, and to the interests of this institution generally, which frequently called forth the marked approval of the inspectors and this Board; and we take this opportunity of expressing our deep sympathy with Mrs. Shiell in her bereavement."

## THE WATER-SUPPLY OF DOWNPATRICK.

SEVERAL months since, a letter was received by the Town Commissioners of Downpatrick from the medical practitioners resident there, stating that in their opinion the water-supply of the town was impure, and that it had caused a considerable amount of disease. The Commissioners sent samples of the suspected water to Dr. Hodges of Belfast, who analysed them, and reported that, with the exception of two, they were all impure, and no better than "diluted sewage". The guardians, being the sanitary authorities, lately consulted their engineer as to the cost of obtaining a pure supply of water, who found that £700 would be sufficient to execute the necessary works. The subject is one of considerable importance, and the money required to be expended should not deter the sanitary authorities of the town from having, despite all opposition, a plentiful supply of pure water for the inhabitants.

## THE DUBLIN PUBLIC HEALTH COMMITTEE AND THE MEDICAL OFFICERS.

THE above obstructive body, having been ordered by the Local Government Board to pay the medical officers the very munificent salaries of £25 *per annum*, is about to take counsel's opinion as to the possibility of refusing to obey the mandate of the Board. In other words, the Committee are adopting any method, legal and otherwise, to obstruct and evade the Act of Parliament. We do not see that the medical officers have much for which to thank the Local Government Board, as we must, in the words of the order of the Board to the Committee, characterise the salaries fixed by the Board in the same language as the Board characterised those fixed by the Committee, that is, "*totally inadequate*".

## NAVAL MEDICAL SERVICE.

THE *Scotsman* is informed that the statement of grievances placed before the First Lord of the Admiralty recently by Mr. Ernest Hart, on behalf of a deputation of the British Medical Association, has induced Mr. Ward Hunt to propose to the Treasury certain improvements in pay and position. If the Admiralty scheme should be approved, there will be a promotion of several senior staff-surgeons to the rank of deputy-inspectors-general of hospitals and fleets. It is stated also that the title of "Second-Class Staff-Surgeon", which was complained of as being absurd, will be abolished.

We are enabled to state that the whole of the documents laid before the First Lord by the deputation of the British Medical Association have lately been under his consideration, but we are not yet acquainted with his decision. A new competition is announced for vacancies; it is, however, by no means desirable that candidates should present themselves in the present state of uncertainty and discontent in the department.

## THE RECENT VIVISECTION TRIAL AT NORWICH.

IT is announced by telegraph in the daily papers that, at the annual meeting of the Académie des Sciences of Paris, Dr. Magnan, who was recently one of the defendants in the recent prosecution at Norwich, was awarded a prize of £100 sterling for those very experiments as to the effect of alcohol on quadrupeds.

Most of the French medical journals contain comments on the above persecution. *La Tribune Médicale* says: "We do not lay stress on the feelings which influenced the magistrates, nor do we make any comments, believing that the open and distinct declarations of such men as Dr. Copeman and Sir James Paget will effectually dispose of the singular assertions of Mr. Tufnell, the sensitive sportsman, and Sir W. Fergusson, the best of physiologists."

The *Progrès Médical* says:—"If there be any country in the world in which medical men offer a liberal and generous hospitality to their colleagues, that country is certainly England. To this rule, however, there was a painful exception at the late meeting of the British Medical Association at Norwich, in the case of one of the most distinguished and worthy of the French visitors. If these confirmatory experiments were not allowed, how would it be possible to distinguish truth from error? These experiments are surely justifiable when a scientific visitor, who has made discoveries which are valuable to humanity at large, wishes to demonstrate their reality to an important meeting of medical men. These experiments were so much the more justifiable in the case under consideration, because M. Magnan's experiments had never previously been made in England, and also because this physiologist operated with the greatest dexterity."

*L'Union Médicale* has a long and indignant article, which we do not quote, because it is so long, and also because it travels into matter which is wide of the mark. We hear from an occasional correspondent that the course taken by Sir W. Fergusson and Mr. Tufnell has caused "general indignation, and the utmost surprise that so much ignorance of the objects and means of scientific research should be exhibited by gentlemen who might be expected to know better, and especially by one who is a member of the English Institute" (the Royal Society).

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SIR,—May I beg the favour that you will publish in your next number the enclosed letter, which was despatched before your last number came out. Yours faithfully, WM. FERGUSSON.

16, George Street, Hanover Square, W., 28th Dec., 1874.

"16, George Street, Hanover Square, W., 24th December, 1874.

"My dear Dr. Copeman,—I have to acknowledge your communication of the 21st instant, enclosing copy of resolution passed by the local Executive Committee, for Norwich, of the British Medical Association. When in Norwich on the 9th instant, I was not aware that any professional man in the country was seriously involved in the question raised by the Society for the Suppression of Cruelty to Animals. I only learnt this from the public papers afterwards.

"My opinions were given without reference to individuals. I regret to find that those opinions are not in accordance with those of the Executive Committee. The gentlemen on that Committee having voluntarily given theirs, my views were squeezed from me by force of law. Surely I am as much entitled to independent thought as those gentlemen are!

"I feel bound to add that I disagree with the first part of the resolution, and that I have a firm conviction that the recent action of the Society for the Suppression of Cruelty to Animals will be productive of much good in every rational sense.

"Reciprocating the good wishes of the season,

"I remain, yours very sincerely, WM. FERGUSSON.

"Dr. Copeman, Norwich."

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SIR,—In all such cases, it is a thousand pities that medical men do not act as their own advocates, instead of employing lawyers who cannot enter into their ideas and objects.

The question in this case was a most simple one. Is it justifiable to torture and kill animals in order to support human life? and was this particular experiment conducive to this end. If the worthy justices of Norwich had decided the first point in the negative, we must resort to vegetable diet, and medical knowledge must be acquired only by observation of human suffering. Certainly in many diseases our treatment is no better than that of Hippocrates; but to gain his knowledge he allowed numbers of human beings to perish unaided, and simply recorded their symptoms and sufferings as a guide to his system of treatment.

The greatest advances in medical knowledge have unquestionably been derived from experiments on animals. It is now fifty years or more since Magendie starved his half dozen dogs on rich soup, while the other dogs lived well on the refuse of the meat. That experiment revolutionised the dietetic treatment of patients with chronic complaints, and saved more thousands of human lives than it sacrificed single dogs.

As to the cruelty and uselessness of the experiment, the only wonder is that the justices did not stop the case when they found that the only suffering endured by the animals was being tied down and having a vein opened. Transfusion of blood is not an unheard-of operation; and if it be allowable to perform this experiment on man in the hope of saving a single life, how utterly absurd is it to object to a similar operation on a few animals which may probably result in the saving the lives of multitudes of human beings.

The experiment of M. Magnan is of the greatest interest; and the investigation must be pursued. At present, nothing certain is known of the proximate cause of epilepsy, notwithstanding the investigations of Schroeder Van der Kolk. The only chance of our being able to cope with this disease is the induction of it in animals and their dissection immediately after death. If M. Magnan can to a certainty produce epilepsy in dogs, by any means whatever, he will have opened up a great avenue to knowledge.

The Society for Prevention of Cruelty to Animals may find plenty of occupation in our streets and thoroughfares, without interfering with the legitimate experiments of the most benevolent and self-denying profession in the world. The suffering caused by bearing-reins and double bits to horses in any one day in London, is greater than that from the experiments of all the physiologists in Europe in a century.

If opening a vein be so cruel to an animal, why does not this Society look after the butchers, and eaters of veal? Every calf prepared for food in London undergoes greater torture than the two (now celebrated) dogs underwent at Norwich; one of whom recovered after a severe fit of drunkenness, and the other died insensible, like thousands of human beings, in a fit of epilepsy.

Let us hope that the nature of epilepsy may be further investigated, and also the kindred disease of canine madness—if not in England, where we house our hounds better than our fellow creatures, yet in countries where the lives of human beings are more valued than the comforts and luxuries of their dogs. I am, Sir, yours, etc.,

M.D. OF 1834.

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SIR,—I never remember reading of such frivolous and vexatious legal proceedings being taken against five medical gentlemen, as those reported in the last JOURNAL. If the Society for the Prevention of Cruelty to Animals have no better way of showing their humanity than instituting proceedings to load medical gentlemen with obloquy for sanctioning the performance of two simple experiments on two dogs, the sooner they betake themselves to some more honourable employment the better. This is straining at a gnat, and swallowing a camel. Truly, we live in a day when sentimental sensational nonsense is very rife, or we should never hear of such frivolous and vexatious proceedings as these; but that gentlemen of eminence and standing in the medical profession should come forward and give such evidence as they did, is perfectly astounding. It is impossible to estimate the injury that such proceedings must have upon science and humanity, especially when men of such eminence are ready to come forward and swear that such experiments are unnecessary and cruel, in the face of many who witnessed them, who are a sufficient guarantee to the contrary. That laymen, whose sensibilities are easily shocked, should not be allowed to be present at operations, whether surgical or experimental, is quite evident ;* as, but for this unfortunate element in the matter, it is most probable we should have heard nothing of these vexatious proceedings ; but that by no means exculpates the medical element for their most unprofessional conduct.

It is quite certain that all the gentlemen implicated in these frivolous and vexatious proceedings ought to be greatly ashamed of themselves ; and, as a simple act of justice, they ought to tender an apology to the five gentlemen whose characters they have done their best to injure in a very tender part. I am, Sir, your obedient Servant,

Dec. 24th, 1874. A LIVERPOOL ASSOCIATE.

## THE ABUSE OF HOSPITALS.

WE are requested to publish the following memorial, which is in course of signature :

*To the President and Committee of Council of the British Medical Association.*

We, the undersigned, members of the British Medical Association and others, beg most respectfully to request the Committee of Council to take into its consideration the relation of the medical profession to the hospitals and free dispensaries throughout the kingdom.

Your memorialists are convinced that the manner in which these institutions (with some few exceptions) are at present conducted, inflicts a serious injury upon many most deserving members of our profession, while the indiscriminate (or almost indiscriminate) bestowal of gratuitous medical relief upon all applicants lowers the whole scale of our professional remuneration, is far from being a real boon to the working classes themselves, and cannot fail, in the long run, to have a prejudicial influence upon the nation at large.

The question to which we venture to draw the attention of the Committee of Council has been much discussed of late years both in the medical press and in the lay periodicals. It is not necessary, therefore, that we should enter into any details respecting it. We may, however, mention that there are three facts which have a very important bearing upon it, and which make the present time particularly opportune for entertaining it. These are (1) the improvement which is now rapidly taking place in the social and political condition of the industrial classes ; (2) the amendments which have lately been made in the administration of parochial medical relief ; and (3) the increase within the last few years in the length and expense of medical education. These facts are admitted by all, and their concurrence has led, we believe, to a very general opinion among those who are conversant with the working of the free dispensaries and hospitals that some changes are necessary in order to bring these institutions into harmony with the altered conditions of the present day.

As it is desirable that any changes which may be necessary should be duly weighed by a body which fairly represents the medical profession, and should be recommended by high authority, so as to carry along with them the assent of the lay governors of the "Medical Charities", your memorialists pray you to take this important subject into your consideration.

This memorial has been already signed by—Sir William Jenner, Sir William Gull, Sir William Fergusson, Sir Rutherford Alcock, Mr. Prescott Hewett, Mr. Erichsen, Dr. George Johnson, Dr. Hawksley, Dr. J. W. Ogle, Dr. A. P. Stewart, Mr. John Wood, Dr. Arlidge (Stoke-upon-Trent), Dr. John Harley, Dr. A. Meadows, Dr. Joseph Rogers, Dr. Cayley, Dr. Wiltshire, Dr. Robert J. Lee, Mr. Richard Davy, Mr. Fairlie Clarke, Mr. Nelson Hardy, Dr. Ford Anderson, Dr. Cooper Rose, Mr. J. B. Curgenven, Dr. Morton (Kilburn), Mr. R. H. S. Carpenter, Dr. Grigg, Dr. Crucknell, Dr. Heywood Smith, Mr. Bellamy, Mr. Spencer Watson, Mr. Parker Young, Dr. Dewar, Mr. S. Alford, Mr. C. J. Lord, Dr. Herbert Evans, Mr. F. H. Gervis, Dr. Purcell, Mr. Llewellyn Thomas, Mr. F. A. Hill, Mr. Platt, Mr. Otley Lovell, Dr. King, Mr. F. Lewis, Dr. Floyce, Dr. James Murray, Dr. Langstone, Mr. Whitney, Dr. Moore, Dr. Leslie, Mr. E. G. Pottle, Mr. G. L. Priddle, Mr. C. W. Pearse, Mr. J. Lynch, Mr. R. Debenham, Dr. J. Godfrey, Mr. H. Beattie, Mr. T. Richardson, Mr. A. Harris, Mr. J. A. Cummin, Mr. F. G. Aubin, Dr. Macfee, Mr. H. Kay, Mr. F. Mahony, Mr. J. W. Kay, Mr. L. B. Brunton, Dr. R. S. Nightingale, Mr. H. Taynton, Mr. J. Arthur, Mr. W. J. Whitten, Mr. T. J. Hughes, Dr. L. Llewellyn, Mr. M. Coleman, Mr. J. R. Pottle, Mr. E. Sison, Mr. M. J. O'Connor, Mr. G. A. Rogers, Mr. H. Hanks, Mr. C. Nelham, Mr. J. Horton, Mr. T. C. Cowars, Mr. E. Snell, Mr. C. Hawker, Mr. R. H. Anderson, Mr. J. McAndrew, Mr. C. W. Vickers, Mr. George W. Sharp, Mr. W. H. Cringle, Mr. T. S. Gimson, Mr. R. Verley, Mr. B. A. Duncan, Mr. W. Smith.

Medical men who approve of the foregoing memorial, and wish their names to be added to it, are requested to communicate with Dr. Meadows, 27, George Street, Hanover Square, or with Mr. Fairlie Clarke, 12, Mansfield Street, Cavendish Square, W.

## THE SHIPTON RAILWAY ACCIDENT.

WE are indebted to Mr. Symonds, Surgeon to the Radcliffe Infirmary, and to Mr. Morgan, House-Surgeon of the Infirmary, for the following particulars of the cases admitted into the Infirmary from the Shipton railway accident.

There were fifty-two admitted on the first night, most of whom were wretchedly cold and wet. One case only required operation, and that was a man whose right arm was crushed off just below the elbow. The heads of the radius and ulna were removed, and the condyles of the humerus sawn off. This man also had an extensive laceration of the scalp.

Five cases of compound fracture were admitted :—1. A woman, aged about 30, had compound fracture of the right radius and ulna ; she also had extensive laceration of the cheek : progressing favourably ; 2. A woman, aged 45, had compound fracture of the left tibia and fibula, and fracture of the right femur : doing well ; 3. A man, aged 26, had compound fracture of the left radius and ulna, severe abrasion of the whole of the arm, and several contusions and cuts about the head ; 4. A man, aged about 50, had compound fracture into the right ankle-joint : doing well ; 5. A man, aged 22, had compound fracture of the left radius and ulna, and several wounds about the head : doing well. All these patients were much shaken and bruised. Four cerebral cases were admitted :—1. A girl, aged 20, had bleeding from the left ear, dilated pupils (both equally so), coma, and fracture of the radius and ulna. She was quite wet, and very cold and collapsed. She became conscious on the 28th, and left facial paralysis appeared. She passes motions and urine in bed ; complains of pain in the head, and is in a critical condition. 2. A man, aged 28, remained unconscious for two days after admission. His pupils acted, but his breathing was stertorous. The third day, he could be aroused, but soon relapsed into his drowsy condition. To-day (Tuesday), he is much better. Ecchymosis of both eyelids exists. A man, aged 39, was in a condition similar to the previous case, but much bruised about the face, and his nose was broken. He answers questions to-day, but wanders at intervals. 4. A girl, aged 5, has been unconscious since admission. She was quite collapsed when brought to the infirmary. The body felt very cold, and there was vomiting at short intervals. At the present time, she has diaphragmatic breathing, some rigidity of limbs, and widely dilated pupils ; no bleeding from the ears.

Several cases of extensive lacerations and bruisings were admitted. The wounds, if large, were sewn up, and have for the most part healed exceedingly well. One poor woman is exceedingly bruised and crushed about the legs, but has no fracture.

A woman, aged about 50, has her right clavicle fractured and several ribs broken.

A man, aged about 50, has fracture of the pelvis (or innominatum) and of the right femur, the other leg being much bruised.

Two cases have died since admission : one (a man) from rupture of some internal organ ; the other (a girl) from injuries to the chest. No *post mortem* examination has yet been made.

Five patients have been discharged, who suffered mainly from severe shaking and exposure to cold. Thirty-seven patients remain in the house. A noticeable fact is the great pain in the back that most of the patients complained of experiencing. Some had been lying out in the snow, and had become extremely cold ; but a plentiful supply of warm blankets and hot beef-tea in time furnished the warmth they had need of. The cases not individually mentioned were for the most part bruised and shaken ; but, after resting in bed since the accident, they are now doing well.

We are not able to furnish much detail, as the sudden influx of so large a number of patients has allowed but little time for note-taking.

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* We believe that the only layman present was introduced, without authority, by Mr. Tufnell.

## THE HAMPSTEAD HOSPITAL.

SIR,—I must send a reply to your article on "A More Imaginary Grievance can hardly be conceived", than that we Hampstead and St. Pancras people feel we are suffering from.

In the first place, it is not Hampstead alone, but the residents and vestries of Hampstead and St. Pancras, representing 260,000 of the inhabitants of London, about one-twelfth of the population, that are thus, you say, deluded; they include all the resident medical men, not altogether excepting Mr. Lord, who, although he does not agree in the open question of infection with us and many others in the profession, as Dr. Budd (Bristol), the late Dr. Hillier, medical officer of St. Pancras, etc., admits that we had little or no small-pox in Hampstead until after the hospital was opened. Your article on this doubtful open question is very severe on us. Had you lived in the neighbourhood in 1871, after the opening of the Small-pox hospital, you would have seen, and therefore believed. Mr. Lord's report for 1871-72 shows that thirty residents of Hampstead died from small-pox after the opening of the hospital. Of these, fifteen lived within at least one-third of a mile from the hospital. In Fleet Road, the continuation of the valley, at the head of which the hospital is situated, in sixty-one houses there were eighty-nine cases of small-pox; all these, I believe, occurring after the opening of the hospital. Amongst my patients, the infection in 1871 picked out nearly all who were not revaccinated. We had no cases of small-pox before the hospital was opened. Many cases can be traced to infection received from the hospital after it was opened, from nurses, conveyances, sewers down the line of the Fleet valley. Surely it is a recognised fact that infection can be conveyed by atmospheric dispersion in the form of impalpable dust, or by the poison being wafted through the air in the form of nebulæ; or why do we hang sheets steeped in a disinfectant in front of the doors of infected rooms?

We know the subtle nature of the scent by which the dog discovers the game, also the aroma from musk; and can it be denied that infection may be conveyed through the atmosphere, and carried along by currents of air? The late Dr. Hillier traced infection carried by the wind from a case to a distance of two hundred feet. Dr. Budd (Bristol) traced small-pox spreading from flock to flock of sheep down a valley, carried, he supposes, by currents of air; whereas a flock nearer the infected sheep, when separated by rising ground, escaped. Professor Tyndall considers that dry particles float in the air, acting, to all intents and purposes, as a seed and source of disease. The smell from the knacker's establishment at Islington can be detected for miles to the windward. All this shows the more than probability that infection may spread far beyond the confines of the hospital.

The site of the hospital is on the south slope at the head of the Fleet Valley, on a clay soil, surrounded by rising ground; it is about three hundred yards from the commencement of the heath, and not, as you state, at least one mile south-east of it, and that part nearest to the hospital which is called the Lower Heath is much frequented during holidays, the chief donkey-riding going on there, consequently drawing large crowds of young people. The North London Railway and Station is within three hundred yards of the hospital. The public road to Hampstead Heath, and the only access to the hospital, is within one hundred yards of it.

A footpath from North London passes close under the hospital wall, and tens of thousands going to the Heath on holidays must pass close to the hospital, who, you say in your article, need not come within sixty-two feet of it.

The report of officers of health, it must be remembered, is as regards the numbers of deaths, whereas they know little or nothing as to the actual number of cases in and about a neighbourhood.

As regards Homerton and Stockwell Hospitals, they are both on gravel soil, and on a flat or elevated position; and it is well known that property has depreciated in their neighbourhoods. All the medical men in this neighbourhood can testify that it was no imaginary grievance that we suffered from in 1871 after the hospital was established.

Whether the alarm be well founded or not, it exists, and will bring ruin upon this hitherto healthy and beautiful locality, teeming as it does with charitable institutions and numerous schools.

I am, yours truly, STEPHEN S. ALFORD, F.R.C.S.

Haverstock Hill, December 28th, 1874.

⁂ This letter is a striking instance of the loose sort of statements which have been and are being made on this question. Whether or not Dr. Budd of Bristol and the late Dr. Hillier agree with the Hampstead people we are doubtful; but we know that the latter have not yet produced a single medical man of special experience in the question under discussion to support their view, nor have they established a single case of small-pox due to infection from the hospital. Mr. Alford says that many cases of infection can be traced to infection received from the hospital, from nurses, conveyances, and sewers. If this be true, then why not trace such cases? Let them, and the evidence in support of them, be produced and laid before competent authority for consideration. Mr. Alford further says:—"Surely it is a reognised fact that infection can be conveyed by atmospheric dispersion." This most surely is not a recognised fact, inasmuch as it is the condensation, not the dispersion, of infected air which gives rise to disease. If Mr. Alford, however, mean that some diseases are communicated through the air, we are not aware that we or anybody else denied that. We in fact admitted it, but contended that the distance such diseases could be communicated was a *limited* one; and we can hardly imagine that Mr. Alford would allege that it was *without limit.* We then proceeded to show what experience taught us as to the extent of the said distance, and we showed that experience taught us that the infective power of the infectious diseases with which we are acquainted was powerless at the distance of a few feet from the infected person or thing; and Mr. Alford has not made the faintest attempt to invalidate the evidence which we adduced on the subject. Dr. Budd of Bristol may have supposed that infection was conveyed in currents of air in the case of the sheep referred to; but Dr. Budd was too good a man to think that, because he *supposed* a thing took place, therefore it did take place, as Mr. Alford, in his letter, implies. Dr. Budd further well knew that science is neither founded upon isolated occurrences, nor on the *suppositions* of individuals, however exalted, but upon well ascertained facts collected from an extensive field of inquiry. Mr. Alford tells us that the hospital is only three hundred yards, *i.e.*, nine hundred feet, from the Heath, instead of a mile, as we said. The correctness or incorrectness of this depends upon the question, What does the Heath include? This is a matter which, in our opinion, does not require to be contested, inasmuch as a distance of three hundred yards is far more than experience warrants us in demanding for the purpose of separating the infectious sick from the healthy. The footpath referred to is the Fleet Road, and the distance from the centre of the lowermost pavilion of the present building to the boundary wall in the said road is sixty-two feet. At the north-east corner, for a few paces, this distance falls to forty feet—a fact which in no way affects the position taken in the article. In the new building, moreover, the distance at this boundary of the hospital may be increased. We may here say in passing, that the fact of the hospital being on a clay soil is true of nearly every London hospital, and that, if hospitals for London are to be built only on gravel, they cannot be built at all, at least in London. The statement that there was little or no small-pox until the opening of the Hampstead Hospital means, of course, that there was some; but the statement is open to the gravest doubt in face of the fact that small-pox was epidemic in St. Pancras and Kentish Town, at the very doors of the Hampstead parish, as the following statement of Dr. Stevenson, Medical Officer of Health for these districts, will prove:—"The district was thoroughly infected with the disease long before the hospital was opened for the reception of small-pox patients, and as the number of patients in the hospitals increased, small-pox decreased in Kentish Town, subsequently increasing as the number of patients in the hospital decreased. Right up to the confines of Hampstead parish, Kentish Town was steeped in small-pox, *and the thoroughfare leading from the hospital to this parish was affected before ever a small-pox patient was admitted into Hampstead Hospital.*" The italics are ours. Supposing, however, that it were established that not a single case of small-pox occurred until *after* the hospital had been opened; what would it prove in face of the fact that numbers of persons were passing between Hampstead and infected districts? that small-pox was general over England and the continent of Europe? and that districts without such a hospital as existed at Hampstead, suffered as much as, if not more than, Hampstead itself? Moreover, the epidemic of 1870-71, like all other epidemics, appeared in the most crowded districts of the metropolis, to wit, the East End of London, to which it was for some time confined. In the forty-fourth week of the year, the deaths, chiefly East End deaths, amounted to twenty-seven; and in the forty-fifth they rose to forty, "of which no less than twenty-two were in the East districts, including Shoreditch, Bethnal Green, and Whitechapel" (*Reg. Gen. Rep.*, 1871). Hampstead, as an open, well ventilated district, would be one of the last places affected. To argue simply that because small-pox appeared at Hampstead after the opening of the hospital, therefore the hospital was the cause of the small-pox, is about as absurd a piece of reasoning as has been put forward on this subject by the Hampstead complainants.

## STATE MEDICINE QUALIFICATION.

### UNIVERSITY OF LONDON.

THE Committee on Examinations in Medicine has, we understand, presented a report to the Senate on the subject of proposed certificates of Proficiency in Public Health, of which the following is an outline.

1. That a Special Examination be instituted in the subjects which relate to Public Health; and that a Certificate of Proficiency in these subjects be granted to Candidates who shall have passed this Examination.

2. That any Bachelor of Medicine of this University be admissible to this Examination, after an interval of a year from his passing the Second M.B. Examination.

3. That the subjects of Examination shall be as follows:—(*a*) *Chemistry and Microscopy*, in relation to the examination of Air, Water, and Food. (*b*) *Meteorology and Geology*, as far as they bear on the duties of Health Officers. (*c*) *Vital Statistics*, in reference to the methods employed for determining the Health of a Community. (*d*) *Hygiene*—general principles of Hygiene. (*e*) *Medicine*, in reference to the origin, spread, and method of prevention of Diseases generally, but especially those of the Epidemic class. (*f*) *Sanitary Engineering*, as far as regards the arrangements connected with Water-supply, Sewerage, and Ventilation. (*g*) *Sanitary Law*, as far as it relates to the duties of Officer of Health.

4. That the Examination shall extend over Four days, and shall be both written and practical.

6. That if in the opinion of the Examiners sufficient merit be evinced, the Candidate who shall distinguish himself the most shall receive a Gold Medal of the value of Five Pounds.

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# ASSOCIATION INTELLIGENCE.

## COMMITTEE OF COUNCIL.

### NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the Office of the Association, 36, Great Queen Street, London, on Thursday, the 14th day of January next, at 3 o'clock in the afternoon.

FRANCIS FOWKE,
*General Secretary.*

36, Great Queen Street, London, December 23rd, 1874.

## BATH AND BRISTOL BRANCH.

THE third ordinary meeting of this Branch will be held at the Royal Hotel, College Green, Bristol, on Thursday, January 14th, at 7.30 P.M.; FREDERICK MASON, Esq., President, in the Chair.

E. C. BOARD, *Honorary Secretary.*

Clifton, December 29th, 1874.

## SOUTH OF IRELAND BRANCH: ORDINARY MEETING.

THE second meeting of the session 1874-75 was held in the Theatre of the Royal Cork Institution, on December 9th; Dr. THOMAS GREGG, President, in the Chair. There was a large attendance of members and students.

The HONORARY SECRETARY read the minutes of the previous meeting, at which two interesting cases were brought forward: one of Spontaneous Cure of Ovarian Cyst, by Dr. W. J. Cummins; the other of Exophthalmic Goitre, by Dr. H. M. Jones.

*New Members.*—The following new members were elected: R. Barrett, M.D., Macroom; J. M'Donough, L.K.Q.C.P., Killarney; T. Sandiford, M.D., Castlemartyr; G. Hickson, L.R.C.P.Ed., Killarney; L. T. Griffin, L.R.C.P.Lond., Killarney; and Dr. Jennings, Queen's College, Cork.

*Rules of Debate.*—The SECRETARY read the rules of debate. No communication is to occupy a longer period than a quarter of an hour in reading; and any speaker is limited to ten minutes in discussion. Members from the country are to get priority in their communications, to enable them to return early, if required.

*Excision of the Eye.*—Dr. JONES exhibited an eye he had excised, in which there had been a bright red reflection from the pupil, the same as that noticed in glioma. The history of the case also was similar, but the age of the patient excluded the idea, as he was a man about forty. On examination with the ophthalmoscope, no tumour was discernible; nothing save a dark red fundus. There was very little pain; the tension of the eye was greatly diminished. The patient presented himself after some months with a collapsed ball, which was painful, and the fellow eye was commencing to water. He now consented to enucleation. The lens was cretaceous; the iris adherent to the cornea; the choroid atrophied; the vitreous humour gone; a thick and tough membrane supported the lens posteriorly; and in the posterior chamber was some cheesy matter. The optic nerve was healthy. The man is doing well.

*Case of Exophthalmos.*—Dr. JONES exhibited a remarkable case of exophthalmos in a child, which followed a fall on the temple. The protrusion took place about twenty-four hours after the injury; and on the seventh day, when he saw the child, the eye was completely protruded from the orbit. There was still some slight depression and protrusion, but the vision was completely restored. The treatment consisted of a compress kept constantly on the ball, and the use of atropine.

*Death from Hæmorrhage during Typhoid Fever.*—Dr. JONES exhibited the viscera and temperature chart of a woman, who had died of severe hæmorrhage during the third week of typhoid fever, in the Cork Fever Hospital. This was an interesting case, inasmuch as the patient was admitted with all the characteristic symptoms and rash of typhus, and was heavily mottled; nor did the ochry stools appear until she was five days in hospital. There was a well marked enlargement of Peyer's patches with deposit, and the usual pathological appearances present in typhoid. The spleen was enlarged and soft, and a large hæmorrhagic infarction was present in its substance.

*Cardiac Embolism occurring twice.*—Dr. DAY contributed the notes of a case (he believed the only one on record) of cardiac embolism occurring twice in the same subject, at an interval of eighteen months. On both occasions, amputation was resorted to successfully for gangrene of the extremities. The young gentleman now rolls himself about in a little carriage, and is in perfect health.

*Removal of Cranial Bones.*—Dr. HAYES of Tralee exhibited the entire parietal and half the frontal bone of a woman, who had in a drunken state fallen into a turf fire in last May, and who is now alive and doing her business. The bones separated at the sutures in October, and came away, leaving a raw granular surface underneath. The bones were apparently forced out and loosened at the sutures by the formation of purulent matter underneath. The interior of the bones and the grooves for the meningeal arteries and frontal sinuses were almost obliterated. The frontal bone had separated completely at the original line of junction. Very lately the woman, for the first time since her immediate recovery from the accident, appeared to be threatened with head symptoms.

*Arterio-Capillary Fibrosis.*—Dr. ATKINS exhibited some drawings of arterio-capillary fibrosis, and also had several microscopical preparations of the same pathological condition; but time did not permit their examination. The description of them was, therefore, adjourned.

## BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE second ordinary meeting of the session was held at the York House, Bath, on Thursday evening, December 3rd; F. MASON, Esq., President, in the chair. There were present forty members and three visitors.

*New Members.*—The following gentlemen were elected members of the Association and of the Branch:—F. G. Stevens, Esq., Bristol; G. B. Butter, Esq., Pill; and Thomas C. Parsons, Esq., Bristol.

*Papers.*—The following papers were read:

1. Midwifery Notes. By J. S. BARTRUM, Esq. Dr. Swayne and Mr. R. N. Stone made remarks.

2. A Case of Acute Rheumatism with Pericarditis. By W. H. SPENCER, M.D. This led to remarks from Drs. Goodridge, E. L. Fox, and Thompson.

3. On Urohæmaturia. By J. K. SPENDER, M.D. He related how a perfectly pale, almost colourless, urine might be the unsuspected vehicle of blood, robbing the body to a not less certain and damaging extent than if it displayed itself as ordinary blood in the usual way. Exhibiting no danger-signals to either doctor or patient, this treacherous and seemingly innocent urine might contain every element of destruction, and might represent wear and waste of a most fatal kind. The knowledge of this clinical condition was due to the sagacity of Dr. George Harley, who described it more than ten years ago. It frequently accompanied chlorosis, and could be demonstrated in the following way. The specific gravity was seldom below the standard, but if to a sample of the urine (which might contain no sugar or albumen) strong hydro-

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chloric acid were added, a port-wine tint would be rapidly assumed, showing that there was an excess of combined urohæmatine, which was liberated by the acid. Consequently, there might be an immense destruction of blood-corpuscles in the body, and their *débris* be so eliminated as to be invisible until the application of an acid set it free. In these cases, the urine never contained blood-corpuscles. It was always alarming when the liberal administration of iron did not alter the urine, or hinder the excretion of metamorphosed blood; but Dr. Spender had found Dr. Harley's description literally true in so many cases during the last ten years, that he thought it might be an advantage to bring the matter under the notice of his medical friends.

## SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.

THE fifty-fourth meeting was held at the Library of the County Hospital, Canterbury, on November 19th; JOHN BOWES, Esq., in the chair. Twenty members were present.

FRANCIS BARTON, Esq., of Dover, was unanimously chosen as Chairman of the next meeting at Dover on March 18th.

*Papers.*—Mr. LONG read a case of Congenital Scrotal Hernia in a labourer, aged 30, becoming strangulated. At the operation, the hernia was found to consist entirely of omentum, which was tied and removed. The symptoms were unrelieved; and, after further explorations, the man died eighty hours after the operation. A *post mortem* examination revealed an internal strangulation of small intestines by the band of omentum which formed the hernia passing over it. In this piece of intestine there was a deep sulcus reducing its calibre by one-half, caused by omentum always lying across it; this was now found tightly constricted, and purplish black in colour.

2. Mr. LEWIS read a case of Facial Paralysis from Syphilitic Disease of the Temporal Bone. On *post mortem* examination, a tumour of the dura mater was found, being on the inner surface of the temporal bone.

3. Dr. WALLICH read a communication on some of the Properties and Effects of Chloral Hydrate. The author drew attention to the fact that the conflicting results which had, from time to time, been attributed to chloral hydrate, and had induced some persons to condemn it as a drug both uncertain and unsafe in its action, were due in all probability to the marked diversities to be met with in the external characters, and even in the chemical constitution of the substance, as shown by the different formulæ which have been published for it. Chloral hydrate occurred either in massive tablets of varying thickness, or in small detached crystals. The latter of these two forms gave off no pungent or acrid fumes; was always more or less deliquescent; and was very largely soluble in plain water. The former gave off pungent fumes, which were in some samples acrid and acid, resembling those of hydrochloric acid, and like them visible to the eye, and was less readily soluble in water. According to the author's experience, the first named of these two forms never produced any of the deleterious effects complained of, even in cases where large doses had been persistently given, and the use of the drug continued for a protacted period. Regarding chloral hydrate as an unequalled sedative and hypnotic, and indirectly as an anodyne and anæsthetic, Dr. Wallich maintained that, by due care in the selection of the drug, by never administering it on an empty stomach, by diluting it to a sufficient extent, and not merely covering the taste by syrups or other media, and, lastly, by giving it in moderate doses—from fifteen to thirty grains—repeated as circumstances demand, rather than in larger single doses, all its normal and beneficial effects might with certainty be secured. Where increased heart's action was the primary effect produced on the system, the author contended that either the drug itself or the mode of administration had been faulty.

*Dinner.*—The members afterwards dined together at the Fleur-de-Lis Hotel.

## BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ORDINARY MEETING.

THE second ordinary general meeting of the Session was held on Nov. 12th, at the Midland Institute, Birmingham, W. C. GARMAN, Esq., President, in the chair, when there were present fifty-nine members and visitors.

*New Members.*—Mr. T. J. Hawthorn, Oaken, Wolverhampton; Mr. Thomas Evans, M.B., Edinburgh; Dr. Ingleby McKenzie, Rugby; Mr. W. H. Meredith, Netterton; and Mr. Messeter and Dr. Wilson of Birmingham, were elected members of the Branch.

*Testimonial to the late Honorary Secretary.*—Mr. J. MANLEY proposed, and Dr. J. RUSSELL seconded, the following resolution: "That, in consideration of the services rendered to the Branch by the late Secretary, Mr. Bartleet, during a period of nine years, a testimonial be presented to him; subscriptions not to exceed half-a-guinea." Mr. OLIVER PEMBERTON moved, and Mr. J. F. WEST seconded, the following amendment: "That, inasmuch as the position of Secretary to this Branch is an appointment of great professional advantage and distinction, it is undesirable to mark the retirement of such an officer by a testimonial solicited from its members." After some discussion, the amendment was put, and declared by the President to be lost. The original resolution was then carried. It was resolved, on the motion of Mr. MANLEY, seconded by Dr. RUSSELL: "That the following members of the Branch do form a Committee, with power to add to their number, for the purpose of carrying out the foregoing resolution—viz., Mr. Manley, Dr. Russell, Mr. Alfred Baker, Dr. Harrison, Mr. J. C. Gusman, Dr. Malins, and Dr. Bodington."

*Communications.*—Mr. LAWSON TAIT showed a specimen of Interstitial Tumour of the Uterus, which was provided with a very distinct and easily separated capsule, so that it would have been a very good case for the operation recommended by Dr. Marion Sims. The naked eye appearances were those of ordinary fibromyoma; but, on microscopic examination, it presented some curious cell-territories which were the subject of doubt. They might be an indication of commencing malignant proliferation, but Mr. Tait having seen the same characters exhibited by his new staining process in many other tumours which did not present any clinical evidence of cancerous change, he was inclined to regard these appearances as explanatory of the method of growth of these tumours, the more as they occurred in the neighbourhood of the blood-vessels. He had been able to inject the tumour very successfully, and to obtain evidence that the blood-vessels were very sparse; a fact which no doubt explained the readiness with which these tumours separate after injury to their capsules.

2. Dr. A. UNDERHILL narrated a case of Naso-Pharyngeal Polypus, with hypertrophy of the mucous membrane, for which tracheotomy and removal of the superior maxillary bone had been performed.

3. Mr. WEST read a paper entitled Recent Surgical Experience of the Hospitals of Germany, France, and Belgium. He passed in review the treatment of wounds, and the method of dealing with fractures, as seen in these hospitals; and also called attention to the existence or otherwise of pyæmia or erysipelas in relation to their size, age, and sanitary condition. Mr. West then brought forward various new instruments and pharmaceutical preparations which he had seen in use on the continent, and which seemed worthy of trial, and, in some instances of adoption, in the surgical practice of this country.

## SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT.

THE second meeting of the year was held at the board-room of the Infirmary, Chichester, on Tuesday, October 27th; Dr. TYACKE in the Chair; eleven other members being present.

*Next Meeting.*—It was unanimously resolved that the next meeting should be held at Horsham; and that Mr. Greenwood, of Two Mile Ash, be requested to act as Chairman.

*Communications.*—The following communications were then brought before the notice of the members present.

1. Dr. BUCKELL related the particulars of a case of Pharyngeal Fistula, and exhibited the patient.

2. Dr. ROBINSON related the particulars of a somewhat similar case.

3. Dr. WITHERS MOORE, at the request of the Chairman, related his experience of, and gave his opinion upon, the treatment of Hydrophobia.

All these communications gave rise to considerable discussion.

*New Members.*—Two gentlemen were proposed as members of the Association and the Branch.

*The Dinner* took place at the Dolphin Hotel, where fourteen gentlemen, including four visitors, assembled, under the presidency of Dr. Tyacke.

## SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.

THE second meeting of the eighteenth session, 1874-5, was held at Maidstone, on November 20th; H. CECIL SMITH, Esq., in the Chair.

*The next meeting* was appointed to be held at Gravesend in March or April, and Dr. Gramshaw was chosen Chairman.

*New Members.*—James Stewart, L.R.C.P., Barming Heath Asylum, a member of the Association, was elected a member of the Branch; Egbert Charlton, M.D., 17, Norfolk Street, London, and Doyle M. Shaw, L.R.C.S.Edin., Staff-Surgeon R.N., H.M.S. *Pembroke*, Chatham, were elected members of the Association; and W. Phillips Kirkman, M.D., of Barming Asylum, Maidstone, and William Fear, M.R.C.S.E., Brenchley, were elected members of the Association and Branch.

*Papers, etc.*—1. A clinical lecture was given by M. A. ADAMS, Esq., on a case of Astigmatism.

2. A paper was read by Dr. STEPHEN MONCKTON, on Acute Rheumatism changing into Pyæmia. The object of the paper was to show, chiefly by the citation of two well marked cases, that pyæmia occasionally proceeds directly out of rheumatic fever, the progress of the latter assuming a perverted and malignant course. That a case pyæmia from the first may for a time put on the semblance of rheumatism, and that rheumatic fever in a feeble subject may, though very rarely, lead to a fatal issue with typhoid symptoms, was admitted at once. But more than this was affirmed; the contention being, that genuine rheumatic fever in a subject of average power, and without pernicious surroundings, may, and in these two cases did, abruptly alter its course in such wise that the development of lactic acid ceases, and blood-poisoning with collapse, hæmorrhages, gland-swelling, icteric hue, and almost certain death, succeed. A case, therefore, may die pyæmic, and yet have been correctly diagnosed as rheumatic at the outset; just as a patient may succumb to purpura and universal hæmorrhages, who had been seized with small-pox to begin with; except that, in the former case, the primary disease will have been replaced by the secondary, instead of aggravated by it. Dr. Monckton suggested that too active saturation with alkalies might have mischievous tendencies in this direction; as also the undue exclusion of oxygen from anxiety to keep the patient warm. In neither of the cases quoted was there any evidence of erysipelas, purulent or septic contamination from without, fibrinous concretion, or ulcerative endocarditis. The mischief seemed to arise from a perversion of the chemical blood-change; the production, effects, and elimination of lactic acid ceasing, and toxæmia of a more disintegrating and deadly character replacing it. It may be remembered, that pyæmia has been produced by the artificial introduction of lactic acid into the blood.

3. Dr. ALLFREY related a case of Typhoid Fever succeeded by Rheumatic Fever with Pleurisy.

*Dinner.*—The members and visitors dined at the Mitre Hotel.

### SOUTH WALES AND MONMOUTHSHIRE BRANCH: AUTUMNAL MEETING.

THE autumnal meeting of this Branch was held at the Black Lion Hotel, Aberdare, on November 26th, at 1 P.M.; present, W. T. EDWARDS, M.D. (Cardiff), President, in the Chair, and about thirty members.

*New Members.*—H. T. Pringle, M.D., County Asylum, Bridgend; L. G. Leslie, Esq., Saundersfoot; and T. G. Jones, Esq., Hirwain, were elected members of the Association and Branch.

*Papers, etc.*—1. Mr. T. J. DYKE (Merthyr) explained and demonstrated Mr. Horsley's ready methods of detecting (1) Nitrates and Nitrites in Water, (2) Alum in Bread and Flour, (3) Water added to Milk and Cream abstracted, (4) Lard or Meat Fat in Butter.

2. Mr. EVAN JONES (Aberdare) read a few notes on Some of the Causes of Infant Mortality.

*Public Health.*—A Committee, formed for the purpose of "watching matters relating to public health" (Mr. E. R. Morgan, Neath, Honorary Secretary), considered the subject of statistical returns; and it was decided that the mode of returns used by the Registrar-General be adopted in the forthcoming annual report. Several officers of health complained of the lax and imperfect manner in which certificates of death were often filled up. The meeting was of opinion that these certificates should be sent direct by the medical man to the registrar, and not be given into the hands of a third party.

*Next Meeting.*—It was decided that the spring meeting should be held at Britonferry.

## CORRESPONDENCE.

### THE BRITISH MEDICAL ASSOCIATION: HONOURS TO THE PUBLIC SERVICES.

SIR,—I read with much pleasure the obituary notice on the late Sir Ranald Martin in your JOURNAL of the 19th December. It is far from my purpose to attempt to detract anything from the well merited eulogies accorded to him therein; but a sense of justice leads me to put you in possession of certain facts with reference to the grant of military honours to the medical officers of the army and navy. I do this in order that the zeal and important services of Mr. W. P. Brookes of Wenlock, and of the British Medical Association, in this matter, should not be overlooked. Sometime since I had an opportunity of reading the correspondence of that gentleman with the Duke of Richmond, Lord Gough, Sir Howard Douglas, Sir De Lacy Evans, Gen. Sir Herbert Edwardes, Mr. G. J. Guthrie, Sir James MacGrigor, Sir W. Burnett, and Sir Ranald Martin himself, on the right of army and navy surgeons to military honours; from which it is evident that the advocacy of Sir Howard Douglas and Sir De Lacy Evans in Parliament, at the instance of Sir Ranald Martin, was not successful in obtaining the boon solicited from Her Majesty's Government. Indeed, in one of his letters to Mr. Brookes, Sir De Lacy Evans states that he regrets that his advocacy had not been successful.

It was thus intimated to certain medical officers of the Army and Navy that it was the intention of Her Majesty's Government to confer upon them certain decorations of the civil order of the Bath. Amongst others, such an intimation was conveyed to the late Mr. Guthrie, who declined the proferred honour.

At this stage of the proceedings, Mr. Brookes, who was then President of the Shropshire Branch of the British Medical Association, called the attention of the Branch to the subject; and forwarded, first, a memorial from himself to Sir George Grey (then Home Secretary), and afterwards one from the above-named Branch; he was also instrumental in obtaining similar memorials from Bath, Manchester, Liverpool, and other Branches of the Association. He was afterwards appointed to deliver an address on the services of the Army and Navy surgeons of the Queen's and Honourable East India Company's services, and to draw up a memorial to Lord John Russell on the subject, at the General Meeting of the Association held at Hull in 1850. The prayer of the memorial was soon after granted by Lord John Russell.

I think that it will be evident from the above brief summary of facts that the much-coveted and well-deserved honour was not granted until Sir Howard Douglas and Sir De Lacy Evans had failed; and that the ultimate success of the application was in great measure due to the efforts of Mr. W. P. Brookes, then President of the Shropshire Branch of the British Medical Association.

I am, Sir, your obedient Servant,
ERNEST TYLER SMITH, B.A., L.R.C.P.

### BODY-FORCE AND STIMULANTS.

SIR,—I have read with much satisfaction your article upon "Body-force and Stimulation". I believe its teaching to be essentially sound. In my student days, I had the advantage of seeing the stimulant plan of treatment carried out to extremes by that excellent clinical teacher the late Dr. Todd and his disciples; and I saw it practised with more judicious moderation at Edinburgh under Dr. Hughes Bennett. I have since for eleven years been actively engaged in club, parish, and private practice, and have formed a very distinct opinion that the practice of indiscriminate feeding and stimulation now so much in vogue is injurious. Much of the success which I have had in the treatment of acute disease may have been the result of good fortune; but, to a large extent, I am convinced that it has been due to a recognition of the error in question. I have depended mainly upon milk, supplemented only by beef-tea; and, although I have had but few cases in which alcohol has not appeared to have been of service, I have given it in very moderate doses. I have generally found a teaspoonful, or at most a tablespoonful, of wine, given in a state of dilution and at regular intervals, more beneficial than larger quantities of wine or brandy. In the case of delicate children, when stimulants have appeared to me to be indicated, I have generally found claret sufficient.

But is not only to say this that I write, but to express an opinion I have long held, that such articles as those to which I refer—all in fact which treat dogmatically purely medical subjects—should bear the writer's name. The article in question bears great intrinsic evidence of merit, but I cannot help thinking that it would carry more weight, and be more generally useful to the profession, if we knew who was responsible for the opinions expressed. My remarks are of course not intended to apply to leading articles upon subjects of general professional polity.—I am, etc., C. H. ALLFREY, M.D., F.R.C.S. (exam.)

St. Mary Cray, December 14th, 1874.

## MILITARY AND NAVAL MEDICAL SERVICES.

IT is confidently rumoured that the appellation of Staff-Surgeons of the Second Class will very shortly disappear from the *Navy List*.

MOVEMENTS OF ARMY MEDICAL OFFICERS.—Surgeon-Major A. W. Beveridge, 78th Highlanders, has been directed to take medical charge of the 1st Battalion Royal Welsh Fusiliers, at Aldershot, until further orders.—Surgeon Duke Park has been taken on the strength of the

Aldershot Division, and posted for duty to the 3rd Station Hospital.—Surgeon-Major W. Orr has been detailed to perform medical duties in connection with the 1st Station Hospital, Aldershot.—The following officers have arrived in India for duty, viz.: Surgeon-Major J. D. Saintes, and Surgeons J. L. Corbett, C. J. Warden, J. N. O'Keefe, L. Wood, M.D., W. Gubbins, M.D., B. Jago, M.D., J. Pendergast, J. A. Smith, J. Martin, J. Foss, M.D., and C. P. Turner.—Surgeon-Major Murphy has been ordered to proceed from Chatham to Dublin, for duty early in the year.—Staff-Surgeon Major J. Warren has been appointed to the medical charge of the 15th Hussars, *vice* Surgeon-Major Stewart.

STAFF-SURGEON J. P. BOILEAU, M.D., has been admitted a Diplomate in State Medicine of the University of Dublin. At the recent examination for the diploma, which embraced the subjects of Medical Jurisprudence, Law, Hygiene, Chemistry, Meteorology, Vital Statistics, Pathology, and State Medicine, Dr. Boileau obtained first place. Dr. Boileau entered the Army September 30th, 1864.

INSPECTOR-GENERAL of Hospitals and Fleets, John Davidson, C.B., M.D., who lately retired from active service, has been awarded, in addition to his pay, a pension of £400 *per annum*, in consideration of the frightful character of a disease with which he became infected while in the discharge of his professional duties.

# OBITUARY.

## FRANCIS KIERNAN, F.R.S.

THIS distinguished anatomist died at his residence in Manchester Street, Manchester Square, on Thursday last, December 31st, in his seventy-fifth year. He was born in Ireland on October 2nd, 1800. His father, who was a member of the London College of Surgeons, had four children, of whom Francis Kiernan was the eldest. At an early age his parents came to reside in England, and he was soon after sent to a college in Hertfordshire, where, by his great assiduity and his perseverance in the pursuit of knowledge, he laid the foundations of those successes which attended his future career.

Soon after leaving college, he entered at St. Bartholomew's Hospital, and threw himself, with his wonted enthusiasm, into the study of anatomy, of which he was most passionately fond. He speedily distinguished himself in this branch of his profession, and so great was his reputation, that students from all parts flocked to his private demonstrations in Charterhouse Square. Kiernan's great success as a teacher caused much jealousy, and, in 1825, gave rise to the Council of the College of Surgeons passing a resolution refusing to receive certificates from any but recognised teachers. This was a heavy blow to Kiernan's future prospects; the large class in Charterhouse Square rapidly decreased, as many of the students were unable to pay the fees to both the hospital and to a private teacher. He petitioned the Council to rescind their regulation. His application was backed by a strong testimonial, signed by Vincent, Lawrence, and Lloyd, surgeons to St. Bartholomew's Hospital, stating that the advantages he had derived from having devoted himself to the cultivation of anatomy and surgery in the most celebrated schools of France and Italy, rendered him, in their opinion, in all respects well qualified to act as a teacher, and, therefore, strongly recommended him to the favourable attention of the Court of Examiners. His request, however, was not granted.*

In November 1825, he was admitted a member of the Royal College of Surgeons. It was about this time that he commenced a series of minute investigations which led to those wonderful discoveries concerning the anatomy and physiology of the liver, with which his name will be for ever associated. The fame of these discoveries rapidly spread throughout Europe, and numerous were the visitors from all parts of the continent to his private museum to examine his microscopical preparations of the liver. His readiness to afford every information to all comers, resulted in a somewhat unpleasant incident. A Frenchman, having obtained from Kiernan all the information he could, returned to Paris, and had the audacity shortly after to publish Kiernan's discoveries as the result of his own investigations. This led to a long and tedious correspondence, which ended in proving that the Frenchman had no right to the laurels he had so unjustly tried to pluck from Kiernan's brow. The result of his labours he published, first of all in the *Philosophical Transactions*, and afterwards in a separate work, entitled *Anatomical Researches into the Structure of the Liver;* for this he was rewarded by at once being elected a Fellow of the Royal Society, and soon afterwards, the additional honour of the award of the Copley Medal was conferred upon him—a distinction which is only bestowed upon men of singular merit.

In 1837, the University of London was incorporated by Royal Charter. Kiernan's name, owing to the active part he had taken in its formation, was associated with those to whom the Charter was given; he, therefore, became a member of the Senate, and was soon afterwards elected one of the Examiners in Anatomy and Physiology, an office which he continued to hold for many years.

In 1850, he was elected by the Fellows to a seat in the Council of the Royal College of Surgeons of England, an honour which was repeated at the termination of three successive quinquennial periods. About this time, he was overtaken by a severe illness, which confined him to the house for several months. His intimate friends, Messrs. Hodgson, Skey, and Stanley, were most unremitting in their kindness and attention. Stanley operated upon his leg, and removed a portion of the tibia, which had become diseased, the result of an accident in his schoolboy days. He was invited by the President of the College, in 1860, to deliver the Hunterian Oration in the following year; but, owing to the great aversion he felt to speak in public, he declined the honour. It was not until 1862, that Kiernan was elected a Member of the Court of Examiners. He succeeded Mr. Stanley, who died suddenly whilst going his rounds in the wards of St. Bartholomew's Hospital. As an examiner, Kiernan was most just and impartial.

In July 1864, he was elected one of the Vice-Presidents of the College; and in January 1865 he was seized with a paralytic stroke, from the effects of which he, however, partially recovered, but his speech remained impaired during the remainder of his life. In 1867, the five years having expired for which he was elected an Examiner in 1862, he declined, owing to the state of his health, to be again put in nomination for re-election. Thus was severed Kiernan's connection with the College; but he ever took the warmest interest in its affairs, and only recently sent the whole of his collection to enrich the Hunterian Museum.

Kiernan was an ardent admirer of art, a taste for which he had no doubt imbibed during his early travels in Greece and Italy. His collection of sacred prints from the old masters, amounting to a very large number, obtained with infinite labour and at a great expense, was very large and valuable. This collection, when "putting his house in order" a few months since, he presented to an amiable and most accomplished nephew. His collection of portraits he presented to his friend and medical attendant Mr. Edwin Sass, from whom he received unremitting attention.

## EDMUND SNELL, L.R.C.P.Ed.

THE late Edmund Snell was a native of Cornwall. Having received his early education in that county, he came to London, and studied at Charing Cross Hospital and the Charlotte Street School of Medicine from 1841 to 1845. Having obtained his diploma, he returned to his native part, and practised there for a short time; but, wishing to settle in London, he came to Mile End, and took the old established practice of the late Mr. G. E. Carruthers, and there practised for twenty-seven years. The deceased was a vestryman and guardian of Mile End. He died October 26th, at the early age of fifty-three, leaving a wife and son.

## WILLIAM HARGRAVE, M.B., F.R.C.S.I.

THIS member of our profession died, at the advanced age of 79, on November 24th, at his residence in Upper Mount Street, Dublin. Born at Cork in 1797, he graduated at the University of Dublin, and was apprenticed to the late Sir Philip Crampton. Having obtained his surgical degree, he visited Paris, where he studied under Dupuytren and Laennec, and travelled through Germany, Switzerland, Italy, and Greece. After some years' practice in Dublin, he was appointed Lecturer on Anatomy in the school attached to the Royal College of Surgeons, which post he resigned after some time, and was elected to the Professorship of Surgery in the same institution, which he held until increasing years obliged him to retire. He was an ex-president of the College of Surgeons, and a representative in the General Medical Council for several years, also Surgeon to the City of Dublin Hospital. He was a sincere and upright man, and will be remembered as a skilful surgeon and true friend. He was the author of *A System of Operative Surgery*, and contributed several papers to medical journals, among others, one on Deligation of the Left Common Iliac Artery—the first successful case operated on in Ireland. His remains were interred in the family burial-place at Naas. The funeral was attended by the leading members of the profession, and a band of students from the school of the College of Surgeons walked in procession for a considerable distance.

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* The reader is referred to the celebrated speeches of Mr. (afterwards Sir William) Lawrence, respecting the treatment of Mr. Kiernan and others, by the Council of the Royal College of Surgeons.

## MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, December 17th, 1874.

Cassan, Theodore, County Asylum, Gloucester
Spark, Sidney Walter, 31, Myddelton Square, N.
Watts. Fred, Plymouth

The following gentleman also on the same day passed his primary professional examination.

Taylor, Henry Edward, Leeds School of Medicine

The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, December 24th, 1874.

Bailey. Samuel Henry, Nottingham
Favell, Richard, Sheffield
Homan, George William, King's College Hospital
Lewis, David Howell, Brechfa, near Carmarthen
Theed, William Cawood, Barkham, Wokingham, Berks

The following gentlemen also on the same day passed their primary professional examination.

Bevan, Richard, Guy's Hospital
Bruce, Robert. St Bartholomew's Hospital
Cambridge. Thomas Arthur, Middlesex Hospital
Clements. William George, Middlesex Hospital
Collingridge, William, St. Bartholomew's Hospital
Fell, Thomas Kennedy, Guy's Hospital
Knight, John Tomlinson, Guy's Hospital
Manders, Horace. St. Mary's Hospital
Townsend, Charles Percy G., Queen's Hospital, Birmingham

University of Dublin: School of Physic in Ireland.—At the Michaelmas Term examinations in Medicine and Surgery, the following candidates passed, their names being arranged in the order of merit.—For the Degree of M.B.:

Hunter, William L.
Kellett, Leonard H.
Hearn, Richard Thomas
Farrell, Peter J.
Drummond, David
Taafe, Robert
Mason, Samuel R.
Nickson, George M.
Bleakley, Alexander S.
Blood, Matthew S.

For the Degree of M.Ch.:

Eaton, James B.
Murray, Charles F.
Drummond, David
Murphy, George W.
Johnston, William

The examination for the Diploma in State Medicine took place on December 10th, 11th, and 12th, 1874. The following gentlemen were successful:

Boileau, J. P. H., M.D.
Woodhouse, Stewart, M.D.
Tweedy, Henry J., M.D.

## MEDICAL VACANCIES.

The following vacancies are announced:—

ABERYSTWITH INFIRMARY—Surgeon.

ARMY MEDICAL DEPARTMENT—Surgeons. Applications to be made to the Director-General of the Army Medical Department.

ATHY UNION, co. Kildare—Medical Officer and Public Vaccinator. Salary, £120 and fees.

BALLACHULISH SLATE QUARRIES—Medical Officer. Salary, £200 per annum. Testimonials to be sent in to J. Gardner, Ballachulish, N.B., on or before the 14th instant.

BLACKBURN UNION—Medical Officer for the Harwood District. Salary, £25 per annum.

BLYTHING UNION—Medical Officer for No. 9 District. Salary, £39 per ann.

BRADFORD UNION—Medical Officer for the Workhouse. Salary, £225 per annum.

BRIDGWATER UNION—Medical Officer for No. 2 District. Salary, £70 per annum.

CASTLE WARD UNION—Medical Officer for the Ponteland District. Salary, £20 per annum Also, the Workhouse. Salary, £30 per annum.

CITY ORTHOPÆDIC HOSPITAL, Hatton Garden—Assistant-Surgeon. Applicants must be F. or M.R.C.S. Applications on or before January 2nd. 1875.

DERBYSHIRE GENERAL INFIRMARY—Assistant House-Surgeon. Board, lodging, and washing, but no salary. Applications to Secretary.

EAST SUSSEX, HASTINGS, and ST. LEONARD'S INFIRMARY—Assistant-Surgeon.

ESSEX LUNATIC ASYLUM—Second Assistant Medical Officer and Dispenser. Salary, £100 per annum, with board, lodging, and washing.

FIFE AND KINROSS DISTRICT ASYLUM—Assistant Physicianship. Salary, £80, with board, etc. Apply to Dr. Fraser, Medical Superintendent, Cupar-Fife.

GREAT NORTHERN HOSPITAL, Caledonian Road—One Physician and one Surgeon. Applications to be sent in on or before January 12th, 1875.

GREENWICH UNION—Workhouse Medical Officer. Salary, £300 per annum. Applications on or before January 7th, 1875.

HARRIS, Parochial Board of—Surgeon. Salary, £66 per annum, including vaccination and medicine for the poor. The gentleman elected will get £90 per annum for attending the ratepayers and cottars within South Harris. Applications to be made to the Chairman of the Parochial Board of Harris.

HEADINGTON UNION—Medical Officer for the Wheatley District. Salary, £70 per annum.

HOSPITAL FOR WOMEN, Soho Square—Surgeon and Assistant-Physician. Applications on or before January 4th, 1875.

HUDDERSFIELD INFIRMARY—Junior House-Surgeon. Salary, £40 per annum, with board and washing. Applications on or before the 4th instant.

INDIAN MEDICAL SERVICE—Twenty appointments as Surgeon. Examination in February 1875.

LEEK UNION—Medical Officer for the Workhouse. Salary, £85 per annum.

LICHFIELD UNION—Medical Officer for the Alrewas District. Salary, £35 per annum.

LLANELLY UNION—Medical Officer and Public Vaccinator for the Kidwelly District. Salary, £20 per annum, and fees. Applications to be sent in on or before January 6th, 1875.

LOCHMABEN, Parish of, Dumfriesshire—Medical Officer. Salary, £50 per annum, and fees. Testimonials to be lodged with the Inspector of Poor on or before the 16th instant.

METROPOLITAN ASYLUM DISTRICT—Medical Superintendent of a temporary Asylum for Imbecile Children. Salary, £400 per annum, with furnished house, coals, and gas. Applications on or before the 13th instant.

MIDDLESEX HOSPITAL—Surgical Registrar. Applications on or before January 8th, 1875.

MIDDLESEX LUNATIC ASYLUM. Hanwell—Assistant Medical Officer.

MITFORD and LAUNDITCH UNION—Medical Officer for the Workhouse. Salary, £45 per annum.

NORTH BRIERLEY UNION—Medical Officer for the Seventh District.

NORTH-EASTERN HOSPITAL FOR SICK CHILDREN, Hackney Road, E.—House-Surgeon. Salary, £100 per annum, with attendance, rooms, coals and light.

NORTH WALES COUNTY LUNATIC ASYLUM—Assistant Medical Officer. Salary, £100 per annum, with board, lodging, and washing. Applications to be sent in or before the 13th instant.

PLYMOUTH UNION—Medical Officer for No. 3 District.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL—House-Surgeon. Applications to be sent in on or before the 9th instant.

REDDITCH and DISTRICT MEDICAL ASSOCIATION—Medical Officer. Salary, £150 per annum, with fees and unfurnished house.

RICHMOND (Surrey) UNION—Medical Officer for the Richmond District. £100 per annum.

RISBRIDGE UNION—Medical Officer for the Fourth District.

RYDE DISPENSARY—Physician.

ST. BARTHOLOMEW'S HOSPITAL—Assistant Physician.

ST. LUKE'S HOSPITAL FOR LUNATICS—Second Clinical Assistant. Board and furnished apartments.

SHEFFIELD PUBLIC HOSPITAL and DISPENSARY—House-Surgeon. Salary, £100 per annum, with board, lodging, gas, and washing.

SLEAFORD UNION—Medical Officer for the Sleaford District and the Workhouse. Salary, £50 and £30 per annum respectively.

SMALLBURGH UNION—Medical Officer for the Ludham District. Salary, £52 : 14 per annum.

STRATHKINNESS, Village and District of—Medical Officer. Salary, £10 from Parochial Board, with £110 from a workmen's club, exclusive of midwifery fees. Apply to Mr. A. Cowper, Kincaple, Cupar Fife.

SWANSEA URBAN AND PORT SANITARY DISTRICT—Medical Officer of Health. Salary, £200 per annum, and fees.

TENDRING UNION—Medical Officer for the First and Second Districts. Salary, £97 per annum.

TORPHINS in the Parish of Kincardine O'Neil, Aberdeenshire—Parochial Medical Officer: £45 per annum. Applications to Chairman of Parochial Board.

TOWN'S HOSPITAL and ASYLUM, Glasgow—Medical Assistant. Salary, £80 per annum, with board and lodging. Applications on or before the 2nd instant.

TRINITY COLLEGE, Dublin—Professor of Chemistry: £500 per annum, and fees. Applications to the Rev. Dr. Haughton, Trinity College.

TYNEMOUTH UNION—Vaccination Officer.

UNIVERSITY OF EDINBURGH—Additional Examiner in Medicine.

WESTBOURNE PROVIDENT DISPENSARY and MATERNITY, Queen's Road, Bayswater—Surgeon. Applications on or before the 6th instant.

WHITBY DISTRICT LOCAL BOARD—Medical Officer of Health. Applications to be sent in on or before the 14th instant.

WOOLWICH UNION, Kent—Assistant Medical Officer to the new Infirmary at Plumstead. Salary, £60 per annum, with board, lodging, and washing. An additional salary of £20 per annum will be given for dispensing for the poor of the Plumstead District.

## MEDICAL APPOINTMENTS.

*Names marked with an asterisk are those of Members of the Association.*

Baker, Benjamin R., M.R.C.S.Eng., appointed Second Clinical Assistant at St. Luke's Hospital for Lunatics.

Herapath, Charles K. C., M.R.C.S.Eng., appointed Surgeon to the Bristol Dispensary, Sixth District.

Plumer, Charles J., M.D., appointed Assistant-Physician to the Western Infirmary, Glasgow.

Steell, Graham, M.B., appointed Medical Registrar to the London Fever Hospital

Sturge, Wm. A., M.B., appointed Medical Registrar to the National Hospital fo the Paralysed and Epileptic.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.*

### BIRTH.

Galton.—On December 25th, 1874, at Woodside, Anerley Road, Upper Norwood the wife of *John H. Galton, M.D., of a daughter.

## OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

WEDNESDAY..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M. — Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

## MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Mr. C. F. Maunder: Lettsomian Lectures, "The Surgery of the Arteries (illustrated by twenty-seven Operations of Ligature by the author), and other Cases of Disease and Injury".

TUESDAY.—Pathological Society of London, 8 P.M. Annual Meeting for the election of Officers; Report; Address; etc. The following Preparations will also be exhibited. Mr. Lawson: Sarcoma of the Sclerotic. Dr. Wickham Legg: Aneurism of Mitral Valve. Mr. Alex. Morison: Specimens of Urinary and Biliary Calculi. Mr. Sydney Jones: Congenital Dislocation of both Hips (a living subject); Large Lymphangioma secreting Chyle (a living subject); Hypertrophy of Limb from Disease of Knee-joint (a living subject). Mr. Nunn: Hypertrophied Bursa Patellæ removed by Operation; Epithelioma of the Colon. Mr. Bryant: Complete Cancerous Occlusion of the Rectum in a girl aged 18 years—Colotomy; Extreme Ulceration of the Rectum cured after Colotomy. Dr. Hoggan: Microscopical Specimen of Melanoid Sarcoma in a Cod-fish; Microscopical Specimens of Cancer prepared by a new Process. Dr. Way: Internal Stricture, with Rupture of Cæcum.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Annual Meeting; Election of Officers; President's Address. Dr. Bathurst Woodman, "On the Treatment of Mammary Abscess by Rest"; Dr. Madge, "On a Case of Labour complicated by Pelvic Tumour and by Convulsions"; Mr. Ashburton Thompson, "On Zinc Phosphate in Cases of Amenorrhœa".

THURSDAY.—Harveian Society of London, 8 P.M. Annual Meeting; Election of Officers; President's Address; Conversazione.

FRIDAY.—Clinical Society of London, 8.30 P.M. Mr. Teevan, "A Case of Subcutaneous Urethrotomy"; Dr. Farquharson, "A Case of Hæmoptysis in a Syphilitic Patient"; Mr. T. Holmes, "A Case of Naso-pharyngeal Polypus".

## NOTICES TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

### VISITING LISTS.

WE have received copies of Letts's Diaries. No. 45 is a very valuable table-diary for persons requiring space for a good deal of writing, for additional pages of writing paper are supplied. Letts's *Medical Diary* is a very excellent and complete pocket-book, especially suitable for the daily purposes of medical practice, having space for the entry of daily visits, accouchements, vaccinations, etc., and supplying a good deal of useful information.

Dr. SHEEN of Cardiff has made his little pocket visiting-lists more complete than they were last year, and still more handy.

Dr. T. H. BARTLEV (Baillière, Tindall, and Co.) has published an useful little *Posological Table of Medicine of the British Pharmacopœia*, which can be carried with visiting lists or medical diary by gentlemen of short memories.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

DISINFECTANT.—Our correspondent should apply to Dr. Fox, Cockermouth, for the information required.

### MASTURBATION IN CHILDREN.

SIR,—I can thoroughly endorse the advice given by "M.R.C.S.Eng.", in last week's JOURNAL, on the above subject. He says, "Look after the child's nurse". I had a very shocking and distressing case a year or so ago, when a bright, intelligent little boy, about six years old, was taken into the bed of his nurse-girl every night, placed between her legs, and kept there more or less all night. After awhile, it came to the knowledge of his mother, and of course the nurse was instantly dismissed. But imagine her horror on finding that he afterwards got into the bed of a little sister about a year younger than himself, and did the same thing as with the nurse; and still later, when they were separated and carefully watched at night, he would seek an opportunity in the day-time and throw her down on the floor for the same purpose. His health of course suffered much, and at first his condition was a puzzle. He was sent away to school, in judicious hands, and he is now hearty and healthy, and seems to have entirely forgotten his former propensity. Therefore, I say, "Look after the nurse" in such cases, but especially the *nurse-girl*. I am, etc., WILLIAM HOAR,

Maidstone, December 17th, 1874,

AN OLD MEMBER.—We have looked through the paper of Chemistry Questions at the preliminary examination of the Royal College of Surgeons of England. We are of opinion that they are correctly described as "elementary", and we can see no ground for complaint in respect to them.

### THE WORTHING INFIRMARY

SIR,—As you have brought my name forward in the JOURNAL in connection with the differences said to exist between the members of the staff of the Worthing Infirmary, I feel bound to ask you to allow me to state my views of the case, in order that I may stand in a proper light before my medical *confrères*.

Let me first of all say that I have no *personal* feeling whatever against Dr. Goldsmith in the matter: my wish is, that no change should take place in the number or respective positions of the present members of the staff of this infirmary, and the course I have pursued, although one of apparent opposition, is in reality dictated by a desire to retain Dr. Goldsmith's services in his present capacity.

Some few weeks back, Dr. Goldsmith requested his two colleagues to undertake the care of surgical in-patients during his month of office, to which proposition they agreed, upon the understanding that such agreement was a private and provisional one, and referred simply to in- and not to out-patients; but, in the course of a subsequent conversation, they understood from him, that he wished to give up the care of surgical out-patients as well, and he also made the following statement in writing. "It is my intention to give up the surgical part of the duties of the infirmary. If I can retain the medical part as physician, I shall be happy to do so, but if the committee decline to make such change, I shall place my resignation in the hands of the Governors, with the request that such an arrangement may be made."

The compact thus made, would have remained in force but for two reasons. 1st. Dr. Goldsmith, feeling that it might be said that he occupied a false position towards the Governors by undertaking duties which he did not intend for the future to perform, brought the subject before the Committee of Management; the affair thus ceased to be a purely private matter between the members of the staff. 2nd. Dr. Goldsmith made no secret of the fact that he aspired to become physician to the Infirmary, and that this was but the stepping-stone to his being appointed to that office, which at present does not exist.

The staff consists of three members, who take priority from the date of their appointment, but are otherwise upon the same footing, and perform similar duties, which are as follows: viz., to attend two days in the week to see out-patients, and to receive "in-patients" under their care month by month in rotation.

Without entering into the question, whether a member of the profession, who is a "general practitioner", can occupy the position of physician to a hospital or an Infirmary, it seems to me, in the present instance, that this proceeding on the part of Dr. Goldsmith is, to say the least of it, rather an arbitrary one. His proposition, had it been carried, would have completely altered the constitution and working of the institution, which the members of the Committee of Management, by their vote, do not consider at present desirable, or required in the interests of the institution.

My amendment, viz., "That no change be made in the present (not personal) status or position of the medical staff of this institution," was made purely from a view of ascertaining the wishes of the Committee, and, as I have said before, from no animus against Dr. Goldsmith; but I feel that he, being a "general practitioner", is *not* qualified to occupy the post of physician to any institution; and that, not only is such an appointment, as far as regards the Worthing Infirmary, unnecessary, but that any change whatever in the staff is at present undesirable.

During the time, now upwards of ten years, that I have been officially connected with the institution, no differences, as far as I am aware of, have existed between the members of the staff; and I am assured by the Honorary Secretary that, in spite of various changes, which of necessity have occurred from deaths and resignations, this harmonious state of things has always prevailed; and I consider it would be a great pity to disturb that good feeling and confidence between us which has hitherto existed, and which, in spite of this *contretemps*, might continue.

I must apologise for the length of this communication, but some reply was absolutely necessary, and nothing less than what I have stated would have explained the other side of the question. I am, Sir, yours obediently,

WM. J. HARRIS, M.R.C.S.E., L.S.A.,
Senior Medical Officer to the Worthing Infirmary.
13, Marine Parade, Worthing, December 26th, 1874.

*** We very willingly publish Mr. Harris's letter. He does not impugn the facts contained in our article; for, he not only admits differences to exist, but points out where and how they exist. He even strengthens the case we made out in our last issue; for he plainly states that, if these differences are not amicably settled, Dr. Goldsmith will resign. We would further point out to Mr. Harris, the strong probability that the Committee of Management decided against the election of an honorary physician, because they naturally felt anxious to rally round their senior medical officer and to support his views. We assure Mr. Harris he is in error in supposing that "a general practitioner is not qualified to occupy the post of physician to any institution". It is the rule at most of the small institutions, and at even some of the large provincial hospitals (the General Infirmary at Leeds, for instance), that a general practitioner is eligible to fill the office of honorary physician, provided he be a graduate of a British University and undertakes not to practise pharmacy. Under all the circumstances of the case, in the interests of the profession and the institution in question, we appeal to Mr. Harris to follow the course we suggested last week, and to recommend the Committee to pass a resolution to the effect, that the seniority of Mr. Harris be secured, and that Dr. Goldsmith be elected honorary physician. We confidently urge Mr. Harris to take this course, because the election of an honorary physician will insure that the six beds now available for medical cases are made to do all the work that they possibly can.

Sir,—I think your remarks concerning the Worthing Infirmary, in your last number, demand some observations from me.

You appear to have arrived at a very clear conception of the state of affairs; but, at the same time, some little explanation of my position may remove any erroneous impression that might be formed. I begin, therefore, by saying that some time since I mentioned to my colleagues, Messrs. Harris and Collet, that it had long been my wish to retire gradually from surgical work. As the Committee had determined to recommend the admission of medical in-patients, it struck me that a suitable opportunity presented itself to enable me to carry my purpose into effect. Finding that any alteration in the status of the staff was likely to be unacceptable to my colleagues, we mutually agreed that I should refrain from resignation on the condition that they would, between them, undertake the surgical in-cases occurring during the months allotted to me. Upon consideration, I felt myself in a false position with the Governors who had appointed me to fulfil certain duties, which I had just arranged not to carry out. I, therefore, proposed that the Committee of Management should sanction the private arrangement entered into between us, and wrote to this effect to my colleagues. Before putting any notice on the agenda, I showed it to Mr. Harris at the Infirmary, and explained what course I meant to pursue, adding "I presume you will support this". The only remark he made was, "Well, it may lead to some discussion". I then handed my notice to the assistant secretary. I took no steps to secure the attendance of any members of the Committee, as I expected no opposition. But, the moment I entered the committee room and saw who were there, I knew mischief was brewing: but I did not expect that, without any warning, I was to meet with unqualified opposition on the part of my colleagues. I stated at this meeting, that I merely wished the private agreement to be sanctioned by the Committee; but that my ulterior object and wish was, at some future time, to become physician to the institution. One of the members suggested that the medical staff should retire to see whether some mutual arrangement could not be arrived at. Then, and not until then, the real truth came out. Mr. Harris said, "As long as I am on the staff, whoever is appointed physician to this Infirmary, *shall* practise as a pure physician". I remarked, "That such restrictions were not usual in provincial infirmaries". He repeated, with the strongest emphasis, "He *shall*". Now, sir, I will leave you to judge of the propriety of these words from one member of the staff to another. In this particular case there are reasons why *three* is an inconvenient and undesirable number of medical officers; and, therefore, I think your suggestions offer the only satisfactory solution. At the present time, although the number of out-patients and the amount of work are greater than they have ever been, the medical staff was never so numerically weak since the institution was established. There is ample scope for a physician and three surgeons. I have not the slightest wish to dictate to the Committee, nor indeed have I the right to do so; but it strikes me that, unless some such course as you suggest is adopted, no other alternative is left to me but to resign my appointment as surgeon, a step which would cause me much regret.

I am, Sir, your obedient servant, John Goldsmith, M.D.

G. S. M.—We should think that the coroner's conduct was decidedly illegal. He was bound to allow the fee, having summoned the witness; and we think the fee could be recovered.

### Medical Degrees and Titles.

Sir,—Let me thank you very sincerely for your article in Saturday's Journal on "Medical Titles". I feel the present position of our Universities to be a disgrace to our age, and I think it is doing a real injury to the profession. A reform which would place a good M.D. degree open to men who could pass a good sound examination would prevent the present rage for sham or shabby substitutes, and save the profession the degradation of more "years of grace".

My hearty thanks for your outspoken and able article. I hope it will begin the destruction of the present monopoly system.

I am, etc.,
M.D., Birmingham.
December 1874.

Sir,—In continuation of the controversy regarding medical degrees and titles, I should very much like to put a few general questions to some of our M.D. adversaries. I say some advisedly, as I am pretty sure that the number of those gentlemen who are agitating themselves on the subject represents but a small minority of their *confrères* similarly ennobled by that particular degree of M.D. As a licentiate of the King and Queen's College of Physicians in Ireland, I not only lay claim to the prefix of Dr., but I assert that I am a Doctor legally and morally. If I am not, what am I? True, I have not taken the University degree of M.D.; but what of that? It is not necessary to have that particular degree to be a doctor. The College of Physicians have, after an examination equal in severity and conducted by equally qualified men in every way to that for the University degree, legally declared me and my brother Licentiates to be physicians; and if physicians be not doctors, I do not know what doctors are. As Licentiates, we are entitled to write after our names the initials of our degree, as M.D. men do; but we do not generally do so, for the simple reason of the inconvenient number of letters. I am also a Fellow of the College of Surgeons, and will any one challenge my right to the prefix "Surgeon"? I think not; and I submit with every consideration that the two cases are entirely synonymous. I grant that, speaking generally, men with the M.D. degree are, if anything, entitled to more consideration by reason of the longer time necessary, greater expense, and, if possible, higher curriculum to be passed before obtaining their degree; but I think they are amply rewarded by being enabled to sign after their names the two much coveted letters, which ought to be, and I think is, quite sufficient to distinguish them from their less honoured but otherwise equal brother practitioners. I trust that the number of those University men is few who, as such, consider themselves infinitely superior, professionally, to us simple Licentiates. Any Licentiate wrongly assuming the title of M.D., or any M.D. wrongly assuming the title of a Licentiate of a College of Physicians, ought to be proceeded against, for such symbols are the sole distinction between us; the broad fact remaining that, both being physicians, both are also doctors; and that has been on one notable occasion, at least, legally determined by an eminent judge, for the benefit of the King and Queen's College. I repeat, that the said College do not only profess, but are, moreover, legally and morally fully justified in endowing their members with such distinction.

I should like to know in what single way an M.D. man is more a Dr. than a Licentiate of a College of Physicians. I am not bigoted towards my own class; but I confess I cannot see, and, moreover, I should say there are very few M.D. men who do so either. If any change is to be made in the existing rules or customs in these matters, I think it should be to exclude University men from using the prefix "Dr.", reserving that for those who cannot use the initials M.D., as both together are manifestly unnecessary. Military or naval men do not require to go through an University to be entitled "Lieutenants"; and are such who do not any the less lieutenants than those who have passed from an University? I think not. If a gentleman serve an apprenticeship to, and obtain a certificate of competency from, an engineer, is he not an engineer? and, because he has not taken his C.E. from an University, is he not entitled to the prefix "Engineer"? I should think he was. Exactly so in our case; and how or why University men profess to deny such, I am at a loss to conceive. Perhaps some energetic M.D. may enlighten me on the subject, and prove to my satisfaction that I am not a doctor at all; if so, I will at once and for ever forego the title; and if I am not a doctor, neither am I a surgeon, and it will devolve upon him to tell me what I really am. Perhaps I am only a baker or a tinker after all. I should not be surprised if I were told so.

With every respect, I consider that the suggestion of your correspondent "Country Practitioner", with regard to praying some foreign University to send over examiners to examine and pronounce us M.D.s, would indeed be a disreputable proceeding, and ought to be summarily scouted. Any Licentiates who are so very much enamoured of the initials M.D., ought to be prepared to spend a certain time—at Edinburgh, for instance—and duly pass the required examination, and thus obtain the coveted honour in a respectable way.

Middlesex, Dec. 8th, 1874. I am, etc., L.K.Q.C.P.I.

Lex (Lincoln's Inn).—We are afraid not. Something of the sort appeared in *The Daily Post Boy* of December 29th, 1731, which published some proposals for castrating criminals, extracted from a pamphlet published in Ireland, showing that, if this plan were adopted and five hundred examples made, it would have such an influence upon the wicked, that our judges and juries would have much less business on their hands. The castration would cool the heat of those guilty of rape and sodomy; and, as theft and rapine often run in the blood, such a law would disable a set of vile people from leaving their pernicious breed behind them. Hector Boece affirms that the ancient Scots gelded such as laboured under madness or infectious distempers, which they thought might be communicated to their offspring.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Gazette, The Western Daily Press; The Manchester Guardian: The Ulster Advertiser; The Sussex Coast Mercury; The Broad Arrow: The Surrey Advertiser; The Bedale and Northallerton Times; The Hackney Express: The Liverpool Porcupine; The Scotsman; The Liverpool Mercury; The Glasgow Herald; The Stroud News and Gloucestershire Advertiser; The Bradford Observer; The Morpeth Herald; The Portsmouth Times; The Western Daily Press; The York Herald; The Sheffield Evening Star; The Brighton Guardian; The Sussex Daily News; The Wrexham Advertiser; The Glasgow Herald; The Sussex Coast News; The Finsbury Conservative; The Berkshire Chronicle; The Hull News; etc.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. T. L. Brunton, London; Dr. George Johnson, London; Dr. J. Matthews Duncan, Edinburgh; Dr. S. Wilks, London; Inspector-General Maclean, C.B., Southampton; Dr. J. Hughes Bennett, Nice; Mr. T. H. Bartleet, Birmingham; Dr. Inman, Clifton; Dr. Finlayson, Glasgow; Dr. Bradbury, Cambridge; Dr. J. Milner Fothergill, London; Dr. Edis, London; Dr. Joseph Bell, Edinburgh; Dr. J. W. Moore, Dublin; Mr. T. M. Stone, London; Dr. G. M. Humphry, Cambridge; The Secretary of the Clinical Society; Mr. T. Holmes, London; The Secretary of the Pathological Society; Mr. T. Annandale, Edinburgh; An Associate; Dr. Alex. Fleming, Birmingham; Dr. Hawkes, Alton; Dr. Harris, Redruth; Dr. W. Rhys Williams, Bethlem; Mr. W. J. Harris, Worthing; An Old Member; Mr. R. E. Power, Dartmoor; Dr. Tannahill, Glasgow; S. Q.; Mr. C. K. C. Herapath, Bristol; Dr. Colahan, Galway; Mr. W. D. Napier, London; Dr. Wiltshire, London; A Country Practitioner; Dr. McD.; Mr. E. de Gomanzie; Mr. F. Brown; Dr. Grimshaw, Dublin; Dr. Wade, Birmingham; Dr. Goldsmith, Worthing; Dr. Rumsey, Cheltenham; Our Irish Correspondent; Mr. Bartleet, Birmingham; Our Glasgow Correspondent; Dr. Lauder Lindsay, Perth; Mr. Lewis Morgan, Oxford; etc.

## BOOKS, etc., RECEIVED.

The Forces which carry on the Circulation of the Blood. By Andrew Buchanan, M.D. Second Edition. London: J. and A. Churchill. 1874.

The Middlesex Hospital Reports of the Medical and Surgical Registrars for 1873. London: 1874.

On the Diseases of Women.. By Fleetwood Churchill, M.D., M.R.I.A., assisted by Fleetwood Churchill, jun., L.R.C.S.I. Sixth Edition, carefully revised and enlarged. Dublin: Fannin and Co. London: Longman and Co. Edinburgh Maclachlan and Stewart. 1874.

Outlines of Zoology and Comparative Anatomy. By Montgomery A. Ward, M.B. Dublin: Fannin and Co. 1874.

Therapeutic Means for the Relief of Pain; being the Fothergillian Prize Essay. By J. K. Spender, M.D. London: Macmillan and Co. 1874.

# REMARKS
ON THE
# SYSTEMIC INDICATIONS OF CHRONIC BRIGHT'S DISEASE.*

By J. MILNER FOTHERGILL, M.D., M.R.C.P.L.,
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THE importance of the recognition of chronic renal disease will be admitted by everyone: it may, then, not be out of place to bring the matter before the notice of this influential gathering of medical men. The very able paper of Dr. Grainger Stewart, read at our last annual meeting, and the work of Dr. George Johnson recently published, have given to this subject a prominence which it distinctly merited. But, in a matter so complex, with sequels varying so much, according to the peculiarities of individuals, with manifestations so widely different, it is not easy to grasp the subject without applied and sustained attention to it; and, as many blows are required to fell an oak, so the vigorous reiteration of numerous individuals is necessary in order to place the subject of the consequences of chronic renal disease, commonly called "suppressed gout", before the medical public in an intelligible and comprehensible manner.

To-day, I propose to exclude from our consideration the effects of chronic renal disease upon the urine itself, designedly to avoid the questions of albuminuria and tube-casts. On these matters, we all know more or less, and have our own opinions. I would rather draw attention to the effects produced upon the system generally by renal inadequacy, by imperfect kidney-action—of a blood laden with the products of retrograde tissue-metamorphosis, or of peptones which have never been converted into tissue. What I aspire to do, is to furnish the material for the formation of a strong presumptive diagnosis of the presence of renal disease when it is not possible, or not convenient, to make a thorough examination of the renal secretion. It is obvious that there are many circumstances under which such examination is impracticable; and no other than a thorough examination is trustworthy. It also happens that albumen is not uncommonly absent even in marked renal disease, and especially in the commonest of all forms, that in which we are now most interested, namely, the granular kidney; while tube-casts, especially in this form, are only to be found after patient, elaborate, and painstaking examination of the urine; and such investigation is simply impossible in the majority of the cases attending our out-patients' rooms, and even in a large proportion of the cases which the general practitioner is called upon to treat in his every-day practice.

Are there, then, any general indications, any ready means, of forming a presumptive diagnosis at least, of these cases, which the medical man can have ever at hand, and can apply to every case with which he is brought into contact? I am fully persuaded that there are. But do not mistake me: the matter is but yet in its infancy, there are also sources of fallacy; and what is put before you to-day is no more than what I have been able so far to gather. A further series of observations may, and probably will, add new facts, will winnow and sift what has been already collected. If each gentleman who forms a part of my audience to-day will only keep these cautions clearly before his mental vision, it will be easier for me to say what I have to tell.

In the first place, we may review the changes inaugurated in the circulation by chronic renal disease, not so much as consequences as almost a part of the disease. We might as well leave the effects upon the throat out of the consideration of scarlatina, as the effects upon the circulation out of the consideration of Bright's disease. Without alluding to any controversies, I will confine myself to the enumeration of the changes so induced as given by George Johnson and Traube. When the blood is imperfectly depurated by the kidneys, and the aid given by the skin and other auxiliaries is not sufficient to supplement that imperfect action of the kidneys, the products of tissue-waste and of superfluous peptones accumulate in the blood. The effect of the excess of waste products in the blood is to induce spasm of the muscular coat of the tiny arterioles of the system generally. This produces an obstruction to the flow forward of the arterial blood, and a rise in the blood-pressure. This was well shown in a paper which recently appeared in the BRITISH MEDICAL JOURNAL, by Mr. Mahomed of the London Fever Hospital. The heightened blood-pressure, or increased arterial tension, offers a great resistance to the flow forward of the blood in the contraction of the left ventricle; and, as a consequence, hypertrophy of the left ventricle follows. We must dismiss from our minds any idea of antagonism betwixt the heart and the arterioles; such an idea would but obscure the subject, and create artificial difficulties. The excess of waste products induces spasm of the arterioles; this obstructs the blood-flow, and obstruction to the blood-flow, no matter how produced, induces hypertrophy of the heart. The matter in itself is clear enough, if not darkened by unfortunate explanations, which rather tend to shroud than illustrate the subject. The sustained spasm of the muscular coat of the arterioles eventuates in hypertrophy; so that we have an hypertrophied condition of the two muscular ends of the arterial system—the central muscular mass the heart, and the peripheral muscular tubes the arterioles. Betwixt these two hypertrophied muscular ends, the connecting tubes, the elastic arteries, are highly distended.

The condition of heightened pressure in the elastic arteries leads to various sequelæ, not only pathologically interesting, but diagnostically useful. Thus, we get an accentuation of the second sound of the heart, or, to be more exact, of the sound produced by the closure of the aortic valves. These valves are closed by the recoil of the elastic arteries, and especially of the aorta. Now, elastic bodies recoil in direct proportion to the amount of distension to which they have been subjected. Consequently, the arteries, over-distended in this condition, recoil with proportionate force, and so close the aortic valves with much violence, producing a louder note. This accentuation of the aortic second sound is highly estimated in Germany as a physical sign of Bright's disease. It is really of much importance.

We are all aware that the filtration of fluid from the blood into the tubules of the kidney is very much affected by the blood-pressure; the greater the pressure of the blood the faster the flow, as seen in the rapid accumulation of urine after the free imbibition of fluids; the lower the blood-pressure, the slower the filtration through the thin-walled vessels of the glomeruli of the kidney, and the less the bulk of urine; as seen in the scanty urine of advanced heart-disease. In chronic Bright's disease there is a persistent condition of high arterial tension, and consequently there ought to be a large flow of urine. Clinically, we know that this is the actual state of matters. A large flow of pale-coloured urine of low specific gravity is one of the best marked evidences of chronic renal disease.

This is all simple enough, surely; but, nevertheless, the absence of a large flow of urine does not negative the presence of renal disease. In some patients, and especially in women, the effects upon the circulation vary from what has just been described, and, instead of hypertrophy of the left ventricle being induced by the obstruction offered to the blood-flow, dilatation is produced from the yielding of the heart-structure; consequently, there is not the increased arterial tension and the results thereof. Notably, there is not the increased bulk of urine which is found along with hypertrophy of the left ventricle. There is an absence of the hard incompressible pulse of high arterial tension, while palpitation is often present, indicating the inability of the ventricle to overcome the obstruction offered by the spasmodically contracted arterioles. Mistakes are commonly made in the diagnosis of Bright's disease in women, from these variations in the resultant vascular changes of that condition.

But what is more important still, the hypertrophy of the left ventricle, ordinarily found, in the course of time undergoes structural degeneration. The increased arterial tension leads to over-distension of the elastic arteries, and this over-distension (*Ueberspannung*) is the commonest cause of that change in the arterial coats known as atheroma. This change, called atheroma, is a parenchymatous inflammation of the arterial walls, which gradually alters their structure, and causes them to become less and less elastic. The aorta especially is affected; and, as the aortic recoil is the propelling power which drives the blood into the coronary arteries—the nutrient arteries of the heart itself—when that recoil is diminished by growing inelasticity, the blood-supply to the heart becomes insufficient, and the muscular structure undergoes fatty degeneration, or necrosis. This decay of the primitive muscular fibres cuts down the power of the heart, and with it the sustained high arterial tension. What then follows? The large flow of urine, characteristic of the earlier stages, gradually and silently passes into the small bulk of urine, indicative of heart-failure, as the condition of cardiac debility becomes superimposed upon the primitive condition of renal cirrhosis. This change in the bulk of urine is most lucidly pointed out by Sir William Jenner in some lectures published in 1865. I know no more valuable contribution to our knowledge of this matter than those lectures, which should be read, and carefully re-read, by all thinking practitioners. In time, then, as the changes in the heart-structures proceed, the large bulk of urine merges, by insensible gradations, into the scanty flow of heart-failure. This change is one that must never be forgotten, as misapprehensions may readily arise if this change be overlooked.

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* Read before the Medical Section at the Annual Meeting of the British Medical Association in Norwich, August 1874.

There are indications furnished by these changes in the arterial system which are diagnostically valuable. The overstretching of the elastic arteries, which occurs in chronic Bright's disease, is the cause of the atheromatous condition of the arteries generally found along with renal disease. This over-distension, as the cause of atheromatous changes, has been pointed out by Tzostakowski in Germany, and by Moxon, Clifford Allbutt, and myself in this country ("Strain, in its Relation to the Circulatory Organs." BRITISH MEDICAL JOURNAL, March 15th, 1873). Consequently, arterial degeneration is very common in chronic Bright's disease; and the elongation and tortuosity of the arteries produced by atheroma, or endarteritis deformans, are readily seen in the serpentine temporal arteries, and felt in the radial pulse. Hard, thickened, elongated and tortuous arteries, are very common in chronic Bright's disease, and ought always to put the practitioner on his guard as to his diagnosis.

The spasm of the arterioles, which, as we have seen, is one of the first links of the pathological chain which we have here been describing, is pronounced in the vessels of the skin. Consequently, the skin is dry, inactive, and does not readily perspire. The spasm, and consequent hypertrophy of the cutaneous arterioles, render the action of diaphoretics in ordinary doses quite ineffective. Such a condition of the skin is very common amongst the subjects of chronic Bright's disease, and especially in men, and in women where the effects upon the circulation are pronounced. At other times, chiefly in those women in whom hypertrophy of the left ventricle is not so distinct, the skin presents the appearance of water being effused into it, underneath it rather, and into the meshes of the subcutaneous areolar tissue. It is very commonly apparent in fulness of the lower eyelids, and in the pale œdematous hands, which look as if they would fester if scratched. This condition is found in the adynamic forms of renal disease, chiefly in women with dilated hearts; and still more, if they drink more alcohol than is desirable.

At this point, we may leave the changes in the circulation. A word, however, as to the frequency of apoplexy in the subjects of Bright's disease. The high arterial tension maintained by the hypertrophied heart and arterioles commonly eventuates in the rupture of an artery in the head; especially if there be already existing arterial degeneration.

We will now review the abnormal changes inaugurated or instituted by renal inadequacy through the blood upon different organs, especially the eliminant organs. Experiment has established the presence of urea and of the earlier products of histolysis in the blood after ligature of the ureters, or extirpation of the kidneys (Oppler, Schottin, Perls, and Zalesky); and Garrod has demonstrated the presence of uric acid in the blood of the gouty. The presence of these products in the blood in excess produces various results. Among the commonest are changes in the hair. If the hair be fine, it usually falls from the vertex, and the circle left in time often grows grey at the temples. If the hair be strong and coarse, it does not fall out, but turns grey early and completely. At other times, very white hairs will be found scattered amidst hair of natural hue. Scores of observations made in the great dead-house of Vienna enable me to speak with much confidence as to the coexistence of these changes in the hair along with renal disease.

The eyes are very commonly affected; but the changes revealed by the ophthalmoscope do not come within the scope of this paper. The sight is often impaired, or the patient may see double. There is often, too, an arcus senilis, not rarely partial, and found only under the upper eyelid. It is not so much the blue sharply defined arcus of green old age as the yellow arcus with indistinct margins and a cloudy cornea—cloudy from fat-granules being scattered through its substance. This last is very commonly found with early and marked senile degeneration. The ear is worth observing. In young gouty subjects, it is usually high-coloured, swollen, and shining; sometimes the lobe is red, and full to glistening, so tense is the skin. At other times, the development of connective tissue is more sparing, and the ear, especially the lobe, is wrinkled and withered-looking, and the helix is studded with chalk stones.

The *tout ensemble* of each case is marked and readily recognisable by the eye which has learned to note and register these changes. In one man, there are a high-coloured face, grey hair, and glistening earlobes, with a fair *embonpoint;* in another, there are a wrinkled ear, a similar condition of the skin of the face, an arcus, a bald crown, and general leanness: in both, there will be found a distinctly tortuous temporal artery. In a third, you will find pallor, isolated grey hairs, a watery-looking eyelid, a hand bearing similar watery characteristics, muscular tremulousness, and a wavering unsteady eye, with a morbid self-consciousness, and a suspicious readiness to inveigh against stimulants. Just look about among your lady patients over middle age; you will soon find the person I have last described. These are typical forms; but there are others besides these three.

In all forms, however, there will be found one characteristic: a mental one; viz., irritability—a symptom more constantly present than any other. Ask these different persons, when patients, if they feel themselves at times very irritable; easily put out by slight exciting causes; often with a distinct consciousness that there is an element of unreason present, which adds to their irritability; and they will all answer in the affirmative. The plethoric individual will be distinctly and markedly irascible; the second will be found irritable and anxious, and the third fidgetty, capricious, and desponding. We will linger a moment over these mental symptoms, so constant, so suggestive, and yet somehow so little understood. The plethoric individual has a well sustained flow of arterial blood to his brain-cells, and he is quick, hasty, impetuous, and commonly explosive. His cerebral cells are well supplied with blood holding in solution renal salts, which act as irritants. We are all familiar with the gouty temper, as well as the gouty temperament. But at times this person will suffer from unaccountable depression, and an anxiety he cannot dismiss. The explanation of this we shall find to lie in spasm of the arterioles of the pia mater and the grey matter of the convolutions; and the cerebral anæmia tints his thoughts with unhappiness. In the second and third forms, depression, gloomy presentiments, and dark forebodings, are the prominent characteristics, and the irascibility is veiled by an overwhelming condition of sadness. In the third form, this mental wretchedness is commonly the causal origin of the taste for alcohol; it is the relief it affords to this groundless mental pain or misery which forms its chief allurement, its essential attracting force.

In all these forms, there will be found a certain amount of sleeplessness. It does not arise from pain; but the patients cannot catch sleep. The thoughts are active, but they run in a circle. After long thought, or rather train of thought, the original point of departure is reached once more. This is exhausting and irritating. It is not till far into morning that they can drop off. When they awake, the imperfectly rested brain is irritable, lacking in grasp, and deficient in power of concentration and endurance.

One curious symptom you will find almost always present; and that is, the patient gets up at night to make water. One gets up at one o'clock; another not till five. Whatever the explanation of this phenomenon—and I have none to offer—it is most constant.

When, then, you find a patient, especially at or over middle age, presenting the physiognomical indications given above, put the following questions. "Are you irritable, and easily perturbed in mind? Are you often sleepless—not from pain; but you cannot catch sleep? Do you get up at night to make water?" If these questions be answered in the affirmative, then there exists good ground for a presumptive diagnosis of chronic renal disease. If the patient be old and the circulation failing, put the last question thus: "You do not make so much water as you used to do. Do you get up at nights still to make water?" An intelligent look, half of inquiry and half of suspicion, will tell you of your hit, before the speech of the patient assures you of the correctness of your aim. Here the failure of the circulation has produced that change in the bulk of urine previously described.

Such are the ordinary systemic indications of chronic Bright's disease; and when they are found, a thorough examination of the urine is indicated. In hospitals, it is also desirable to corroborate the diagnosis still further by the sphygmograph. The square-headed tracing is characteristic, and instructive to students.

When, then, we find patients presenting more or fewer of the characteristics given above, and at the same time suffering from ailments which are the common sequelæ of an imperfectly depurated blood, our suspicions ought at once to be aroused. The ailments which follow in the train of chronic Bright's disease are commonly affections of serous membranes, of mucous membranes, and of the skin. The mucous membranes and the skin are eliminant excretory organs which aid and supplement the action of the kidneys, especially when defective. Over-action or apparent disease upon their part is a common outcome of blood-impurity from renal inadequacy; and this over-action is a compensatory change, rather than actual disease. In particular, the bronchial lining membrane is liable to undergo changes in the form of chronic bronchitis, especially when the cold of winter arrests the activity of the skin, and so deprives the system of the aid furnished by cutaneous action in supplementing the imperfect action of the kidneys. The cold, too, acts as an irritant to the air-tubes; and between the two we find the explanation of much of our winter-cough.

At other times, there is dyspepsia from the gastric juice being contaminated by the presence of waste products. Not unfrequently there is diarrhœa of an uræmic character. So common, indeed, are alterations in the intestinal canal in chronic Bright's disease, that Treitz found changes in the bowels in no fewer than one hundred and seventy-five out of two hundred and two cases examined. The bowel is affected quite as much as a compensating excretory organ, as a sequel, a secondary consequence, of the kidney-mischief.

The skin is very frequently the seat of changes under the circumstances of chronic Bright's disease; more so, however, in those cases where the skin is active in compensatory functional activity, than in those cases where it is dry and inactive. The chronic eruptions of advanced life are ordinarily the result of renal mischief; and this is especially true of eczema.

At other times, there are affections of the serous membranes. These lymph-sacs are often irritated, or even inflamed, by the waste-laden lymph flowing through them. At other times, there is what is called muscular rheumatism, from the presence of waste material in the muscles. Very commonly, we find the joints infiltrated with waste matter, especially in the form of uric acid. This is gout proper.

Such are the common outcomes of a condition of blood arising from imperfect depuration by kidneys no longer in their pristine integrity. When, then, such states are found along with the physiognomical indications given above, and the various questions above related are answered in the affirmative, a strong presumptive diagnosis is furnished as to the presence of renal disease. This species of examination is feasible in every case, and can form part of the stock knowledge of the busiest practitioner. Often and often will he find most valuable information so furnished; giving a direction to his treatment, and guiding his therapeutic measures, in cases where he may not have the opportunity of making a careful examination of the urine. Variations in the bulk of urine—at one time a large flow of limpid urine, at another a lessened flow of dark dense urine—give information almost as valuable as that furnished by the urinometer and the test-tube. Finally, to these general indications may be added headache, chiefly vertical. This last objective symptom is commonly present in the adynamic forms of renal disease.

There is a peculiarity about those diseases which are the consequences of chronic Bright's disease, and that is their tendency to recurrence. Not that necessarily the same form of ailment is always assumed; the different consequences are interchangeable. Thus gout is interchangeable with bronchitis, with a skin-eruption, or with a troublesome dyspepsia. The common origin of each is further evidenced by the readiness with which each form will yield to remedial measures directed to the causal renal condition, while stubbornly resisting the measures which ordinarily are found curative. One very illustrative case will point these remarks usefully. A friend of mine once put to me the case of a patient with an obstinate irritable ulcer, which had resisted for eighteen years the efforts of many leading men, both at home and abroad. The recognised association betwixt irritable ulcers and gouty individuals at once suggested a suspicion of "suppressed gout". The treatment was directed accordingly, and in three weeks the ulcer was well.

Such are the consequences of having therapeutic measures directed by a diagnosis which does not merely recognise the characters of a disease, and register its physical signs, but which penetrates into the conditions upon which that disease causally depends. The one is a mere intellectual feat, chiefly involving the mnemonic mechanism; the other involves a deeper insight, and becomes of actual utility to the patient.

Our knowledge of the chronicity of some forms of renal disease, and of the light which pathology now affords us of the slow insidious changes which precede marked and unmistakable kidney-disease, tells us that such renal mischief may exist with tolerable and even good general health for many years, the defective renal action being helped out, or supplemented, by compensating activity in other organs; that ntervals of apparently perfect health may intervene betwixt these explosive cleansing processes; and yet that the condition of the kidneys upon which these affections causally depend is persistent, irremovable, nd even unchangeable, except for the worse. It does not follow that hese compensating actions or consequential ailments shall always be present; there may be, and commonly enough are, long periods or ntervals of comparative health. It only follows that the individual s liable to have such maladies at any time; much in the same way that a soldier is not always being wounded even in a campaign, though he is liable at any time to be wounded—and that, too, sorely, even unto eath; or a seaman is not always battling with storms, though he is able to experience one at any time, and each storm may endanger his xistence.

We must not, however, run away with the idea that the consequences r outcomes of this renal inadequacy based on organic disease, and ordinarily termed "suppressed gout"—a happy term conveying at once the idea of latency and of the true pathology of the condition—are alike in different individuals. Far from it! Though, to a certain extent, its sequences are interchangeable, its different manifestations are directed by various conditions. In some families the changes are almost confined to the vascular system; apoplexy threatening during the period of hypertrophy of the left ventricle, and cardiac failure ultimately ensuing after degeneration has undermined the muscular structure of the heart. In others of a nervous diathesis, the consequences of suppressed gout fall chiefly upon the nervous system, especially in the form of those neuralgiæ of advanced life, so well described by Anstie. In women, there is often gouty dysmenorrhœa. In others, the manifestations are those of gout proper, especially in the phalanges of the extremities. In some, again, the tendency is to form masses of connective tissue in the valves of the heart, in the joints, or in the viscera. In one case, which has come under my notice, there is a dense patch of connective tissue in the palm of the left hand: the gentleman, a retired member of the profession, is an amateur geologist, and rests in his left palm the specimen he chips with his hammer. In agricultural labourers we usually find a dry inactive skin, rheumatic pains, fibrous thickening of the sheaths of tendons, and affections of the joints: chronic rheumatism, in fact, is the form assumed by chronic Bright's disease in them.

The diathesis, the occupation, the presence or absence of exposure to the weather, have much to do with the systemic indications of the primary renal disease. The peasant labourer never has gout in his great toe, or very rarely, and yet the affection is very common in portly butlers, who are heavy men, and who lean much upon their toes when waiting at table; though, in each, it may be found in the hands. The person of nervous diathesis does not suffer so severely from the changes in the vascular system to which some are most liable; while these latter, again, are not commonly subject to gouty neuralgiæ. I have at present under care a lady, who has suffered much from gouty neuralgia, complaining of gouty intermittency and palpitation, in whom the vascular system is almost free from structural change. Unlike, however, as are the different forms assumed, the origin is the same in each: and it is the recognition of that causal origin which is so important in giving the correct and rightful direction to the curative or palliative measures.

It is impossible to allude to the treatment of chronic Bright's disease here, or the measures appropriate to the management of its outcomes or sequels. These may well form the subject of another paper on some future occasion. To such as do not feel inclined to wait for this forthcoming occasion, I can refer them to the chapter on Combined Heart and Kidney Disease, in my work on the *Heart and its Diseases: and their Treatment*; where they will find the subject entertained at considerable length.

## SCARLET FEVER DURING PREGNANCY.

MRS. B.'s daughter, aged 6 years, took scarlet fever on September 1st. In another week, two sisters and a brother were ill also; all eventually recovering. My anxiety from the commencement was about Mrs. B., who was eight months pregnant; but, in answer to my inquiries, she assured me that she had had scarlet fever and was not at all anxious. On September 22nd, she complained of sore-throat, and the rash was fully out on the 23rd. The same evening, vomiting came on, and continued incessantly until the 26th, accompanied by occasional darting pains in the right thigh; but, when this subsided, the rash had almost disappeared, and every dangerous symptom was gone, and it seemed as if the vomiting, which I had vainly attempted to check, had acted most beneficially. She steadily recovered and desquamated. On November 4th, she was delivered of a fine girl, whose skin was desquamating. On November 11th, erysipelas commenced at the infant's navel, spreading over the body from the arm-pits to the toes. This was treated with lead-lotion—the child being wrapped in linen soaked in the lotion, and then covered with gutta-percha. When the erysipelas subsided, an abscess formed on the dorsum of the right foot; then on the left; both of which were lanced, giving exit to a quantity of pus. Then, another abscess formed over the lumbar vertebræ with the same result; but, after this was lanced, vomiting of green and yellow bile (?) came on, and the child died on December 6th. Unfortunately, I did not examine the urine. This case is interesting as an example of a woman passing safely through a sharp attack of scarlet fever when so near her confinement. It shows also that the vomiting was evidently a successful effort of nature to eliminate the poison; and thirdly, it is remarkable that the child should have been affected *in utero* and desquamating when born.

D. M. WILLIAMS, L.K.Q.C.P.I., Physician to the Liverpool Hospital for Consumption and Diseases of the Chest.

# UNUNITED FRACTURE OF THE FOREARM, WITH DEFICIENCY OF THE ULNA, TREATED SUCCESSFULLY BY EXCISION AND THE WIRE SUTURE.

By THOMAS ANNANDALE, F.R.S.E.,
Surgeon to the Edinburgh Royal Infirmary and Lecturer on Clinical Surgery.

R. K., aged 29, was admitted into my wards on June 24th, 1873, suffering from an ununited fracture of the bones of the forearm. About six months before his admission, his forearm had been severely injured by machinery. Both bones were fractured, and a large lacerated wound was caused by the accident. He was taken to a provincial hospital, and carefully treated for several months. About three months after the accident, a large piece of bone (a portion of the ulna) gradually loosened, and was removed. Three weeks after this, the wound was healed, but the bones had not united properly.

When the arm was examined, a large cicatrix was noticed over the middle third of the bones of the forearm; it was adherent to the ulna for a short distance, but was otherwise free. Both bones were movable at the junction of their middle and lower thirds, but the radius less so than the ulna. The ulna was not only quite ununited, but was deficient for about one inch at the seat of fracture, the result, no doubt, of the necrosis which had followed the injury. The fractured ends of the ulna were displaced towards, and adherent to, the radius. Pronation and supination could not be performed, and the arm was also weak, and, in consequence, useless.

On June 27th, I performed the following operation, with the hope of making the arm more useful. An incision, about three inches long, was made over the dorsal aspect of the ulna, so as to expose the fractured portion of this bone. It was then found that the fractured ends were rounded off and atrophied, and united to one another and to the radius by some strong fibrous texture. These ends were also displaced inwards, and there was fully an interval of an inch between them owing to the deficiency of the bone.

The condition of the bones is illustrated diagrammatically in Fig. 1, the dotted lines at A A and B B showing the amount of bone removed from the radius and ulna at the operation.

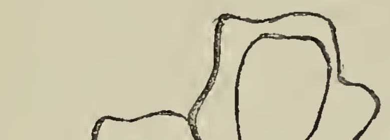

Fig. 1.

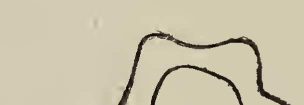

Fig 2.

About a quarter of an inch was now sawn off the ends of the ulna; and, as it was quite evident that these ends could not be brought together, a second incision was made over the dorsal aspect of the radius, and a portion of this bone, including the partially united part, was also sawn off. By thus shortening the radius to a sufficient extent, the ends of the ulna were allowed to meet, the adhesions connecting them to the former bone having been divided. The ends of both bones were then drilled and secured with strong silver wire, as shown in Fig. 2. The edges of the wounds being brought together with a few carbolised silk sutures, antiseptic muslin was applied in the usual way, and the arm adjusted on a splint. On the 3rd of July, it is noted that the patient has progressed favourably since the operation, and the wound is healing well. On the 8th of July, the wire through the ends of the ulna being a little loose, was twisted more firmly. The patient's progress continues good.

On the 3rd of August, the wounds were quite superficial, and the wire through the ends of the radius being quite loose, was removed. On the 13th of August, the wire was removed from the ulna; and on the 29th, the patient left the hospital, the wounds being almost healed.

Six weeks after this, he returned to show himself, when it was found that the bones were firmly united. The forearm, to a limited extent, could be pronated and supinated; but these and the other movements of the arm were steadily improving, and the limb could already be used in many ways, its strength being greatly improved since the operation.

*Remarks.*—For the successful treatment of this case, it was necessary to overcome two principal obstacles. These were: (1) the deficiency of the ulna; (2) the displacement inwards of the ends of the ulna, and their adhesion to the radius. In addition, the large cicatrix forming the chief covering of soft parts over the injured bones made operative interference more difficult than if these coverings had been sound. The first of these obstacles was successfully overcome by removing a portion of the radius, so as to allow the ends of both bones to be brought together. The removal of this portion of bone by diminishing the amount of the osseous element of the forearm also permitted the contraction of the wounds in the soft parts to take place satisfactorily. The second obstacle was successfully combated by dividing the adhesions, drilling the ends of both bones, and securing them with strong wire, as shown in Fig. 2.

This method of securing the fractured ends would, I believe, prove very valuable in many cases of recent compound fracture of the bones of the forearm. It is a most efficient means of preventing their inward displacement, and therefore assists much in preventing also the union of the radius and ulna to one another, a condition not easy to overcome in this class of injury. The wire which I employ in this and other operations of the kind is silver, of the thickness of that usually employed to secure the corks of soda-water bottles. The instrument used for drilling the bone is a joiner's common small pricker. Having tried more complicated instruments for this purpose, I have now a decided preference for the more simple tool, which I always find to be most efficient.

# MALARIA: REPLY TO DR. INMAN.

By W. C. MACLEAN, C.B., M.D., Surgeon-General,
Professor of Military Medicine in the Army Medical School at Netley.

ALTHOUGH I have no intention of entering into a controversy with every member of the profession who happens to believe there is no such entity as malaria, I must ask to be allowed space for a few words on the not very courteous article of Dr. Inman.

1. The candid confession with which his letter opens, that he has no personal experience of the subject on which he writes so confidently, was hardly necessary; the fact is sufficiently apparent in his letter.

2. I beg to say that I did not "attack" Dr. Oldham. This gentleman published a book, in which he put forth certain opinions, the accuracy and scientific value of which I have called in question: a very different thing from "attacking" their author.

3. When Dr. Inman, in effect, asserts that I have not read his friend's book, he is in error. Dr. Oldham was kind enough to send me a copy of his work when it issued from the press, when I not only read it with care, but, without loss of time, communicated to its author, as well as I could within the limits of a letter, the grounds on which I differed from his conclusions.

4. Dr. Inman has evidently no knowledge of what I have elsewhere written on malarious fevers, if he supposes that I am ignorant of the notorious fact that paroxysmal fevers are seen in some localities where there are no marshes, and in ships at sea. In the first instance, water is often found at no great distance from the surface, and the apparently barren soil has been found to abound in organic matter; to the above conditions add high temperature, and we have the factors needful for the genesis of the poison of malaria. In other cases, where such fevers have been found to prevail on rocky places with scanty or no

vegetation, it has often been found that the rock consists of granite in process of disintegration, in common language, "rotten granite", holding an immense amount of moisture, and largely charged, as Friedell has shown in the case of Hong-Kong, with fungi, which, with the addition of high temperature, give, when exposed to the air, the conditions required for the generation of malaria. In yet a third class of cases, it has again and again been found that the cause of the fever has been traced to the condition of the drinking water in wells left uncleansed for ages, and charged with malaria, the result of the decomposition of organic matter accumulated in them. In every known case of malarial fever occurring in ships at sea, the cause of which has been investigated by competent persons, it has been traced to one of three causes: (*a*) either recent charging of the systems of the victims with malaria, by residence in a malarious locality, as is seen every day in our invalids returning from India; or (*b*), the genesis of malaria in the holds of ships by the decomposition of vegetable matter, *e.g.*, chips left by ship-builders, acted on by bilge-water and high temperature; or (*c*), a still more frequent cause, the issuing to the crews of drinking-water taken from places notoriously malarious, as in the famous example carefully recorded by Boudin. If chill after exertion could generate a genuine paroxysmal fever with its sequels, this class of fevers ought to prevail as a common disease among the maritime population of all countries, which is not the case.

5. Dr. Inman dismisses with a sneer the examples I gave in my critical notice of Dr. Munro's paper, of malarial fevers following immediately on disturbance of the soil in Hong-Kong and Paris. But the facts cannot be sneered away. It was not the workmen engaged in the above operations, heated by day and chilled by night, who alone suffered, but the population exposed to the emanations from the soil, as recorded by many observers quite as competent to note natural phenomena as either Drs. Oldham or Inman.

At Hong-Kong, at the time indicated by me, four officers of Artillery, of whom my friend Major-General Barrow, C.B., is now the sole survivor, occupied a bungalow at a considerable height above the level of the hill-side on which excavations for building were being carried on. They enjoyed perfect immunity from the fever which prevailed lower down. At last, a young and inexperienced officer insisted on scarping away part of the hill-side, to give more room in rear of his own bedroom, thus exposing a large slice of soil to the air. The result was an attack of remittent fever that cost him his life, with the dangerous illness of two of his brother officers from the same cause; and the immediate abandonment of the house was rendered doubly necessary from the prostration of most of the servants, who, up to this time, had escaped. Will a reference to the stale joke about "Tenterden steeple and the Goodwin Sands", explain such a fact as the above? There is not a coffee-planter in India who could not give Dr. Inman many such examples from his own experience.

6. Dr. Inman justly enough points to the fact that chills cause bronchitis and pneumonia, and, as in the case of the servant-girl mentioned by him, congestion of the kidneys, and he might have added, rheumatism in all its degrees. Who disputes so familiar a fact, known to every adult person in this realm? What Dr. Inman fails to see is that, when men die from any of the above causes, we do not see in their organs after death the changes observed with an uniformity as remarkable as the phenomena of the disease itself, in those who perish from malarial fevers—the diseased blood, the pigmented organs, the diseased spleens and livers, the tinted skins, in a word, the whole train of morbid appearances characteristic of the malarial cachexy. If Dr. Inman, instead of taking his notions on malarial diseases at second hand, will pay us a visit at Netley in the coming summer, it will give me pleasure (as much pleasure, at least, as can be derived from the contemplation of so sad a sight) to show him, by the hundred, men with the stamp of malaria on them so plainly marked that those who run may read; and on the shelves of the museum the results of the action of an agent, that, call it by what name we please, works on the organs of man, in a way not explicable by the "chill" theory of Dr. Oldham or his supporters.

## THE TREATMENT OF ACUTE RHEUMATISM.*

By THOMAS S. DOWSE, M.D., F.R.C.P.Ed.; Medical Superintendent of the Central London Sick Asylum, Highgate.

As a mere humble clinical observer, I should not have ventured to trespass upon the valuable time of this Association, if I did not feel that, in the relief of suffering humanity, as far as our honest endeavours extend, we are each and all of us upon one common level. The end and aim of medical science is not to record an age of special originality, unless it have a direct bearing upon an improved treatment in the art of healing, and the simplest paths of learning in this respect must not be ignored. The rapid advances which have been made of late years to throw a flood of light upon a hitherto darkened spectrum, must claim at all times our warmest approbation and most careful scrutiny. Yet there are some, and by no means unessential, points in the treatment of diseased states which no aids at our command can reveal, save the practised eye and careful observation of the painstaking practitioner. In the few remarks which I am about to make to you, I shall not allude to any obscure theories, but I shall confine myself strictly to the practical part of my subject. The essential nature of my treatment of acute rheumatism is both eliminative and pyretic. I believe it is usually admitted that the *materies morbi* circulating throughout the entire body in this disease is of an acid character—lactic, if you will; and, although there might be some doubt as to whether this be correct or not, still it is quite certain that we have a condition to deal with in which acidity is the most prominent feature. I am not aware that its causation has been explained in any more definite way than that it is in all probability the product of malassimilation producing faulty tissue-metamorphosis. The vagueness of such a definition as this must at once be admitted. It is quite certain that especial individuals are prone under fixed laws to the generation of this rheumatic factor; that the like individuals are especially subject to a nervous condition known as chorea, and that these alternate in the same person is a matter of daily observation; but the relation which this has to the etiology of acute rheumatism, on the one hand, and chorea, on the other, has never to my mind been explained.

It is the rule (not, however, without its exceptions) that the poison of rheumatic fever is generated in an especial type of constitution, and characterised by a definite train of symptoms and signs which are well known, and need not be here enumerated. In addition to these, however, we have fibro-serous inflammations and muco-congestive complications.

It would be useless for me, in the short space of time allotted to the reading of this paper, to attempt to describe fully the various opinions which have from time to time been put forward in reference to the treatment of this disease; but, under all circumstances, the chief point of clinical interest to the physician must be to prevent inflammation of the heart and its membranes. For some time, the alkaline treatment so much advocated by the late Dr. Fuller held unbounded sway, and the admirable tables drawn up by Dr. Dickinson in 1869 prove most incontestably that alkalies have the power to prevent endocardial and pericardial inflammation. In this year, Sir William Gull and Dr. Sutton somewhat startled the profession by bringing forward a number of cases successfully treated by mint-water; in other words, by adopting careful regimen, mechanical and physiological rest, and allaying pain by opiates. Under this treatment, the average duration of the acute symptoms was seventeen days. Some years ago, when I was registrar at Charing Cross Hospital, the treatment of this disease occupied my serious attention. Dr. Salter gave three grains of quinine every three hours, whilst Dr. Headland gave alkalies. I then found that the course of the disease was cut short by the quinine, but that the tendency to heart-complication was greater than when it was treated by alkalies. From a careful survey of the various modes adopted in the treatment of acute rheumatism, including vapour-baths, lemon-juice, tincture of iron, aconite, hydrochlorate of trimethylamin, blistering, and others, I am inclined to think that its progress can be cut short by the means which I shall immediately explain to you, and that cardiac inflammations can be avoided. I am right in stating it to be an admitted rule that, if valvular disease of the heart or pericarditis supervene upon an attack of rheumatic fever, it does so within the first week or ten days. This is to a certain extent undoubtedly correct. I am one of the few who believe that inflammation of the endocardium is a constant attendant of the acute rheumatic state, not giving rise in many cases to valvular lesion at the time, but predisposing to subsequent change, which reveals itself under circumstances apparently the least provocative. It is quite true that in acute rheumatism no absolute *bruit* referred to the sounds of the heart can, in the majority of instances, be detected, and at the base the sounds will be clear and natural in rhythm, but at the apex they will be attended by a characteristic turbulence and commingling, which, with the hurried action of the heart and feeling of oppression in the epigastrium, will be indicative of hyperæmia of the mitral valves.

Thus it seems to me that, in the treatment of rheumatic fever, we have, first, to consider the best way to eliminate the acid products of the diseased state; secondly, to relieve pain. Beyond this, the case can be treated as an ordinary one of functional glandular derangement, or febricula; for, when once the sour secretion from the skin is eliminated (no matter how acid the urine might be), the pain subdued, and the temperature influenced, we need have no fear of heart-complication arising. Then comes the question, What are the best means, if there be any, to bring about this condition?

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* Read before the Medical Section at the Annual Meeting of the British Medical Association at Norwich, August 1874.

During the past three years, I have been in the habit of packing most of my cases in a wet blanket, and afterwards rolling them up in dry blankets, so as not only to promote profuse sweating, but also to increase the temperature. This mode of procedure, which I conducted in a very indefinite manner, gave such good results, that I thought carefully over the *rationale* of the system, and at once adopted a course of wet packing after the manner and with the success which I will relate to you. The procedure is simple. The bed is covered with India-rubber sheeting; over this is laid a blanket which has been wrung out of hot water. The patient is then enveloped in the blanket, and covered with six folds of dry blanketing. By this, the temperature is raised and profuse sweating results: the former, if need be, is assisted by the administration of brandy in half-ounce or ounce doses every hour, and the latter by giving freely warm milk and water. If the temperature exceed 102 deg., then the stimulant is unnecessary. My plan is to continue the treatment for three successive days; namely, for six hours the first day, four the second, and two the third. After the first pack, the patient is free, or nearly so, from pain; after the second pack, the pain has completely subsided, and after the third pack the sour smell usually disappears. In addition to the relief from pain and subsidence of acid secretions, the pyrexial state, with its attendant symptoms, will be found to decrease in direct ratio, and likewise the pulse. The secretion of urine will become more plentiful and the urea will diminish in quantity; yet, although the improvement is so marked in reference to pain, sweat, pulse, and temperature, the urine remains acid and loaded with lithates, and the tongue coated, for some days longer. It not unfrequently happens, especially in young people, when the weather is variable, that transitory pains return in one or more joints; but in almost every instance the pain has been subdued, if not by the first, by the second bath. In reference to cardiac inflammation, I believe that this treatment subdues it more rapidly than any other, rendering the valves less likely to undergo organic change.

But now comes a very important practical question. There can be no doubt that the packing process produces considerable constitutional disturbance. Under what circumstances should this treatment be adopted, and under what conditions is it not practicable? Every one who has had much to do with this disease must be conscious of the anxiety which it gives him when the temperature exceeds 105 deg. or 106 deg., and especially when it is associated with the least sign of cerebral disturbance; and, as my treatment consists in elevating the temperature, it will be apparent that some care is necessary. Thus, according to my experience, it should not be adopted—1. If the patient suffer from incompetency of the aortic valves; 2. If there be much fluid in the pericardium from previous inflammation; 3. If the temperature be over 104 deg.; 4. If the skin be hot, dry, and harsh, without the least tendency to sweating; 5. If there be extreme nervous prostration from habits of drunkenness or other vitiating cause; 6. If the patient be pregnant.

Again: during the time the patient is packed, the following points must be observed:—1. If, after two or three hours, the patient become very restless, with a dry non-perspirable skin, I should advise the treatment to be discontinued; also when the temperature exceeds 105 deg.; 2. If the temperature do not rise, and the patient be sweating freely, give half an ounce, or even an ounce, of brandy every hour in warm milk and water. Thus we have to secure profuse sweating and a mean temperature of 104 deg.; we have to guard against a dry skin and a temperature over 105 deg.

Let us consider this a little more practically. If a healthy child be packed for six hours as directed, whose normal temperature is 99 deg., we find that it will only rise one degree during the whole course of the six hours, and the administration of a stimulant will not cause it to rise any more. It is very different during the pyrexial stage of acute rheumatism, and I have proved most unquestionably that, when the packing alone does not increase the temperature, this is easily brought about by giving brandy in the manner just stated. I have adopted this treatment with excellent results in cases where there has been, in addition to the rheumatic inflammation, a mitral murmur, pericarditis, and pleuropneumonia. In some cases, I give medicine, in others I do not. My rule is this: not to give medicine or solid food until after the third packing, and this means not until the acute symptoms have subsided and the temperature is down to 100 deg.; then some vegetable tonic, with solution of acetate of ammonia, is to be preferred to large doses of alkali or quinine. If, however, the case have been of long duration before coming under treatment, and if it be the third or fourth attack, with probably cardiac disease, then of course the orthodox measures must be resorted to for such complications. If the temperature should run very high, with tendency to delirium, I believe the best plan is in every instance, whether under the packing treatment or otherwise, to apply ice to the head, expose the body freely to a current of cold air, and sponge it over lightly with a mixture of one part of spirit to two of water, until the temperature falls; then to discontinue this, and to apply a sinapism to the epigastrium. The following case occurred in my practice, from which a lesson might, perhaps, be learned. A young robust woman, aged 19, came under my care with incipient acute rheumatism, but with a dry harsh skin and a temperature of 102 deg. I had her packed in the usual manner at 1.30 P.M.; at 4.30 P.M., there was no action of the skin; temperature, 104 deg.; at 6.30 P.M., still no action of the skin; temperature 106.2 deg.; rapid action of the heart and tendency to delirium. I at once applied ice to the head, bathed the exposed body with spirit and water, and in twenty minutes I was pleased to find the temperature down to 103 deg.; the following morning it was 101 deg. Again: a woman, aged 28, of drunken and dissolute habits, came under my care with the third attack of acute rheumatism; there was considerable prostration and a temperature of 103.2 deg. I thought that I detected a fine murmur obscuring the second sound at the base of the heart. I ordered her to be packed in the usual way; but her temperature continued to increase, until it reached 110 deg., and she died. This is the only case which has terminated unfavourably out of a very large number. Whether the high temperature arose from the treatment, I am unable to say, and, as such cases do occur now and again under any treatment, I must decline to give an opinion.

# ON DIPHTHERIA.*

By THOMAS PRANGLEY, M.R.C.S.Eng., Aylsham.

OUR acquaintance with diphtheria being of so recent a date as to render it doubtful whether we have as yet witnessed all its phases, is the excuse for bringing before you such facts and information as I was enabled to gather from notes of fifty-six cases which came under my notice during an outbreak which occurred in my neighbourhood in the summer and autumn of 1868. As it is impossible in a paper of this kind to treat the subject in an exhaustive manner, I think I shall be best employing the time in discussing those points which may guide us in our prognosis and treatment; and shall make reference only to the cases which have fallen under my own observation, without availing myself of the labours of others.

During the epidemic which I witnessed, the disease assumed all degrees of severity; thus sometimes it so little affected the health, that the patient could remain at work, and would recover in a few days. In the majority of cases, however, the disease as a rule ran a much more severe course; in some cases coming on so insidiously, that the patient was in the jaws of death before I saw him—killing not through any local complication, but by general poisoning of the system, characterised by the predominance of asthenic symptoms and the exhaustion of the vital powers. Other cases were characterised by symptoms of apnœa, caused by the extension of the membrane to the nares, larynx, and trachea.

The actual "soreness" of the throat afforded no indication of the severity of the attack; for, though there was generally considerable pain during deglutition, in some cases it was so slight as to be scarcely appreciable. Thus I have notes of two cases of unusual severity, in which there was absolute immunity from pain on swallowing. In one of these, the throat was covered with a large grey membrane, and in the other case, that of a child, who ultimately died, both tonsils were covered with grey slough, and the lower part of the uvula sloughed; but there was no difficulty in swallowing. As a rule, it was more severe with children and in those cases which were ushered in with acute febrile symptoms, and was generally most experienced during the period of the membrane disappearing; so that I began to look upon the statement "that the medicine cut the throat" as a good sign; and the absence of all pain nearly always revealed on inspection a thick mass of grey slough, and was consequently a bad sign.

The variety of forms which the false membrane assumes, and the various conditions of the tonsils, are very remarkable; thus I have seen the membrane in consistence like glazed starch, cream, wet parchment, and a greyish flesh-like pulp of all degrees of colour, from the purest white to almost black. I have seen it in specks, patches, shreds, and in large firm membranes, forming an exact cast of the part it enveloped. I have seen the specks or patches surrounded by a bright red border, or gradually becoming thinner at the edges, imperceptibly losing itself, so that one could not exactly say how far it extended. I have seen the tonsils engorged to such an extent as to almost meet, or enlarged laterally, as if they had been flattened by a weight on their surfaces; and I have notes of one case in which the tonsils were rather depressed. The glands at the angle of the jaws were more or less enlarged; but I never saw them suppurate. In arranging my notes of various cases, I find that in some the membrane was confined to one tonsil throughout—but these cases were rare; in others, it affected both tonsils; in others, the uvula was also affected, and in two cases sloughed off. In several, the membrane covered the palate and pharynx, and, in the most severe cases, spread into the nares and trachea.

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* Read before the Medical Section at the Annual Meeting of the British Medical Association in Norwich, August 1874.

The practical question is, Will these appearances in the throat guide us in the formation of a correct prognosis? I think this may be answered in the affirmative; for, if we do not find the tonsils engorged, or only enlarged laterally as if flattened, and if we find them covered only with specks or patches, and more especially if these be defined by a surrounding bright red border, and if the glands at the angles of the jaws be not much enlarged, we may foretell a favourable issue. If, on the other hand, we find the tonsils prominent, the fauces red or dusky, and if we find them covered with a glairy fluid like starch, or the patches undefined, so that we cannot satisfy ourselves where they terminate, we may be almost certain that the next time we examine we shall find the starch converted or the patches coalesced into one mass of thick membrane, and shall be more cautious in our opinion, and congratulate ourselves if our fears of a severe case be not realised.

The manner in which the membrane disappeared and the throat recovered varied considerably. In some cases, it broke up into shreds, and was either swallowed or expectorated with mucus; in other cases, it exfoliated entire, and in these, similarly to what happens if it be artificially removed with the forceps, a new membrane appeared, but of less density than the one which preceded it. Thus I have seen as many as half-a-dozen successive membranes form one after the other, each one of less density than its predecessor, till at last a thin film of almost transparent lymph was the last trace of exudation. In other cases, the membrane retained its original form to the last, and seemed to imperceptibly waste day by day, becoming gradually thinner and more transparent; so that I frequently find such notes as these in my case-book: "Membrane seems to be gradually getting thinner"; "Membrane has gone apparently by absorption."

On a few occasions, after the entire disappearance of the membrane, I found the tonsils again speckled all over with small white cheesy spots. These need cause no alarm; for, though they remained *in statu quo* for some days, they always disappeared without further inconvenience.

One of the worst signs in this disease was the extension of the membrane to the nares, so that I looked suspiciously upon the unfortunate patient, who began to use the pocket-handkerchief too freely. This invasion of the nares was manifested by redness of the margin of the nostrils and a discharge of thin mucus, which rapidly became purulent and, as the disease progressed, very abundant; so that the sole occupation of the patient seemed to be wiping the nose. I possess notes of four cases in which this complication was very marked, and in neither was it delayed later than the sixth day. The constant discharge, acting as an irritant, soon produced excoriation of the edges of the nostril and upper lip; and, in one severe case, these parts were covered with scabs, bleeding at the least touch. The spread to the nares may be apprehended when we find the membrane rapidly spreading over the soft palate; and, in all the cases I have seen, it appears to have reached the nares by this route, and not from an independent centre. In one case, the left nostril was blocked up with membrane, which was one day suddenly discharged, forming a complete cast of the nostril, and at once set the passage at liberty. While this nostril was blocked up, a very curious phenomenon occurred, showing at all events that the nasal duct was patent; whenever the patient swallowed fluids, some would come down the nose, and some would appear at the corner of the eye, making it smart. Of the cases in which the nasal complication was present, three died.

The propagation of diphtheritic membrane to the larynx and trachea is another ominous symptom. I have notes of seven cases—all children—in which this occurred, and of these four died. In some cases, it is the only dangerous complication, and may kill by asphyxiating the patient by suffocative paroxysms; and in others it is an additional burden to the unfortunate who has the disease already established in the nares. Its presence is usually first announced by a small dry cough of a peculiar character, resembling that of croup; then the voice becomes affected, and shortly the breathing becomes difficult, each inspiration producing a kind of whistling sound. As the disease progresses, the voice becomes more and more hoarse, till at last it is completely muffled, and the patient speaks in a whisper.

A peculiar feature which I have observed in these cases is an intermittence in the symptoms, which at first induced me to give a too favourable opinion, and to congratulate myself upon the efficacy of my treatment; thus I have seen the fits of dyspnœa reduced in frequency, the respiration becoming more regular, and an almost entire remission of laryngeal whistling; and then, at shorter and shorter intervals, especially at night, all would recur, the patient, apparently without any exciting cause, starting up in bed, making immense efforts to breathe, and, after a severe suffocative fit, falling back on the bed, blue in the face and exhausted. These fits may recur over and over again for some hours, and then another remission occurs, most probably only to be succeeded by a more severe exacerbation, till at last, after one severe effort, the agonies of death close the scene.

It may be well to pause here a moment to consider what is the cause of these intermissions, which so cruelly raise false hopes in the patient and his friends. Is it the displacement of a portion of the membrane in the trachea, being either coughed up, or, valve-like in its action, being pressed close to the walls by the force of inspiration, and thus permitting the free ingress of air? or does it resemble one of those pathological phenomena which we meet with, but cannot explain, in such diseases as cancer, where the pain is intermittent? or does it, as in asthma, depend upon the additional element of spasm being added to the burdens? I think that the latter explanation is the most probable; for the suddenness of the attack, and its more frequent recurrence in the night, seem to favour this view.

In connection with this, I will call your attention to a phenomenon which frequently occurs in this disease, and that is "noisy breathing" during sleep. This is to be distinguished from laryngeal breathing, or we may unnecessarily alarm ourselves and patients. There is no stridor, no affection of the voice, and no suffocative paroxysms. It appears to me to arise from mere obstruction in the throat, and is still worse if the nares be implicated.

Time will only permit me to simply mention without comment certain sequelæ. Of these, I have observed marked anæmia, dyspeptic symptoms, tendency to faintings, and various symptoms depending upon loss of nervous force, such as aphonia, paralysis of the palate, protracted difficulty in swallowing from paralysis of the pharynx, defective vision, depending upon loss of power in accommodation, such as presbyopia and diplopia, wry neck, and various degrees of general paralysis, from numbness and tingling of the hands and feet to total paralysis, preventing the patient from moving in any degree. Of these affections, paralysis of the soft palate and defective vision were the most frequent.

Passing over many interesting points in the clinical history of this disease, I proceed to the practical question of its treatment, which resolves itself into—local, directed to the throat itself; general, to combat with the great tendency to depression of the vital powers; and individual means to relieve certain symptoms which may arise during its course.

The local treatment I adopted in every case was the application of tincture of iodine (forty-eight grains to one ounce) to every part of the throat covered with membrane at least once in twenty-four hours, and the inhalation of iodine vapour mixed with steam, but more especially the latter, if the larynx were invaded. If the membrane were firm in texture, and not too strongly adherent, I always removed it and applied the tincture of iodine to the denuded surface, and with the best results; for, although frequently the membrane would re-form, yet it never regained its pristine condition. If the membrane were in specks or shreds, I applied the iodine over them, and in general half-a-dozen applications were all that was required to procure their dismissal, and in several instances two applications were sufficient. This local application of iodine acts, not only as a caustic, but, I believe, confers a modifying influence upon the secreting structure, and further brings into action the power of the absorbents; thus tending to retard the spread of the membrane and to promote the removal of that which is formed. I am aware that, in urging this treatment, I am at issue with many who contend that, this disease being a general one depending upon certain changes in the blood by the introduction of a specific disease-poison, it is useless to attack the local manifestation of the disease any more than the pustules of small-pox. To those I would call attention to John Hunter's axiom, that two similar diseases cannot coexist in the system at the same time. For example, he states that, if you can succeed in changing the nature of an inflammation, you can often cure the original complaint. Higginbottom's method of arresting the spread of erysipelas by vesication with nitrate of silver is a familiar illustration of this Hunterian law; and, if that treatment be effectual in erysipelas, why should not a similar treatment be equally efficacious in diphtheria? Again, I believe that the local manifestation of blood-poison is of itself a great indication for treatment; for do not all poisons have some definite and specific action on some membrane or organ? Thus does not arsenic exert its influence chiefly on the mucous membrane of the stomach, colchicum on the ligaments, cantharides on the kidneys, and strychnine on the spinal cord? Then why should not the throat be the chief seat of the diphtheritic poison, and, if so, why should not the rational treatment be to arrest and destroy it at its first encampment? Again, if my experience be correct, that one of the most formidable symptoms we meet with is the extension of the membrane to the nares and trache, and, if my opinion be correct, that it does not arise there by an independent centre, but by extension of the membrane from the fauces,—is not this an additional reason for staying the progress of the membrane and limiting it to the fauces, whether we adopt caustics or any other means with that object in view? That iodine possesses this property, I feel convinced; and, as I am not reading to you a treatise on diphtheria, but simply my own experience, I shall not enter into the merits or demerits of the various remedies which have been vaunted by numerous successive writers. The efficacy of any treatment is proved by its results; and, as I have stated, out of fifty-six cases which I have noted, seven died, of which five were moribund when seen, and only two died fairly after treatment.

The general treatment was supporting and stimulating throughout. A liberal supply of beef-tea, wine, and milk was frequently and regularly given, to maintain the system against the natural tendency to depression and exhaustion. In medicine, I rely upon chlorate of potash and tincture of steel, from three to five grains of the former with five to fifteen minims of the latter every four hours, according to age. When tracheal symptoms arise, I at once have recourse to the inhaler, beginning with ten drops, increasing to a drachm of the common tincture of iodine to a pint of boiling water, and letting the patient inhale as frequently as possible. In using this, one precaution is necessary, and that is not to begin with too large a supply of iodine, otherwise it is too irritating, causing the patient to cough, and making him unwilling to use it. I have found ten drops well borne to begin with; and, after a short time, we may gradually increase the quantity to a drachm to the pint without inconvenience. If this do good, which it undoubtedly does, it is evident it cannot be by any caustic action, but entirely through its modifying and absorbing influence upon the diseased tissue. I can refer to three cases in which this treatment was of marked utility. In cases where the fits of dyspnœa are severe and frequent, I have found nothing like an emetic of sulphate of copper, which generally expels a quantity of membrane from the larynx and trachea, and gives relief for a time at all events.

In tracheotomy I believe we may place considerable reliance, although my experience is limited to one case, and that unfortunately a fatal one; yet I firmly believe that, if it be resorted to soon enough, we may rescue many lives. There is no doubt one feels inclined to put it off as long as possible; for parents have a curious repugnance to having their children's throats cut; and, if you are not successful, they speculate upon what assistance you afforded nature in her process of dissolution, and generally the balance is against the doctor; yet the evidence of numerous published cases, of which, roughly speaking, one-fourth were successful, proves that it is our duty not to neglect this chance of saving life, and more especially not to delay too long in resorting to it.

The treatment of the numerous sequelæ is difficult to formulate. I believe time and the *vis medicatrix naturæ* to be our most important agents; yet something can and ought to be done, for it would indeed be cruel to leave a poor patient totally paralysed without the hope of some assistance to the slow progress of nature. In those cases, I generally prescribe the liquor strychniæ in five-minim doses, gradually increased to twelve, three times a day; but I candidly confess I think it often did no good, for I well remember one case in which I gave it for a whole month, the paralysis steadily increasing the whole time. I then left it off, and prescribed a liniment as a *placebo*, when gradual improvement commenced, and recovery ultimately took place; but, on other occasions, I have found it decidedly of service, though I am doubtful whether it be more active than quinine, mineral acids, and other tonics. I believe we most show our discretion by changing our tonics, till we find the one best suited to the individual case, than by habitually using one formula indiscriminately. In addition to the tonic regimen, I recommend, when practicable, a judicious change of air and scene. On one occasion, I had resource to galvanism, with no satisfactory result. I believe that rubbing and shampooing the limbs is of some service; at all events, it does no harm; and the simultaneous use of a little embrocation no doubt assists the charm. Some of the dyspeptic symptoms I found very troublesome to treat. As a rule, bismuth gave the most relief, combined with bland nourishment; and, when the acute symptoms had subsided, a combination of quinine and strychnine was of marked benefit in giving tone to the digestive organs.

For the tendency to faintings which sometimes occurs, I have given a dose of ether; but what is most important is to enjoin the recumbent posture till convalescence is well established, and even then I recommend a little wine to be taken before any exertion is used.

Having alluded to the general treatment of diphtheria and its sequels, there yet remains to be mentioned other minor points, which are of considerable importance to the suffering individual, by which we may alleviate suffering and hasten recovery. For example, where the patient complains of sore-throat *ab initio*, I have found an iron gargle (two drachms of the tincture to half a pint of water) beneficial; but this I have found too cutting when the membrane has disappeared, and then I have substituted one of borax and glycerine (two drachms of the former and one ounce of the latter to half a pint of water); and this gargle I have also found very useful to relieve the sensation of bread-crumbs and tickling in the throat, of which complaints are frequently made during convalescence. Where the denuded surface has proved to be ulcerated, a few touches of nitrate of silver assist the process of repair; and in one case where the tongue and roof of the mouth was so sore, that everything that was taken gave pain, I found that great relief was experienced by applying dry trisnitrate of bismuth powder with a camel's hair pencil just before taking food. In paralysis of the soft palate and regurgitation of fluids through the nostril, holding the nose during deglutition will be found very much to assist the act: this a patient of mine found out for himself, and I subsequently confirmed his statement in other cases. In these cases, too, I always advise thick drinks, which are more easily swallowed. When the pharynx is also affected, a large bolus is much more easily passed down than a small one, so that I have advised the collection of all the food in the mouth into one mass before swallowing. This is no doubt accounted for by the weakened muscular fibres of the pharynx being enabled to grasp a large bolus with less contractile effort, than would be required for a small one. In one case, I kept a patient alive for some days by giving the yelk of egg unbroken, and letting it glide down his throat, as it were. These are a few practical hints, which, from what I have seen, I believe to be useful; but the ingenuity of the practitioner will often be put to the test in coping with the anomalous symptoms which sometimes arise during the progress of this horrible, though interesting disease. Much might be written upon this important subject; in fact, a single case will often afford, in its chequered course, abundant matter for a long paper; but I have endeavoured to be as brief as possible, and, with that object in view, have entirely excluded the histories of cases which I should otherwise have liked to introduce.

## A CASE OF TUMOUR OF THE BRAIN, SIMULATING APOPLEXY.

By ALFRED H. MARTIN, M.B.T.C.D.,
Assistant Medical Superintendent, Joint Counties' Asylum, Carmarthen.

M. L. was removed from Briton Ferry to this asylum in March 1868; and, from that period up to June 15th, 1874, had been under care and treatment in this institution. The assigned cause for her insanity was intemperance, and her aberration of intellect manifested itself by great irritability of temper, flying into ungovernable fits of passion without adequate provocation. The following extract from the case-book will show that the above history has been completely borne out.

"December 1873. Continues in fair bodily health and condition. Is employed regularly in the laundry, where she works steadily. Her mental state is much enfeebled; she is, however, coherent in her conversation, and replies to questions correctly. Is generally contented, and cheerful in manner and appearance; but, if thwarted in any way, becomes very much excited, loquacious, and abusive. Her desire for stimulants still exists, but is scarcely so prominent as formerly. Is always neat and clean in her personal appearance."

Since the above report was made, she had, in no material way, changed, up to the day of her death. She was occasionally troubled with slight attacks of dyspepsia, which yielded readily to appropriate remedies. She never made any special complaint of headache; there was no paralysis, either facial or in the extremities, and the pupils were perfectly equal and sensitive. Her sight, hearing, and other senses, were perfect.

On the evening of June 14th, she complained of not feeling well, and, for the first time, of pain in her head. She appeared slightly excited, and when accused of having taken the other patients' beer at dinner, became noisy and abusive. Her pulse at the time was 76, full and strong. She was reported next morning as having been sleepless during the night, and occasionally noisy, quarrelling with another patient in the same dormitory; but, at 6 o'clock A.M., she got up as usual, and proceeded to her work in the laundry. She was noticed by an attendant to stagger about, and as she still complained of not feeling well, was taken back to bed. A short time afterwards, as she had fallen into a state of perfect unconsciousness, the medical officers were summoned; she was found by them lying on her back, breathing quietly; pulse 64, full but irregular, both in force and frequency; temperature slightly below normal. The complexion had changed, and was assuming the cadaveric hue. The right pupil was widely dilated, and quite insensible to the stimulus of light; the left pupil was naturally dilated and sensitive. The right side of the face appeared to lack expression, and the right corner of the mouth was drawn to the left. Her left upper extremity was flexed, rigid and immovable—the inferior one was also in the same condition, but to a less extent; slight reflex movements being produced by tickling the sole of the foot. She was perfectly unconscious, and could not be roused. There was no stertor. A brisk stimulating enema was administered, which brought away a copious evacuation, but without producing any favourable change in the patient's condition; and, the vital powers gradually failing, she died at one o'clock P.M.

POST-MORTEM EXAMINATION.—Forty-nine hours after death, rigor mortis was well marked. There were hypostatic stains on back and buttocks. The body was very fat and muscular; there was at least an inch of subcutaneous adipose tissue over the abdomen. The ribs were extremely thin and frangible. The anterior portion of the lungs was spotted with black pigment (due, no doubt to the fact, that for some years she had been the attendant on the laundry fires, inhaling of necessity small particles of coal-dust. The heart weighed 9½ ounces. A small quantity of fluid blood was found in the right auricle and ventricle, there were no clots in either side of the heart. The right auriculo-ventricular opening was 1¾ inches in diameter; the left, 1½ inches; the opening of the pulmonary artery, ¾ of an inch; the aortic opening, 1 inch. The valves were healthy and competent. The muscular substance was much softened. The right lung weighed 19 ounces; it was adherent at the apex to the costal pleura, and was congested inferiorly and posteriorly. The bronchi were filled with frothy mucus. The left lung weighed 14 ounces, and was in exactly the same state as the right one. The liver weighed 49 ounces. The gall-bladder was full. The peritoneal covering was adherent, tearing the substance of the liver when removed. The organ was passively congested; its substance was softened. The right kidney weighed four ounces; the left, three ounces. In both, several cones were shrunken, and partially obliterated. The substance was firm. The spleen weighed four ounces, and was slightly congested. The calvarium was increased in density. The encephalic mass weighed 47 ounces. The membranes were congested; the convolutions were flattened on the right side. The right hemisphere was in a state of white *ramollissement.* The right optic thalamus was smaller than the left. The central ganglia were softened throughout. In the right cerebral hemisphere, and forming the roof and part of outer wall of the right lateral ventricle, was a fibrous tumour, situated a little posterior to, but evidently pressing upon, the optic thalamus of that side. The choroid plexus was adherent to the tumour, which had no other attachments. In size, the tumour was about as large as a hen's egg, and weighed 2¾ ounces.

REMARKS.—Owing to the comparative rarity of tumour of the brain, I feel justified in publishing the above case. There are several points of interest to be noticed.

1. The fact of such a large tumour, and corresponding large amount of brain-substance in a thoroughly disorganised condition, having existed, without symptoms or physical signs, until within a few hours before death.

2. The sudden loss of consciousness, with the rapid development of all the physical signs of intracranial pressure in the locality of the right lateral ventricle.

3. The exhibition of irritable temper with mild mental confusion—mental symptoms to which Russell Reynolds has called attention as being symptomatic of cerebral tumour. But it would have been too bold in this case to predicate the existence of a cerebral tumour without other data on which to found a diagnosis.

History points out to the practical physician the utter impossibility of always being able to pronounce with certainty the exact nature of the lesion which exists in such cases.

# CLINICAL MEMORANDA.

## THE PATHOLOGY AND TREATMENT OF CHOLERA.

DURING the discussion which followed the reading of Mr. Hall's paper on the above subject at a recent meeting of the Royal Medical and Chirurgical Society, it was pointed out by Dr. Althaus that the theory advanced by that gentleman was not new, but had already been proposed by Eulenberg. Mr. Hall, in his letter in your issue of the 7th of November, still, however, claims the priority, stating that he is not aware that anyone had brought forward this theory previously to himself in 1869. I would call Mr. Hall's attention, and that of the profession in England, to a remarkable paper, in which his views were in every essential point anticipated by a countryman of our own, Dr. C. W. Bell, Physician to the Persian embassy, which was published in the *Medical Times* of the 11th March, 1848, and quoted in full in Braithwaite's *Retrospect of Medicine* of corresponding date.

Like Mr. Hall's, the starting-point of Dr. Bell's theory was that the cholera-poison acts as a powerful stimulant to the sympathetic system, and that the collapse of cholera consists essentially in general arterial spasm; and he works out the details of the theory with great ingenuity, very much in the same manner as Mr. Hall now does. This paper was too much in advance of the pathology of the day to receive the attention it deserved, and it seems to have passed entirely from the recollection of those who took part in the debate. Mr. Hall's ignorance with regard to its existence is more remarkable, because it has been more than once pointedly referred to in the *Indian Medical Gazette* during the last two years; and the students of my clinical class are familiar with Dr. Bell's theory, as one of the most ingenious that have ever been proposed in explanation of the symptoms and *post mortem* appearances of cholera.

It is generally admitted in India, that remedies, to be of any avail in the collapse of cholera, must be administered hypodermically; but the subcutaneous injection of chloral, according to Mr. Hall's plan, has not met with the success in Calcutta that the published cases led us to expect. I have myself treated only nine cases in this way, with but three recoveries, one of them being a mild example of the disease, which would probably have got well under any ordinary treatment. The experience of the gentlemen in charge of the General Hospital has been larger, but scarcely more encouraging; and I am informed that, since this plan of treatment was adopted, the cases have exhibited a somewhat higher rate of mortality than usual. In my own cases, I have noticed a rise of temperature after the injection of chloral in most instances, even when the cases were terminating fatally; but, beyond this and mitigation of the cramps, the distressing symptoms did not appear to be influenced by the drug in any marked degree. Cases of cholera dying *in the stage of collapse* have, not infrequently, an axillary temperature of 101 deg., or even 103 deg. Fahr. for some hours before death—a rise which often continues during the next two hours till a self-registering thermometer placed in the rectum may be found standing at 108 deg.; and I have learned to regard a rapid rise of temperature to a point above normal, with persistence of the restlessness, pulselessness, and laboured breathing, as occurred in several of my cases treated by chloral, as of particularly evil import.

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## CASE OF MUSHROOM-POISONING.

I FORWARD the following case as adding another to the list of poisonings by mushrooms. The patient was a clergyman, who had for two months been a curate in one of the large manufacturing towns of Lancashire. On Monday night, September 7th, he, in company with one of his sisters, partook of a large plate of mushrooms for supper, of which he ate the larger share; for some time before this he had not been in good health, and was evidently below par, as is well shown by the following fact. He had suffered much from toothache, and went to a dentist to have the tooth extracted, but was advised not to have it out, as the pain came more from debility of system than from the tooth. No immediate symptoms followed—*i.e.*, he had no vomiting, pain, or purging; but for the next two or three days he felt very unwell and weak. On the Friday, he was so bad that Mr. Shepherd of Wigan was sent for, who prescribed for him, and said he would see him the next day. On the morning of the next day, he got up; but felt so ill that he was obliged to take to his bed, when he became rapidly worse, his chief symptoms at this time being dyspnœa, cerebral excitement, with fever, coupled with a rash similar to that seen in some people after having eaten shell-fish. Dr. Crompton of Manchester was then telegraphed for, and saw the patient together with Mr. Shepherd and myself. On examining the patient, nothing abnormal could be found either in the thorax or abdomen to give rise to these symptoms; and Dr. Crompton was of opinion that they were due to contraction of the smaller arteries, caused by some poison circulating in the blood. He accordingly suggested that belladonna should be given, with the view of relaxing their tension; but, unfortunately, after two or three doses, it produced such violent delirium, with dilated pupils, that it was obliged to be discontinued, and a dose of chloral given to subdue the excitement. Bromide of potassium was then tried, at my suggestion, for some days, but produced no positive results. So, from that time, the treatment consisted in keeping up the patient's strength, and in aiding as far as possible the eliminating processes; and so it was tried to keep the patient alive until the poison had exhausted itself; but, unfortunately, he grew more and more feeble, was very apt to be delirious, and procured but little sleep. The pulse grew weak and frequent; the tongue brown, dry, and tremulous; the abdomen tympanitic; and in exactly a fortnight after the severer symptoms set in, he sank exhausted by the virulence of the attack.

It was most unfortunate in this case that the patient was so susceptible to belladonna, as it might have proved practically the value of atropine as an antidote to muscarin, the alkaloid contained in mushrooms. It shows, however, how virulently the poison will act when introduced into a system susceptible to its influence, or debilitated from any cause, while others may escape unscathed, as in the case of the sister, who ate from the same dish at the same time, but had no unpleasant symptom. This being the case, I think physicians should be careful in ordering mushrooms as an article of diet; and, at the same time, I think the profession should exert itself to try to find out what it is that sometimes converts a favourite and common aliment into a deadly poison.

CHARLES F. HUTCHINSON, M.D., M.R.C.S., Scarborough.

### INFLUENCE OF VACCINATION ON THE FŒTUS *IN UTERO*.

WHEN I had charge of the Birmingham Small-pox Hospital, I practised vaccination in several instances upon women at various stages of pregnancy. I have not had a single case of unsuccessful vaccination amongst the children. In my own family, one case occurred; and, out of eight incisions, four were perfectly successful. Therefore, I cannot agree with Dr. Underhill, that his case proves his point—that the vaccination virus so permeated the mother's system as to render the child insusceptible to successful vaccination. Would it not be well if Dr. Underhill vaccinated again, as required by the Vaccination Act, before certifying as to the insusceptibility of the child? I may mention, as, perhaps, a remarkable coincidence, that I have had two cases recently where the mother suffered from small-pox at the time of her delivery; and in neither case (one child is more than two months, the other six weeks old) has the child, up to the present, shown any symptom of small-pox or other illness. E. T. BURTON, Birmingham.

### IDIOPATHIC ANÆMIA.

I HAVE read with much satisfaction, in the JOURNAL of November 28th, the paper on this singular disease described by Dr. S. Wilks of Guy's Hospital. It recalls vividly to my mind a case which I had under my care some five years ago, and in which I was greatly interested both personally and professionally. The subject was a gentleman "about the middle period of life", "large and bulky", with a strongly marked tendency to accumulate fat. I write under inverted commas; and indeed, in order to describe very clearly my case, it would only be necessary to quote almost *verbatim* the text of Dr. Addison's treatise, which with wonderful accuracy depicts the history, signs, and symptoms which presented themselves to me.

The advent of the disease in the case to which I refer was slow, insidious, and undecided. He was in the beginning very ill one week, the next comparatively well. Gradually he became pale, waxy, and without a vestige of colour. His pulse was slow, soft, and compressible. The least excitement or bodily exertion painfully distressed him with palpitation and dyspnœa. He lost appetite, and finally died out after a few days' confinement. His illness extended over twelve months, during which period he had all the advantages which easy circumstances could give, in the way of travel, change of scene, etc. He had also the best professional assistance this city could afford, and, in addition, the advice of Sir Thomas Watson, whose letters to me on the subject are before me, and who "could find no cause in him", his heart-sounds being right, "his lungs, liver, and kidneys sound". Sir Thomas was inclined to attribute the origin of the patient's symptoms to a severe shock occasioned by the somewhat sudden death of an elder brother from heart-disease (pericarditis), arising in the course of Bright's kidney. For myself, I never hazarded a diagnosis, as in point of fact I was unable to classify or name the disease, although I conjectured the existence of some splenic lesion. One of the few variations in my case from Dr. Addison's description was, that some wasting and loss of flesh took place in the latter stages of the illness, and that the intellectual faculties remained unclouded up to almost the moment of dissolution. I will not detail the varied treatment adopted; but I may state generally that my patient derived not the least benefit from drugs or any of the many agents which were so fully availed of. The disease progressed with equal step, uncontrolled to the end. Unfortunately, no examination was made *post mortem*—always a difficulty in private practice, and especially so in this instance, as decomposition set in with unusual rapidity. RICHARD W. EGAN, L.R.C.P., L.R.C.S.I., Dublin.

## OBSTETRIC MEMORANDA.

### PEELING OF THE EPIDERMIS IN A LIVING FŒTUS.

THE following case seems to me to be of interest in a medico-legal aspect, and worthy of a short notice.

M. W., aged 35, married twelve years, mother of one child, aged 11, was last unwell February 25th to 28th, 1874. She expected her confinement the first week in December, but delivery was delayed until December 19th, at 1.20 P.M., when a living male fœtus, weighing eight pounds, was expelled. It was apparently still-born, though the cardiac pulsation was evident from the first; but, after efforts had been persevered in for five or ten minutes, respiration was established, and the child cried vigorously. It presented a dusky blue appearance; but what in the first instance led me to believe that death had taken place some days at least, was the condition of the epidermis, which peeled off readily from the whole surface of the body, coming off in large flakes as if maceration had taken place. The nurse, a woman of considerable experience, stated that she had never seen a similar instance. The epidermis was more adherent in some parts than others, but peeled readily; and when the child was washed and dressed, none but a small portion between the fingers and toes and in the concha of the ear remained. The child cried, passed urine, took food, and seemed to be doing well; but about 2 A.M. the following morning the nurse noticed that the breathing was unnatural. A warm-bath was given, but within an hour the child died, the surface of the body being almost purple.

Churchill says: "The peeling of the epidermis is a conclusive proof of the death of the fœtus." Dr. Barnes, in his *Obstetric Operations*, speaks of "the coming away of epidermis and hairs" as a certain sign. Dr. Leishman also "regards peeling of the skin as a certain proof of the death of the fœtus"; and, indeed, nearly all obstetric authors agree upon this point. I have never before met with a similar case, nor have I been able to find the record of any such; and for this reason I send these brief notes for publication. A. W. EDIS, M.D.,
Assistant Obstetric Physician to the Middlesex Hospital.

### THE INDUCTION OF PREMATURE LABOUR.

I QUITE agree with Dr. Swayne, that he has given a "faithful record" of his experience in inducing premature labour, and I most readily allow he is deserving much praise for the honest manner in which he has done so. To this record I have never demurred, my objections being to the conclusions at which he would have us arrive from his narration of cases; and, as I do not think he has satisfactorily answered my objections, I still fail to see that the claim he makes in his original communication, that the new method of treatment advocated by him is "very superior" to the "old-fashioned method", is at all borne out by his statistics. I would also remind him, that a vague charge of "captious criticism" will not do away with the facts shown by his own statistics, and that his plea, of his method not being worse than mine, is but a sorry proof of its being "much superior".

That Dr. Swayne should cite Dr. Barnes as an authority in support of his opinions, is very astonishing, as I find in Dr. Barnes's Lecture on the Induction of Premature Labour (pp. 359 and 360), in his work on *Obstetric Operations*, that he says, when speaking of the use of sponge-tents, etc.:—"There is no doubt labour can be induced by those agents. But it appears to me that their use to provoke labour is not based on a rational view of the physiological or clinical history of the process. I agree with Lazarewitch, that irritants applied to the cervix are slow and uncertain. And I believe that in most cases some further means, such as rupturing the membranes, will be necessary."

I am of opinion that this sweeping condemnation is fully substantiated by Dr. Swayne's faithful narration of cases; and, although I had never, until within a few days, seen Dr. Barnes's work, it fully bears out my objections to Dr. Swayne's claims of a much "superior method".

I will conclude this, my last communication on the subject, by thanking Dr. Swayne for his record of cases, as I feel convinced it will be useful in warning all who read it, to most religiously avoid the use of sponge-tents, etc., for the purpose of inducing premature labour.

STEPHEN CLOGG, Looe.

# REPORTS
OF
# MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

## KING'S COLLEGE HOSPITAL.

### CASE OF EMPYEMA TREATED BY REPEATED ASPIRATION AND SUBSEQUENTLY BY DRAINAGE: RECOVERY.

(Under the care of Dr. PLAYFAIR.)

Ernest M., aged 7, a delicate rachitic child, was admitted into Pantia Ralli ward, on June 1, 1873. At the time of admission, he was suffering from general feverishness; temperature, 103 deg.; pulse, 160. He had slight cough and delirium at night, On auscultation, there was nothing to be detected beyond feeble respiration over the greater part of the right lung. On June 3rd, dulness on percussion was detected at the right base, and the respiration there was distant and feeble; temperature, 104 deg.; respiration 60. From this date the dulness rapidly increased; on the 11th, there was nearly absolute dulness over the whole of the right lung, and the child's breathing was rapid and much embarrassed. On the next day, aspiration was performed, and thirty-two ounces of thick yellow pus were withdrawn, with great relief to the general symptoms. Next morning, the patient's temperature had fallen to 98.3 and there was fair resonance as low as the angle of the scapula. On the 14th, the dulness had again increased to an inch above the angle of the scapula. Between this date and June 24th, three successive aspirations were performed, at which eighteen, seventeen, and sixteen ounces of pus were drawn off. After each operation, the general symptoms were temporarily relieved, but the chest again began to fill with great rapidity, and, on the 24th, a bulging fluctuating swelling was observed between the sixth and seventh ribs. The attempt to treat the case by aspiration was, therefore, abandoned, the abscess was opened, and a flexible tube inserted, the other end of which was placed in a vessel of water under the bed, in the manner described by Dr. Playfair in his paper on "The Treatment of Empyema in Children" (Obstetrical Society's *Transactions*, vol. xiv). The effect of this was highly satisfactory; the patient's temperature, which had previously ranged from 101 deg. to 102 deg., immediately fell to 98 deg., and his respiration became more natural; from one to two fluid ounces of pus were daily discharged through the tube, without any apparent entry of air into the pleura; the child now ate and slept well, and improved rapidly in every respect. Things went on thus until August 23rd; the child gained flesh daily, and the amount of discharge gradually diminished to about a drachm *per diem*. On that day the tube came out, and, as there was now a free entrance of air, it was thought better to make a counter-opening, and to insert an ordinary drainage tube. This was accordingly done; and a weak iodine lotion (five minims of the tincture to an ounce of water) was injected through the tube every two or three days. On September 1st, the discharge had almost entirely ceased, and the drainage-tube was removed. The child was now quite convalescent; there was hardly any flattening of the chest-walls, and there was good respiration audible over the whole of the affected side. He was discharged on November 1st. Dr. Playfair remarked that this was a most satisfactory termination to a most unpromising case of empyema in a delicate rickety child. Although he himself was convinced of the superiority of free and continuous drainage to any other plan in all cases in which the hope of absorption was abandoned, he was desirous, in this case, of giving a fair trial to the method of repeated aspiration, strongly advocated by Bouchut. It was, however, a complete failure, the pus rapidly reforming, and eventually threatening to form a spontaneous opening at an unsuitable position. This was a serious calamity when the opening occurred too high in the chest to allow a free exit, and was often followed by very serious deformities, the collection of putrid pus in the depending part of the pleural cavity, and a very protracted convalescence. Hence the method of continuous subaqueous drainage he recommended was adopted, and with great success for a month, when eventually a counter-opening was made, for the purpose of facilitating the use of iodide injections. The termination of the case was all that could possibly be desired, the resulting deformity was almost *nil*, and the case contrasted most favourably with those too common instances of empyema in which a free opening was made into the pleural cavity, either by incision or spontaneous opening, in which a cure only took place after many months of exhausting suppuration, and with marked flattening and deformity of the chest-wall.

## GENERAL HOSPITAL, BIRMINGHAM.

### CASE OF TRAUMATIC STRICTURE OF THE URETHRA: HOLT'S OPERATION: RECOVERY: CLINICAL REMARKS.

(Under the care of Mr. BARTLEET.)

[Brief Notes by Mr. SKIPWORTH, Resident Surgical Assistant.]

THOMAS MORGAN, miner, aged 16, was admitted, suffering from incontinence of urine, into the medical wards of the hospital. Mr. Bartleet was asked to sound him for stone, and was unable to pass a sound or even a No. 1 catheter, on account of a stricture situated half an inch in front of the bulb. The boy was removed into a surgical ward, and the following history was obtained. About four years ago, he was leading a horse, which took fright, and dragged him for some distance along the ground. His leg was broken, his genital organs much bruised, and there was hæmorrhage from the urethra. The catheter was used for three weeks. Ever since, cold had caused difficulty and pain in micturition; and for the last eighteen months he had been unable to retain his urine day or night. He never passes urine in quantity, but only *guttatim*.

September 3rd. After repeated trials, a No. 1 silver catheter was passed, and retained for one hour. It would have been retained longer, but the eye was obstructed by clot.

September 7th. A No. 2 passed; and during the next three weeks the stricture was gradually stretched up to No. 5.

On October 3rd, Holt's operation was performed under chloroform, the medium-sized dilator being employed. Immediately after the operation, a No. 10 catheter was passed and withdrawn. The performance of the operation was not followed by pain or rise in temperature, the only *contretemps* being retention of urine, which necessitated the use of the catheter.

October 31st. The urethra was found to readily take a No. 12 catheter, and the boy was dismissed cured.

CLINICAL REMARKS BY MR. BARTLEET.—It is most important, in all cases of incontinence of urine, to examine the whole of the urinary apparatus that is within reach, and also the urine itself; for, while we occasionally meet with cases of incontinence which appear to be simply owing to "habit", without doubt the majority are caused by irritation of some part of the urinary tract; such irritation being due to a tangible and preventable cause, such as irritating urine, the presence of calculus, an unnaturally narrow meatus, or, as in the present case, the presence of a stricture. Stricture is an uncommon affection in childhood, and, when met with, is usually due to injury. In this case, the injury to the urethra was not accompanied by cicatrices in the perinæum or scrotum; and the history of the case tells us that, at the time of the accident, the integuments were not wounded. Hence the idea of a stricture never occurred to me until I sounded for stone.

I have always found traumatic strictures most difficult to deal with. In many cases, they are complicated with fistulous openings, and then there is a choice between dilatation in some form and external urethrotomy. In the present case, the absence of any fistulous opening seemed to point to an operation for the relief of the stricture in which the perinæum was not incised. The universal failure in my hands of dilatation in the cases of traumatic stricture which have occurred in my practice, and the marked tendency to recurrence exhibited by this stricture in the early part of the treatment—that is, while it was being dilated to the size of a No. 5 catheter—induced me to perform Holt's operation, an operation which I have now performed many times with invariably good results. In this case, the operation was performed with ease, and was followed by no inconvenience save retention for two days, and by no symptoms which gave the slightest anxiety.

In performing the operation, two or three points are important: firstly, to be certain the instrument is in the bladder. The shape of the Holt's dilator renders its introduction a little more difficult than that of a catheter. The only way of being certain of this most important point is to see the urine flowing through the hollow staff of the instrument. The splitting of the stricture should be ensured by a *smart* *blow* on the travelling rod. If this be struck timidly, or pushed, the stricture will be stretched and not torn, and will be much more likely to recur. Lastly, it is important to see that everything is freely stretched or torn, by revolving the instrument on its own axis in the urethra, where it should move with perfect freedom.

As regards the after-treatment, in the present case little was required beyond the occasional passage of a catheter. Occasionally, doses of quinine are necessary to prevent rigors, or of opium to relieve pain and procure sleep.

Finally, I may express my conviction that Holt's operation for stricture presents us with a safe and sure mode of treatment for those cases of stricture which tend to recur under the treatment by ordinary or by continuous dilatation.

## CUMBERLAND INFIRMARY.

### EXOSTOSIS OF THE LOWER END OF THE FEMUR: REMOVAL: RECOVERY.

(Under the care of Dr. MACLAREN.)

SARAH H., aged 17, dressmaker, was admitted on May 6th, 1874. Five years ago, a piece of paving stone fell upon her right knee, causing some pain and swelling, which kept her in bed for a fortnight. The pain disappeared for a time; but the swelling continued slowly to increase. About two years ago, she again suffered pain; and since then walking had always brought it on severely. Lately, it had sometimes lasted for forty-eight hours continuously; and for the last four months she had been unable to work. On examining her right thigh, a hard rounded tumour, with apparently a very broad base, was felt attached to the lower end of the femur at its inner side, a little above the patella. The right thigh measured an inch and a half more than the left at the position of the tumour.

On June 9th, the patient was placed under chloroform. Dr. Maclaren exposed the tumour by an incision five inches long, and cut through its base with a chain-saw. The operation was done under carbolic spray, and the wound was dressed antiseptically. In a fortnight, the deep wound was healed; and, on July 2nd, cicatrisation was nearly completed. Up to this date, the wound had been kept quite aseptic; but it was now so nearly well, that it seemed unnecessary to incur any longer the extra trouble which antiseptic dressings involve, and water-dressing was substituted. As no improvement took place under this treatment, various lotions were applied, but the result was the same: an indolent ulcer remained at each end of the wound. On August 13th, antiseptic dressings were resumed; and, on September 2nd, the patient was discharged with the wound quite healed.

| | Temperature. | | Pulse. | |
|---|---|---|---|---|
| | M. | E. | M. | E. |
| June 9 | | 98.4 | | 88 |
| ,, 10 | 101 | 100 | 128 | 104 |
| ,, 11 | 100.2 | 101.4 | 132 | 128 |
| ,, 12 | 99.6 | 100 | 106 | 120 |
| ,, 13 | 98.6 | 99 | 76 | 104 |
| ,, 14 | 99 | 99 | 78 | 88 |

Afterwards normal.

The exostosis was composed of cancellated bony structure, containing much fat, and partly covered by cartilage. It measured 2 × 1½ × 1½ inches. The attachment to the femur measured ⅔ × ½ inch.

REMARKS BY DR. MACLAREN.—The removal of an exostosis is an operation involving considerable danger to life. "Diffuse suppuration in the intermuscular spaces, erysipelas, and pyæmia, are very liable to follow such operations." In reference to this individual case, a surgeon of very extended experience said that amputation of the thigh at the lower third would involve less risk. The justifications for interference were, that the girl was incapacitated by the tumour from earning her living, and that it caused her much suffering. There was, in addition, the hope that the above mentioned dangers could be avoided by carefully carrying out the antiseptic system of dressing; and the patient never had a symptom after the operation that caused a moment's anxiety.

Last May, Dr. Chiene read a paper to the Medico-Chirurgical Society of Edinburgh on a case in which an exostosis was accidentally fractured and disappeared entirely within a year after, and he proposed intentional fracture as a means of treatment. On July 8th, Mr. Maunder fractured an exostosis subcutaneously with a pair of gas-fitter's pliers. In this instance, the tumour has become reunited to the femur, but in a more convenient situation; and the cure by absorption has not taken place. As it seems probable that subcutaneous fracture would obviate even more effectually than antiseptic dressing the known dangers of removal of these tumours, and as, in all probability, reunion could be prevented by frequently moving the separated mass, it appears to be deserving of further trial; I have mentioned it in order to point out that the feeling of the tumour having a broad base is sometimes deceptive. In this case, when examined through the tissues, it seemed almost sessile, whereas it had really a small attachment to the femur, and curved downwards, a considerable portion of it lying nearly in contact with the bone. I think it could have been readily fractured.

# REVIEWS AND NOTICES.

ON FUNCTIONAL DERANGEMENTS OF THE LIVER; being the Croonian Lectures delivered at the Royal College of Physicians in 1874. By CHARLES MURCHISON, M.D., LL.D., F.R.S., etc. Pp. 182. London: Smith, Elder and Co. 1874.

THESE lectures were pretty fully reported in our pages at the time of their delivery, but are now reprinted in a very handsome little volume, with illustrations on wood, and the latest additions and emendations of their author. We can all of us remember the crude pathology of a bygone age, which attributed nine-tenths, if not more, of the maladies "that flesh is heir to", to the largest gland in the body. A consumptive patient had an attack of pleurisy; he was told, without further examination than a hasty peep at his tongue, "Your liver is out of order". Another was, perhaps, suffering from syphilitic periostitis of the dextral ribs, and the same explanation of his symptoms, and too often the same treatment also, was made to do duty on both occasions. Of late years, we may truly say; "nous avons changé tout cela"; and Dr. MURCHISON tells us that we have changed too much; for the tendency nowadays seems to be to ignore the very numerous and important functions of the liver, and the part its derangements play in the various disorders and maladies from which we or our patients suffer. It would, perhaps, be difficult—at least in England—to find another physician so well qualified, not only by general attainments, but by previous studies of the same subject, as the author of these lectures; for we cannot forget that the Croonian lecturer translated for the New Sydenham Society the now classical work of Frerichs on *Diseases of the Liver*. His own well-known book on *Fevers*, and his Lectures on Medicine, with the whole bent of his mind and the nature of his practice, eminently qualify him to write on a subject which, perhaps, more than many others, requires breadth and catholicity in its treatment. If we compare the teachings, *ex cathedrâ*, of our student days, on the liver and its derangements, with the little treatise before us, we cannot but see that pathology is making vast strides. The older professors, whether of medicine in the wider sense, or of its pathological department, would be staggered, and almost affrighted, the moment they opened its pages. The first thing that strikes the eye, after the dedication to Sir Wm. Jenner and the table of contents, is another table, of a full page in length, of chemical equivalents, commencing thus:

| | |
|---|---|
| Albuminoids (Lieberkühn) ... ... | $C_{72}H_{112}N_{18}SO_{33}$ |
| Excretin ... ... ... ... | $C_{78}H_{156}SO_2$ |
| Tauro-cholic acid ... ... ... | $C_{26}H_{45}NO_7S$ |
| Glyco-cholic acid ... ... ... | $C_{26}H_{43}NO_6$ |
| Cholic acid ... ... ... ... | $C_{24}H_{40}O_5$ |
| Taurin ... ... ... ... ... | $C_2H_7NO_3S$ |

And in similar style through twenty-eight organic compounds. It thus becomes evident, that chemistry is taking its proper place in our studies of life and of disease. It is not a little credit to England, that our countrymen, the elder Marcet, and Yelloly, and Bostock, led the way in this department of analysis, when even in Germany such things were as yet but little thought of. This chemical prelude introduces us to the dominant idea on which the author gives us many pleasant and interesting variations in the subsequent lectures. For it is the functional derangements of the liver of which these Croonian Lectures treat; the coarser anatomical changes, such as those induced by cancer, syphilis, abscess, and the like, are scarcely mentioned, if at all. The working liver, with the causes of the creaking and failure of its machinery, is the subject of Dr. Murchison's eloquence and research; and, after a brief account of the founder of these lectures,* nearly forty pages are devoted to the functions of the liver in health. What these are, is briefly summarised at page 44, as follows.

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* We learn from this that Dr. William Croone was a native of London, educated at Emanuel College, Cambridge, became F.R.C.P. in 1675, and Censor in 1679. He was Professor of Rhetoric at Gresham College, and Secretary of the Royal Society. In 1670, he lectured on Anatomy at Surgeons' Hall; and died in 1684. He planned the two lectureships (this, and the one at the Royal Society) which bear his name; but his will containing no provision for their endowment, we really owe them to the munificent bequest of his widow, *née* Lorimer, afterwards Lady Sadleir, by a second marriage.

"1. The formation of glycogen, which contributes to the maintenance of animal heat, and to the nutrition of the blood and tissues, and the development of white blood-corpuscles;

"2. The destructive metamorphosis of albuminoid matter, and the formation of urea and other nitrogenous products, which are subsequently eliminated by the kidneys; these chemical changes also contributing to the development of animal heat;

"3. The secretion of bile, the greater part of which is reabsorbed, assisting in the assimilation of fat and pepones, and probably in those chemical changes which go on in the liver and portal circulation; while part is excrementitious, and, in passing along the bowel, stimulates peristalsis and arrests decomposition."

For the proofs of nearly all this, we must refer to the book itself, only noting briefly one or two points regarding sugar and bile. It is clear from the note to page 10, that Dr. Murchison believes the liver to make sugar as well as glycogen—thus siding with Bernard and Flint. He also believes that the liver makes the whole of the constituents of bile, and that none of its peculiar elements exist preformed in the blood, thus agreeing with Frerichs. He thinks (for reasons stated in the text) that about forty ounces of bile *per diem* is a fair average amount for a man of eleven stone weight, which is Dr. Carpenter's estimate, founded on the data of several experimenters (Nasse, Platner, Stuckman, etc.) He also inclines to the belief that the hepatic artery furnishes most of the blood destined for the secretion of bile; a view which is confirmed by pathological records, some of which are given at page 40, and others are known to us.

After mastering the contents of these forty pages, the reader will not, we think, be surprised that a gland with such numerous and important functions should often become disordered and obstructed in its working, either primarily or by the derangement of other organs, and this very often, at least at first, with but slight change in its own structure of a kind to be recognised by the naked eye, or perhaps at all, by other than chemical tests. The remainder of the lectures is taken up with a consideration of these disordered functions, and the diseases in which they play a part. Formidable indeed is the list of these, and did we only see their titles we might suspect Dr. Murchison of exaggeration, for the list includes corpulency, and its opposite, emaciation; diabetes; which, "in fact, may be said to be, in most instances, a functional derangement of the liver", from (1) imperfect glycogenesis, or (2) an increased conversion of glycogen into sugar, or (3) diminished destruction of sugar; other wasting diseases, such, probably, as phthisis and waxy disease; many forms of dyspepsia; lithæmia; gout; urinary and biliary calculi; kidney degenerations; perhaps those of the liver itself; local inflammations in other organs; degeneration of tissues throughout the body; derangements of the nervous system, including paralysis, convulsions and coma, and very often uræmia; jaundice; derangements of circulation, even including angina pectoris; skin-diseases, such as urticaria, eczema, xanthelasma, and pruritus; and disorders of respiration, no less serious than bronchitis and asthma.

We do not wish to misrepresent the author, and therefore hasten to state that the book by no means represents that all these diseases or symptoms are generally or invariably produced by badly performed functions of the liver, but only that these play an important part in the genesis of such maladies, and often form the starting point of severe mischief in distant organs. Those, however, who read the book need no apology, for on each and all of these points the Croonian lecturer has abundance of material. According to Dr. Murchison, the principal causes of these functional derangements, when primary, are the following. *Errors in diet*, including the abuse of alcoholic liquors. On this point, the lecturer's language is clear and unmistakable in its notes of warning; at page 149 he says: "But of all ingesta, the various alcoholic drinks are most apt to derange the liver. They do so in two ways. *a.* They may cause persistent congestion of the liver. Even small quantities of alcohol in healthy persons produce a temporary hepatic congestion; but if alcohol be taken in excess, or too frequently, the congestion of the liver becomes permanent, and the functions of the organ are deranged. Like results may ensue from comparatively small quantities in certain persons, who may be said to have a constitutional intolerance of alcohol. Of course, if the congestion be long maintained, structural disease may follow. *b.* But wines and other alcoholic drinks often cause derangement of the liver which a corresponding quantity of pure alcohol would not produce, and which, in fact, cannot be accounted for by any one ingredient of the offending liquid; neither by the free acid, the ether, the salts, gum, sugar, or extractive matter. This general rule, however, I believe, holds good, that the injurious effect of alcoholic beverages upon the liver increases in a direct ratio with the amount of sugar *plus* alcohol which they contain. It would seem, indeed, that a mixture of alcohol and sugar produces injurious results, which would not be caused by the admixture o a much larger quantity of sugar, or of alcohol alone, with the food. In accordance with this view, the alcoholic drinks which are found by experience to be most apt to disagree with the liver, are malt liquors of all sorts, but especially porter, and the stronger forms of mild ale, port wine, madeira, tokay, malaga, sweet champagne, dark sherries, liqueurs, and brandy; whilst those which are least likely to derange the functions of the organs are claret, hock, moselle, dry sherry, and gin or whisky, largely diluted." (See also p. 162.) 2. *A deficient supply of oxygen.* 3. *A high temperature.* After instancing tropical climates and hot seasons, he says, "Experiment has shown that one of the effects of a high temperature upon the lower animals is to produce a degeneration of the parenchyma of the liver, its secreting cells becoming filled with miniature granules, and presenting appearances similar to those found after death from febrile diseases." (*Pathological Transactions*, 1873, vol. xxiv, p. 266.) 4. *Nervous influences.* Dr. Murchison agrees with Dr. Budd, "that mental anxiety or trouble has great influence in the production of gall-stones", and has "repeatedly known attacks of biliary colic from gall-stones excited by some sudden emotion". He even thinks, that the cases of cancer dating from indigestion following protracted grief or anxiety, are "far too numerous to be accounted for on the supposition that the mental distress and the cancer have been mere coincidences". 5. *Constitutional peculiarities*—often inherited. 6. *Poisons* of various kinds: malaria, other fevers, phosphorus, articles taken as food, mineral poisons, notably lead.

For the gouty condition of blood, which he largely attributes to the liver, he proposes the name of *lithæmia* as more elegant than uricæmia, proposed by Austin Flint. Whilst not entirely ignoring the existence of *cholesteræmia* (or a morbid condition of blood due to the accumulation of cholestearine in that fluid), for which this eminent American contends, Dr. Murchison urges strongly several reasons for believing that the fatal symptoms often met with at the termination of liver-diseases are really due to uræmia, or the accumulation of urea in the blood; one of the chief being that clinically the two conditions are almost, if not perfectly identical (p. 121, and elsewhere); whilst he thinks that other morbid matters besides urea, or biliary acids, may give rise to some of the symptoms. The cases of intermittent pulse, depending probably upon lithæmia, due to deranged liver (pp. 126-132), including also the almost opposite condition of pulsatile aorta, are of great interest, whatever our views as to their causation.

The conclusion of the book (p. 160 to 161) is occupied with the important question of the treatment of these functional disorders, under the headings of—1. *Diet;* 2. *A free Supply of Oxygen*, where, by the bye, no mention is made of ozonic ether or peroxide of hydrogen; 3. *Aperients, Cholagogues*, amongst which we are glad to see that he has a good word to say for the oft-abused *Mercurials*, justly preferring clinical experience to experiments of a somewhat doubtful nature made on inferior animals; 4. *Alkalies*, which, we need scarcely say, rank high in our author's esteem; 5. *Chlorine, Iodine*, and *Bromine*, and their compounds; 6. *Mineral Acids;* and 7. *Tonics;* lastly, *Opium*, showing its usefulness in diabetes, used thus sixty years ago by Sir B. Brodie (quoted in note to page 181), and explaining why it is often counterindicated in hepatic diseases, although, contrary to common opinion, it is almost certain that opiates rather increase than diminish bile-formation.

Those who read this sketch of hepatic therapeutics will, we think, share our regret that this part of the work was not extended to a greater length, as we hope it will be in a future edition. If there still be any who share with Molière and our own Byron in their professions of contempt for physicians, and in their opinion that medicine is purely a hypothetical art, we think they could not do better than read and study this little book of Dr. Murchison's, in which they will see "things new and old", but all carefully digested, and, what is more, hypothesis carefully severed from matters of fact. Our regret at the brevity of this volume, which is eminently readable, in spite of its containing hundreds of facts and almost as many references to English, American, and continental authors, is assuaged by the hope of future and enlarged editions; but, whether republished in its present or in an enlarged form, we trust future editions will contain an index.

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CROUP IN ITS RELATION TO TRACHEOTOMY. By J. SOLIS COHEN, M.D., Lecturer on Laryngoscopy and Diseases of the Throat and Chest in Jefferson Medical College. Pp. 78. Philadelphia: Lindsay and Blakiston. London: Trübner.

DR. COHEN is well known in England through his excellent work on *Diseases of the Throat*, and we have much pleasure in calling attention to his more recent contribution. His former book, though abounding in useful information, was somewhat defective in arrangement; but his essay on *Tracheotomy* is not less perspicuous in plan than full of valuable matter. Dr. Cohen's monograph is based on statistics drawn from French, German, English, and American sources, the figures being subjected to very careful analysis, and not reduced to those averages which often render the numerical method fallacious.

The indications for the operation, the best mode of opening the windpipe, the employment of anæsthetics, the after-treatment of the disease and of the surgical wound, the casualties which prevent recovery, the period at which a fatal issue may be looked for or a cure anticipated—are each discussed in a thoroughly lucid manner. The most important deductions of the author are:—That there is no insuperable contraindication to tracheotomy in croup; that anæsthetics are admissible, but must be administered with great caution; that the incision should be made as near the cricoid cartilage as possible, after careful dissection of the superjacent parts; and that the tube should be dispensed with as soon as possible. Finally, Dr. Cohen remarks that assiduous attention should be bestowed on the after-treatment, especially that of the wound; and that a skilled attendant should be within a moment's call for the first twenty-four or forty-eight hours immediately following the operation. We cordially agree with this last proposition, and believe that many lives would be saved if it were more generally acted upon.

Want of space will not permit us to do justice to this interesting and instructive volume; but, since tracheotomy is an operation which any medical practitioner may be called upon to perform at a moment's notice, we strongly recommend the work to the profession, as a guide at once philosophical and practical.

THE PRESENT STATE OF THE ARMY MEDICAL SERVICE AS A LIFE CAREER FOR THE SURGEON. By EDWARD HAMILTON, A.B., M.D., etc. Dublin: Fannin and Co. London: Longmans. 1875.

UNDER this title, Dr. HAMILTON has published a pamphlet of which we heartily applaud the intention. It is laborious, spirited, and in the main a just picture of the disadvantages of a military medical career in the present state of the service. The author has largely borrowed from material furnished in our pages; and it would, perhaps, have been more gracious, had he not topped and tailed documents so as to make their source unrecognisable. We trust, however, that his pamphlet will be as serviceable as its author desires. In order, however, that it may have the desired authority, it should be withdrawn from circulation and subject to revision of its figures, for, in some all-important matters of calculation, it contains the most extraordinary blunders. Thus he makes his figures prove that, if the Government were to promote surgeons at twelve years, instead of after fifteen years' service, to be surgeons-major, it would make very little difference in outlay—only £2,538 *per annum* for the whole department, taking a course of eleven years. Even in his own way of calculating, he has made a mistake in his figures, owing to not having put rightly the difference of the surgeons' and surgeon-majors' allowances; and he has made the mistake to the disadvantage of his own argument, for, according to his mode of calculation, with right figures, the cost to the Government would be only £1,873 *per annum* for eleven years, instead of £2,538. But, unfortunately, there is an error of a more serious kind at the bottom of his whole arithmetic; for the real cost to Government of promoting men at twelve years instead of fifteen years would be £113,700 for eleven years, or £10,335 for each year. Thus it is five times Dr. Hamilton's own estimate, and five-and-a-half times what that estimate would have been had it been correctly worked out even according to his own method. Even this £10,335 *per annum* might be not too much for Government to spend on the department; but it is better, at any rate, that false calculations, which will not bear rigid investigation, should not be urged on the Government. We hope, therefore, Dr. Hamilton will adopt our suggestion and at once revise his figures.

## NOTES ON BOOKS.

WE welcome the completion of the third edition of the *Micrographic Dictionary* (J. Van Voorst). It is an invaluable repertory for students of the microscope, and the twenty-one parts now published form a volume which is unrivalled in its interest and encyclopædic value. No lover of general micrography can well dispense with this well compiled and beautifully illustrated book.

The issue of Sowerby's *British Wild Flowers*—a book of classic excellence—is also progressing satisfactorily in the hands of the same publishers. We have before us Parts 7, 8, and 9. The drawings, figs. 481 to 720, are delightfully drawn and coloured. For the field-botanist, this book is a treasury of useful and pleasing reference.

### BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1875.

SUBSCRIPTIONS to the Association for 1875 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

# BRITISH MEDICAL JOURNAL.

SATURDAY, JANUARY 9TH, 1875.

## THE REPORT OF THE COMMISSIONERS IN LUNACY.

THE twenty-eighth report of the Commissioners in Lunacy, which is dated March 31st, 1874, opens with a short statement of the tragical circumstances under which one of their number met his death, while engaged in the discharge of his duty. The sad end of Mr. Lutwidge, which resulted from a wound of the temple, inflicted by an inmate of the Fisherton Asylum, created a feeling of painful sympathy throughout the country at the time of its occurrence, and is remembered now with genuine sorrow, not only by his colleagues, who pay a graceful tribute of respect to his memory, but by all those who were brought into official or friendly contact with him. Cordial and sincere, humane and magnanimous, Mr. Lutwidge seems to have had much of the modern Bayard in him. He conciliated those who were inclined to be hostile, gained the good will of the indifferent, and endeared himself to his more intimate acquaintances. Such a life as his could ill be spared; and it is difficult to refrain from harbouring vindictive feelings against that criminal lunatic who took it, and who, having been maintained for twenty-seven years at the public cost, thus robbed the public of a valuable servant. The allegation of the Commissioners regarding that criminal lunatic, that he was accountable for his actions when he killed Mr. Lutwidge, raises some serious questions as to the boundaries of responsibility, criminal and civil, and as to the degree in which the insane ought to be amenable to punishment. Without entering here upon such extensive topics, we may point out that the murder of Mr. Lutwidge, by a lunatic who had been for years regarded as harmless, brings into vivid conception the risks run by those who have habitually to mingle with the insane. A lunatic asylum is indeed a magazine of explosive materials, and both courage and caution are required of its custodians.

Having briefly and appropriately referred to the loss of their coadjutor, the Commissioners proceed to describe their operations for the year, and to take a general survey of the lunacy of the kingdom. That survey is in some respects alarming, and in others reassuring. It is alarming, because it reveals that insanity is steadily increasing amongst us, and that we are still without definite information as to the causes of that increase, or the means by which it may be met and arrested. It is reassuring, because it satisfies us that the provision made for the insane in this country is being gradually improved, and that the Commissioners are vigilant over everything that concerns the welfare of that afflicted class that has been placed under their supervision. Abundant evidence of quiet unostentatious progress is furnished by the report before us. There can be no question that the twelvemonths' work of the Commissioners—and hard work too—here summed up, has been productive of widespread benefit; and that their exertions, seconded by those of the medical officers of our lunatic hospitals, are daily augmenting the usefulness of these institutions, and making them more than ever patterns for imitation to the rest of Europe, and, but for fear of the consequences, we should add to America also. There can be no question that the Commissioners execute their trust in an efficient and skilful manner. They have hit upon the art of happily combining central authority with local liberty. Stringent and uncompromising in the universal enforcement of certain well established principles, they are indulgent, even to individual caprice, where room for experiment and doubt remains. No better testimony can be offered to the sagacity of their policy, than the unmurmuring way in which it is everywhere received and acted upon. Their counsels are almost invariably and promptly adopted; and they are not, like other boards that might be mentioned, embroiled in incessant and rancorous controversies with subordinate authorities and recalcitrant officials. Differences of opinion, as is inevitable, from time to time arise between the Commissioners and those whom they have to direct and advise, but these differences are not aggravated into open feuds, and generally end in a diplomatic triumph for the Board at Whitehall. Their annual Blue Book is a monument of the discretion of the Commissioners. It is just such a Blue Book as Lord Palmerston would have approved, if he had been in the habit of reading these official lucubrations. In it the Commissioners do not commit themselves to neat theories, nor engage in vague speculations, but are content to deal in a straightforward and practical spirit with the problems which have come before them during the year. They avoid all statistical strategies and social puzzles, but clearly set forth the condition of the establishments which they have inspected. They administer censure with a justice and calmness that leave no room for reproach, and are not niggardly of praise where it is deserved.

As the total number of lunatics, idiots, and persons of unsound mind in England was increased by 1731 during last year, we are not surprised to find the Commissioners reporting the erection of new asylums, and the enlargement of already existing ones. At Whittingham, in Lancashire, a most complete and well-balanced asylum, intended to accommodate 1100 patients, and built from designs supplied by an able member of the medical profession, Mr. Holland, has been formally opened; and at Chartham, in Kent, a new asylum for 640 patients is now in process of construction. At the Norfolk, Somerset, and Surrey County Asylums, and at that for the City of London, considerable extensions have been effected, and at several other asylums enlargements are in prospect. More pleasing to contemplate than these enlargements, however, are the improvements which have been carried out at various establishments, and which have obviously been carefully designed to enhance their usefulness, and to meet the requirements of science and humanity for the treatment of mental diseases. A new chapel has been added to the asylum for the county of Cumberland, and a Turkish bath to that for the county of Glamorgan. The Worcester Asylum has been setting its drains in order, and has acquired two new general bath-rooms; while the Oxford Asylum has made better provision for the healthful employment of its inmates by the purchase of a plot of land, and has exhibited a wise forethought by the erection of a detached infirmary for infectious diseases. It is impossible to enumerate a tithe of the improvements which the Commissioners refer to, and which have not been confined to county and borough asylums, but have been distributed over registered hospitals, metropolitan and provincial licensed houses, and workhouses as well. Suffice it to note, that a spirit of improvement is abroad in our asylums, and that the manifestations of that spirit which are reported are all of a commendable kind. That they are so is due mainly to the influence of the Commissioners, who zealously oppose any tendency to improve backwards that may display itself, and always advocate sound and judicious reforms. We are glad to observe that they are imbued with a proper sense of the medical character of a lunatic asylum, and that they give their support to the scientific study of mental derangements. "We have the satisfaction of reporting", they say, "that the practice of making *post mortem* examinations of the bodies of patients dying in asylums continues, year by year, to be more generally adopted in nearly all our public asylums; the proportion of such examinations to the deaths having risen from a general average of 40 per cent. in 1869 to 61 per cent. in 1873". No opportunity of recommending an increase in an asylum medical staff, or of strengthening the hands of asylum medical officers in any laudable undertaking, is lost by the Commissioners.

There is what will probably prove a very useful appendix to this report, consisting of the plans of three small asylums of approved and modern construction, and of a simple and economical form of ward for epileptic or suicidal patients. It is now thought desirable that patients of these classes should be subjected to constant supervision by night as well as by day, and the plan here published, is so arranged, as to afford facilities for carrying out that system. It strikes us, however, that the plan scarcely provides a sufficient amount of day-room space—only, apparently, about thirty-seven superficial feet per patient being allowed.

On five occasions during 1873 did the Commissioners feel called upon to direct the prosecution of those who had illegally detained and neglected, or ill-treated lunatics. On one of the cases, in which a prosecution took place, that of Vollans, we commented at the time, and did not hesitate to express the opinion that there had been a failure of justice. The Commissioners have taken the same view of the case, and, with great cogency, urge that the verdict was an extraordinary one, and much to be regretted in the cause of humanity.

## NECROPSIES IN WORKHOUSES.

At the Portsea Island Union Workhouse, the Board of Guardians have lately suspended a medical officer, on the plea that he had made *post mortem* examinations without the sanction of the friends of the deceased; that he had performed *post mortem* surgical operations; and that he had removed certain portions of bodies from the mortuary, to wit, a liver and a larynx.

It appears that the Board of Guardians, at a previous meeting, had passed a resolution, to the effect that the surgeon should be permitted to make *post mortem* examinations, provided he first obtained the consent of the friends of the deceased. The defence of the medical officer was, that he had never made a *post mortem* examination without the consent of the friends of the deceased, and that he never performed surgical operations except upon unclaimed bodies; that the removal of portions from the mortuary was according to custom, the particular liver being a valuable specimen of disease for preservation, and the larynx requiring further investigation. After perusing the printed report of the case, we are of opinion that the first accusation was not proved on the part of the Board of Guardians. On the contrary, it is positively denied by the medical officer that he either made a *post mortem* examination, or even saw the body after death of an individual upon whom it was stated that such an examination had taken place. The Board of Guardians refuse to give the names of those from whom they derived their information. We are, therefore, bound to accept the evidence of the surgeon as correct. He states, in referring to one case in which it is alleged that a *post mortem* examination was made: "I declare that no *post mortem* took place." Referring to a second alleged necropsy, he says: "I never applied to the master to sanction a *post mortem* examination, because none ever took place; I never saw the body after death, and no thought of a *post mortem* ever entered my mind."

Unless the Board of Guardians will give the names of those from whom they derived their information, and are prepared to give a direct contradiction to the statements of the medical officer, they silently acknowledge that they have obtained information in a most careless and reckless manner; that they are totally incapable of weighing evidence; that they have committed a gross error in judgment; and that they have overstepped the bounds of their duty at an expense to, and with the temporary degradation of, one who, there is reason to believe, is a capable and efficient officer.

The Local Government Board, at Whitehall, have acquitted the medical officer of any improper motives in making the several *post mortem* examinations referred to, and have very properly reinstated him in his office.

We cannot, however, altogether agree with the decision of the Local Government Board in reference to the making of *post mortem* examinations in workhouses; and as their decision may be taken as a precedent in future mishaps between the Boards of Guardians and medical officers, we think it requires further discussion. In the letter from the secretary at Whitehall to the Medical Officer of the Portsea Island Union Workhouse, the following notice occurs: "The Board consider that the workhouse is not a proper place for making *post mortem* examinations for this object" (in the interests of science); "and they must, therefore, require that in future you will not, in any case, make such examination, excepting by the direction of a coroner when holding an inquest, or the direction of the guardians for some special, urgent, and peculiar reason, which they may deem of such importance as to render such examination necessary. As a general rule, *post mortem* examinations ought only to take place in workhouses for the purpose of discovering the cause of death when it cannot be otherwise ascertained."

We are of opinion that no opportunity should be lost of making a *post mortem* examination either in private practice, or in hospitals, workhouses, and other public institutions. It is from the multitude of such examinations that facts are established which direct the progress of the science of medicine, and which ultimately lead to the saving of life. Some of the leading scientific men of our profession have held the office of surgeon to unions and workhouses: and in that capacity they never failed to associate the morbid anatomy, as seen in carefully made *post mortem* examinations, with the signs and symptoms of disease during life. It is to be regretted that men are rarely to be found who will trouble themselves with *post mortem* examinations; and most certainly should no unnecessary restrictions be placed upon energetic and scientific medical officers attached to infirmaries and workhouses where, of necessity, a large field for study is opened.

With regard to the performance of surgical operations upon unclaimed bodies, it is unnecessary further to discuss the matter on the present occasion; but, considering the dearth of subjects in the schools of medicine, it is to be considered a misfortune that, owing to the prejudice of some guardians, much material is lost which might be the means of simplifying the study, and of increasing the knowledge, of future generations of medical practitioners.

## WHAT NEXT?

In these days of multifarious charities, it is no easy matter to propose one which shall be altogether novel in its character. Yet this is what Dr. John M. Crombie has succeeded in doing, in a pamphlet entitled "A Plea for the Poor suffering from Painful Incurable Disease". Dr. Crombie, it seems, was for two years and a half resident medical officer at the Cancer Hospital, Brompton; and he observed that, in a great number of cases, the most important part of the treatment consisted in the administration of narcotics to relieve pain. But why, he asks, should poor people, who are incurably ill, come long distances, in rough third-class carriages, and wait for hours at a hospital, only to receive a small phial of laudanum? Would it not be a much better plan, and a much greater charity, to send it to them by post? This, in effect, is Dr. Crombie's proposed basis for a new charitable society. And if anodynes—"opium and its derivatives, with chloroform and its allies"—may in this way be sent to patients suffering from cancer, why may not other approved remedies be sent to other cases? Upon the certificate of two medical men, or of one medical man and a clergyman, Dr. Crombie proposes that medicines should be forwarded to all parts of the country; and contributions are earnestly solicited on behalf of the "United Kingdom Depôt of Medicine, as the charity has been decided to be named, in explanation of its object of sending its medicines to any part of the United Kingdom". Dr. Crombie styles himself *Honorary Secretary*: but, as his is the only name which appears, we presume that the society is not yet constituted, and we trust that no one of rank or position will lend himself to such an unwise proposal. A society which springs out of the mode of practice in vogue at the Cancer Hospital will not be received with much favour by the profession; and, indeed, the only part of the pamphlet in which we concur is the comment upon the inutility of that institution. "The Cancer Hospital enjoys a multimum" (whatever that may be) "of the money, but it remains for its medical staff to show a minimum of good done in the extraction of truth or utility for humanity."

Dr. Crombie's proposal rests entirely upon an absurd fallacy. "Let us reflect a moment," he says, "upon the thousands who die annually from this disease" (cancer), "and the many who must be sorely unprovided for, as there is nothing for them out of London but the union poorhouse, which is not very liberal in the supply of expensive medicines." Now, there is not much reason to complain of the union infirmaries. They are officered by very competent men, and the force of public opinion has done much of late years to make the guardians more considerate. But, over and above these, there are innumerable hospitals scattered over the country which Dr. Crombie entirely ignores. He implies that there are in London only two institutions capable of dealing with cases of malignant disease—the Cancer Hospital and the Middlesex Hospital; and we imagine the surgical staff of the latter will not thank him for the juxtaposition. He quite overlooks the numerous general hospitals and invalid-homes, both in the metropolis and in the provinces, where cancer can be far better treated than in the way he suggests. In dealing with the class of cases which Dr. Crombie seems to have in view, the proper course is to call out the kindly sympathy and assistance of neighbours and friends, and to allow the local medical man to direct their benevolence as he thinks best.

## PROPERTY IN PRESCRIPTIONS.

This subject is one which has attracted less attention in this country than it has abroad. The common assumption, however, that a physician, in writing a prescription, loses all right of property in it, and that the chemist who copies it acquires the right of using it as he pleases, and the patient the right of perpetually disposing of it, does not everywhere pass unquestioned. A committee of the St. Louis Medical Society have drawn up a report which expresses very decided views on the subject. They say (*St. Louis Medical Journal*, December 1874):

> A prescription is nothing more nor less than a written order or direction from the physician to the apothecary to furnish or compound certain medicines for the patient, to be used by him according to the written or verbal directions given him at the time. It is undoubtedly the property of the author, and neither the patient nor the apothecary acquires any right to make use of it, except for the case and purpose specified. It is merely a safe and convenient mode of communicating instructions from the physician to the druggist. Formerly, it was the general custom for the physician to dispense the drugs himself, and no prescriptions were needed. But, at the present day, in most cities and towns, the druggist prepares and furnishes the medicine. This arrangement is beneficial to both professions, as well as to the public, and from it arise certain implied contracts. When a physician sends a prescription to an apothecary to be compounded, there exists between them a tacit understanding or agreement that such prescription, when it is original with the practitioner sending it, shall not be made public. In such case, it would be neither honourable nor honest for the druggist to deprive the author of the benefit of it by dispensing it indiscriminately. The originator is the only person who would have the right to do so if he choose to exercise it. But the apothecary certainly does not obtain the same privilege by gaining a knowledge of the ingredients and proportions which he acquires in compounding the prescription.
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> The prescription is only a single order given the patient upon the druggist for use, at that time, unless otherwise directed by the physician; and if the patient have it repeated without further advice, he does so at his own risk, still we cannot prevent him from using a copy of said prescription as long as he chooses. Universal custom and legal decisions have sanctioned this right. The druggist who refills a prescription without an order from the doctor thereby assumes all responsibility for accidents that may accrue therefrom. He has really no equitable right to use the prescription in any manner without an order from the physician. Professor Ordronaux says: "But, although, as has been already shown, the party paying for the prescription has an undoubted property in the paper, and a right to the *personal use* of the formula, it is clear that he acquires thereby no absolute property in the latter. That he may use it personally as often as he pleases, cannot be doubted, for the use is precisely what he has purchased and paid for, but he has no right to give it to others."
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> The prescription, then, continues the property of the author, and the apothecary has no claim to it whatever, except as a record. The cus-

tom, however, of renewing prescriptions without consulting the physician has grown to be so common that it will be difficult to correct it, but by concert of action between physicians and druggists we may check the growing evil, and in a great measure do away with it. It has originated mainly from the desire of the patient to avoid the expense of consulting us a second time; but we, too, are very much to blame for it. Many medical men keep no record of their prescriptions, and when patients return to them, stating that the medicine which was ordered for them has acted so well that they wish to get it repeated, the doctor, not remembering the formula, directs its repetition. Others are actually too lazy to write a new prescription, and direct the patients to have it renewed. This practice has become so much abused that, unless we get our whole fee in advance, or direct the druggist not to repeat the prescription, we never again see the patient, who continues repeating his medicine until he is cured, and concludes that we have been well paid for our advice by a single fee. Agreement among druggists not to refill prescriptions, except upon a written order from the physician, would relieve them of all responsibility in case of a mistake or accident; would save them much trouble in hunting up old prescriptions; and, if the custom were general, would rather increase than diminish their business, whilst it would restore to us much that legitimately belongs to our profession. Liberality is one of the cardinal virtues of our profession, but it will hardly be expected that we should throw away our knowledge.

They recommend the following resolutions:

"That, as members of this Society, we are opposed to the dangerous practice of patients and druggists renewing a prescription without consulting its author to ascertain whether such medicine should be continued or not, for it is well known that many medicines have a cumulative effect, and thereby become dangerous and destructive."

"That we will favour legislation that will prohibit the dangerous practice of apothecaries renewing prescriptions without the authority of the physician, and that, until such legislation be effected, we earnestly request all pharmacists to restrain from repeating prescriptions as far as they can, without a written order or endorsement from the physician, and ask them to destroy all prescriptions after retaining them in their possession for thirty days."

"That, as the physician, as the originator of the prescription, acquires a literary property in the composition of the formula, belonging to him as its author, he has a right to sell the use of the same to a patient for his own benefit without thereby invalidating his claim to his original ownership; and that the apothecary by compounding the same acquires no legal property claim in it, except as a matter of record to justify himself in compounding the same, and his right in the prescription is simply that of a custodian, whilst that of the patient pertains only to the individual use of the prescription."

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MR. HORATIO PURSLEY of Weston-super-Mare has presented to the hospital authorities of that town a cheque for the sum of £1000.

DR. RUPSTEIN, an assistant in Professor Frerichs's clinic in Berlin, has recently died after three weeks' illness from typhoid fever.

THE Metropolitan Board of Works have instituted a new office, viz., that of ice-inspector; whose duty is to examine and certify to the safety of the ice in the parks. The want of such an official has long been felt; and there can be no doubt that indirectly he will be the means of saving the lives of many of those fools who needlessly rush into danger, which wise men would avoid.

IT is, we believe, arranged that Mr. Ray Lankester will succeed to the Chair of Comparative Anatomy and Zoology in University College. The selection is of the happiest omen; Mr. Lankester is not only eminent as a comparative anatomist of the first order, but is inspired with the true spirit of scientific research; and will, we trust, in the career which is thus early opening before him, found a school of ardent tudents of comparative anatomy in London. The enthusiasm of cience is contagious, and we should like to see the infection spread in ur London schools.

### PUBLIC MORTUARIES.

AT an inquest recently held in Clerkenwell, statements were made which lustrate the necessity, often insisted on by sanitarians, for public mortuaries. The room in which the deceased was found dead was, like the body itself, dirty in the extreme. The body had to be conveyed for the *post mortem* examination into a lower room, where there was neither table nor chair, nor any other convenience—the place, moreover, being unfit in every respect for the purpose, and so situated that grave danger to the health of the other inmates of the house would have been incurred had the mortal disease been of an infectious character. The Coroner, Dr. Hardwicke, in summing up the facts of the case, remarked on the necessity for a mortuary in the parish, and alluded to the difficulties experienced by the vestry, especially in regard to obtaining a site. While crediting the particular vestry with "trying to do all they can" to supply the admitted want, we confess to have seen the above excuse for delay put forward so often, as to suggest some doubts of the sincerity of those public bodies by which, or in behalf of which, it is made. The real difficulty often, we suspect, is the unwillingness of vestries to incur the expense, and the excuses for delay are ingenious rather than serious. Where there is a will there is a way. If the vestries would vote the money, the site would often be forthcoming—at any rate, it might be obtained. The need of mortuaries is now generally admitted in theory, but we do not expect to see them in general use until the permissive powers contained in the Sanitary Act, 1866, and other enactments, are made compulsory, with additional powers for the acquisition of land. But even then, we fear, mortuaries would be little used unless some arbitrary power of removing the dead, in suitable cases, were lodged in local sanitary officers, thus obviating the delay which now arises in putting the machinery of the law in motion. Apart from the gain to the public from the speedy removal of bodies of those who have died from infectious diseases—all the more necessary on account of our system of delayed interment—the general use of mortuaries would remove a scandal of common occurrence arising from the long detention of the dead in the very midst of the inhabitants of the crowded single apartments in which many thousands of our poorer classes reside. We cordially endorse the sensible remarks of the Coroner in the case above referred to, and trust that the expression of his opinion and that of the jury will stimulate the vestry of Clerkenwell, and other vestries also, to more earnest efforts to supply this great public want.

### A TERRIBLE SITUATION.

THERE seems to have been some negligence in the inspection of the ship *Forfarshire*, which left Calcutta for Demerara on the 18th of August last, with 510 Coolies on board. We are told that, previously to leaving Calcutta, the Coolies underwent medical examination; but when the ship had been only two days on the voyage cholera broke out amongst the Coolies, and within the next eight days forty of them were down from the disease. In five days no fewer than thirty deaths took place; and at one time, according to the captain's statement, "It looked as if every soul on board would be attacked". To add to the distress of the situation, measles appeared among the children, five of whom died from this disease, in addition to twenty-two from cholera. The death-list on the passage amounted to fifty-two souls. When the poor creatures died their bodies were wrapped up in blankets and thrown into the sea with as little delay as possible, as the crew "had to give their attention to the living". The suddenness of the outbreak, and the severity of the mortality, points to some evils of overcrowding and to defective sanitary arrangements generally. We are not informed whether the ship carried any surgeon, and find no mention of such an official in the account whence we obtain the above distressing details.

### ENTERIC FEVER AND INTERMITTENT WATER-SUPPLIES.

DR. KING has brought under the notice of the sanitary committee of the Town Council of Hull, the circumstances under which, in his opinion, an outbreak of enteric fever prevailed in that borough during the past autumn. In September and October last, five hundred and twenty-six cases of fever were attended by four medical men in Hull; and, since there are between fifty and sixty medical practitioners in the town, it is believed that many other cases than those enumerated must have occurred. The outbreak was to a considerable extent inexplicable, but, when viewed in connection with the experience recently gained in

Lewes, it becomes highly probable it was, in common with the latter outbreak, due to a pollution affecting the water in the mains. Just about the date of the outbreak, Dr. King noticed that the water-supply became very intermittent, and his attention was specially drawn to the continuous stream of air which was forced out of the water-pipes when some of the taps were opened. At times, also, this expelled air had an offensive odour, and some persons have even complained that the water itself, issuing at that time from the mains, had a bad smell. Dr. King states that he has fully satisfied himself that air has, during the intermissions in the water-service, been drawn into the mains; and since the water-mains, in their course through the streets, lie in close proximity to the sewers, there is every reason for believing that foul air, if not other foul matters, has had facilities for entering the water-pipes. Indeed, in Dr. King's opinion, the parallel between the outbreaks at Lewes and in Hull is complete; and he gives it as his opinion that, if the water-supply in Hull had been constant, instead of intermittent, the large amount of enteric fever which has recently prevailed would never have taken place. Some members of the Hull sanitary committee evidently failed to appreciate the dangers associated with the intermittent system of water-service, and, after some discussion, the matter was allowed to drop. That this subject will turn up again, both in Hull and in other places where facilities are afforded for this special form of water-pollution, we have but little doubt; and from communications which we have recently received, we are glad to find that interest is expressed in the experience gained at Caius College and in Lewes, and additional attention is being drawn to the necessity which everywhere exists for a constant system of high pressure water-service.

### HYDROPHOBIA.

MR. W. J. PAYNE, the City Coroner, lately held an inquest at St. Bartholomew's Hospital, on the body of John Sweeting, who died from hydrophobia. The deceased had been bitten by a bulldog on the hand last summer. For some time the wound progressed, but recently he had been compelled to go to the hospital. Mr. William Sheard, house-surgeon, deposed, that he received the deceased into the hospital, and all the symptoms of hydrophobia set in, from which he died on Saturday, December 19th. A verdict of accidental death was returned.

### THE METROPOLITAN HOSPITAL SUNDAY.

A PUBLIC MEETING, called by the Committee of the Hospital Sunday Fund, was held at the Mansion House on Monday last, at which the Council was reappointed for the year, and the Report of the Committee of Distribution adopted; but, as the supporters of dispensaries and special hospitals are not yet satisfied with the awards they have received, a committee was specially appointed to examine and report upon the claims of these institutions, and generally on the basis upon which the grants ought to be made. It was determined that Sunday, June 13th, be fixed for Hospital Sunday in 1875, and that the co-operation of the clergy and ministers of all denominations be again invited.

### BOIL-PEST IN TRIPOLI.

DURING the early part of the present year, a rare and malignant disease made its appearance in a certain district in Tripoli, characterised by the formation of two or three boils in the axilla, or upon the arms, legs, or abdomen. Of ten instances of the affection observed by Dr. Reval, seven terminated fatally within twenty-four hours. It was regarded as a significant feature that the disorder was limited to the members of the tribe of Merdji, the inhabitants of the surrounding districts enjoying an immunity from the malady, although they maintained uninterrupted communication with this tribe. The authorities at Constantinople appointed a commission to inquire into the causes of this epidemic, and this commission, the President of which was the American consul, Mr. Temen, have recently made an exhaustive report. In accordance with this report, the epidemic in question had its origin in miasmata proceeding from a burial-ground in Merdji, where it is the custom to inter the dead in shallow graves scooped out of the sand, the corpses being simply covered with straw. When it rains, these graves are filled with water, which, upon the following day, is rapidly evaporated by the hot sun, and this contributes to the rapid decomposition of the bodies, by means of which the surrounding atmosphere is loaded with putrid emanations. In winter, the graveyard is converted into a small lake, the water from which is used for drinking purposes. It was also shown that all the wells of the place had their uniform source in this "cemetery pond".

### THE LATE SIR J. R. MARTIN.

THE will of the late Sir James Ranald Martin has been proved recently by Sir William Fergusson and George David Pollock, the acting executors, the personal estate being sworn under £35,000. The testator bequeaths to Henrietta Lady Buller, £200 free of duty; to his wife, Dame Jane Maria Paton Martin, certain furniture, to be selected by her, and the income of the residuary estate for life; at her death, he divides his property equally among his three daughters—Miss Ann Macdonald Martin, Miss Julia Errington Martin, and Miss Amy Forbes Martin, with the exception of the articles of plate presented to him by the inhabitants of Calcutta and the medical officers of the Bengal service, which, on the death of his widow, he gives to his son, Simon Nicholson Martin; and, on his decease, to his son, with the intent that they may become heirlooms in the family.

### ACTION FOR RECOVERY OF FEES IN A MIDWIFERY CASE.

THE following case, of some interest to the medical profession, has just been decided in the County Court of Liverpool before Mr. Perronet Thompson. Dr. D. W. Parsons, under special circumstances, had agreed to attend the wife of a journeyman printer in her confinement, for the minimum fee of one guinea. The labour proved exceptionally difficult, rendering it necessary to use instruments, and to call in the assistance of a second practitioner (Dr. Parsons's assistant), for the purpose of administering chloroform. For this extra service, Dr. Parsons charged one guinea in addition to the original fee, and half-a-guinea besides, for two additional visits subsequent to the ordinary attendance after labour, thus making his claim £1 : 11 : 6 over and above the original guinea fee which had been already paid. The claim was disputed by the defendant, on the ground that, as the original contract was for one guinea, the doctor was bound to do all that might be necessary for his wife's safety for that sum. The plaintiff produced evidence to show that it was understood by the profession, that, in naming the fee for a confinement, especially a minimum fee, it was assumed the case would be an ordinary one, and that, if necessity for further assistance arose, as in the present case, for the administration of chloroform, additional remuneration would be demanded. One of the defendant's witnesses deposed, that a practitioner in large practice in Liverpool, had attended his wife in her confinement, administered chloroform, and stayed with the patient for nine hours, and only charged one guinea. Another medical man, of many years' standing, had also charged a guinea only where chloroform was used. In neither of these instances, however, was there such special difficulty in the case as to require the assistance of a second medical man. The judge gave the plaintiff a verdict for the 10s. 6d. for the extra visits, with costs, but disallowed the £1 : 1 : 0 charged for chloroform; expressing his regret that the case had been brought before him at all, and suggesting that it would perhaps be better for those who could not afford the fair remuneration due to practitioners of respectability and repute, to have recourse to parochial or other eleemosynary sources of medical aid. He regretted that, in this case, the strict letter of the law obliged him to rule that Dr. Parsons was bound by his contract, and advised that, in future, medical men should protect themselves in such cases by a previous stipulation, that the fee agreed upon, was not to include exceptional difficulties which might arise. His honour remarked, that a surgeon might agree to cure an ulcer of the leg for a certain sum, but if, in the course of the case, erysipelas or gangrene ensued, rendering amputation of the limb necessary, it would be unreasonable to expect the surgeon to bring his instruments and assistants, and cut off the patient's leg, without additional remuneration. Dr. Parsons stated that he had brought the case before the court for the purpose of obtaining a legal decision on the special point, without reference to the question of remuneration in this particular instance.

### OBSTETRICAL SOCIETY OF LONDON.

THE following is the house list of officers for 1875. *Honorary President:* Sir Charles Locock, Bart., M.D. *President:* *W. O. Priestley, M.D. *Vice-Presidents:* *W. F. Cleveland, M.D.; E. Copeman, M.D. (Norwich); *T. F. Grimsdale (Liverpool); A. Meadows, M.D.; W. S. Playfair, M.D.; C. H. F. Routh, M.D. *Treasurer:* G. C. P. Murray, M.D. *Honorary Secretaries:* A. Wiltshire, M.D.; A. W. Edis, M.D. *Honorary Librarian:* James H. Aveling, M.D.; *Honorary Members of Council:* H. Oldham, M.D.; R. Barnes, M.D.; J. H. Davis, M.D.; Graily Hewitt, M.D.; J. Braxton Hicks, M.D., F.R.S.; E. J. Tilt, M.D. *Other Members of Council:* G. G. Bantock, M.D.; J. Bassett, M.D. (Birmingham); *W. Bloxam, M.D.; G. B. Brodie, M.D.; T. Chambers, M.R.C.P.Ed.; W. H. Day, M.D.; J. Ellison, M.D. (Windsor); J. H. Galton, M.D.; *W. C. Grigg, M.D.; W. Newman, M.D. (Stamford); J. B. Potter, M.D.; *G. Roper, M.D.; *H. Cooper Rose, M.D.; Heywood Smith, M.D.; A. B. Steele, L.K.Q.P.C.I. (Liverpool); *T. Taylor, F.R.C.S. (Birmingham); *John Williams, M.D.; *J. L. Worship (Sevenoaks). Those gentlemen to whose name an asterisk is prefixed were not on the Council, or did not fill the same office, last year.

### THE FEVER AT OVER-DARWEN.

AT a meeting of the Darwen Local Board, last week, a statistical table was submitted, prepared by an officer appointed for the purpose, giving information as to the existence of fever. Where the town's water had been used, 1,156 houses, with 6,796 inmates, had been visited with fever. The number of fever cases was 2,035, and the deaths 104, or an average of 1.760 to each house. In eighty-seven houses, with 552 inmates, where water had been obtained from other sources, the number of fever cases had been 126, and the deaths 8, averaging 1.450 to each house. The total number of fever cases had been 2,171, and the deaths 112, or one to every 202 persons. It is stated that the origin of the outbreak has been traced to the contamination of the water-supply of the town by the filtration of typhoid excreta from an imported case into the main water-pipe of the town where it crossed a field on its way to the town, and lay contiguous to a house-drain. So that, during the progress of the first case, the whole town was being steadily poisoned. This is a terrible lesson—like so many others which have arisen and passed away but half learnt—of the deadly effects of impurity of drinking-water.

### THE MEMORIAL TO THE COMMITTEE OF COUNCIL.

THE memorial to the Committee of Council on the subject of the hospitals and free dispensaries, which we printed *in extenso* last week, has since then received the following additional signatures: Sir J. Cordy Burrows (Brighton), Dr. Sieveking, Dr. Robert Barnes, Dr. Greenhalgh, Dr. Alexander Halley, Dr. Edward Sparks, Dr. E. Gwynn, Mr. W. Eddowes (Shrewsbury), Dr. John Cook, Dr. W. Center, Dr. Alexander Grant, Mr. J. R. Morrison, Dr. Alfred Pullar, Dr. Waggett, Mr. C. M. Frost, Dr. Mair, Dr. Dow, Mr. J. R. Lynch, Dr. A. D. Walker, Dr. Kilner, Mr. Thomas Liddard, Dr. Howes, Dr. Pearson, Dr. Stewart Tulloch, Mr. H. C. Lawrence, Dr. Hett, Mr. J. M. Moullin, Mr. G. T. Phillips, and Mr. George Beamish.

### THE LETTSOMIAN LECTURES.

ON Monday evening last, the lecturer for this year, Mr. Maunder, delivered the first of his lectures to a well attended meeting. The subject, "The Surgery of the Arteries", is one of great interest to surgeons, and Mr. Maunder added to this natural interest the additional one of giving the result of his personal experience, which is exceptionally large. In addition to the information gained from the twenty-seven arteries Mr. Maunder has tied, he was enabled to give the results of research into various British and foreign journals, and to draw conclusions worthy of attentive consideration from all practical surgeons. The last lecture dealt with the subject of Aneurism; the next will be devoted to Wounds of Vessels.

### ROYAL COLLEGE OF PHYSICIANS.

THE lectures of the present year will be delivered at the College, Pall Mall East, on each of the following Wednesdays and Fridays, at five o'clock: Goulstonian Lectures, Dr. R. J. Lee, February 19th, 24th, and 26th, on Puerperal Fever: Croonian Lectures, Dr. Greenhow, March 3rd, 5th, and 10th, on Addison's Disease: Lumleian Lectures, Dr. Beale, March 12th, 17th, and 19th, on Life, and on Vital Action in Health and Disease.

### THE PATHOLOGICAL SOCIETY OF LONDON.

ON Tuesday evening, January 5th, this Society met for the purpose of electing a new staff of officers. The retiring president, Sir William Jenner, Bart., occupied the chair. There was a large attendance of Fellows. In vacating the chair, the ex-President expressed, in brief but well-chosen sentences, his gratitude for the vote of thanks proposed to him, and his regret that the multitudinous calls upon his time should have interferred with his attendance. He congratulated the Society upon the value of the specimens exhibited, and the character of the discussions that followed. The Morbid Growths Committee and the new Chemical Committee, called forth expressions of approval from him. Sir William referred especially to the two great discussions on tubercle and on cancer, which had taken place during his presidency. He did not think that the expositions had made converts; for opinion had remained the same. What they had achieved was the bringing out more clearly the discrepancies and disagreements of opinion existing. In setting forth each separate view, much of the other side was seen, and thus each saw more distinctly the differences existing; and from this the truth will ultimately be struck. The proposition to change the hours of the meeting from 8 P.M. to 9.30 P.M., to 8.30 to 10, was carried unanimously. By the liberality of one of the Fellows, Dr. T. B. Peacock, an index of the *Transactions* for the past ten years was furnished to the Fellows. The gentlemen whose names were given in our last issue, as being proposed for election, were unanimously elected. The plan of having special discussions will be followed out, as that on cancer was productive of much interest. Microscopes and illumination are now provided for exhibitors. During the past year eleven Fellows have died, leaving the present number 515. The finances of the Society are in a satisfactory condition.

### ON EMBALMING.

THIS is a subject of much interest, and occasionally the members of our profession are called upon, at a moment's notice, to undertake it on the bodies of distinguished persons, as in the case of the late Emperor Napoleon. Only a few weeks since, we received an urgent message by telegram from Southampton, to send down some gentleman learned in the matter, to exercise his skill upon a subject about to be dispatched by one of the West Indian mail steamers. We were unable to succeed; and, as so little is known on the subject, we have great pleasure in publishing the following interesting document from the valuable collection of autographs in the possession of Mr. T. M. Stone of the Royal College of Surgeons. The body was that of the Earl of Moira; the embalment took place at his lordship's house, and the document is drawn up exactly in the following terms, and signed by the late Sir John Doratt, who, on giving it to Mr. Stone, said he was the last surviving pupil of John Hunter.

*Modern Embalment by the late Mr. John Hunter.*—The whole of the viscera, thoracic and abdominal, having been removed, the entire inside of the trunk was well washed with cold lime-water, and afterwards well dried with cloths. When dry, the cavities were actually soaked in rectified spirits of wine. On the removal of the contents of the abdominal cavity, incisions were made into the intestinal canal, to give vent to the fæcal contents, as also to the gas that might have been contained within them; they were immediately immersed into cold lime-water, well washed, and the blood that appeared well squeezed out. This effected, the whole were again immersed into lime-water, and allowed to remain for a time. This last being finished, the whole was thrown into rectified spirit of wine, and suffered to remain for some time. The abdominal cavity having been laid as directed, and a bed of spices having been prepared to receive the viscera, the latter was then returned or replaced; the whole cavity, with its contents, was entirely filled with the spices and alum, so as not to leave a vacant space. The abdominal integuments were then closely drawn together, and strongly sewn with twine well waxed. The thoracic viscera were in part treated in the same manner as the abdominal viscera, as also was the cavity of the chest. The lungs having been replaced, and the cavity completely filled with spices, etc.; the integuments closely drawn together and sewn with twine well waxed (the blood was well squeezed from the lungs before immersion, and incisions having been made, Friar's balsam was poured into them). The heart, after having had several incisions made into its substance, was immersed, as before described, in the lime-water and spirit of wine. A considerable quantity of the Friar's balsam was poured into all the openings, and the arteries and veins plugged (*sic*) with the spices, etc., well wetted or soaked in the balsam. The heart was then placed in the urn, well filled with spices, and again soaked with the balsam. The urn was then hermetically closed. The scalp being most carefully removed, the cranium was sawn through so as to remove the upper and larger portion. The brain was carefully removed. The bony cavities were treated in the same manner as the other cavities. The brain was divided into many parts by small incisions or deep punctures, and a considerable quantity of Friar's balsam poured into them. It was carefully replaced within the cranial cavity, well covered with this balsam, so as to envelope the whole mass. The scalp was well drawn over the whole cranium, and closed by being closely sewn with twine well waxed. The mouth and throat were crammed with the spices wetted with the balsam, as also the nostrils. Nothing was done to the lower parts of the body that I remember, neither have I any note as such. The body was well washed with lime-water, and, when perfectly dry, every member was separately rolled in waxed cloth, and afterwards the whole body closely enveloped in the same. I forgot to mention, the bladder was treated in the same manner by the different immersions, and crammed with the spices. The apothecary who supplied all the materials that were necessary by tenure of office, was Mr. Wainwright, who resided in Pall Mall, opposite to Carlton House, within a door or two of St. Alban's Street, as it was at that period. The spices were composed of the more aromatic and pungent order, as cloves, nutmeg, cinnamon, pepper, franckincence (*sic*), etc.; added to which was a large portion of alum in powder. All were reduced to a coarse powder. Performed by Mr. (afterwards Sir) Everard Home—myself acting as assistant—and all under the immediate direction of Mr. John Hunter.—(Signed) JOHN DORATT.

The cost is not given; but on reference to Nightingale's *London and Middlesex*, vol. iii, p. 528, we find that Edmond Phillips had £40 4s. 8d. (a large sum in those days) for embalming the body of Thomas Sutton, the benevolent founder of the Charterhouse. The use of the cerecloth, alluded to by Sir John Doratt, has been continued from the earliest to the present period. In the instance of George II, the two sergeant-surgeons had £122 8s. 9d. each for opening and embalming, and the apothecary £152, for a fine double cere-cloth and a due quantity of rich perfumed powders.

## ACCIDENTS FROM FROST IN PARIS.

ON New Year's evening, there were no fewer than 260 accidents, all more or less of a serious nature, in Paris alone, in consequence of a fall of snow and sleet when the temperature was below freezing. In the provinces, also, the papers report numerous casualties, broken limbs having been of frequent occurrence; and several fatal cases were recorded.

## THE ANONYMOUS BENEFACTOR.

THE late Mr. Benjamin Attwood of Cheshunt, whose anonymous donations have for a long time attracted public attention and surprise, has, during his lifetime, distributed not less than £375,000 to various charities. He certainly, during his lifetime, did good by stealth; and it was probably not by his wish that his generosity has become known to fame.

## THE FIJI ISLANDS.

A REPORT upon the effect of the climate of Fiji on Europeans and white men generally, has been compiled by Staff-Surgeon Messer, of H.M.S. *Pearl*, from information collected in 1873 and 1874. Now that the cession of Fiji to England makes it probable that English subjects will take up their residence in this, our newest possession, the information acquires a practical interest and value. Staff-Surgeon Messer informs us that the climate of the Fiji Islands is strictly tropical, the hot moist season extending from November to April, and the cool dry season from May to October; but strong trade winds and the insular arrangement of the land have a powerful influence in moderating the temperature, and materially check the spread of disease, and prevent the accumulation of poisonous miasmata arising from the enormous quantity of decaying vegetable matter. Zymotic diseases, such as small-pox and fever, are as yet nearly unknown in Fiji; and periodic diseases, such as ague and remittent fever, which owe their origin to malaria, are, strange to say, very rare, if not altogether wanting. The native race is chaste, and venereal disease is at present almost unknown. In no part of the group did Dr. Messer hear of any death from sunstroke, although most of the Europeans work the whole day in the open air, exposed to a tropical sun, wearing only an ordinary straw hat and puggery, or occasionally a pith helmet. Throughout most of the year, the breeze keeps the air in motion, and produces evaporation from the surface of the body, decreasing its temperature. Asthma and bronchitis, however, are very common among the natives, and, at certain seasons, very fatal to the old and the very young. Of the prevalence of delirium tremens, there is no lack of evidence. The natives maintain that "kava drinking" is useful and healthy. It soothes somewhat like opium, and is a warm aromatic, stomachic drink; but it is evidently hurtful when taken to the extent to which many white people indulge in it. Dr. Messer says: "Dysentery is the only disease which Europeans have to fear in Fiji and to guard against, as can generally be done by observing a few simple precautions. This is saying more for the climate and health of these islands than can be said of almost any other climate or country in the world, and certainly of those in corresponding latitudes." But he notices that, although the climate does not exert any very baneful influence on the European constitution, there yet exists a well-marked difference, distinguishing the Fiji settler from the occasional visitor or the fresh arrival from England. This difference, he says, consists in a spareness of frame, a somewhat sallow complexion, and a hard keenness of expression, approaching sensibly the American type of the Anglo-Saxon race; yet, while fat white men are very rare in Fiji, fat natives are the rule. This is quite in keeping with the effects of most hot climates on the English race. The effect of the climate becomes more evident in women, who have not much out-door exercise, and who are obliged in a rough new country to work hard. Dr. Messer observes that many days occur, especially towards the end of the summer, when, the trade winds failing, there sets in hot, oppressive, muggy weather, affecting many people with an irresistible languor; but he thinks it very doubtful if there is anything peculiarly depressing and lowering in this more than in any other equally hot climate; and the fact that Englishmen, fresh from home, are able to work all day, exposed to the sun, without suffering, shows that where there is an object to be gained, men of determination and energy, with healthy bodies and minds, can successfully contend against this effect of the climate of Fiji. With regard to the possibility of rearing white children in health to the age of maturity in a new country, it requires the test of many years' experience to determine this; but, wherever Dr. Messer met with married settlers among the plantations of Fiji, numerous and healthy children seemed to be the rule, and the mothers bore testimony to the lightness of their children's complaints, and the rarity of any sickness among them. Even though meagreness of frame was remarked among the parents, yet the offspring were stout, ruddy, and strong. The children on the plantations have a great advantage over those in the town of Levuka; the latter are, in comparison, pale, small, and rather sickly-looking, owing chiefly to sanitary defects, and the greater scarcity of food suitable to children. Upon the whole, Dr. Messer's report shows very great salubrity in Fiji, considering its position as a tropical country.

### THE MAGNETIC FORCE OF BLOOD.

A PAPER was read at the Royal Society on December 10th, by Dr. Shettle of Reading, on the paramagnetic condition of arterial blood as distinguished from the diamagnetic condition of venous blood. The following is an outline of the author's views. This paramagnetic force is due to the presence of oxygen, under the influence of which gas, all the phenomena of animal life are performed. It had been previously ascertained, that the corpuscles of the blood are paramagnetic in both the arterial and venous states; but these experiments by Dr. Shettle prove that paramagnetic force exists in arterial blood which becomes converted into diamagnetic force when the blood passes into unstimulating venous blood. It is true, that the paramagnetic force thus displayed, is small in amount when compared with iron or other paramagnetic bodies of a similar nature, but it is in proportion to the amount of oxygen which the arterial blood contains, for it is a physical property of oxygen. The author of the paper affirms, that in proving arterial blood to possess this force, he proves also, that the stimulating force of arterial blood is due to magnetism, for each atom or molecule of oxygen that is carried into the system by means of the blood, must exercise a paramagnetic—that is, polar influence—over the growing tissues, all of which are known to be diamagnetic to oxygen. In a paper by Dr. Shettle, published in the *Medico-Chirurgical Review* for January 1871, he indicated the mode in which the heart's action would be stimulated if the blood were paramagnetic, and referred the formation of the ganglia of Beale to the action of the same force. In his present paper, he proves the existence of that paramagnetic force by defribinating blood in the arterial and venous conditions, and then testing them antagonistically to each other. He is now engaged in conducting other experiments with a view to demonstrate that the phenomena of life may be attributed to the molecular action of such force according to the laws of magneto-electricity, or electro-magnetism.

### CHLOROFORM AND ETHER.

IN view of the mortality in this country from chloroform, we feel called upon constantly to insist upon a fuller attention to the greater relative safety of ether. "The terrible and indisputable fact is, that no human care, wisdom, or foresight, can prevent occasional deaths from chloroform. On the other hand, only the grossest mismanagement can render ether inhalation fatal." This sentence we extract from the last number of the *American Quarterly Journal of Medical Sciences*. As the American experience of ether is very large, and as this journal is the chief medical authority in the United States, we invite particular ttention to this clear and pregnant statement. It would only lose by additional comment.

## SCOTLAND.

### LEAD IN LEMONADE.

At the Glasgow police-court, on December 26th, a lemonade manuacturer, named James M'Casker, was convicted of having sold lemonade that contained four-tenths of a grain of lead to the gallon, and was ined £3 3s., with costs.

### THE RECENT COLD WEATHER.

THE effects of the recent severity of the weather has made itself pparent in the death-rates in all parts of the kingdom. In Glasgow lone, the deaths were at the rate of 50 per 1000 *per annum*, the aged nd infirm forming, of course, the chief number of the victims. The umber of deaths in the eight principal towns of Scotland exceeded the irths by 148, and was 340 more than in the corresponding period of st year.

## IRELAND.

AT a meeting of the Royal Academy of Medicine of Belgium held on the 26th ult., Dr. Redfern, Professor of Anatomy and Physiology in Queen's College, Belfast, was elected an honorary member.

### ADDRESS TO MR. A. RINGLAND.

LAST week, the pupils at the Coombe Lying-in Hospital, Dublin, presented this gentleman, who is assistant-master, with an address, expressive of the assistance which they had received from him in pursuing their studies at the hospital.

### THE DROGHEDA CORPORATION, AND THE PUBLIC HEALTH ACT.

AT a meeting of this body, held last week, a communication was received from the Local Government Board, regretting the views taken by the Council of the Corporation, in giving no salaries to the medical gentlemen on whom devolved the working of the Act, which necessitated their issuing a sealed order, directing that £10 additional should be paid to the salaries of each of the medical officers of the dispensary districts.

### UNIVERSITY OF DUBLIN.

THE election for a representative in Parliament for this University is expected to take place about the 13th instant. The electors are the Fellows, Scholars, Masters of Arts, etc.; they do not pay any fee for the privilege, but each voter must have had his name on the books of the University for not less than two months previous to the election. Three candidates have intimated their intention to contest the vacancy, viz., Messrs. Gibson, Miller, and Traill; the last named gentleman is a member of the medical profession, the other two both belong to the legal profession. Mr. Gibson, in his address, promises that, if returned, the interests of the medical profession shall receive his earnest attention; and that he will endeavour to improve the condition of the public services, and advance the progress of sanitary legislation.

### THE CITY OF DUBLIN HOSPITAL.

MR. JOLIFFE TUFNELL has been appointed Consulting Surgeon to the City of Dublin Hospital; and Mr. Henry FitzGibbon, son of the well known Master in Chancery, has succeeded to the surgeoncy lately held by Mr. Tufnell. We understand there were five or six candidates in the field, but some retired, believing that the price demanded was above the value of the place. We presume, the highest bidder obtained the appointment; and it is useless, therefore, to discuss the relative merits of the candidates. We believe that arrangements have been made which will gradually result in the abolition of the purchase system at this hospital, and that this is the last occasion where an outgoing officer will be able to sell the right of succession to his office.

## NEW MEMBERS IN 1875.

WE are happy to state, that the prospects of the growth of the Association this year are of the most promising kind. Upwards of two hundred members of the profession have already, during the last week, applied direct to this office for admission as members of the Association. We beg to remind the officers of Branches, and the members of the Association generally, that the present is the most desirable season for introducing new members. The officers of certain Branches (the Midland, the Birmingham and Midland Counties, the North of England, Aberdeen, and others) have already applied for copies of the programme of the JOURNAL to assist in a local canvass. It is a very useful and advantageous custom, that the officers of each Branch should systematically canvass their whole district at the commencement of each year. The result is always advantageous to the Branch, and to the whole Association. The total number of new members who have already expressed their desire to join the Association this year is, we believe, greater than in any previous year at so early a date, amounting in all to not fewer than 350. The Association already numbers more than 6000 members, and the weekly issue of the British Medical Journal to members and subscribers, has now reached 7000. The friends of the Association will, we trust, not relax their efforts until the total number of members amounts to at least 10,000.

We beg, therefore, earnestly to urge upon the officers of Branches, and members generally, to lend their aid in making known the advantages of the Association in their districts, and thus to hasten the desired consummation. For this purpose, every facility will be afforded on application to the General Secretary, Mr. Francis Fowke, at the office, 36, Great Queen Street, W.C.

## WHAT HAS VIVISECTION DONE FOR HUMANITY?

Recent circumstances render it desirable that some attempt should be made to answer the question whether or not the practice of making experiments on living animals has materially aided the progress of medical science. To answer this question with completeness, would involve an encyclopædic investigation of the sources and history of our present knowledge. It would be a work into which a great fund must be brought of patience, time, and labour. We shall, however, endeavour to present here at once and hastily some leading data, such as may be gathered from a cursory review of the subject. We offer them as *mémoirs pour servir*, and shall hope to be able to finish the picture by filling these rough outlines as time and circumstances will permit. We invite assistance and criticism from physicians, surgeons, and physiologists. We present to-day a first contribution in the following skeleton sketch.

### What has Vivisection done for Medical Science?

A. *It has succeeded in advancing our knowledge of Physiology, by:*

1. Discovery of the two classes of nerves, sensory and motor, by Sir Charles Bell.

2. Discovery of the functions (motor) of the *portio dura* of the seventh pair by Sir Charles Bell. Previously to this discovery, the *portio dura* was often cut by surgeons for the cure of neuralgia!

3. Discovery of the functions of the anterior and posterior roots of the spinal nerves by Sir Charles Bell.

4. Discovery of the functions of the anterior and posterior columns of the spinal cord by Brown-Séquard and others.

5. Discovery of one of the functions of the cerebellum in co-ordinating muscular movements by Flourens and others.

6. Discovery of the functions of the grey matter on the surface of the cerebral hemispheres as connected with sensation and volition by Flourens, Magendie, etc.

7. Discovery of the motor functions of the grey matter covering certain convolutions in the anterior part of the cerebral hemispheres by Hitzig, Fritch, Ferrier, Gudden, and Nothnagel.

8. Demonstration of the circulation of the blood by Harvey.

9. Measurement of the static force of the heart and discovery of other hydraulic phenomena of the circulation by Stephen Hales, Ludwig, etc.

10. Discovery that atmospheric air is necessary to the maintenance of life, and that, when stupefied by its withdrawal, animals may be resuscitated by readmitting it, by Robert Boyle in 1670.

11. Discovery that atmospheric air by continued breathing becomes vitiated and unfit for respiration, by Boyle.

12. Discovery that the air was not only vitiated but also diminished in volume by the respiration of animals, by Mayou in 1674.

13. Discovery of the relation, as regards respiration, between animal and vegetable life by Priestley in 1722.

14. Great discoveries by Lavoisier on the physiology of respiration from 1775 to 1780: namely, that respiration acts only on the respirable portion of the air, or oxygen, while the remainder, nitrogen, is entirely passive in the process; secondly, that when animals are confined in a limited space, they die when they have absorbed, or converted into carbonic acid, the greater part of the oxygen, and so reduced the air to the state of an irrespirable gas.

15. Numerous facts in the physiology of digestion observed by Blondlot, Schwann, Bernard, Lehmann, and others, by experiments on animals.

16. The discovery of the functions of the lacteals by Colin, Bernard, Ludwig, and others.

17. The discovery of the functions of the eighth pair of nerves in relation to deglutition, phonation, respiration, and cardiac action, by John Reid and others.

18. The discovery of the functions of the sympathetic system of nerves by Pourfour du Petit in 1727, Dupuy in 1816, Brachet in 1837, John Reid, and Brown-Séquard.

19. The discovery of the phenomena of diastaltic or reflex action by Marshall Hall.

20. The discovery of the action of light on the retina by Homgren, Dewar, and McKendrick.

21. The discovery of the glycogenic function of the liver by Bernard, Macdonnell, Pavy, etc.

22. The discoveries of the whole series of facts in the domain of electro-physiology by Matteucci, Du Bois-Reymond, Pflüger, and many others. These discoveries have important practical bearings.

B. *In aiding Medicine and Surgery.*

1. The transfusion of blood, and introduction directly into blood of medicines; first proposed by Robert Boyle in 1665. In 1665, Lower transfused blood from vessels of one animal into those of another. First done in human being by Dennis and Emmerets in France in 1666. Blundell's celebrated experiments on animals in 1818. Since done by many others—Dumas, Milne-Edwards, Dieffenbach, Bischoff, Doubleday, Brigham, Waller, Burton Brown, Klett, Lane, Lavy, Bérard, etc.

2. Artificial respiration. Vesalius showed that by blowing up the lungs with air, after the chest was opened, stoppage of the heart's action might be delayed for some time. Hook in 1664 first demonstrated the possibility of artificial respiration. Brodie, Hope, Le Gallois, Wilson Philip, Marshall Hall, and Silvester have practised it on human beings.

3 The causes of the cardiac sounds have been determined entirely by vivisectional experiments.

4. Phenomena of the circulation within the cranium examined experimentally by Kelly, Burrows, Reid, etc.

5. Hunter's operation for aneurism was first demonstrated and tried on living animals. This he did in 1785. He also found by experiments on animals that in many cases the arterial coats were diseased immediately above the aneurism, and that consequently it was necessary, in order to avoid secondary hæmorrhage, to place the ligature higher up.

6. The office of the periosteum in regeneration of bone has been demonstrated experimentally by Du Hamel in 1740, Hunter in 1772, Syme in 1837, Wagner in 1853, and Leopold Ollier in 1858. The practical importance of these observations is recognised by all surgeons who have had much to do with diseases of bones and joints.

7. The researches of Redfern into disease of cartilage.

8. The researches of Stricker, Cohnheim, Von Recklinghausen, and many others on inflammation, more especially of cornea and serous membranes.

9. Without vivisection experiments, we would know almost nothing of the phenomena of inflammation.

10. Experimental inquiries into many zymotic diseases showing occurrence of micrococci.

C. *In advancing Therapeutics, Relief of Pain, etc.*

1. Use of ether.

2. Use of chloroform.

3. Chloral, discovered experimentally by Liebreich.

4. The actions of all remedies are only definitely ascertained by experiments on animals.

5. Action of Calabar bean, by Fraser.

6. Antagonism between active substances and the study of antidotes —many observers.

The above are simply examples which have readily occurred to the mind. To record all the facts given to physiology by experiments on animals, would simply be to write the history of the science. Therapeutics is yet in its infancy; but nearly all the facts definitely known regarding the actions of remedies have been gained by experiments on animals. To stop experiments on animals, would as surely arrest the progress of physiology, pathology, and therapeutics as an edict preventing the chemist from the use of the retort, test-tube, acids, and alkalis would arrest the progress of chemistry.

Bequests.—The late Mrs. Emma Woolsey has bequeathed to the Hospital for Sick Children, Great Ormond Street; the Consumption Hospital, Brompton; St. Mary's Hospital; the National Hospital for the Paralysed and Epileptic; the Royal Hospital for Incurables, £500 each.—The late Miss Jane Robertson, of Northumberland Street, Edinburgh, has, besides legacies of a private and public nature, made the following bequests for medical charities. To the Blind Asylum, £500; Royal Infirmary, £1200; Deaf and Dumb Institution, £300; Institution for the Relief of Incurables, £100; Convalescent Home, £500; Chalmers' Hospital, £200. The residue of the estate is to be paid two-thirds to the Royal Infirmary, and one-third to the Convalescent Home.

# SPECIAL CORRESPONDENCE.

## PARIS.

[FROM AN OCCASIONAL CORRESPONDENT.]

### *Notes in the Hospitals of Paris.*

I MADE this week a short visit to some of the hospitals of Paris. It is the vacation season, and I did not see very much; but a short note of what I happened to see may not be uninteresting.

I went round the wards of M. Labbé, in the morning, at the Pitié. M. Labbé is one of the most practical of the hospital surgeons of Paris—active, intelligent, well-read, and a man of the world. He shares, with most French surgeons, the habit of teaching well and clearly; of laying stress upon the particular points on which he wishes to express his views; and of interesting his auditory by vivacity of manner, and by the evident interest which he takes himself in the subject of which he is talking. The habit of *concours*, repeatedly encountered, gives to French teachers this power of speaking clearly, and of arranging with order and system the matter of discourse. I really do not know how many *concours* a professor of the faculty and hospital physician or surgeon has to pass through; but they are at least half-a-dozen, beyond the examinations for his degree. Not to speak of his eight public examinations for his degree, he has a *concours* for the *externat* and for the *internat* of the hospitals; a *concours* for the office of *agrégé* (often two or three); for the office of *médecin des hôpitaux;* and for the professorship. These *concours* last for two or three months each: they include long oral dissertations on subjects chosen at the pleasure of the jury throughout the range of medicine; an original study of great length of some doubtful point, on which the candidate must manage to arrive at, and to sustain, his own opinion, which is bound to differ *tant soit peu* from that of the rest of the world. Altogether, no man can arrive at the office of professor and hospital surgeon without having cultivated to the utmost, not only his powers of memory and of observation, but also the faculty of arranging his knowledge and systematising his ideas, and so drilling his reasoning powers, that he can, at any given moment, bring to bear upon the subject of the moment all his stores of knowledge and his powers of thinking. The system has, of course, many disadvantages; it tends too much to cast all sorts of temperaments and capacities into one iron mould; it aims too much at giving to everyone an encyclopædic character during the first ten years of working life, when it is most desirable that the individuality should be left free to develope itself in all directions. But it has this advantage: it ensures a certain good average of instruction and powers of teaching. It is almost impossible for an absolute nullity, a merely incapable, but patient and perhaps well-to-do, imbecile, to climb the ladder in virtue of having his foot placed on the first rung, and being pushed, in the passage of years, by the accumulative force of those who stand behind him. I need not say to Englishmen that that is an advantage which is sometimes enviable, and not everywhere possessed. The students of Paris do not suffer under the system of mere seniority which prevails in England, the inevitable rise of the most incapable person from the most junior post to that of senior physician and surgeon, professor of surgery, and clinical surgery or clinical medicine, while remaining at or below the level of mediocre instruction and feeble capacity which sometimes suffices to introduce a man into the inner positions of some one of the score of great hospitals and schools in London and the provinces. This is a digression, but it is one which only expresses the reflections into which I have been led very frequently during the last few days, in observing the much higher general average of knowledge and teaching power here, to which the hospitals and schools of Paris undoubtedly owe much of their deserved reputation. There are not here, perhaps, so many strongly marked individualities. It would not perhaps be easy to match here Fergusson, Jenner, Gull, Paget, Henry Thompson, Spencer Wells, Bowman, Liston, Hinton, Lockhart Clarke, Burdon Sanderson, Hughlings Jackson, Brunton, Ferrier, etc. But it would be quite impossible to find among the ranks of the hospital physicians and surgeons of Paris intellects so sluggish and minds so ill-informed as are frequently found engaged in the hospital and school work of London.

Let us return to M. Labbé, with a hope that I may be pardoned for this long excursion, and especially with a prayer for indulgence in expressing these opinions. They are, of course, only those of an individual observer; and, even if exaggerated or incorrect, they may be useful in the same degree as they are unpalatable. *Experto crede.* I know pretty well the institutions and the men of both countries. The only novelties which I found in M. Labbé's wards were—1. The free and advantageous use which he makes of the galvano-cautery in certain cases; 2. A new experimental treatment, which he is employing, of large spinal abscesses occupying the dorsal site; and 3. His use of the actual cautery in hospital gangrene and acute diffuse cellular inflammation.

*Galvano-cautery.*—There were, at the time of my visit, in M. Labbé's wards, a number of cases of extensive multiple fistula of the sinuses—examples of these cases in which the disease has lasted for many years. If the sinuses have burrowed in several directions, spreading widely and deeply beneath the glutei, covered by a considerable thickness of tissue, often of a highly vascular character—in such cases, the incisions must extend far and widely; and, from the extent of surface laid open, and the amount of bleeding, such operations often require a good deal of judicious determination and courage on the part of the surgeon, and are a severe trial to the patient. Here M. Labbé had used the galvanic cautery with very good results indeed. The application is not, of course, new, but it is useful. He has used it also successfully in ablation of portions of the tongue, and of polypi, etc. He is careful to heat the wire only very moderately, and to proceed very slowly. By heating the wire too high, others have met with serious subsequent hæmorrhages. This is indeed the frequent objection to the galvano-cautery. It may be avoided, as the experience of M. Labbé and others shows, by using the wire only at a very dull heat, and proceeding with great deliberation; thus, a section of the tongue may occupy twenty minutes, but then there is no subsequent tying of arteries. M. Labbé's experience of epithelial cancer of the tongue is not more favourable as to final result than that of other surgeons.

I may mention here that I saw also, at the Maison Municipale de Santé, two cases of M. Demarquay, in which he had tied the lingual artery in order to arrest the growth of a lingual epithelioma, but, of course, without the expectation of doing more than produce a temporary atrophy. M. Demarquay has employed this surgical expedient a great many times; and, in a subsequent note, I will acquaint you with the details of his results, of which he is preparing notes for me.

*Abscesses of the Spine treated by Caustics.*—Of these cases, I can have but little just now to say, but you will probably hear more of them, either from me, or from M. Labbé himself, who may probably make you a communication on the subject, either in writing or at your Edinburgh meeting. The treatment of those enormous collections of matter which are found in the course of dorsal spinal disease, where a huge cold abscess forms which has a vast extent of pyogenic surface, is at this moment almost negative. What can be done with these huge spinal abscesses of the back? Open them by Lister's process and inject them, perhaps. We lack, at present, the elements of appreciating the success of this mode of treatment. M. Labbé has been induced tentatively to attempt the plan of destroying the tissues over the abscess for a large extent, and gradually applying chloride of zinc paste, laying bare the whole cavity of the abscess, unroofing it, so to speak, and converting it into an open granulating wound, to be treated then according to the rules of art. Will this treatment succeed or not? Has it considerable inherent dangers? I cannot tell you. It is an experimental proceeding. The wounds are certainly large, but they looked healthy, as wounds so produced usually do; the patients had, during the course of a treatment which is necessarily long, and which has the appearance of being severe, suffered little, and shown very little febrile reaction. The temperature had hardly, at any time, exceeded the normal by one or two degrees. The patients whom I saw had on their backs open granulating healthy-looking wounds of the extent of the palm of a large hand. Many pints of matter had escaped from one, but the cavity of the abscess was not yet fully exposed.

Of the *actual cautery* in cases of hospital gangrene and diffuse cellular inflammation, M. Labbé speaks with due enthusiasm. I have not seen him apply it in these cases, but he mentioned the particulars of a case of inflammation of the bursa of the olecranon due to a blow. The bursa filled with matter was opened, the case made a good recovery, the wound had nearly cicatrised, and the physical condition of the patient was entirely reassuring. The morning consultation left the patient in this condition. At night, the surgeon was again summoned, the patient having meantime undergone a rapid change for the worse: the arm was swollen to a great thickness from the wrist to the shoulder, a great swelling projected from the elbow, the pulse could not be counted, the patient was in violent delirium. Long deep incisions, followed by the actual cautery to the depth of the incisions, produced a modification as rapid as that which had led to the unfavourable condition, and the patient, who seemed on the brink of death, was restored very quickly to a sound condition. M. Labbé mentioned several other cases in which the most excellent results had rapidly followed the application of the actual cautery to the flaps of amputation-wounds, and other examples of hospital gangrene. There is not the same fear here of actual cautery as in London hospitals; and I incline to think that its full value is not sufficiently appreciated by the London surgeons.

Paris, December 24th, 1874.

## EDINBURGH.

[FROM OUR OWN CORRESPONDENT.]

*The Cold Weather and the Death-rate.—Death of Dr. W. Dumbreck.—Hospital Sunday.—University Examiners.—Election of Managers of the Infirmary.—The Lady Question.*

THE death-rate for the past week has reached the very high figure of 38 per 1,000, and this fact might well give rise to serious alarm in the face of the recent epidemic of scarlet fever, which has been prevalent in the town, were it not that, on looking into the causes of death, we find only two put down to fever of any kind, while the great rise is due to heart and chest-diseases and "old age". There is no doubt that the very great fall of temperature which has been experienced here in the last week or two has carried off large numbers of the aged inhabitants, whilst among children its effects have been nearly as severe. Here, at all events, we are paying a high penalty for the pleasures of an "old-fashioned" winter, for in none of the severest epidemics of fever and small-pox has so high a mortality been registered in Edinburgh.

We are sorry to record the death of Dr. W. Dumbreck, one of the oldest members of the medical profession here. Till within a few weeks of his death, which occurred at the age of 74, he was engaged in practice, and was in the enjoyment of very fair health. He caught a severe cold about a month ago while engaged in professional work, from which he never rallied. Dr. Dumbreck was a native of Edinburgh, and was for thirty years an examiner in the Royal College of Surgeons, which office he resigned on being appointed, a few years ago, one of the Examiners in Medicine in connection with the University. He long enjoyed a very considerable practice.

The amount received in aid of the Infirmary from the various churches, the result of the collections on Hospital Sunday, is stated to be about £1,550. It is to be noted that, while two of the episcopal churches head the list with £157 and £126 respectively, the highest figure of any of the Presbyterian churches is £77, none of the others—either Established, Free, or United Presbyterian—showing a larger amount than £50. This is a somewhat singular result in a Presbyterian country, and shows either that the wealthier classes mostly belong to the alien church, or that the methods of collection make a vast difference in the amount collected.

The first election of examiners to the University is to take place at the end of this month, and already we hear of several local candidates mentioned for the various subjects, any of whom would do the work satisfactorily; and of course it is to be expected that a good many strangers will put themselves in nomination also. One marked feature in the method of application is, that no testimonials to proficiency are to be sent in by any of the local candidates, and not more than four by anyone from a distance. This is really a good step in a right direction.

There was a general meeting of the Infirmary contributors on Monday afternoon, for the purpose of electing the six managers, whom they have the right of appointing. An unusual amount of interest is connected with this meeting, as for the past few weeks an agitation has been on foot for the purpose of promoting the election of two ladies to fill two of the vacant seats at the Board. The ostensible reason given was, "that the services of ladies on the Board of Management would be of the utmost value, both with regard to the care and comfort of the sick poor, and to the domestic arrangements of the institution". It is curious that the institution has managed to exist and carry on its work with a very high degree of efficiency hitherto, and that, so far as can be made out, no charge of want of care of the patients, or of anything faulty in the domestic arrangements, has been made to justify the desired change in the constitution of the Board. Of course, an opposition list was proposed, in which the lady element was omitted. On the vote being taken on the proposal "to take two ladies on the Management", there was found to be a large majority against the motion, and six gentlemen were accordingly elected. The friends of the ladies protested; on what grounds, or with what effect, is not quite clear.

We had hoped that, after several serious battles, the lady question was set at rest by the migration of the lady students in a body to London; but it really looks rather as if the endeavour to put ladies on to the management of the Infirmary were a strategic flank movement in case the question of the female medical student should again crop up.

# ASSOCIATION INTELLIGENCE.

## COMMITTEE OF COUNCIL.

NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the Office of the Association, 36, Great Queen Street, London, on Thursday, the 14th day of January next, at *Two o'clock in the afternoon.

FRANCIS FOWKE,
*General Secretary.*

36, Great Queen Street, London, December 23rd, 1874.

## BATH AND BRISTOL BRANCH.

THE third ordinary meeting of this Branch will be held at the Royal Hotel, College Green, Bristol, on Thursday, January 14th, at 7.30 P.M.; FREDERICK MASON, Esq., President, in the Chair.

E. C. BOARD, *Honorary Secretary.*

Clifton, December 29th, 1874.

## BIRMINGHAM AND MIDLAND COUNTIES BRANCH: MICROSCOPICAL SECTION.

A MEETING of the above Section was held in Queen's College, Birmingham, on December 11th; Mr. F. E. MANBY, President, in the Chair.

*Phthisical Sputa.*—Dr. SAWYER read a paper on this subject, and on the method and value of a microscopical examination; exhibiting samples under the microscope. A paper on the examination of phthisical sputum appeared in the *Lancet* in 1868, and the method of procedure therein advised Dr. Sawyer had often found in practice to be most satisfactory. If we compress a portion of phthisical sputum on a slide, we can readily see, with a quarter-inch power, young and old cells, mucus- and pus-corpuscles, blood-discs, "exudation-corpuscles", etc.; but such a plan will not readily show minute portions of pulmonary tissue, and these are the characteristic marks of the destruction of lung-tissue. Following Dr. Fenwick, he had found it best to slowly boil about two drachms of the sputum to be examined in a test-tube, with an equal quantity of solution of caustic soda, which destroys the ropiness. Mucus- and pus-corpuscles are disintegrated; while fragments of less easily destroyed tissue, as minute portions of lung-tissue, fall to the bottom of the tube, and may be removed by a pipette, and placed on a slide for microscopical examination. We may find beautifully slender and curling fibrils of the yellow elastic tissue, or scraps of the smallest bronchial tubes, or shreds of the outlines of groups of air-cells. These are very attractive microscopic objects. In the field, at once may be seen the outlines of half a dozen groups of air-cells clearly marked, with traces of red blood-cells, and scattered portions of coal, or other hard and black insoluble matter. In cases of any doubt, the discovery of fragments of pulmonary tissue in the expectoration will furnish interesting confirmatory evidence of the condition of the patient.

*Sections through Small-pox Pustules.*—Dr. RICKARDS showed various sections, vertical and horizontal, of these pustules; and described the appearances presented.

*Epithelial Cancer of Eyelid.*—Mr. LLOYD OWEN contributed sections illustrative of a case of this disease under his care, the tumour having been removed by operation.

*Sections of Spinal Cord.*—Mr. PHILIP BINDLEY exhibited some sections of a healthy spinal cord. After the sections had been tinted with carmine, they were washed in spirit until all water was removed, and were then placed in turpentine for five or six days, and afterwards mounted in balsam. The axis-cylinders, nerve-cells and their processes, and the blood-vessels with the nuclei, were all well displayed.

*Cystine.*—Mr. F. E. MANBY showed a slide of cystine from a specimen of urine passed that morning by a lad of twelve years. The patient had passed a small waxy-looking cystine calculus, when only twelve months old, *per urethram.* This was about the size and shape of a grain of wheat. At ten years old, he showed symptoms of vesical calculus, and a cystine stone of a most perfect and typical character was removed by lateral operation by Mr. Newnham. This stone weighed ninety grains. Since the operation, symptoms of stone in the right kidney had developed themselves. The bladder having been proved to be free from a second calculus, it was probable that a stone existed in the pelvis of the right kidney. Pus and cystine were constantly passed in the urine; and attacks of pain, though not frequent, were severe. There was no hereditary history of stone. The family are of a distinctly neurotic type.

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* This was announced as 3 o'clock, in error, in the notice of the 26th ultimo and 2nd instant.

*Staining Animal Tissues.*—Mr. LAWSON TAIT, at a previous meeting, detailed and illustrated his improved process of staining by means of hæmatoxylin. He also showed a mounted preparation of the scolex of tænia luapicollis removed from the broad ligament of a heifer.

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## BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ORDINARY MEETING.

THE third ordinary meeting of the session was held at the Midland Institute on December 10th, 1874; present, W. C. GARMAN, Esq., President, in the Chair, and thirty-seven members and visitors.

*New Members.*—The following members of the Association were elected members of the Branch: Mr. Richard Smith, Digbeth; and Messrs. F. G. Hamilton and E. Potts, Queen's Hospital, Birmingham.

*Branch Council.*—Mr. J. Vose Solomon and Mr. T. H. Bartleet were elected members of the Council of the Branch.

*Subscriptions to Branch and Sections.*—After some discussion, a motion to raise the Branch subscription to 5s. *per annum*, and to make this sum confer on all members of the Branch the privileges of membership of the Sections, was rejected, and it was resolved, "That the subscription to the Parent Association and Branch remain as at present (£1 : 3 : 6), and that a subscription of £1 : 6 admit to the Association, the Branch, and all its Sections."

*Alteration of Rules of Branch.*—It was resolved, on the motion of Mr. HUGH KER (Cradley), seconded by Mr. H. L. BROWNE (West Bromwich), "That in Rule 9, line 7, the words "at least a week previously" be altered to "at least two weeks previously"; and that the Council be requested to prepare a copy of the Rules of the Branch for circulation among the members."

*The next Ordinary Meeting* of the Branch was arranged to be held on January 21st, instead of January 14th, the regular day, in consequence of the closure of the Midland Institute.

*Papers.*—The following papers were read.

1. Dr. RICKARDS showed the remains of a Hæmorrhagic Clot of the size of a horse-bean, fawn-coloured, eleven months old, situated in the outer margin of the right corpus striatum. The patient from whom it was taken, a woman aged 25, had had rheumatic fever with severe cardiac complications thirteen months before her death a few days ago. During convalescence, complete left hemiplegia suddenly came on; the facial paralysis disappeared in two days; the limbs remained paralysed. She died of pulmonary engorgement, caused by stenosis of the mitral valve, which was such as not to permit a crow-quill to pass through that valve. Dr. Rickards considered the cerebral hæmorrhage due to embolism. Under the microscope, the clot was seen to consist of blood-crystals, blood-pigment, cholesterine, and fibrous tissue.

2. Mr. SAMPSON GAMGEE read a paper entitled Historical and Clinical Notes on the Past, Present, and Future of Surgical Practice.

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## SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.

A CONJOINT meeting of the above districts was held at the Royal Pavilion, Brighton, on Friday, November 20th; Sir J. CORDY BUR-OWS in the chair. Twenty-six members and two visitors were present. n the course of his opening remarks, the Chairman said he felt he ught to bring one subject before the meeting in such a way that the ublic should know of it, and even that the Committee of Council of he Association should be led to take some steps to remedy the present ate of things; viz., the inadequate remuneration which the members f the profession receive for their services to the public. Sir Cordy howed that, although the necessaries of life have largely increased in ost, there has been hitherto no commensurate increase in the scale of edical fees, though there has been an increase in salaries, wages, and muneration in almost all other professions and trades.

*Communications.*—1. *Treatment of Neuroses by Phosphorus.*—Mr. . F. SANGER of Alfriston made some practical remarks on the treatent of neuroses by phosphorus, which he had been induced to try rough an article in the JOURNAL in October 1872 by Mr. Messenger radley of Manchester. The preparations which Mr. Sanger used ere the ethereal solution (4 grains in 100), and the alcoholic solution in 100); the dose of the former being two to four drops; of the ter, five to ten drops. He had given it with invariable relief in forty or fifty cases of neuralgia, excepting those proceeding from hepatic congestion, which he found speedily cured by half a drop of croton oil with five grains of compound rhubarb pill. His success with the remedy in neuralgia induced him to try it in other diseases which owed their origin to want of nerve-power, proceeding from innutrition of the nerve; and he detailed the particulars of four cases, by way of illustration, in which cure or signal benefit had resulted; viz.: 1. A case of paralysis agitans, in a woman aged 45, where the disease had existed four years, and was cured in two months; 2. A case of paraplegia after diabetes and sunstroke, in a man aged 46, where recovery was nearly perfect in four months; 3. A case of a widow aged 83, suffering from neuralgia of the sciatic nerve, with severe nocturnal exacerbations, which had been entirely unrelieved by morphia, and only temporarily alleviated by chloral, but was cured by the phosphorus in ten days; 4. A case of a female aged 40, with paraplegia of four years' standing, in whom considerable restoration of motor power followed treatment for two months by phosphorus, in combination with small doses of tincture of perchloride of iron.

2. *Tumour of the Thyroid Gland.*—Mr. H. R. TICEHURST of St. Leonard's read particulars of a case of tumour of the thyroid gland, which he had removed by means of the galvanic cautery. The specimen, which weighed 25½ ounces, was exhibited. The patient was a female aged 46, a servant. The tumour was first noticed twenty-two years ago, being then of the size of a pea, one inch and a half to the left of the thyroid; it increased rapidly towards the middle line, and soon covered the entire region of the thyroid; but had not grown much for the last three years. Two years ago, it was tapped, and injected with iodine; only blood escaped. Its form and size were those of a small melon; it was perfectly movable and pendulous; not pulsatile. On November 4th, Mr. Ticehurst proceeded to remove it, the patient being well under the influence of chloroform. A vertical incision was made over the tumour in the mesial line, and the growth was separated as far round as possible by the handle of the knife; both sterno-thyroid muscles were found flattened out over the tumour. The growth was then removed by the galvanic cautery. No hæmorrhage occurred. The pedicle was found to be osseous, the greater part being left behind. The patient bore the operation well. Severe constitutional disturbance ensued on the following day; this, however, soon subsided, and, with the only drawback of an abscess forming on the right side of the neck, healing progressed satisfactorily, and by December 1st the patient was sitting up, the bony pedicle becoming congested, only a small portion having suppurated away. The tumour was smooth and globular, yellowish in colour, and covered with a thick capsule of connective tissue. It was semi-solid, and weighed 25½ ounces avoirdupois; some large veins ramified over the surface, and on the anterior aspect was a small opening, through which it had been punctured and injected. On making a section of the growth, a kidney-shaped cavity was found about its centre, lined with a distinct membrane of its own; it contained some bluish green fluid and *débris*, probably the remains of iodine, etc. Near the surface, some blood-cysts were found. The rest of the tumour was semi-solid, and contained several small cysts scattered through the spongy portion. Under the microscope, the growth appeared to consist of fibrillated trabeculæ of varying size and shape, filled with a colloidal substance, such as is found in hypertrophied thyroid gland, interspersed with cells resembling granulation corpuscles. A somewhat similar growth was removed by the late Mr. Alfred Poland in 1871, the tumour weighing 15 ounces (*Guy's Hospital Reports*, 1870-71). There is also a case of the same kind recorded in Sir James Paget's *Lectures on Surgical Pathology*. The points of interest about this case were—1. The large size of the growth; 2. The duration (twenty-two years); 3. The perfect freedom from hæmorrhage insured by the use of the electric cautery, the dread of which would otherwise have deterred the operator from attempting the removal of so large a growth, occupying important relations with surrounding parts, and abundantly supplied with blood from the enlarged thyroid vessels.

3. Mr. Millikin, instrument-maker to St. Thomas's Hospital, exhibited a new and choice collection of instruments, such as had been recently shown at the Association meeting at Norwich, with several additions.

Two *new members* were nominated; viz., Mr. E. S. Medcalf of Hove and Mr. Charles Braid of Hurstpierpoint.

*The Dinner* took place in the Banqueting Room of the Pavilion, upwards of thirty members and visitors being present, including Sir Edward Creasy, the Colonel of the Scots Greys, etc.

By the kindness of the Directors, the Aquarium was thrown open to members of the Association on presenting their cards. A vote of thanks was duly recorded at the meeting to the Town Council for granting the use of the rooms at the Pavilion on this occasion, and also to the Directors of the Aquarium for the above act of courtesy. Sir J. C. and Lady Burrows subsequently entertained the members of the

Association and their ladies at a *conversazione* held at the Museum and Public Library.

The *next meeting* is to be held at Tunbridge Wells in March 1875; Blackall Marsack, Esq., in the chair.

### MIDLAND BRANCH: SPECIAL MEETING.

A SPECIAL general meeting of this Branch was held in the boardroom of the County Hospital at Lincoln on December 18th.

The following members were elected on the Council of the Branch, according to No. 8 of the rules lately adopted:—Dr. A. Mercer Adam (Boston); Dr. Mitchinson (Lincoln); Dr. C. H. Marriott, Dr. John Barclay (Leicester); Dr. W. Tindall Robertson, Dr. C. Bell Taylor (Nottingham); Dr. Ogle, Dr. Webb (Derby).—Dr. C. Harrison (Lincoln) was elected Honorary Secretary and Treasurer of the Branch. Dr. L. W. Marshall was elected Honorary Secretary for Nottingham, and Dr. W. Edgar Buck for Leicester.

Members of the Association wishing to join the Branch are requested to communicate at once with the Honorary Secretary and Treasurer.

### SOUTH-EASTERN-BRANCH: EAST SURREY DISTRICT.

A MEETING was held on December 10th, at the Greyhound Hotel, Croydon, at 4 P.M.; H. T. LANCHESTER, M.D., in the Chair. Fifteen members and two visitors were present.

*Papers, etc.*—1. Dr. WALTERS read the particulars of a case of Poisoning by Arsenic (ten grains); also a case of Poisoning by Hydrocyanic Acid, in which there were no convulsions. In neither case was *post mortem* examination ordered by the coroner. He also described the removal of a large Naso-pharyngeal Polypus (exhibited) by passing two fingers into the mouth behind the soft palate, and tearing the attachment of the growth by forceps passed along the floor of the nares.—A discussion ensued, in which Messrs. E. H. Galton, Dr. Lanchester, Dr. Grabham, Messrs. Stilwell and Purvis, Dr. Moxon, Dr. Ilott, and Dr. Miller, took part.—In the course of the discussion, Dr. Grabham described the symptoms of arsenical poisoning in one hundred and fifty cases at Bradford, from accidental admixture in peppermint lozenges. They were various; deep sleep, skin-eruptions, and paraplegia, occurring in different cases. Dr. Purvis also read a case of poisoning by cyanide of potassium.

2. Dr. MOXON read a paper on Paralytic Tremor as a Symptom. He described tremor or trembling as the opposite of spasm. In detailing the different forms, he mentioned one which appeared to be due to involuntary muscular discharges without nervous stimulus, as in the fibrillar trembling of wasting muscles. Allied to this are the tremors of fevers and violent emotion. He alluded to the difficulty of distinguishing between alcoholic paralysis and progressive muscular atrophy. In tremors, both alcoholic and febrile, we recognise a peculiar nervous constitution in those subject to them, and this leads up to spontaneous paralytic tremor. He then described a group of symptoms associated with a peculiar change in the white matter of the brain, called "insular sclerosis", or "*scleroses en plaques*". In this disease, there is tremor without affection of the mind or true paralysis. The tremor ceases when the part is supported, in this differing from paralysis agitans. The nodding of the head is very distinct. There is stiffness of the legs and absence of pains in the legs; in this it differs from locomotor ataxy. The disease would appear to be not uncommon, as there have been five cases in Guy's Hospital this last year. It seems to be invariably fatal. One case, in a girl aged 23, came on after a shock of horror three years before. The arms and legs oscillated on attempting to sit up; speech was syllabic; nystagmus and mental feebleness supervened. A drawing of the brain in section of this case was shown, representing insular grey patches scattered through the white matter. On microscopical examination, these patches showed no trace of nervous matter. Another case also appeared to originate in shock, the woman finding her husband in bed with another woman. In another case, the first noticed symptom was inability to wipe the shoes.—A discussion followed, in which Messrs. E. H. Galton, Stilwell, Dr. Lanchester, Dr. Miller, Dr. Ilott, and Dr. Galton, took part.

3. Mr. STILLWELL (Epsom) read a case of a woman aged 43, in labour with her first child, who died, after delivery and injection of perchloride of iron, of sudden collapse.—Drs. Strong, Hearnden, and Lanchester, made remarks on the case.

4. Dr. MILLER exhibited a left Kidney of normal shape, which was found single in the body; also a Fibroid Growth behind the uterus, freely movable independently of the uterus.

5. Dr. ILOTT read Clinical Cases, and exhibited numerous specimens from the Croydon Hospital. Among the cases was one of fracture of the cervical spine, with a temperature of 111 deg.; one of strangulated hernia, cured in the night by the patient standing on his head; and one of temporary aphasia following injury to the left side of the head. He also read some cases illustrating the use of the Aspirator.

*Dinner.*—Fourteen members and one visitor sat down to dinner.

# REPORTS OF SOCIETIES.

## PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, DECEMBER 15TH, 1874.

C. J. HARE, M.D., in the Chair.

*The Report of the Morbid Growths Committee* on Dr. CRISP'S case of cancer of the omentum was read. Microscopical examination showed a fibrous stroma, in which were round and oval alveoli full of cells, each containing one nucleus, while others contained a colloid material. In order to determine whether or not the growth was a true cancer of the omentum, the growing edges were examined very carefully, and yellow fibres were found passing into the alveoli. The growth was due to cells accumulating in the alveoli. The yellow fibres contained round cells. The growth sprang from the epithelium of the omentum. From the length of time the preparation had been kept in spirit, it was impossible to be very confident about its histology.

*Rare Form of Skin-Disease.*—Dr. DUFFIN exhibited a patient with a rare form of skin-eruption, intermediate betwixt erythema multiforme and herpes iris. The patient was twenty-two years of age, and had suffered for two years from irregular outbreaks, which remained in the same localities. Itching and slight rigors, together with febrile symptoms, preceded the eruption. It commenced with circular flat spots, and spread outwardly, while the centres settled down. The raised patches possessed vessels, and fluid was effused. A secondary eruption formed in time within the first, so that the appearance presented is that of a ring within a ring. Each eruption lasted three or four weeks, but they followed each other so closely as to be almost continuous. Ultimately, brown scabs formed, but there was never any suppuration. It resembled erythema multiforme in the circinnate character of the rash and in the bruised appearance, while rheumatic pains were absent. It approached herpes iris in its rings within rings.—Dr. HILTON FAGGE said that the absence of rheumatism went against its being erythema multiforme. Such eruptions were covered by the term hydroa.—The CHAIRMAN remarked that dermatological terms were much confused.—Dr. DUFFIN replied that Dr. Fagge's remarks were well worthy of consideration.

*Obscure Abdominal Tumour.*—Dr. DICKINSON brought forward a case of an obscure abdominal tumour, in which the obscurity was the especial matter of interest. It occurred in a gentleman well known in the political world, who died recently at the age of 76, after having been seen by many prominent members of the profession. He first felt ill in January 1872, and had swelling and redness in the left testicle, with pain. Then followed pain in the region of the left ureter. At first, the pain was dull and heavy, but in time it became agonising. Change of attitude gave no relief. Pain was felt in the lower bowel. This went on for several months, and then set in constipation and vomiting. The pain was worst when the bowels moved. When Dr. Dickinson first saw the patient, he was apparently *in extremis*, and had several bed-sores. At that time, the abdomen was soft everywhere, and not tender on gentle pressure. Deep pressure, however, to the left of the umbilicus produced severe pain. The diagnosis formed, then, was, that there was a tumour in the descending colon, involving the left kidney and ureter, probably malignant in its character, from the cachectic appearance of the patient. There were no symptoms pointing to renal calculus. Shortly after this, the pain abated, and the patient improved in every way. It was thought that this might be due to the tumour becoming somewhat released, or that the diagnosis might be erroneous, and that the tumour was really aneurismal. Fifteen months after this, the patient's general health failed. A pulsation could now be felt, and became definite at the point where the pain was originally felt. There was no pain or inconvenience. The general improvement came on with the administration of strychnia, as a tonic merely. One day at dinner, the patient changed countenance, and the old look of pain returned. He became unconscious and fainted, but, after some brandy, he was taken upstairs. Two days afterwards, he passed a quantity of black blood from the bowels. He partially recovered by means of quiet, and a week after, at dinner again, he gave a cry and fell dead. At th necropsy, an aneurismal tumour, springing from the left side of th aorta, and protruding betwixt the descending colon and the left ureter, was found. This explained the symptoms. It was of the size of th fist, and opened into the descending colon.—The CHAIRMAN said that this case illustrated well the difficulty of diagnosing abdominal aneurisms in their early stages. The tumour must have existed when the first symptoms came on, but it did not give the characteristic symptoms of an aneurism.—Dr. CAYLEY inquired as to the cause of the cessation of the pain. Were the nerves atrophied by the pressure on them?—Mr. HULKE said that it had been observed that, when aneurisms burst in a mucous surface, the hole was small; when into a serous surface, the hole was large.—Dr. SOUTHEY inquired if the left lumbar region had been carefully auscultated in life. A thrill and a murmur were not unfrequently so heard; and in one case he remembered they were heard where the case was supposed to be one of lumbar abscess and rheumatism, and consequently the diagnosis of an aneurism was made.—Dr. DICKINSON replied that the pain obviously diminished on the pulsation becoming apparent. No thrill could be found anywhere by the most careful examination.

*Cancer of the Tongue.*—Mr. JONATHAN HUTCHINSON exhibited a specimen of cancer of the tongue. The interest lay in the fact of there being two separate growths. There was a small patch on the left side, and another about an inch away on the right side. There had been frequent ulceration in the tongue, with white patches. There was an obscure history of syphilis. The microscopical examination bore out the diagnosis. The glands on the right side were now affected. Two centres of cancer were rare. In answer to questions of the Chairman, Mr. Hutchinson said there was no apparent cause. The patient was in robust health. There was a family history of carcinoma. They grew from the edge of the tongue.—Mr. FAIRLIE CLARKE asked if scars were found on the tongue.—Mr. HUTCHINSON said that they were. There were also white patches. The patient was in good general health, but the cervical glands on the right side were affected.

*Intussusception in a Dog.*—Mr. HUTCHINSON showed a case of intussusception of the ileum into the colon in a dog. The case bore on he question of operation for intussusception. The volvulus extended nearly to the anus. The dog was observed to be ill eight days before ts death, but there was nothing special in the symptoms. There was no sickness. The abdomen was much shrunken, and there was jaundice before death. If an operation had been performed, nothing would have been easier than to pull out the whole volvulus. There was no peritonitis nor lymph. — Dr. HILTON FAGGE said that he had een two operations where the involved bowel was pulled out. In one ase of obscure tumour of the abdomen, pain came on with the examination, and the tumour became hard. The diagnosis was intussusception. The tumour had passed from the right to the left iliac fossa. nflation was unsuccessful. An operation was performed, and the inussuscepted bowel was pulled out. The patient made a good reovery. The second was in Guy's Hospital. The patient was far gone hen the operation was performed, and sank of collapse shortly after. n the second case, there were no special symptoms, but only pasmodic pains.—The CHAIRMAN related a case where it was found npossible to reduce the bowel at the *post mortem* examination. This ontrasted with the cases just related.—Dr. GOODHART related a case milar to the one mentioned by the Chairman. No traction would educe the mass, as the folds of peritoneum were glued together with mph.—Dr. LEARED spoke of a case caused by effort where, after eath, the bowel was readily pulled out.—Dr. DOUGLAS POWELL remarked that peritonitis was not readily produced in a dog.—Mr. UTCHINSON replied that this was quite correct.

*Aneurism of the Heart.* — Dr. SOUTHEY showed an aneurism of e heart of unusual size. The patient—an old soldier—came under otice two years ago. He had felt something give way on an effort, nd after that he felt tightness in his chest and dyspnœa. The area of rdiac dulness was increased, and the heart's action was disturbed by ovement. A murmur was heard at the apex, loudest betwixt the urth and fifth ribs. There were general distress, orthopnœa, and ugh. The temperature was 99, the respirations 40, and the pulse o. The man was much improved by rest and digitalis, and was disarged from hospital. He became a carman, and was fairly well two years. On October 19th this year, he again came into spital with left-side pleurisy. A systolic murmur was heard at the ex: it was thought that it might indicate mitral incompetency. The tient was worn and wasted, and had cough, with œdema. The chest s explored by Mr. Thomas Smith: a quantity of pleuritic fluid came ay, giving much relief. Pneumothorax, however, resulted, and the n sank. The diagnosis was never very clear. There was a very all hole into the left ventricle. In this it agreed with Thurnam's es and conclusions, that large cardiac aneurisms had small openings. e aneurism was of the size of a large cocoa-nut. It was globular, l consisted of two divisions united. Large masses of clot were ned out. The left ventricle was not hypertrophied, but rather dilated. The valves were free from disease. The aorta was atheromatous. The liver was fibrous. There were œdema of the trunk and legs, and effusion into the left pleural cavity.—The CHAIRMAN said that, when aneurisms were near the apex, the sac was largely composed of pericardium.—Dr. WICKHAM LEGG said this was a very large aneurism. The largest recorded burst externally at the umbilicus.—Referred to special committee.

*Solid Ovarian Tumour.*—Dr. G. MURRAY exhibited an ovarian tumour which was solid in character. Possibly it was malignant. It came from a lady, 48 years of age, who had been ill for six or seven years. Six months ago, he first saw her; at that time, she was much emaciated and cachectic. Tapping was performed five times. About fourteen pints of fluid came away on the two first occasions. The amount of fluid lessened finally. The kidneys were healthy. A hard mass could be detected *per vaginam*.—Dr. ARTHUR FARRE thought it might be malignant. The uterus had a subperitoneal fibroid growth. The cervix was elongated, and contained a mucous plug.—Referred to Morbid Growths Committee.

*Cancer of Kidney and Liver.*—Dr. DOWSE exhibited a cancer of the kidney, with secondary cancer of the liver. No albumen had ever been detected in the urine. Ascites and a gall-bladder full of gall-stones were found on *post mortem* examination. The right kidney formed a cancerous cyst, which filled the right lumbar region. The right lobe of the liver contained a carcinomatous tumour.

## MEDICAL SOCIETY OF LONDON.

MONDAY, DECEMBER 7TH, 1874.

A. E. SANSOM, M.D., Vice-President, in the Chair.

*Cleft Palate.*—Mr. ROYES BELL showed, for Mr. HENRY SMITH, a boy, born with a hare-lip and cleft soft and hard palate, who had been operated on according to Sir William Fergusson's plan, with considerable success.

*Scirrhous Tumour of the Breast.*—Mr. WILLIAM ALLINGHAM exhibited a scirrhous tumour of the breast, removed from a woman aged 64, by the elastic ligature. Needles had been introduced, and the ligature applied without pain and without anæsthetics; the process occupied seventeen days, and was unaccompanied by any rise of temperature or other unfavourable symptom; and the patient made a complete recovery. White India-rubber was used. The wound being freely dressed with carbolised oil and other antiseptics, no putridity existed.

*Epidemic Sore-throat.*—Dr. ROUTH read a paper on an epidemic of infectious sore-throat which occurred in a public institution, and the probable causes of its production. After a tribute to Dr. Farquharson, who had preceded him last session on an analogous subject to the present, the author first gave a description of the institution and its sanitary appliances, where every means had been taken to secure ventilation and a good supply of water and food, and also the unexceptional cleanliness of the girls who were the inmates. Effective means were likewise always at hand in case of infectious disorders arising, and great care was taken to prevent as far as possible their introduction. One case of typhoid fever occurred in October 1873. The patient was removed to the Middlesex Hospital, and ultimately died there. This was after the return of the inmates from the seaside. On the introduction of a new matron a little while afterwards, the sore-throat disease broke out, synchronously with measles and erysipelas. The appearance of measles was explained by the inmates occupying seats in an ill-ventilated church, where a school then seriously affected with this epidemic had been sitting in the morning. One of the erysipelas cases was subject to the disease; but all the others occurred when the throat-epidemic was at its height. One died suddenly with symptoms of sickness and exhaustion. The sore-throat epidemic, of which there were forty-six cases, exhibited three types: simple cynanche; diphtheritic patches; and scarlet fever. When Dr. Routh left London in September, all the sanitary appliances were reported, on inspection, to be in good order. The scarlet fever cases occurred in the charge of Mr. Cheyne. Then, on inspection being again made, the water was found impure; and the filter, having been meddled with, was no longer effective. The drains in the garden were said to be offensive. One fact was noted: of the six matrons, it was the one who drank water only who was affected with severe cynanche. Of the six monitors, all escaped save one, and she also was a water-drinker. Dr. Routh then proceeded to show that other sources of infection had not been disregarded; viz., (1) visitors; (2) infection at the seaside. But, on full inquiry made, no such infection could be traced. He concluded by urging for discussion the following questions. 1. Were the three diseases of the throat coexistent but different affections, or the same disease? 2. Was the erysipelas produced by a similar miasm? 3. Could the sewage-tainted water have produced the disease—notably the scarlet fever? 4. Had the typhoid fever influence then prevailing in London any influence in the production of this epidemic?—Dr. **Haviland Hall** was sure that bad sewage might give rise to various forms of disease, and cited one instance where peritonitis and erysipelas arose from an escape of sewer-gas in a public institution.—Dr. **Farquharson** was of opinion that the first class of Dr. Routh's cases had nothing to do with the last class, and were quite distinct.—Mr. **Brudenell Carter** thought that the paper demonstrated the perils of water-drinking.—Dr. **Crisp**, as illustrating the connection between diphtheria and sewage, gave an instance of a house in Devonshire where nine children died within a month from a species of diphtheria quite unknown in the neighbourhood. On investigation, the drainage of the house was found to pass into a pond, the water of which the children drank.—Mr. **Cheyne** had charge of Dr. Routh's cases in his absence, and distinguished three forms of disease: 1. A pure scarlatinal case; 2. Cases of sore-throat, devoid of rash or high temperature; 3. Cases of erysipelatous sore-throat. The drinking-water was the only cause of disease which could be demonstrated, as no proof of contagion existed.—Dr. **Buchanan** noticed that the gap of fourteen days which intervened between the first and second batches of cases precluded any idea of infection. He had no doubt that both scarlatina and diphtheria had appeared in the Home; and that they prevailed together, he was certain. Some of the cases had evidently nothing to do with either of these diseases, but must be classed with the erysipelas which appeared. He thought that a form of sore-throat of the same character as the well known hospital sore-throat, but non-specific in kind, might and did arise from septic causes, such as the presence of putrid matter. As for the exact source of this epidemic, it appeared to be traceable to sewage. The institution was flooded with sewer-inhalations; and, instead of the ventilation purifying the air, it probably assisted in freely diffusing the sewer-gas through the building. There being two methods of infection in this instance—the water and the air—it was difficult to distinguish which was the agent; but the erysipelas might arise from septic matter dissolved in water. Ample evidence existed. In the epidemic outbreak at the Patriotic Asylum last autumn, erysipelas came on, followed by a curious form of peritonitis, which the late Dr. Anstie thought he traced to water-poison.—Dr. **Theodore Williams** inquired the amount of cubic space allowed per head in the building, and whether natural ventilation was relied on. If it were, there was little chance of keeping a crowded institution pure and wholesome. He had no doubt of the existence of sore-throat non-specific in character and arising from septic causes, and had noticed instances of it occurring chiefly among servants, who occupied the basement of houses, and therefore were in closer proximity to the drains.—Dr. **Routh**, in reply, said that both the beginning and the ending of the epidemic were characterised by erysipelas. Notwithstanding all that had been said, he saw no case made out for attributing the disease to anything else than poisoned water. The treatment consisted of effervescing salines, gargles containing chloride of potash, and the local use of tannin.

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### Monday, December 14th, 1874.

F. J. Gant, F.R.C.S., Vice-President, in the Chair.

*Cleft Palate.*—Mr. **William Rose** brought forward a case of cleft palate, on which he had operated successfully. The patient, a young man, aged 23, came under his charge about three months ago. He had a fissure extending through the soft and hard palate, to within half an inch of the alveolar ridge. He spoke of the development of the upper jaw and palate, which he illustrated by diagrams, and suggested a plan of bringing the maxillæ together immediately after birth, in cases of very wide cleft. He described Sir William Fergusson's method of operating, for simultaneous closure of fissures in the hard and soft palate (a drawing of which was shown) by boring holes through the margin of the hard palate for the passage of the threads, and then cutting through it with a chisel in a line parallel to, and about half an inch from the edge of, the cleft; and also spoke of Sir William Fergusson's introduction of myotomy in the treatment of fissure in the soft palate.—Mr. **Henry Smith** said that he had assisted in most of Sir W. Fergusson's operations. In the early ones, operation on the soft palate alone was attempted, and the results were not so favourable as under the new plan of osteotomy. The natural covering was far superior to artificial ones; he thought Mr. Rose's case was thoroughly successful, the fissures in the hard and soft palate being completely closed.—Mr. **Oakley Coles** considered that the time was coming when the mechanical treatment of cleft palate would be obsolete. The great drawback in the surgical result was that the patients seldom spoke intelligibly. He remembered one instance only where speech became perfect after the operation. Failure was attributable to the fact that the free border of the soft palate in these cases never reached far enough back to touch the pharynx and act as an effective valve; and here the mechanical appliance was far more successful.—Mr. **Thomas Bryant** wished to know whether, in the infant, silver sutures had actually been passed through the maxillæ to bring the fissure together. There was no difficulty in piercing the hard or soft palate, but in passing the stitches through, on account of the bleeding. Mr. Bryant introduced the stitches first, which reduced an operation of half an hour to a few minutes. He had some doubt as to the dividing of the levator palati muscle in every case, but thought a division of the pillars of the fauces was an improvement.—Mr. **Royes Bell** stated that the speech in this case, though varying, continued to improve; the patient could sing. The hæmorrhage in these cases was much less than formerly.—Mr. **Francis Mason** remarked that Sir Wm. Fergusson's success was greater since he had divided the bone; previously he had used an angular knife instead of Langenbeck's raspatory, and the sloughing of the parts was due, he thought, to his taking too thin a portion off. The maxillæ had been brought together in an infant in America.—Dr. **Vanderveer** (America), said that, at Boston, Dr. Warren had tried Sir W. Fergusson's operation, and failed. He had also attempted it, and had succeeded in uniting the soft palate, but not the hard.—Mr. **Oakley Coles** said that Dr. Crombie recommended the galvanic cautery for dividing the bone, as causing less hæmorrhage.—Dr. **Drysdale** thought that obturators were very suitable for improving the voice.—After a few remarks from Mr. Acton, Mr. Mason, and the Chairman, Mr. Rose replied.

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## GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

### Tuesday, December 8th, 1874.

Joseph Coats, M.D., Vice-President, in the Chair.

*Morbid Specimens.*—Dr. **Hector C. Cameron** showed a limb which he had removed for acute necrosis of the whole shaft of the tibia in a boy.—Mr. **W. J. Fleming** showed a tumour of the mamma, which he was inclined to regard as a cysto-sarcoma.

*Mediastinal Tumour.*—Dr. **McCall Anderson** showed a patien under his care at the Western Infirmary, aged 44, an iron-moulder by trade, but who had served in the Army from his twenty-fourth to hi thirty-sixth year. He had suffered from cough for twelve months, an for six months there had been blood in his sputa, like red currant jelly for three months he had suffered from swelling of the neck, dyspnœa o exertion, with giddiness and sense of suffocation, especially on stoopin to lift weights. Some pain in the right breast and shoulder had existe for a year, and this was aggravated by any hard work. He had fo lowed his employment till three weeks before his admission o November 11th. While in the Army, he had indulged freely in stimu lants. He had some form of venereal disease (gonorrhœa with bub he said) twenty years ago; and of late a node on the right tibia, wi nocturnal pains, had appeared. There was considerable enlargemen with induration of the inguinal glands, and a slighter affection in t arms. At the right apex, defective movement, dulness on percussio increased resistance, tubular breathing, and increased vocal resonanc were present: the dulness extended beyond the left margin of t sternum. At the right base, feeble respiration existed without any d ness on percussion. The superficial veins of the face, neck, and rig upper arm were much dilated, and there was œdema of the face, nec and upper part of the chest. The right radial pulse was weaker th the left; but no pulsation, murmur, tremor, or other signs of aneuris could be discovered. The patient was a fine healthy-looking ma without any night-sweats, diarrhœa, etc. Dr. Anderson thought t symptoms and physical signs pointed to some tumour in the medi tinum, part of which might be causing obstruction to the entrance air into the bronchi, giving rise thus to the feeble respiration at t right base. He thought, from the patient's history, that possibly t tumour was syphilitic. The treatment had been by rest and palliativ and, on the appearance of the node, iodide of potassium and iron h been given, with a certain amount of benefit. Dr. Anderson, in remarks, referred to a somewhat similar case reported by him in *Glasgow Medical Journal*, February 1872. The patient now shown h a well marked true cheloid tumour situated at the mid-sternum, and s to be congenital.

*Colloid Tumour of Mamma.*—Dr. **George Buchanan** exhibite specimen of colloid tumour of the mamma, which he had recently moved from an old lady aged 70. He had noticed the tumour al six months before Dr. Buchanan had seen it, since which it had gr considerably. The operation was attended with success, in so far the wound cicatrised perfectly in three weeks, and no trace of the case was then apparent. The tumour was about the size of an American apple, elastic, and circumscribed by an envelope of condensed areolar tissue, septa of which divided it into lobules. To the naked eye, it had the appearance at the circumference of very firm jelly, of a pale pink colour, while toward the centre it was exactly like the pulp of a grape.—Dr. THOMAS REID described the microscopic appearances. At the periphery, there were collections of epithelial cells in alveoli, composed of connective tissue. Nearer the centre, there was a gradual conversion into the proper colloid structure. The colloid substance, he considered, was developed from the connective tissue, the epithelium being surrounded by the colloid, and gradually disappearing.—Dr. JOSEPH COATS believed the structure at the periphery to be cancerous, the epithelial cells in the alveoli being almost typical. He also considered that it was by the conversion of these epithelial or cancer-cells that the colloid material was formed, the peripheral cells first degenerating and then the more central ones.

*Malignant Tumour on Chest-wall.*—Dr. PERRY exhibited a malignant tumour removed *post mortem* from the surface of the chest of a female 36 years of age. The tumour had occupied the region of the chest, extending from the outer margin of the mammary gland to the axilla on the left side. It had commenced nine months ago, and was first seen by a surgeon in Paris, who had regarded it as a simple tumour, and recommended no surgical interference. A similar opinion was given shortly afterwards by a surgeon in London. The tumour increased in size, and became an open sore about four months ago. The spongy fungous centre of the tumour gradually sloughed out, and left its centre deeply excavated to within a few lines of the outer surface of the ribs. Frequent hæmorrhage took place, but this was easily checked by the use of perchloride of iron. The edges of the tumour had an indurated and scirrhus-like feeling, and were everted towards the lower border. The tumour measured five inches and a half in diameter. The mammary gland was not involved. The cervical glands were not enlarged, and the axillary glands were not affected until within three weeks of death, when slight enlargement appeared. The patient was much emaciated, and death was by exhaustion. Sections of the tumour had been made by Mr. W. J. Fleming, and he desired the opinions of the members as to its nature.—Dr. JOSEPH COATS was of opinion that he case was one of soft cancer. The stroma was distinct, and the cells mall, but of very various shapes.

# CORRESPONDENCE.

## SIR WILLIAM FERGUSSON AND THE NORWICH PROSECUTION.

SIR,—The letter of explanation from Sir William Fergusson, which you published in your impression of last week, seems to me to call for the very gravest consideration.

Briefly to dissect the statements in this unparalleled production, it appears that Sir William Fergusson's defence of his conduct in travelling to Norwich to lend the weight of his official reputation and dignity to this prosecution, is divisible into two heads.

1. That he was not aware that among the defendants were some of his own countrymen who, from their official connections, could obtain powerful assistance in defending themselves and resent his persecution, but that he thought the only person whose character he was assailing was a defenceless foreigner—a distinguished physician invited to these shores by the Association of which he (Sir William Fergusson) was president, who came confident of their hospitality, and endeavoured to repay it by imparting, in response to their invitation, some of the knowledge which he believed himself to possess, and by taking their opinion as to certain results which he desired to place before their eyes. These still await confirmation, but, if adopted, will add much new knowledge of certain complex phenomena of disease. Will any one admit, in such a case, the plea that "it was only a Frenchman"? That is really the gist of this first article of defence.

2. The second plea is, that "my views were squeezed from me by force of law". To this it is only necessary to reply, that there is no force of law adequate to the pressure or intended for the purpose. Sir William Fergusson is no novice in courts of law: he is well aware that no one subpœnas an unwilling witness to attend in the capacity of an expert. Sir William Fergusson was not present at the lecture of Dr. Magnan, and, as is very apparent from his evidence, had only the vaguest information on the whole subject. He attended as an expert n cruelty: and it is unnecessary to remind him, in the words of the ordinary text-book of the schools, that "in Betts *v.* Cufford (Warwick Lent assizes, 1858) the late Lord Campbell stated, in answer to a quesion, that a *scientific witness* was not bound to attend upon being served with a subpœna, and that he ought not to be subpœnaed. He could not be compelled to give his attendance to speak to matters of opinion." It is impossible, therefore, to divine by what process of law Sir William Fergusson's opinion was squeezed out of him.

I do not like to express what I feel; but every well-educated medical man must, I think, with me, blush with shame and indignation to find a gentleman assisting in such a prosecution, and giving as his reason for alleging cruelty, the following: "As to whether such an experiment would benefit science, Sir William Fergusson was of opinion that *it would not, as it was not likely that one person would inject alcohol or absinthe into the vein of another.*" Here, sir, is ignorance of which a medical student would be ashamed.

No doubt, it is long since Sir William Fergusson went to school; but when a past President of the British Medical Association, and a Fellow of the Royal Society, boldly announcing himself as one of the best physiologists, makes such an exhibition in a court of law, and employs the weight of his position to bring obloquy upon his fellows—English or French, associates or invited guests—he ought surely to know the alphabet of the subject of which he speaks. To be consistent, Sir William Fergusson must now persecute every physiologist in Europe: there is not one who will not tell him that intravenous injection is the most precious instrument of physiological investigation in the discovery of the mode of action of toxic and therapeutical substances.

It is unquestionably desirable that the British Medical Association and the Royal Society should free themselves from the discredit which Sir William Fergusson has inflicted upon them in his quality as a member of both.—Yours truly, PHYSIOLOGIST.

SIR,—Sir William Fergusson observes, in the letter which he writes to Dr. Copeman, and of which he has furnished you with a copy for publication, that he is as well entitled to his opinion as the Norwich Committee. No one can doubt this. But the question is, not whether he is entitled to an opinion, but, he being so entitled, and holding positions which make the public utterance of his opinions matters of public and professional importance, what sort of opinions they are which he holds and publicly expresses, and what response shall be made to these opinions. If he is entitled to utter them, he is also responsible for their reasonableness and for the use which he makes of them.

The "opinion" which he went down to Norwich to express was, that the injection of absinthe and alcohol into the veins of a dog was an act of cruelty deserving legal punishment; the *use* which he made of this "opinion" was to abet and support the criminal prosecution of four Secretaries of the British Medical Association, of which he was President, in the town in which they reside; and the *reason* which he gives for it is, that the demonstration of these effects was useless, "BECAUSE no man would think of injecting alcohol or absinthe into the veins of another".

If such evidence had not been given in a very serious manner on a very serious occasion, it might be supposed to be a wild joke. On such an occasion, and used for such purposes, the rash levity and superficial ignorance of such a statement are bewildering. It is impossible not to feel that very cordial reparation is due to the Norwich Secretaries and to M. Magnan for the shocking and unprovoked injury inflicted on them by the eccentricities of Sir William Fergusson. The Académie des Sciences has presented M. Magnan with a premium of £100 for his researches. What will the British Medical Association do to show to M. Magnan and to their Norwich Secretaries their sense of the injustice which has been done to them? Something, I hope, for the honour of our profession; and that before long.

I am, etc., NORFOLK.

## MALARIA.

SIR,—When I find a scientific man beginning with Bacon and his idols, or with the persecutions of Galileo, I pull a long breath and prepare for the worst. Such was my sensation when I found Dr. Inman placing Bacon in front of his argument in his letter to you last week. After a similar prelude, some twenty years ago, I heard a F.R.C.S.Eng. startle the Medical Society of London by reading a paper to prove that infection had nothing to do with gonorrhœa. His theory was, that men returning home at night felt symptoms of vesical distension, and turned down some lane or mews and unavoidably exposed a most unoffending organ to the keen wind, which brought on a cold and a muco-purulent discharge; that, under such circumstances, it was a toss up whether a man caught cold in his nose or in the unmentionable; and that there was no more infection in gonorrhœa than in coryza. As I am not supposed to know anything about malaria, Dr. Inman will not mind my expressing the belief that his "glacial" theory of ague will not fare better than the "glacial" theory of gonorrhœa. If the shock of cold to the heated body be the sufficient cause of ague, why is there so little in England? and why in London does it not produce one and the same form of ague, instead of half a dozen different varieties? For one man who catches ague from lying down hot on the ground he has disturbed, some thousand in tropical countries get ague they know not how, except that they were under paludal influences. It was not only the navvies who had ague when Paris was being transformed, but many well-to-do folks, who could not explain the occurrence, except that they lived near the disturbed ground. This was the case with a friend of mine, a *professeur agrégé* of the Paris Faculty of Medicine, who, being in good health, and never having had ague, had a severe attack of it when they dug up the Rue Louis le Grand, where he lived, to put it down in asphalte. Those who believe in the telluric origin of ague are the first to admit that cold intensifies the action of the unknown poison. I am, etc., EDWARD J. TILT.

Grosvenor Street, January 1875.

### THE HAMPSTEAD HOSPITAL.

SIR,—The inhabitants of Hampstead and St. Pancras know only too well, whatever may be said to the contrary, how small-pox spread among them after the Hampstead Hospital was opened. They also know how greatly property has depreciated; how houses have been left in the carcase since 1871; how some have been pulled down and the materials sold. Things had just, however, begun to recover, when, to our intense disappointment, it has been decided to build a permanent hospital. All is panic again. Whether there be a sufficient cause for this panic or not, Hampstead will well nigh be ruined, and property depreciated at least 30 per cent. The numerous schools and lodging-houses will be closed, building operations cease, and Hampstead utterly lose its prestige. I am still of opinion that infectious diseases can be conveyed through the air. Will, however, some of the members of our Association kindly answer the following questions, so as to enable us to come to a right conclusion on this matter?

1. Can infection be conveyed through the air, and disease induced, without direct contact? If so, to what extent? 2. Can infection be conveyed by currents of air and atmospheric dispersion, in common with aroma, miasma, and offensive smells? 3. Is a clay soil in a hollow more conducive to the spread of infection than a gravel or chalk soil on an elevated situation? 4. Is it right to let the fæculent discharges from patients suffering from infectious diseases pass into the common sewer? When disinfected, is there not great difficulty in depending on their effectual disinfection when diluted by the general drainage of a large hospital?

Surely many of our precautions are unnecessary, if infection cannot be conveyed, even to considerable distances, through the air, especially when favoured by currents of air; precautions, such as fires in the sick rooms even in summer, not only for ventilation, but to carry a current of air away from the house; also cloths steeped in disinfectants and hung over the door.

The unsettled state of opinion as to the nature of infection, and the limit of its dispersion, shows it to be, to say the least, an open question. All facts, therefore, bearing on this question will conduce to a more definite and satisfactory solution of this difficult subject.

I am, etc., STEPHEN S. ALFORD, F.R.C.S.

Haverstock Hill, January 5th, 1875.

# PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE Great Yarmouth Board of Guardians have increased the salary of Mr. John C. Smith, the Medical Officer to the Workhouse, from £80 to £120 *per annum*.

### POOR-LAW MEDICAL APPOINTMENTS.

CRACKLE, Thomas A., M.R.C.S.Eng., appointed Medical Officer and Public Vaccinator for the Ilkeston or No. 3 District of the Basford Union, Nottinghamshire, *vice* A. B. Norman, L.R.C.P.Ed., resigned.

DAKEYNE, Thomas E., L.R.C.P.Ed., appointed Medical Officer and Public Vaccinator for the Leek District and the Workhouse of the Leek Union.

DUNLOP, W. M., Esq., appointed Medical Officer for No. 1 District of the Woodbridge Union, *vice* R. Pairman, Esq , resigned.

ETHERIDGE, G. E. F., L.R.C.P.Ed., appointed Medical Officer for the Second District of the Bromyard Union, *vice* R. Morley, M.R.C.S.Eng., resigned.

FORBES, Duncan M'Donald, L.R.C.P.Ed., appointed Medical Officer and Public Vaccinator for No. 1 District of the Basford Union.

M'ARTHUR, Peter, M.B., appointed Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Grey Abbey Dispensary District of the Newtownwards Union, co. Down, *vice* Greer, deceased.

MCCLURE, Thomas, L.R.C.P.Ed., appointed Medical Officer for the Second District of the Axbridge Union, *vice* E. Dodd, M.R.C.S.Eng., resigned.

M'KEOWN, William, L.R.C.P.Ed., appointed Medical Officer, etc., for the Dirraw Dispensary District of Ballymoney Union, co. Antrim.

ROBERTSON, Edward B., M.B., appointed Medical Officer to the Stepney Union Workhouse, Bromley.

PACKARD, Joseph, M.R.C.S.Eng., appointed Medical Officer and Public Vaccinator for No. 7 District of the Blything Union.

POWELL, Wm., M.R.C.S.Eng., appointed Medical Officer for the First District and Workhouse of the Bromyard Union, *vice* R. Morley, M.R.C.S.Eng., resigned.

SMYTH, Wm. J., M.D., appointed medical officer and Public Vaccinator for the No. 7 or Shipley District of the North Brierley Union.

SUTTON, Frederick, M.R.C.S.Eng., appointed Medical Officer for the Willingham District, Guinsborough Union, *vice* J. C. B. Smallman, deceased.

TREHARNE, John, M.B., appointed Medical Officer for the newly formed No. 13 or Windhill District of the North Brierley Union.

WHITE, John B., M.D., appointed Resident Medical Officer to the Infirmary, Hackney Union.

### APPOINTMENTS OF SUPERINTENDENT MEDICAL OFFICERS OF HEALTH IN IRELAND.

VESEY, Agmon Blathwayt, L.K.Q.C.P.I., appointed to the Magherafelt Rural Sanitary District, co. Londonderry.

# MILITARY AND NAVAL MEDICAL SERVICES.

### DR. DE CHAUMONT'S PAMPHLET ON THE ARMY MEDICAL DEPARTMENT.

SIR,—In reply to the letters which appeared in the JOURNAL of December 12th, I wish to say that I am still of opinion that Dr. De Chaumont would have been better advised if he had not written his pamphlet until he was prepared to put before the members of his profession the *whole*, and not a *part*, of the question into which he entered. He has in one column put forward as prominently as possible the so-called advantages of the service, including the 43 per cent.; and all he has said on the other side is, that there is an excessive mortality, and that the chances of becoming an administrative officer are remote. He never mentions the many serious disadvantages under which his brother officers labour, and which they are anxious to have redressed. War-Office officials do not generally trouble themselves to distinguish between the real and the apparent gain. When they see an officer of the department say the apparent gain of the warrant of 1873 is 43 per cent. greater than that of 1804, they say at once, "Why, here these fellows have got a great deal more pay than they did seventy years ago, and yet they are not satisfied". It is just like the old surgeon, who will tell you, if you complain, "Why, sir, you should consider yourselves very lucky. I only got 7s. 6d. when I entered the service." We judge a warrant by its pay and retirement tables. An increase in the sums granted is a real, not an apparent gain. The pay and allowances of a military surgeon, spread over the first twenty years of his service, are only £302 *per annum;* his voluntary retirement, only £219 yearly after the completion of this period. I have not entered into the prospective advantages, because, according to your correspondent's own confession, they are infinitesimal. A chance of one in thirty, or, in money value, of £6 or £7 *per annum*, can scarcely be called an advantage. I have pointed out that, in many instances, it is almost impossible for an officer to live and bring up a family upon such a wretched emolument; and this is the common sense and practical way of looking at the matter.

Think you the War Office care about the mortality among medical officers? No. As long as they can get others to fill their places, they will merely shake their heads, if they ever had any, and say, "How very sad! We really must do something for these poor fellows." But the something never comes. The pressure of public opinion can alone gain for the service a proper status, a quicker promotion, and a better retirement. To obtain these should be objects of legitimate pride to us all. These will not be obtained by half-hearted advocacy and faint praise, but by a "strong pull, a long pull, and a pull altogether". By an effort of this kind, we may yet hope to see our profession occupy its proper position in the Army. It must be always a quiet one, but on that account not the less useful and honoured. We feel we have the sympathy of all in attempting to obtain this end. We should have the hostility of none, for it is a fair ambition and an object of legitimate effort. Having, in a former letter, almost exhausted the subject, I must conclude by apologising for having trespassed so much on your space. I am, etc., LONGA EST INJURIA.

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## NAVAL MEDICAL APPOINTMENTS.

**Burke**, Surgeon John, to the *Swiftsure*.
**Drew**, Surgeon J. B., to the *Flora*, additional, for service in Ascension.
**Duke**, Surgeon Valentine, to the Portsmouth Division of the Royal Marines.
**Grant**, Surgeon Robert, to the *Hector*.
**Isaac**, Surgeon J. B., to the *Duke of Wellington*.
**Sweetman**, Staff-Surgeon Stephen, second-class, to the *Fox*, additional, in lieu of a Surgeon.

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We incline to think that Dr. Mackenzie's best course will be to apply to Dr. Mouat, who advises on these matters in places not in the metropolis. We do not think that any authoritative statement from the Local Government Board has been made on these points.

# OBITUARY.

## EDWARD WILLSON DUFFIN, M.D., F.R.C.S.

**Edward Willson Duffin** was born at Halifax, Yorkshire, in April, 1800. In 1817, he matriculated at the University of Edinburgh, where he subsequently graduated in 1821. He became a Fellow of the Edinburgh College of Surgeons in the year following. He first started in practice in Edinburgh. It was mainly through his exertions that the Dispensary for Diseases of the Skin in that city was founded. At that ime, he wrote several pamphlets on cutaneous subjects, and especially an essay on Squamous Disorders. In conjunction with the late Professor Lizars, he prepared and collected a number of life-size drawings of Skin-Diseases. After two years, his health failed, and he was recommended to winter in Italy. He passed two years at Florence, and ultimately settled in London in 1828.

He was among the earliest introducers of the operation for strabismus. He pointed out the advantages of a small conjunctival wound, of reguating the amount of muscle divided, and of operating on both eyes in cases of alternate squint. In 1847, he published a work on *Deformities of the Spine*, pointing out especially the utility of graduated muscular exercise in the correction of lateral deformities. In 1850, he operated successfully, and by a new method, on a case of ovarian tumour. In a paper published in the 34th vol. of the *Medico-Chirurgical Transactions*, he insisted upon the great value of the following modifications in the operative procedure then in vogue:—1, making a relatively small ncision in the median line of the abdomen; 2, tying the pedicle of the umour into the mouth of the wound, so as to keep all the cut surfaces xtraperitoneal, avoid enclosing ligatures and acquiring greater control ver subsequent hæmorrhage; 3, narcotising the patient with opium, nd keeping her well under its influence for many days after the operaon; 4, keeping a relatively hot moist atmosphere about the patient.

In 1855, Dr. Duffin was elected a Fellow of the London College of urgeons. He continued in active practice till about 1868, when the nfirmities of advancing age compelled him to retire. He was a Fellow f several learned societies.

He died at the residence of his son, after a short illness, of pneumonia, consequent upon renal disease, in the 75th year of his age.

## THOMAS ANDERSON, M.D., F.R.S.E.,

### ATE PROFESSOR OF CHEMISTRY IN THE UNIVERSITY OF GLASGOW.

R. **Anderson** died on November 2nd, at the age of 55, at Chiswick. e was born in 1819, and was educated at the University of Edinurgh, where he displayed great interest in the study of chemistry. On aving college, the desire of prosecuting his favourite pursuit led him Stockholm, where for some time he studied under Berzelius. Reoving afterwards to Germany, he enjoyed at Giessen the prelections Liebig, besides visiting Berlin and other towns for the purpose of tending lectures or obtaining interviews with all the more celebrated ofessors of Chemistry. Returning to Edinburgh, he commenced the aching of chemistry in the Extramural Medical School. His class tracted attention all over the country, and several of the students ho there had the benefit of his instruction have risen to high positions chemists. Latterly, his fame extended beyond this country, and in s classes were to be found a considerable number of foreign students. he departments of chemistry to which Dr. Anderson had devoted ecial attention were those relating to agriculture and the products of al-tar and opium. He had few, if any, equals. In 1848, he was pointed Consulting Chemist to the Highland and Agricultural Society. 1852, he received from the Crown the appointment of Professor of hemistry in the University of Glasgow, in succession to Dr. Thomas homson. In the university, Dr. Anderson found ample scope for the ercise of his talents as a teacher. The duties of his chair Dr. Andern continued to discharge with great acceptance till 1869, when he had a paralytic seizure, which incapacitated him for work. In May last, Dr. Anderson had another stroke of paralysis, and resigned his professorship in July, when Mr. Ferguson was appointed to the chair with his former teacher's cordial approval. Dr. Anderson is survived by Mrs. Anderson and two sons.

## JOHN TEMPLETON KIRKWOOD, L.F.P.S.G., M.R.C.S.

**Mr. Kirkwood** was born in the town of Ayr in 1812. After a liberal education at the academy of the town, he studied medicine and surgery at the University of Glasgow. He then took the licence of the Faculty of Physicians and Surgeons, and almost immediately joined the Medical Staff of the British Auxiliary Legion, then being raised in this country to support the rights of the Infant Queen Isabella II against Don Carlos. Under Sir De Lacy Evans, Mr. Kirkwood acted for two years with great distinction, gaining two decorations for medical services in the field. In Captain Ball's *Narrative of Seven Years in Spain*, Mr. Kirkwood is spoken of with great praise. On the return of the Legion, Mr. Kirkwood bought a practice in the then thickly inhabited and busy suburb of Somers Town. Here he practised for many years with great success. He was appointed as Medical Officer to the Sick Fund of the Great Northern Railway Company in London, and, after a long and useful service in that capacity, became the Company's Medical Officer in town. When the Midland Company (for which he also acted) demolished Somers Town for their Grand Terminus, Mr. Kirkwood's surgery was removed to Euston Road. Here he continued to practise until his retirement from active life two years and a half ago. He married in 1855, and leaves a widow, but no family. His contributions to medical literature are "A Treatise on Croup", "Papers on the Malignant Fever in Vittoria, 1835-6", and on the "State of the Hospitals in the British Legion". He was by nature generous, kindhearted, ready to help, and a firm friend. After retirement, he fell into delicate health, and died at Ayr Villa, Maida Vale, on October 7th. He was buried in Paddington Cemetery, Willesden, his remains being followed by a few of his most intimate friends.

# MEDICAL NEWS.

**Apothecaries' Hall.**—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, December 31st, 1874.

Clarke, Henry, Penge Park, Anerley
Crouch, Ernest John, Lewisham, Kent
Grosholz, Frederick Hermann Varley, Walkden, Bolton

## MEDICAL VACANCIES.

The following vacancies are announced:—

ARMY MEDICAL DEPARTMENT—Surgeons. Applications to be made to the Director-General of the Army Medical Department.

ATHY UNION, co. Kildare—Medical Officer and Public Vaccinator. Salary, £120 and fees.

BAKEWELL UNION—Medical Officer for the Bakewell District and Workhouse. Salary, £25 and £36 per annum respectively.

BALLACHULISH SLATE QUARRIES—Medical Officer. Salary, £200 per annum. Testimonials to be sent in to J. Gardner, Ballachulish, N.B., on or before the 14th instant.

BECKETT HOSPITAL AND DISPENSARY, Barnsley — House-Surgeon. Salary, £140 per annum, with furnished rooms, gas, and coals.

BIRMINGHAM GENERAL DISPENSARY—Resident Surgeon. Salary, £130 per annum, with furnished apartments, coals, light, and attendance. Applications on or before the 20th inst.

BLACKBURN UNION—Medical Officer for the Harwood District. Salary, £25 per annum.

BRADFORD UNION—Medical Officer for the Workhouse. Salary, £225 per annum.

BRIDGWATER UNION—Medical Officer for No. 2 District. Salary, £70 per annum.

CASTLE WARD UNION—Medical Officer for the Ponteland District. Salary, £20 per annum. Also, the Workhouse. Salary, £30 per annum.

DERBYSHIRE GENERAL INFIRMARY—Assistant House-Surgeon. Board, lodging, and washing, but no salary. Applications to Secretary.

ESSEX LUNATIC ASYLUM—Second Assistant Medical Officer and Dispenser. Salary, £100 per annum, with board, lodging, and washing.

FIFE AND KINROSS DISTRICT ASYLUM—Assistant Physicianship. Salary, £80, with board, etc. Apply to Dr. Fraser, Medical Superintendent, Cupar-Fife.

GREAT NORTHERN HOSPITAL, Caledonian Road—One Physician and one Surgeon. Applications to be sent in on or before January 12th, 1875.

HARRIS, Parochial Board of—Surgeon. Salary, £66 per annum, including vaccination and medicine for the poor. The gentleman elected will get £90 per annum for attending the ratepayers and cottars within South Harris. Applications to be made to the Chairman of the Parochial Board of Harris.

HEADINGTON UNION—Medical Officer for the Wheatley District. Salary, £70 per annum.

HITCHIN UNION—Medical Officer for the Workhouse. Salary, £55 per annum.

INDIAN MEDICAL SERVICE—Twenty appointments as Surgeon. Examination in February 1875.

LEEK UNION—Medical Officer for the Endon District. Salary, £20 per annum.

LICHFIELD UNION—Medical Officer for the Alrewas District. Salary, £35 per annum.

LOCHMABEN, Parish of, Dumfriesshire—Medical Officer. Salary, £50 per annum, and fees. Testimonials to be lodged with the Inspector of Poor on or before the 16th instant.

METROPOLITAN ASYLUM DISTRICT—Medical Superintendent of a temporary Asylum for Imbecile Children. Salary, £400 per annum, with furnished house, coals, and gas. Applications on or before the 13th instant.

MIDDLESEX LUNATIC ASYLUM, Hanwell—Assistant Medical Officer.

MITFORD and LAUNDITCH UNION—Medical Officer for the Workhouse. Salary, £45 per annum.

NORTH BRIERLEY UNION—Medical Officer for the Seventh District.

NORTH-EASTERN HOSPITAL FOR SICK CHILDREN, Hackney Road, E.—House-Surgeon. Salary, £100 per annum, with attendance, rooms, coals and light.

NORTH WALES COUNTY LUNATIC ASYLUM—Assistant Medical Officer. Salary, £100 per annum, with board, lodging, and washing. Applications to be sent in or before the 13th instant.

OKEHAMPTON UNION—Medical Officer for No. 1 District. Salary, £35 per annum. Applications to be made on or before the 22nd instant.

PLYMOUTH UNION—Medical Officer for No. 3 District.

POPLAR AND STEPNEY SICK ASYLUM DISTRICT—Assistant Medical Officer to the Asylum.

REDDITCH and DISTRICT MEDICAL ASSOCIATION—Medical Officer. Salary, £150 per annum, with fees and unfurnished house.

ROYAL FREE HOSPITAL—Junior House-Surgeon.

RYDE DISPENSARY—Physician.

SCARBOROUGH UNION—Medical Officer and Public Vaccinator to the Sherburn District. Salary, £38 per annum, and fees. Applications to be made on or before the 13th inst.

ST. BARTHOLOMEW'S HOSPITAL—Assistant Physician.

ST. LUKE'S HOSPITAL FOR LUNATICS—Second Clinical Assistant. Board and furnished apartments.

SHEFFIELD PUBLIC HOSPITAL and DISPENSARY—House-Surgeon. Salary, £100 per annum, with board, lodging, gas, and washing.

SMALLBURGH UNION—Medical Officer for the Ludham District. Salary, £52 : 14 per annum.

STRATFORD-ON-AVON UNION—Medical Officer for the Welford District and Workhouse. Salary, £50 per annum.

STRATHKINNESS, Village and District of—Medical Officer. Salary, £10 from Parochial Board, with £110 from a workmen's club, exclusive of midwifery fees. Apply to Mr. A. Cowper, Kincaple, Cupar Fife.

SWANSEA URBAN AND PORT SANITARY DISTRICT—Medical Officer of Health. Salary, £200 per annum, and fees.

TENDRING UNION—Medical Officer for the First and Second Districts. Salary, £97 per annum.

TORPHINS in the Parish of Kincardine O'Neil, Aberdeenshire—Parochial Medical Officer: £45 per annum. Applications to Chairman of Parochial Board.

TOWN'S HOSPITAL and ASYLUM, Glasgow—Medical Assistant. Salary, £80 per annum, with board and lodging. Applications on or before the 2nd instant.

TRINITY COLLEGE, Dublin—Professor of Chemistry: £500 per annum, and fees. Applications to the Rev. Dr. Haughton, Trinity College.

TYNEMOUTH UNION—Vaccination Officer.

UNIVERSITY OF EDINBURGH—Additional Examiner in Medicine.

WHITBY DISTRICT LOCAL BOARD—Medical Officer of Health. Applications to be sent in on or before the 14th instant.

WOOLWICH UNION, Kent—Assistant Medical Officer to the new Infirmary at Plumstead. Salary, £60 per annum, with board, lodging, and washing. An additional salary of £20 per annum will be given for dispensing for the poor of the Plumstead District.

WORCESTER UNION—Medical Officer for No. 2 District. Salary, £45 per ann.

## MEDICAL APPOINTMENTS.

*Names marked with an asterisk are those of Members of the Association.*

DAY, Edmund O., M.R.C.S.Eng., appointed Resident Medical Officer to the Royal Infirmary for Children and Women, Waterloo Bridge Road.

DUKE, Douglas W., M.R.C.S.Eng., appointed Surgeon to the East Sussex, Hastings, and St. Leonard's Infirmary.

HARRIES, Thomas D., M.R.C.S.Eng., appointed Surgeon to the Aberystwith and Cardiganshire General Infirmary.

SHAPLEY, H. T., M.R.C.S., appointed Resident Accoucheur to the London Hospital, *vice* R. N. Llewellyn, Esq.

TIDBURY, Robert, M.D., appointed House-Surgeon to the Male Lock Hospital, Dean Street.

WADD, Thomas H., M.R.C.S.Eng., appointed Surgeon to the East Sussex, Hastings, and St. Leonard's Infirmary.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.*

### MARRIAGE.

SCHÖN—VENABLES.—On January 6th, at Christ Church, Brondesbury, N. W., by the Rev. Canon Venables of Lincoln, uncle of the bride, James Edward Schön, M.R.C.S.Eng., to Ellen Emma, eldest daughter of the late George Henry Venables, Esq., of Warley Lodge, Brondesbury.

VACCINATION.—An award of £100 2s., from the Local Government Board, for efficient vaccination, was received on the 1st instant by Mr. W. E. G. Pearse, public vaccinator for the Westminster district.—A grant of £8 has been awarded to Mr. R. Jocelyn Swan, for vaccination efficiently performed in the second district of the union of Northfleet.

## OPERATION DAYS AT THE HOSPITALS.

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| MONDAY ...... | Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M. |
| TUESDAY ...... | Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M. |
| WEDNESDAY .. | St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M. |
| THURSDAY .... | St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M. |
| FRIDAY......... | Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M. |
| SATURDAY .... | St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M. |

## MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Mr. Henry Smith, "On a Case of Cancerous Tumour involving the Tibia requiring Amputation"; Mr. Thomas Bryant, "On the least Sacrifice of Parts as a Leading Principle of Surgical Practice".

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Dr. George Thin, "On the Pathology of Lupus Erythematosus"; Dr. Haynes, "On an Epidemic of Malarious Yellow Fever on board H.M.S. *Doris*, off Port Royal, 1873.

WEDNESDAY.—Hunterian Society. 7.30 P.M.: Council Meeting. 8 P.M.: Dr. Hughlings Jackson, "On Mental Disorders after Epileptic Seizures". Mr. F. M. Corner will show a patient the subject of a Primary Resection of the Ankle-joint, and a case of Wound of the Spine with Symptoms of Lesion on one side.—Epidemiological Society, 8 P.M. Dr. Arthur Ransome, "On the Relations between Diphtheria and Scarlet Fever" (will be read by the Secretary).

FRIDAY.—Medical Microscopical Society, 8 P.M. Annual General Meeting for election of officers and other business.

## NOTICES TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor those concerning business matters, non-delivery of the JOURNAL, etc., should b addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

M. D. will feel obliged if any of our readers will inform him whether he is entitle to claim a fee in the following case. A lady told him, when in attendance on member of her family, that she would soon require his services, as she was nea her confinement; but no particulars as to fee or time were mentioned. The nex time M.D. called, she declined to see him; and also on two future occasions He then wrote and asked whether he had given her any offence. She replied that she was perfectly pleased with him as a medical man, and would send fo him when she required him. She has since been confined, but not by M.D.

*** Certainly not.

### FOREIGN DEGREES.

SIR,—Having but lately spent some time in Germany, and taken the degree of M. at the University of Giessen, I feel able and justified in contradicting the stat ment of your correspondent "Physician" in the JOURNAL of December 19th, th this degree *can* be and is *alone* obtained by examination in English; for, by my i timacy with all the medical faculty, I know as a fact that but one of the professo can speak the English language in even the most broken and imperfect manne This difference between Giessen and other German Universities, pointed out your correspondent, therefore, in conferring degrees, does not at present exist.

Stockport, Dec. 22nd, 1874. I am, etc., M.D.GIESSEN.

H. M.—Dr. (?) Lockyer was a great quack of the time of Charles II. His reclini effigies, in thick curled wig and furred gown, were to be seen in the Lady Chap Southwark, with his epitaph:

> "His virtues and his pills are so well known,
> That envy can't confine them under stone," etc.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

### Management of Nerves of the Teeth.

SIR,—As the heading of the report of the paper which I read before the Medical Society of London on November 16th, published in last week's JOURNAL, conveys to the minds of your readers not an indistinct or incorrect impression of the subject, but its direct antithesis, I shall esteem it a favour if you will, in your next issue, give prominence to this letter, calling attention to the fact, and reasserting my convictions of the importance of the statement which I did make—viz., that the retention of the nerves of the teeth should be the first and paramount object of the operator under all circumstances; that it is one that may be successfully attained under some I gave, I hope, satisfactory evidence—I am, sir, faithfully yours,
WILLIAM DONALD NAPIER.

22, George Street, Hanover Square, December 30th, 1874.

LEICESTER SQUARE.—John Hunter lived on the east side of Leicester Square, next door to what is now the Sablonière Hotel. On the west side lived William Cruikshank, whose daughter married Honoratus Leigh Thomas, President of the Royal College of Surgeons, who resided in Leicester Place.

### Physicians and Infirmaries.

SIR,—I cannot let what you say with regard to general practitioners holding M.D. degrees being appointed physicians to public institutions pass without a strong protest. The title of physician is so associated in the public mind with that of the consultant, that to give a general practitioner such a position would be to give him a most unfair advantage over his brethren. At the institution and in the public mind he would rank above the surgeons, whilst in private practice he would be their competitor; and naturally, if the public could have the physician to an infirmary for the same fee as their ordinary medical attendant, what chance would the latter stand in comparison with the former? I am sure no physician should ever be appointed to any charity, unless he give up all surgical and obstetric practice as well as dispensing. If such a person cannot be obtained, let the officer doing the medical work be called medical officer. The governors of all the local charities here have always acted in accordance with these views, and I believe they are concurred in by the Branch I have the honour to represent.—I am, sir, your obedient servant,
JOHN WOODMAN, F.R.C.S. (by Exam.),
Hon. Secretary South Western Branch.

Exeter, Jan. 2nd, 1875.

⁂ We only stated a matter of fact, and we have to add now that every Licentiate of a College of Physicians is a "physician".

DERMATOLOGIST.—We were once informed by the late Dr. Scott that a dessertspoonful of the chlorate of soda, put into each basin of water with which the person washes, will remove the icteric hue of the skin.

### On the Right Management of the Puerperal State.

SIR,—Cases of parturition continually occur in which there is neither protracted suffering, nor, to any appreciable extent, loss of blood. In such cases, I venture to predict that the profession will not be long in arriving at the conviction that the graduated cold douche, applied at the conclusion of labour, is a measure strictly scientific, and capable, under favourable circumstances, of effecting the very best results; nor will the practice probably be restricted to such cases. So far as the local application of cold shall continue to be esteemed a remedy proper and expedient for the arrest of the hæmorrhage incidental to childbirth, so far may the douche, or some modification of it, applied to the spine, still be found the most effectual method for the application of cold. Indeed, I have long since arrived at the conviction that in such cases the routine practice of applying wet cloths to the abdomen is both physiologically wrong and capable of producing disastrous results. For the right suggestion in this, as in many other instances, the profession is indebted to the intelligent observers of former times, who, when they wanted to arrest a hæmorrhage, put a cold key down the patient's back. In doing this, it is very probable they were actuated by no theory, though in reality the practice was in accordance with the true theory—the influence of the spinal cord in regulating the temperature of the body, and thereby arresting hæmorrhage and other abnormal conditions.
I am, etc., M.D.

Harlesden, January 1875.

### Fungus of the External Ear.

SIR,—In the JOURNAL of December 26th, I observe a memorandum on the above subject. If personal experience should be of any interest, the following is my own.

Nearly seven years ago, I suffered for some months from irritation of both ears, brought on by sea-bathing. It commenced in the right ear, the first intimation being a frequent "popping" at night, when lying on it, coming on during sleep and rousing me, and relieved by turning to the other side. In November, after I had given up the bathing, the left ear also began the "popping", with considerable irritation throughout the day. Thinking a little warm oil might relieve it, I dropped some in during the evening, and put in some cotton-wool; then my sufferings began—acute inflammation, profuse discharge, perforation of the tympanum, deafness. I went to London and consulted an aurist. He syringed the ear, blew a gale through it, and put in some cotton-wool. To this last I rather objected, expressing my idea that it had caused the previous inflammation. He thought it unlikely, and wished me to keep it in while on a railway journey of two hours. I agreed, but in less than an hour the pain returned in real earnest. I threw the wool out of the carriage-window, and the pain subsided. The aurist wished me to have the ear syringed every day, and for a time I did so. On one occasion I was surprised to see a dark object, having the size and appearance of a ripe apple-pip, floating on the water. Under the microscope, I found it to consist of a perfect network of fungus, resembling the aspergillus. A few days later, another portion came away, but I never found any afterwards. As the syringing was always followed by pain and discharge, I gave it up. The hearing improved to a certain extent, and I never suffer any pain in the ear now.

I mounted two specimens of the fungus in glycerine, intending to show them to the aurist; but on my acquainting him, by letter, of the circumstance, he did not appear to attach such importance to it as I was disposed to, so I never showed them. Not having examined them since till now, I find they have not improved by keeping, though they may still be recognised. I may remark, that unbleached lambs'-wool produces no irritation, and that I have never advised cotton-wool since.
I am, etc., D. McD.

December 29th, 1874.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, twelve o'clock.

### The Clinical Society's Report.

SIR,—In the report of a meeting of the Clinical Society at page 819 of your JOURNAL, a short speech is attributed to me. I certainly did not make it, for I was not at the meeting. The error is probably one for which the printer alone is responsible; but, as it may lead to misunderstanding, I must ask you to allow me to correct it.—Yours, etc.,
JONATHAN HUTCHINSON.

15, Cavendish Square, W., January 2nd, 1875.

SIR,—A writer in the *Lancet* has gone out of his way to comment upon the report of a meeting of the Clinical Society which appeared in your JOURNAL of the 26th ultimo. I was unavoidably absent from the meeting in question, but subsequently received, in due course, the authors' MSS. of the abstracts of papers read at the meeting. And I then availed myself of the printed discussion thereon which appeared at once in the *Lancet* to complete the report, intending when I next met my fellow-reporter at the Society to express to him my thanks for the same. I have furnished slips to a reporter of the *Lancet* when he has been absent, and, on the above occasion, certainly did not anticipate any objection to my using in the same way a report which had already been published. Such courtesies as these, I presume, are not uncommon in the case of journalism generally.

The innuendo conveyed by the writer of the paragraph in question, that the reports which appear in your JOURNAL are not usually original, nor the work of your own special staff, you and your readers fortunately know to be false.

January 1874. Yours faithfully, YOUR REPORTER.

⁂ The BRITISH MEDICAL JOURNAL employs a staff of three special reporters for the metropolitan medical societies. It has also its own reporters in Edinburgh, Dublin, Liverpool, and other great cities. No other medical journal has an equal or similar staff for the purpose.

### Are the London Hospitals on Clay?

SIR,—In a note appended to a letter from one of your correspondents (BRITISH MEDICAL JOURNAL, January 2nd, 1875) on the vexed question of the proposed Hampstead Hospital, it is stated that "nearly every London hospital" is on a clay soil. Surely, the writer of that note is entirely unacquainted with the soil on which the greater part of London—celebrated from the time of the Romans to the present day for the excellence of its soil and situation in reference to health—is built. The fact is, that, from Barking and Woolwich on the east, to Wandsworth and Twickenham on the west, on both sides of the Thames, in a width of from one to three miles, there is a deep fine gravelly soil, beneath which only is the well known London clay. So far from nearly all the London hospitals being built, as it is technically called, "on a clay soil", the reverse is the case. On the north side of the Thames, beginning at the east, we find the London Hospital, St. Bartholomew's, King's College, Westminster, St. George's—all built on a fine bed of gravel; whilst on the south side, Greenwich Hospital, Guy's, the modern St. Thomas's—are all on gravel. If this be true of our large hospitals, it must be true of the majority of the smaller ones, beginning with the Poplar and Victoria Park Hospitals on the east, and ending with the West London at Hammersmith.

I am less certain as to the North London, the Middlesex, and St Mary's, which may or may not be situated on the border of the clay district. which includes part of Bayswater, Westbourne Park, Regent's Park, St John's Wood, Holloway, and Hampstead.

If any faults of construction or of situation of our London hospitals, consequent upon their age and the exceeding growth of the metropolis, exist, do not allow the unjust stigma of their being built upon a clay soil to pass uncontradicted. Note also the wisdom of our ancestors in the choice of soil and situation. Nearly all the large hospitals which I have enumerated were erected upwards of one hundred and twenty-five years ago, and were then situated amidst green fields, or in the near neighbourhood of them. A glance at any map of London of over one hundred years ago will confirm this statement.

I am, Sir, your obedient servant,
M.D.

January 1874.

⁂ Our correspondent evidently mistakes sand for gravel. It is quite true that there is a superstratum of "*drift, gravel, and sand*" over the clay under most of the hospitals he has mentioned; but true gravel is limited to a small part of Hampstead and Highgate, as reference to any geological map will show.

A VET. AND M.R.C.S.—"A skilful leech is better far
Than half a hundred men of war."

So sang Homer, on Machaon's being wounded, as translted by Pope.

"A wise physician, skill'd our wounds to heal,
Is more than armies to the public weal."

Chaucer and Spenser, however, use the word "leech" for the spiritual physician. Farriers were called "horse-leeches"; and persons skilled in the distempers of cows and other horned cattle are, in several countries, to this day called "cow-leeches".

### Medical Degrees and Titles.

SIR,—I have read with mixed feelings of amusement and indignation the correspondence that has been going on in the JOURNAL on the subject of the assumption of the title of Dr. by L.R.C.P.s: amusement at the sophistry of the writers, and indignation that members of an honourable profession should be not only willing but anxious to live their lives in a false position. I happen to know a L.R.C.P. who puts Dr. on his cards and doors. I often fancy I should like to look into his letter-box and see how many of his correspondents call him M.D. Your correspondents make great capital of the fact, that the public call all medical men "doctor", and argue from that, that they, the public, do not know the difference between a degree and a license. My experience leads to the opposite conclusion. The public calls us "doctor" because it is a convenient mode of address, and because they think we like it; but I confidently assert that nine out of ten men of average education know right well the difference, and could without hesitation define the two positions accurately.

The facts of the case appear to me to lie in a very narrow compass. The title of Dr. belongs only of right to the holder of a degree, and that degree is a guarantee to the public that the holder has studied and passed an examination in all subjects, a knowledge of which is considered necessary by the University of which he is a graduate. A license, on the contrary, informs the public and all whom it may concern that the holder of it possesses the minimum knowledge with which the law permits a man to practise medicine. If he possess more than the minimum, it is for him to convince the public that he does so.

There are doubtless cases, such as those mentioned by Mr. Manby, when the possession of a degree would be of the utmost advantage to a man in high class practice who wishes to pass on into pure physic; but I would ask your correspondents to simply state the value of a degree to the ordinary general practitioner; I would also ask them to instance any case in which the acquisition of a degree has been of any signal service to a general practitioner (of course excepting the information acquired by the necessary study). Again, should the Universities agree to grant degrees to all men now in practice who are willing to go up for examination (there is no fear, by the way, of the Universities doing so), what would be the result? A general disturbance of the whole state and condition of our profession for a few years, and then the adoption of some higher title to distinguish men of superior attainments. There must be grades in our profession, and those grades must be maintained; and I for one should be sorry to see any attempt at communism amongst us.

In conclusion, I must enter my protest against the almost universal statement that it is the L.R.C.P.s of Edinburgh that most usually assume this title, for I find that Licentiates of all the Colleges, with the sole exception of London, do it, and probably to a greater extent than the Edinburgh ones.

Apologising for occupying so much space, I am, etc.,

ONE WHO STUDIED AT AN UNIVERSITY, BUT TOOK THE L.R.C.P.EDIN.

December 1874.

SIR,—Pardon my adding another to the already too many letters written upon the subject; but as one who holds neither degree nor license, I may, as an outsider, make one or two remarks in reply to three of your correspondents. "L.R C.P.Ed." says his qualification "cannot be obtained by a few hours' examination"; but he, perhaps, does not know that a M.R.C.S., L.S.A.Lond., has to undergo only one hour's written and twenty minutes' *vivâ voce* examination for that honour. To the observation of "Honestas", that "examination-tests for Licenses of Colleges of Physicians are no more strict than those for L.S.A.", I would reply that he cannot have any knowledge of the London College, as the standard for its license is much higher than the standard of half the Universities in the United Kingdom. The examination-papers will prove it, combined with the class of candidates, and the average number of rejections. To an "University Man" I would say, that M.D. is certainly lower than F.R.C.P.Lond., and even in many cases than M.R.C.P.Lond.

There are different classes of M.D.s, and also of L.R.C.P.; and, to my mind, the Scotch M.D.s (excepting Edinburgh) are, certainly, as far as proofs by examination go, below either M.R.C.P. or L.R.C.P. of London. Oxford and Cambridge degrees in medicine—conveying, generally, the fact that the holders are gentlemen, and, to a certain extent, classical scholars—deservedly stand first; and even London, though requiring much more knowledge of, and hard work in, medical subjects than either of the latter Universities, cannot quite hold her head as high. Edinburgh, and Trinity College, Dublin, come next, and even head the list in their respective sections of the kingdom; but for the graduates of the remaining British Universities to aspire to take the same standing is, I think, as presumptuous as for a L.R.C.P.Ed. to put himself on a par with a L.R.C.P.Lond.

December 28th, 1874. Yours, etc., IGUALIDAD ANTE LA LEI.

SIR,—Permit me a short space to reply to the communication signed "L R.C.P.Edin." in your issue of Decemher 19th, especially as it impugns some of my statements in a former letter (facts I still maintain, and am prepared to prove), as well as meaning to annihilate me utterly.

First, I do not write in "ignorance", nor with any intention "to convey a false impression as to the requirements of the Royal College of Physicians of Edinburgh as to their license". I write after a four years' residence and curriculum in Edinburgh, and not as some gentlemen, whose only information is derived from a short and solitary visit to Edinburgh to obtain the L.R.C.P. Nor do I wish to undervalue the Edinburgh College of Physicians, for which I entertain a great respect, and with some of whose examiners, and many of whose licentiates and members, I am on intimate terms; also, let me say I place proper value and honour on the "double qualification" obtained there. My objections are entirely and solely levelled at the L.R.C.P. granted after examination to the men already possessing a diploma, when, in the words of the regulations, "candidates are at once admitted to the second part of the examination", and consequently are entirely excused the first; and so I insist, as an already doubly qualified man. When I went up for the M.D.Edin., I had to pass a far more severe examination, or rather sets of examinations, for my "degree", than I should have had to take the L.R.C.P., notwithstanding what "L.R.C.P.Edin." so stoutly maintains; so I am anything but "quite mistaken". And that the examinations are nothing like "identical", either as far as the number of subjects required, or length of time, etc., can easily be proved by any one who looks into the *Medical Directory*, and it is well known to every resident medical student in Edinburgh. Again, the examiners of the University require, as I was officially informed and proved, the same quality and number of marks for their written and oral questions from all candidates (with no abatement of subjects), whether they already possess one, two, three, or no qualification at all, not to name a subsequent examination after the M.D. in Greek, logic, etc.; so how can it be "as difficult to get the L.R.C.P. as the M.D.Edin."? And if men are equally entitled to be called Doctors, why work for the latter when the former is much more easily obtained; and does it not show the considered honour of the M.D., when the Senatus of the University never address their M.D.s by the title of "Dr."? Now, I think I have shown it is "less difficult" to write L.R.C.P.Edin. than M.D.Edin. after your name; besides, what of that "year of grace", or, as it was wittily called, "year of disgrace", when any qualified man was admitted to the L.R.C.P.Edin. without any examination at all? I can quite believe some solitary M.D.Edin. may have been plucked for the L.R.C.P.&S.Edin.; but that double qualification is not the question. I am talking of the L.R.C.P.Edin. as given to men already with a diploma, and who mostly obtain it "to call themselves Doctors". A man may just get through at one place, and just fail at another; besides, occasionally it happens that a good man may be plucked, and a bad man pass.

I know that the examination mortality for the M.D.Edin. is very high—sometimes near 50 per cent.; and I should like to know what proportion of already qualified men fail at the L.R.C.P.Edin. In my own experience, I do not know of one, but I have known many very moderately-up men go in and win, and amongst my own acquaintance (aye, and on my recommendation), some even who dreaded "the Hall", and took L.R.C.P. instead, merely for the double qualification; but, when obtained (much to their surprise and gratification), they astonished their friends by saying they had taken "a degree in Edinburgh", and then altered their door-plates and cards to "Dr."

Now, again, I ask "L.R.C.P.Edin."—Is that license "as thorough a test of medical and classical knowledge, etc., as the M.D.Edin."? and is it "on a par with any other Scotch qualification"? I am sure the *cognoscenti* would all say, certainly not. If the title of Doctor be of no importance, then why all this hubbub and unjust assumption of it, and why do doubly qualified men leave England, take a few days' trip to Scotland, and return calling themselves Doctors?

Of course, the public may, and do, call all medical men frequently Doctors, not depending, as "L.R.C.P." seems to say, on "having a *medical* title", but simply as being a doctor by profession, just as a lawyer, etc.; and so, in a sense, they are Doctors—"the doctor called in". Still, that does not give a man the right to assume the title, and call himself Doctor, unless he could reply to the question, Doctor of what?

The comparison as to the "two marquises" is absurd, because both are unquestionably acknowledged and understood as such, and do not clash: one sits in the Lords as a Peer, the other does not; one has the title and the deeds, the other only the title. In short, their positions are properly defined; while if any qualified man is to call himself Dr., how can the public discriminate, and what is the use of the extra study and time in obtaining the M.D.? Surely, it is more than "the difference between tweedledum and tweedledee".—I am, yours,

M.D.EDIN.

January 1874.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Gazette; The Western Daily Press; The Manchester Guardian: The Ulster Advertiser; The Sussex Coast Mercury; The Broad Arrow; The Surrey Advertiser; The Bedale and Northallerton Times; The Hackney Express; The Liverpool Porcupine; The Scotsman; The Liverpool Mercury; The Glasgow Herald; The Stroud News and Gloucestershire Advertiser; The Bradford Observer; The Morpeth Herald; The Portsmouth Times; The Western Daily Press; The York Herald; The Sheffield Evening Star; The Brighton Guardian; The Sussex Daily News; The Wrexham Advertiser; The Glasgow Herald; The Sussex Coast News; The Finsbury Conservative; The Berkshire Chronicle; The Hull News; The Southern Times; etc.

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# LECTURES
ON
# THE OCCURRENCE OF ORGANIC FORMS IN CONNECTION WITH CONTAGIOUS AND INFECTIVE DISEASES.

*Delivered at Owens College, Manchester.*

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## LECTURE I.

THE subject of the present lecture is the relation of bacteria to the chemical and physical processes which constitute the life of the higher animals.

One of the first questions which suggests itself to the mind in approaching the subject is this: How does it happen that these bacteria, which we suppose must have existed half-a-dozen years ago in as great numbers as at present, were then scarcely heard of, and that they now occupy so large a place in the medical literature of this country and of Germany, and have lately afforded material for lively discussion in the French Academy? To us in England the subject is chiefly associated with the truly scientific investigations of Lister—the first to show its practical bearing on the pathology of traumatic diseases. In Germany, there can be no doubt that the extensive inquiry which is now being carried on by so many persons, took its start from the laborious researches of a poor professor of botany at Jena, who, with defective resources, bad instruments, and in spite of discouragement and disparagement of all kinds, has persisted for many years in his strivings to work out this intricate question. Unfortunately, he lost his way at an early stage of his enterprise, and, like many pioneers in exploration, has accumulated results of which it must be admitted that the value is scarcely proportional to the quantity. Need we be surprised that, of the many who are quite ready to sneer at Hallier and his cholera-fungus, few, if any, have undergone the labour of reading his papers?

As introductory to my subject, I must first give a short account of the natural history of the organic forms which we now, following high botanical authority, group together under the term bacteria. Secondly, I shall consider the question of their general influence on the processes of life of the higher animals, and the mode in which this is exercised. This will prepare us for discussing the question how far they act as morbific poisons, or as the vehicles of such poisons, or are characteristic of specific diseases. I would remind you that the question we have before us is not that of the origin of bacteria, nor that of their place in nature, but the more restricted one of their influence on ourselves, and on the lower animals whose life, whose health, and whose diseases are but the counterparts of our own.

It is because they are constantly invading our bodies and attacking the living protoplasm by which the work of life is carried on in our tissues, that we, as pathologists, take an interest in their natural history. It is for this reason that questions relating to them, which at first sight seem recondite and remote, have a direct and immediate bearing on practical questions. For if, as I shall endeavour to show, they are constantly present to us—constantly mixing up their life with ours—we cannot wisely remain ignorant of their nature. We do not aspire or profess to be botanists; but, if plant-forms and plant-life associate themselves with the very processes which it is our business to study, we must become botanists for the occasion.

In the short introductory account I shall give of the forms of bacteria, I shall follow Professor Cohn (*Ueber Bacterien, die kleinsten lebenden Wesen*, Berlin, 1872), as being the only botanist of high authority who has given special attention to the subject. For the remainder of what I intend to say, I am myself answerable. I shall, however, make it my endeavour not to vindicate the views which I have advanced myself, or which others may have attributed to me; but to place before you a general view of the work that has been done during the four years which have elapsed since the subject began to occupy the serious attention of pathologists.

### MORPHOLOGY AND NATURAL HISTORY OF BACTERIA.

The first fact that I shall advance with respect to bacteria is, that they are the smallest and least organised of all living beings. As regards size, it is best to judge by comparison with objects with which we are microscopically familiar. The most common rod-like forms are in length about one-third of the width of a blood-corpuscle; *i.e.*, about $\frac{1}{9000}$th of an inch—so small that, if we examine a liquid containing them, with the ordinary magnifying powers used for histological observations, we can scarcely be said to see them to any practical purpose. It is necessary to have recourse to the best microscopes and the highest powers, if it be desired to observe them in such a way as to arrive at useful results.

What grounds have we for stating that they are the lowest organisms? One is, that they present only very slight differentiation of parts; but in this sense they are certainly not simpler than many other forms that might be referred to. The chief ground for the statement lies in this, that they are much less *specific* in their characters—much more under the influence of the conditions under which they originate and are developed—than organisms of any other class. Just as in the higher animals and in man himself we call those functions lowest which are most completely automatic—*i. e.*, most completely under the guidance of known conditions—so also, as regards form, we recognise that while all animal and vegetable forms, even the highest, are moulded by circumstances to fit their places in the economy of nature, this moulding power—this adaptation of form to circumstance—becomes more and more obvious the lower we descend in the scale of development.

The next fact relates to the *habitat* of bacteria—to the medium in which they live—water. They inhabit water either as such in the ordinary sense, or in the various conditions recognised as *moisture*, whether occurring on damp surfaces or as filling the interstices of solid bodies, which bodies, when so impregnated with water, are said to be damp. Those who are familiar with chemical work, know that this quality of dampness goes a great deal further than the popular notion of it; that many things ordinarily called dry, yield, when subjected to the drying processes commonly used in the laboratory, evidences of being really moist. Consequently, moisture, regarded as a limiting condition of bacterial life, is a very wide and comprehensive one.

From this statement, it must not be understood that bacteria do not exist in the atmosphere. But their existence there in an active form strictly depends on moisture. They attach themselves, without doubt, to those minute particles which, scarcely visible in ordinary light, appear as motes in the sunbeam, or in the beam of the electric lamp. It is by the agency of these particles that they are conveyed from place to place.

Notwithstanding that the word bacterium means a rod, and that many of the forms to be immediately referred to are not rod-like, I am obliged to use it, because it is used by others as a general term for the whole group of organisms known to botanists as *Schizomycetes*. This designation being obviously too long, I attempted, in 1870, to introduce the word *microzymes*, a word which was intended to denote the fact that, in the development of these organisms, the process of vegetation is always associated with chemical processes of a peculiar kind, in a way comparable to that in which the vegetation of the yeast-plant is associated with the alcoholic fermentation. I forego the use of the word microzyme for the reason I have mentioned, viz., that it has not been taken to, but I am not the less sensible that such a word is as much needed now as ever; for it is evidently inconvenient to say, as I now find myself compelled to say, that bacteria—rods—may be either globular, egg-shaped, or filamentous. Cohn classifies our organisms under terms expressive of these various forms, the most important being micrococcus, bacterium, vibrio, and spirillum. I have drawn these on the black board.

Bacteria have, as a rule, two states of existence—a state of activity and a state of rest. When a liquid teeming with bacteria in the active state is observed under the microscope, the attention is so riveted, that it is an effort to take away the eye from the instrument. The movements have been often described. In the case of rod-shaped bacteria, the axial movement in which the rod advances or retreats in the line of its axis, the direction being frequently reversed, is the most common. This kind of locomotion occurs often by fits and starts, the body remaining in the intervals quite still, or assuming a pirouetting or spinning movement. In all rod-like bacteria, it is probable that the progressive or axial movement is associated with rotation, for, in observing the motion of vibrios, it is easy to see that they, in progressing, twist round the axis of the spiral. When this is the case, it looks as if the filament were executing a wriggling motion, *i. e.*, as if its body were contractile; but this is obviously deceptive. The mechanism of the motion is as little understood as those of *Oscillatoria*, which it closely resembles. It must be carefully distinguished from the passive motions which are exhibited by all particles of size comparable to that of bacteria, when suspended in a liquid of which the density does not differ very widely from their own. We shall find afterwards that certain forms of bacteria appear to be motionless in all stages of their existence.

Rod-bacteria multiply by repeated bisection. This mode of multiplication goes on continuously, the rate varying with the conditions of life, and particularly with temperature. Under favourable circumstances, it is enormous. From actual measurement of the time which elapses in a single case between a bisection and the division of each half into quarters (in other words, of the longest time that a single bacterium remains without dividing), it has been ascertained that the interval in question, in common bacteria is about an hour. This being the case, it is easy to compute that every single bacterium must produce 16,777,220 individuals in twenty-four hours. Putting it otherwise, the progeny of a mass of bacteria weighing $\frac{1}{2400}$ grain would, at the end of a day, weigh a pound.

In the largest forms of bacteria, it can be made out that each individual consists, not, like an animal cell, of one sort of living substance,* but, like a plant-cell, of a protoplasmic interior enclosed in an envelope of cellulose, by virtue of which the bodies of bacteria are enabled to resist the action of reagents, particularly weak acids and alkalies, which dissolve protoplasm. In those bacteria which separate from each other as soon as they assume the form of distinct individuals, the more stable external part presents itself as a mere envelope; but when, as very usually happens, the progeny which results from a continuous succession of divisions remains in a state of aggregation, the envelope appears to become identified with the "gelatinous" matrix by which they are held together. This observation was made more than twenty years ago by Cohn, who devised the term zooglœa as a general designation for the clumps, or, as Hallicr calls them from the mode of aggregation above described, "colonies". You will find that this term is now very constantly used by writers on the subject, for these gelatinous masses occur under a great variety of circumstances. In form, they are mostly either spheroidal or membranous, and have this one characteristic which is noteworthy, that their structure is such as to indicate that they grow at their surfaces or margins, not interstitially. Thus, for example, in the spheroidal forms, which, as seen under the microscope, present a more or less circular outline, it is obvious that the multiplication of individuals is most active near the edge. The membranous forms, on the other hand, often present a growing outline in one direction, a disintegrating one in the other.

We are not able to state that the process of repeated division into two is the only one by which bacteria come into existence. When we watch a liquid in which they are beginning to appear as if spontaneously, where none were visible a few minutes before, all that we can make out is, that a nebula presents itself; and that here and there, in the previously homogeneous liquid, particles exist which, although their form is at first indistinguishable, eventually become recognisable as bacteria. As to the way in which this happens, it is difficult to speak positively, for with reference to it no evidence is admissible excepting such as is founded on direct observation—*i. e., on watching the process in a single instance for many hours*—fixing the eye on a single bacterium, a thing weighing two-billionths of a grain, and measuring one-eighth-thousandth of an inch, and not quitting it till it divides and divides again. Klebs has attempted to do this, but I will not detain you with an account of his researches.

From what I have said as to their structure and ordinary mode of multiplication by division, it is obvious that bacteria resemble plants, and particularly the Oscillatoriæ, more than animals. The proof that they are plants rests on what is known as the nature of the chemical processes which constitute their life, to the consideration of which we must now pass.

How do bacteria act on the medium in which they live? On this subject, we owe the foundations of our knowledge to Pasteur. The first fact is, that bacteria act on the media in which they live, not as animals, but as plants. Like plants, they derive the nitrogen that they use to build up new albuminous compounds, not from previously existing albuminous compounds, but from ammonia. Like other colourless plants, they derive their carbon apparently from any carbon-compound except carbonic acid, by dissociation of its elements. Like plants, they require certain inorganic constituents to be present in their soil, particularly potash and phosphoric acid.

As regards the assimilation (or fixation) of carbon, Cohn's researches have very materially advanced our knowledge since the publication of Pasteur's work. It was obvious that bacteria did not decompose carbonic acid under the influence of sunlight, by the same wonderful process by which that dissociation is performed by green plants. This they could not do in the absence of chlorophyll. But in this respect they were not in any different position from the fungi, or even from the colourless phanerogamic parasites—as, for example, the bird's-nest orchis.

Pasteur's investigations* related, not to bacteria or to the organic forms which are associated with the process of putrefaction, but to the yeast-plant. With reference to that organism, he proved that it derives its nitrogen directly from ammonia. He proved at the same time that the cellulose of which the external part of the yeast-cell consists, is derived from grape-sugar, and cannot be formed in the absence of that body. He did not extend the application of these facts to the organisms of putrefaction; but it came to be assumed that what was true of the yeast-plant would also be true of the others—viz., that, although ammonia was a sufficient source of nitrogen, some hydrocarbon must be present to yield carbon.

Cohn showed this assumption to be a mistaken one, by applying to the organisms of putrefying liquids the same mode of investigation that Pasteur had before applied to the yeast-plant (Cohn, *Beiträge zur Biologie der Pflanzen*, Heft ii, pp. 191-202). That method (since known as the method of cultivation) consists in first finding a liquid of known chemical composition in which the plant to be investigated grows vigorously, and then gradually modifying the composition of this liquid by the elimination of one after another of its ingredients, until at last a mixture is obtained in which the greatest possible simplicity is combined with the greatest possible adaptedness as a soil to the requirements of the particular organism; adaptedness being judged of by rapidity of growth. Such a liquid, as regards the yeast-plant, is that known as Pasteur's cultivating fluid. Its composition stands for the fact that sugar and certain crystalline salts are all that is wanted for the nutrition of the yeast-plant.

In the earlier experiments as to the cultivation of bacteria, *e.g.*, in those which I made in 1871, it was assumed that Pasteur's liquid would also be the most suitable liquid for bacteria. During the same year, however, Cohn, observing that, although bacteria flourished in it abundantly, it was very difficult to prevent the growth at the same time of the yeast-fungus and of penicillium, *i.e.*, common mould, left out the sugar, and found that the bacteria flourished better without it than with it. His next step was to substitute for the solution yeast-ash (a material which is troublesome to prepare) a solution containing the required salts in about the proportion in which they are ascertained to exist in the ash of the yeast-plant. The liquid which we now use as a "cultivation liquid" for bacteria is prepared by dissolving half a percentage each of potassic phosphate and magnesic sulphate in water having a trace of calcic phosphate in suspension,† and then adding as required a further percentage of ammonic tartrate, and of course boiling the mixture. In this liquid, bacteria grow rapidly—a fact which proves not only that they are able to take their nitrogen from ammonia, but that they can also derive carbon from the tartrate—the only carbon-containing body which is present. Although, however, it supports the life of bacteria so completely, that they not only subsist in it, but multiply with enormous rapidity under favourable conditions of temperature, it never originates them, if it have been boiled. It can, indeed, be very easily kept for indefinite periods without change, remaining absolutely transparent and barren, provided that care be taken to protect it from contamination. It is, however, much better practically to keep the solution of inorganic salts, adding the tartrate in the proper proportion for each set of experiments.

In order to determine the development of bacteria in a liquid of this kind, all that is necessary is to touch it with a "damp" surface—a glass rod, a thread of cotton or silk—*any object which, having been exposed to the atmosphere, has not since its exposure been dried by heating it to a sufficient temperature.* The result may be equally well attained by allowing a particle of dust or a drop of water, or common distilled water, to fall into the liquid. All these liquids, although they contain no organic forms which can be recognised even with the aid of the highest powers, yet contain that which, when added to solution of ammonic tartrate, determines its decomposition, and the building up of its nitrogen and carbon into higher combinations—in a word, vegetation. I call this process quasi-spontaneous. It is not spontaneous, for this simple reason—that it is dependent on conditions which are so far known, that it is possible to control them with perfect certainty.

I may add, that it was by experiments such as those to which I have just been referring that I was enabled to show, in 1871, that moist surfaces and particles of solid material in suspension in the air play the chief part in the propagation of bacteria; *i.e.*, in the conveyance of the material out of which they spring from one soil to another. This inference has now been confirmed—I think I may venture to say, established—by very numerous observations.*

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* In using the expression, "one sort of living substance", I must guard against being supposed to mean that any kind of living protoplasm is homogeneous. Hyaline though it may appear, we are not able at present to assign any limit to its complexity of structure.

* The experiments in question are to be found in Pasteur's well known papers on Alcoholic Fermentation (*Annales de Chimie et de Physique*, tome lviii, 1858).

† The calcic phosphate is best prepared by precipitating solution of calcic chloride with common sodic phosphate, taking care that the former shall be in excess. This precipitate splits on boiling into a soluble and an insoluble phosphate.

### INFLUENCE OF BACTERIAL VEGETATION ON THE PROCESS OF PUTREFACTION.

In referring to Cohn's classification of the organisms which constitute the group of Schizomycetes according to their form, I stated that this classification was chiefly of value for the purposes of description, and that the exact similarity of any two forms cannot here be taken as evidence of their organic continuity any more than their dissimilarity affords indication of the absence of intimate relation between them; for the influence of environment over organisms such as bacteria is so great, that it seems as if it were paramount; the surrounding conditions claiming a power not merely of moulding the organism into conformity with themselves, but even of originating it.

For reasons on which it is unnecessary to enter here, we do not admit the latter part of this claim; but it is a principle of fundamental importance in dealing with the question we have now before us—that of the agency of bacteria in septic processes—that the influence of circumstance over form is practically so powerful, that, in considering the relation of bacteria to septic processes, we shall do best if we regard the appearance of particular forms as mere links in the chain of events of which the process consists.

To illustrate this, it will not be waste of time to refer for a moment to the singular fact discovered a short time ago by Professor Cohn, that, under conditions as yet quite unknown, colouring matters come into existence in albuminous liquids when left to themselves at ordinary temperatures; and that this development of pigment is associated with the development of bacteria. Not long ago, having left a "solution" of ordinary egg-albumen in a cupboard in the laboratory, I found that the liquid, which had no putrid odour, possessed an intense indigo blue colour. Being acquainted with Cohn's observations, I at once guessed what had happened, and found, on microscopical examination, that the blue scum on the surface of the liquid consisted, first, of colourless bacteria, resembling in form those met with in septic liquids; and, secondly, of blue pigment-particles of extreme minuteness, which appeared to be imbedded in the interstitial gelatinous material by which the organisms were surrounded. The process continued for some time; but eventually the liquid was inadvertently allowed to dry. On inoculating a similar albuminous liquid with the dried residue, I was unsuccessful in reproducing the process; but Cohn, who came upon several of his colour-producing bacteria in a similarly accidental way, was able to perpetuate the process by repeated transmissions.†

I mention this observation merely to illustrate what I have been saying as to the relation between the two collateral processes—between the vegetation-process, on the one hand, and that of the formation of a characteristic chemical product, on the other. Here we have no sufficient reason for saying either that the production of colour is the cause of the development of bacteria, or that the bacteria are the agents in the production of the pigment. All that we observe is, that the two phenomena begin, continue, and end together; we regard them, therefore, as collateral characteristics of one and the same process.

As the result of innumerable observations, we know that, as a rule, those changes in albuminous liquids, which we familiarly recognise as constituting putrefaction, are accompanied by the presence in such liquids of characteristic vegetable organisms. We also know that the two processes—viz., the chemical changes and the rapid vegetation go on *pari passu*, and that the same circumstances which favour the growth and multiplication of organic forms also favour putrefaction.

As to the meaning of these facts, there is some difference of opinion even among competent naturalists. All are agreed that the relation between the chemical process and the vegetative process is an intimate one; but somewhat discrepant views prevail as to its nature.

The fundamental experiment by which the intimacy of the association is proved is this. When a tube or flask is partly filled with water containing albuminous matter in solution or suspension, and subsequently boiled for a sufficient length of time, and closed hermetically during ebullition, no putrefaction occurs under any circumstances; but if, after such a tube has been heated and allowed to cool, a drop of distilled water, or any other exposed liquid, be added before the tube is again sealed, putrefaction follows, provided that the preparation is kept at the ordinary temperature.

As I have already hinted, there are some naturalists who would not agree to the terms in which I have stated this result. They would rather substitute for the words "under any circumstances" some such expression as "in 9,999 cases out of 10,000". For our present purpose, it makes little difference whether the statement be accepted absolutely or not. But there is another point relating to the origin of bacteria in albuminous liquids of much greater importance, which the discussion about abiogenesis is apt to conceal, or throw unduly into the background. It is a question which arises directly out of the results of the "cultivation" experiments to which I have just referred. These experiments show that bacteria are able to derive the whole of the carbon they require for the building up of their protoplasm from compounds of great chemical simplicity, which have never formed part of any living organism, and seek for no higher source of nitrogen than ammonia. This being the case, it is more than probable that, when the growth of bacteria goes on in association with septic processes, they derive their nitrogen and carbon, not from the albuminous compounds themselves, but from the ultimate products of their disintegration. This being the case, we must regard bacterial life (in so far as it consists in the building up of new protoplasm) as a process consequent on the chemical process of putrefaction with which it is associated. For disintegration must already have proceeded as far as to the production of ammonia—in a word, must have proceeded to the last stage—before the new integration could commence.

While admitting this, it is important clearly to see that the admission does not in any way render it more or less probable that bacteria are the efficient causes of putrefaction—that without which putrefaction could not take place—for there is nothing which forbids us to regard bacterial vegetation as connected (if I may so express myself) with both ends of the chemical process of disintegration of putrescible material at the same time; not the shadow of an objection to the assumption that, on the one hand, bacteria derive material for the integration of their protoplasm from the products of *dis*integration of the soil in which they flourish, and, on the other, that they produce the ferment by which disintegration is determined. There is nothing, in short, against their standing to the chemical process at the same time in the relation of antecedent and consequent.

If it should seem to you that this is a too vague way of dealing with the subject, I would ask you to consider that the question is one in respect of which caution is more than usually necessary; for, while theoretical explanations offer themselves freely on every side, experimental investigation is beset with peculiar difficulties. As regards the main question, that of the agency of bacteria in producing putrefaction, there are two extreme views, which are both clearly mistaken—the one which asserts that they have nothing to do with the septic process; the other, that the chemical phenomena of putrefaction are the mere accidents of a peculiar kind of vegetation. The truth lies without doubt between these two opposed theories; but it is not to be got at by an ingenious reconciliation of the one with the other, but by honestly opening the mind to the facts as they stand, in the confidence that, if they are allowed fair play, they will eventually shape themselves into a general conception, in accordance with their true relation. So long as uncertainty exists, there is nothing to be so much avoided as that sort of clearness which consists in concealing difficulties and overlooking ambiguities.

[Since this lecture was delivered, an important contribution to the elucidation of this question has been made by Dr. Hiller of Berlin ("*Der Antheil der Bacterien am Fäulnissprocess*", *Centralblatt*, No. 54, Nov. 14th, 1874). Starting from the fact observed by himself (to the accuracy of which I can testify from my own observation) that, in the "alkaline fermentation" of urine, the splitting of urea into ammonic carbonate is not in relation with the abundant development of septic bacteria in the liquid, he made experiments which showed that in urine, bacteria do not derive their nitrogen from urea, but from other sources; and that, if ammonic tartrate be added to urine, the multiplication of bacteria goes on with great activity without any diminution of its acid reaction, *i.e.*, without any decomposition of its urea. From this result, he proceeds to similar experiments as to the influence of bacteria on egg-albumen. Having first ascertained, by careful observations, the fact familiar to the housewife that fresh eggs "turn" when put into the same basket with rotten ones, and can therefore be infected through the air, he injects a "cultivation liquid", containing bacteria, but not putrid, into the albumen of a fresh egg, with the aid of a subcutaneous syringe. The egg remains unaltered. He therefore thinks it impossible to identify multiplying bacteria with the "septic ferment"; with reference to which he thinks that the experimental investigations of the last few years have proved nothing more than "it is a particulate substance which either exists suspended in the air, or adheres to objects, and that it can be separated from the air by filtration, and can be destroyed by the temperature of ebullition". With this final statement of the case I perfectly agree, and am not at all disposed to quarrel with him because he goes on to suggest that the "particles" of which the septic ferment consists are not living beings, but *Proteïnsplitterchen*.]

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* On this subject, see Cohn, *loc. cit.*, p. 194; Landau, *Arch. für Chirurgie*, xvii, p. 531.

† Cohn, *loc. cit.*, p. 180.

# MEDICAL ADVERTISING AND MEDICAL REVIEWING.

*Abstract of an Address delivered at the Harveian Society of London, January 7th, 1875.*

BY JAMES R. LANE, F.R.C.S.,
Surgeon to St. Mary's and the Lock Hospitals; President of the Society.

[MR. LANE, after alluding to the difficulties in the choice of a subject suitable for such an occasion, said he had decided to abide by the instructions conveyed in the laws of the Society, and to occupy himself chiefly with its condition and future prospects, and with such events as had occurred during his year of office, which seemed to invite attention and to suggest comment.

The favourable state of the finances of the Society was a matter for congratulation, and suggested the question whether it was not in a position to increase its sphere of usefulness; and amongst other modes of doing so, he thought the establishment of a Lectureship to be held annually by some member of the Society was well worthy of consideration. After some further remarks, he alluded to certain occurrences which took place in the early part of last year, which he considered worthy of notice on account of their bearings on the dignity and honour of the profession and on the character of medical literature.

In March last, an extraordinary meeting was held, to consider a proposition for the expulsion of a member who had pursued a system of advertisement in the daily papers, which, in the words of the law, was thought to be an "offence against the established usages of the profession".

The advertisements in question, which occupied a whole column in the *Times* and other papers, were of a kind happily hitherto unknown amongst respectable medical practitioners, and that they were derogatory alike to their author, to the Society, and to the profession was generally admitted. Nevertheless, there were members whose opinions were entitled to attention and respect, who urged that the advertisement of medical books in non-medical journals had become one of the established usages of the profession; and that, therefore, the advertisements in question, though deserving of censure, could not fairly be brought within the terms of the law. In the end, the necessary majority of three to one was not obtained, and the motion for expulsion was consequently lost. The result was, the immediate resignation of various official and other members, and the imminent secession of many more, which seemed almost to threaten the disruption of the Society, when fortunately the offending member came to the rescue, and solved the difficulty by his voluntary resignation.]

In commenting on these occurrences, he said: What seems to me most deserving of attention is the fact that there were members of the Society who stated in plain terms that they could not see any *essential* difference between the advertisements which were held to be so obnoxious, and those of medical works (some of which were mentioned by name), which appear constantly in the *Times* and other non-medical papers; and I think there can be no doubt that a feeling adverse to the practice in any shape is pretty largely entertained throughout the profession. That being so, the custom seems fairly open to criticism and remark; and it may fairly be questioned whether the practice of advertising medical works on disease of all kinds in the daily journals is conducive to the credit and legitimate advantage of the profession.

Far be it from me to presume to hint the smallest blame on those who had availed themselves of a custom which has undoubtedly become one of the established usages of the profession. Amongst them may be found many who are entitled to all honour and respect; it is against the custom only that I venture with all deference to enter an humble protest.

It is worthy of remark that, what may be called the classics of medical literature, works of established repute on medicine, surgery, physiology, and anatomy, and the like, rarely grace the advertising column, though, if the real object were to instruct the public in medicine and the allied sciences, these would seem to be the most appropriate channels through which information might be conveyed. But that column is almost exclusively occupied by announcements of the works of Dr. A. or Mr. B. on this or that particular class of disorders, some of which it is hardly decent to parade upon the daily breakfast-table, for the edification of the wives and daughters of the period. That these announcements should be made under the ægis of respectable publishers, by whom they are ostensibly inserted, in no way alters the principle, or diminishes the responsibility of those whose names are thus put forward.

In the *Essays of Elia*, there is one "On the Two Races of Men", in which Charles Lamb explains that "the human species, according to the best theory he can form of it, is composed of two distinct races, the men who borrow and the men who lend; to which two original diversities may be reduced all the other various impertinent classifications into white men, black men, red men, etc.," and he goes on to demonstrate the infinite superiority of the former (the men who borrow); "they take no more thought than lilies; whereas the latter are born degraded—he shall serve his brethren—and there is something lean and suspicious in his air, contrasting with the open, trusting, generous manners of the other." Somewhat similarly an old teacher of mine divided medical authors into two classes; the men who write *for* practice, and the men who write *from* it. He might, paraphrasing Elia, have pointed out the great superiority of the former. "How freely and openly doth he avail himself of the intellectual capital of his inferior brethren, never troubling them with acknowledgment or receipt. What a liberal confounding of the pedantic distinctions between *meum* and *tuum*—what approaches doth he make to the primitive community, to the extent of one-half of the principle, at least. Lend, therefore, cheerfully, O man ordained to lend, that thou lose not in the end the reversion promised."

Now, those who write *for* practice and those who write *from* it—those who only want to say *something*, and those who have something within them which they want to say, both have their representatives in the advertising columns of the daily papers. Will it be thought too presumptuous to suggest to the latter, whose works are really written for the profession and not for the general public, and many of which are an honour alike to their authors and to science, that they might fairly content themselves with the publicity afforded through the medium of the medical press? It cannot be contended that there is any demand for works of this class amongst non-medical readers: the only real effect, then, of such advertisements is to bring the names of their authors prominently before ordinary newspaper readers, an aim hardly worthy of those whose acquirements fit them to be our leaders and our teachers, of whose reputation and fair fame we are jealous, and whose character and motives we wish to see not only without reproach, but above suspicion.

With respect to the class of authors who write *for* practice, it is not likely that on them any words of mine will have much influence. Were it not for the advertising columns of the daily papers, the crude and slipshod productions to which I allude would never see the light, for the parade of their authors' names is the very reason of their existence.

I remember that, many years ago, an old friend of mine, who was, I believe, sincerely anxious for my advancement, said to me, "Why don't you write a book about something? get it advertised in the papers, and keep your name constantly before the public." I replied that I had nothing to say about anything in particular which had not been already said by others much better than I could say it. I saw at once that I had fallen many degrees in his estimation, when he rejoined somewhat contemptuously, that it did not matter what I wrote or whether anybody read it—I had only to keep my name well in the front, and my success would be certain. No doubt my old friend was wise in his generation—much wiser than I was—for somehow or other that book never was written, and, on the whole, I am not sorry for it.

Now, it is a great encouragement to those who write books of this character, that they have the opportunity of introducing them to general notice in such respectable society, where they can at once flaunt it with some of the best amongst us; but if their betters could be induced to withdraw from the association, if it came to be understood that, to use a prevailing vulgarism, it was "bad form" to resort to such modes of publicity. Perhaps in time even these notifications would cease to greet the public eye, and aspirants for practice might be led to turn their energies in more legitimate directions, and at all events to make themselves masters of a subject first, and write a book about it afterwards.

I shall here venture to quote a passage from Macaulay, on the pernicious effects of puffing on the character of the general literature of his day.

"Though we have no apprehension that puffing will ever confer permanent reputation on the undeserving, we still think its influence most pernicious. Men of real merit will, if they persevere, at last reach the station to which they are entitled, and intruders will be ejected with contempt and derision. But it is no small evil that the avenues to fame should be blocked up by a swarm of noisy, pushing, elbowing pretenders, who, though they will not ultimately be able to make good their own entrance, hinder, in the meantime, those who have a right to enter. All those who will not disgrace themselves by joining in the unseemly scuffle must expect to be at first hustled and shouldered back. Some men of talents accordingly turn away in dejection from pursuits in which success appears to bear no proportion to desert. Others employ, in self-defence, the means by which competitors far inferior to themselves appear for a time to obtain a decided advantage. There are few who have sufficient confidence in their own powers, and sufficient elevation of mind, to wait with secure and contemptuous patience, while dunce after dunce passes before them. Those who will not stoop to the baseness of the modern practice are too often discouraged. Those who stoop to it are always degraded."

Such were the words of the brilliant essayist forty-five years ago; they may seem somewhat strong in these politer times. In fact, our fathers were harder hitters than we are, but hard hitting is in no way inconsistent with fair fighting. They appear to me worth repeating now, and they are not without some application to the subject I have been discussing.

I cannot help thinking that if medical reviewers of the present day were animated by a like spirit, we should soon see changes for the better in the character and tone of our medical literature; at all events, we might hope for a great diminution in the numbers of books written. But, somehow or other, now-a-days it is only as a rare exception that one sees a medical review in which the talents and research displayed by the author are not conspicuously put forward; and if we are to depend upon reviewers, most of the medical books now published are as nearly as possible on the same dead level of superiority. I do not know how to account for this; I never wrote a book, and therefore have not been behind the scenes. I should be the last person to imagine that private influences or personal friendships had anything to do with it, because these, of course, never count for anything when it is a question of the performance of a public duty. But "a fellow feeling makes us wondrous kind"; and when almost everybody writes a book, and the reviewer of to-day will often be the reviewed of to-morrow, may not such fellow-feeling sometimes exercise an unconscious operation? Or may it be that reviewers act upon the maxim laid down, I believe, by Sydney Smith, who said it was taking an unfair advantage of an author to read his book before reviewing it, because it is so important to approach the subject with a mind perfectly free from prejudice. Anyhow, it appears to me that in the matter of reviewing, it would be a great advantage to have a little more critical discrimination, a little more separation of wheat from chaff, perhaps a little less good nature, but certainly a good deal more plain speaking.

Our profession has, I believe, a bright future in store for it, but it rests with itself whether it will use its opportunities aright. Its sphere of usefulness is expanding day by day. The great science of public and preventive medicine is only now just springing into active life. Its cultivation is an object worthy of the highest ambition, and affords ample scope for the highest order of intellect. The public is by degrees learning to look to us for the solution of some of the most intricate and important social problems of the day; and as the necessity for doing so becomes more and more manifest, so, if we prove worthy of its confidence, must the estimation in which we are held be increased.

But if our calling is to rise in the future to that high position—which, for the welfare of the community at large still more than for its own advantage, it *ought* to occupy; and which, as I believe, there are signs of the times indicating that it is sooner or later *destined* to occupy—it must be, amongst other things, through the resolute discountenancing by the general body of those petty artifices by which some among us try to steal a march upon their fellows. It must be by the abandonment of individual self-seeking, at the expense of the character of that general body; it must be by the cultivation of a thorough loyalty to our order, combined always with the consciousness that the profession is for the public, and not the public for the profession. Such self-abnegation will be found in the end to be only a more enlightened self-interest, but of a kind at which no man will have a right to scoff. Still, it is only by insisting, as far as possible, on the maintenance of an elevated standard among the units, that the elevation of the mass can be secured; and each of us cannot do better than keep in mind that

> "The purest treasure mortal times afford
> Is spotless reputation: that away,
> Men are but gilded loam, or painted clay."

THE BOSTON COTTAGE INFIRMARY will soon be completed and opened for patients. Nearly the whole of the estimated expense of the building has been subscribed; but, owing to the loss of part of it, which was paid into Messrs. Gee and Co.'s Bank, £250 is still required.

# THE RELATIONS OF WOMEN TO OBSTETRIC PRACTICE.

*Extract from the President's Address, delivered at the Obstetrical Society on January 6th, 1874.*

By EDWARD J. TILT, M.D.,
President of the Society.

[THE first part of the President's address was mainly occupied by obituary notices of deceased Fellows and a review of the affairs of the Society. It concluded as follows.]

Independently of our work as a scientific Society, you know that we have been occasionally obliged by our metropolitan position to take the lead in questions relating to the welfare of obstetric medicine; and last year we were called upon to decide whether our laws permitted us to admit women to the fellowship of the Society. Your almost unanimous decision that women were not admissible was one of great importance; for the profession felt that, although the question was tried on a technical point, your verdict really meant that women were not qualified by nature to make good midwifery practitioners; that they were unfit to bear the physical fatigues and the mental anxieties of obstetrical practice at menstrual periods, during pregnancy and puerperality; and that it was unfair to society to encourage women to suppose that they could ever fit themselves to assume responsibility in those formidable obstetric emergencies which too often completely paralyse men of experience as midwifery practitioners. The remembrance of your decision on this question may also remind you that last year I explained to you that, in England, the lower classes of society were at the mercy of uneducated midwives, uncontrolled by aught else than the fear of a coroner's inquest. Last year, Lord Aberdare and Mr. Stansfeld were in office; they favourably entertained the views repeatedly brought forward by the Society; and they were prepared to bring in a Bill for the better education and registration of midwives; when a change of Ministry convinced your Council that the question must be left in abeyance. It was after mature deliberation that the Obstetrical Society of London determined to move in this matter. Its original resolve has been sanctioned by successive Councils, and it will be for the new Council to decide whether it is not time to reopen the question with the new ministers. Ours is the only civilised country that has left unregulated the midwifery of the humbler classes; and it is a disgrace to obstetric medicine, that there should be no means of preventing an incompetent and drunken woman from assuming the name and the duties of a midwife. There is every probability that our efforts in this direction would be favourably received by a Government that has no great measures to carry, and which seems bent on dealing earnestly with all questions relating to public health.

Gentlemen, I cannot vacate the chair without thanking you for the invariable courtesy you have shown me in the discharge of my duty; and I likewise thank the numerous officers with whom you have associated me for having rendered easy and pleasant the duties of office. I am glad my place will be taken by one so well qualified as Dr. Priestley to preside over your meetings, to further the interests and support the honour of the Obstetrical Society of London.

# REMARKS ON THE ORIGIN, VARIETIES, AND TERMINATION OF IDIOCY.*

By GEORGE W. GRABHAM, M.D.,
Resident Physician and Medical Superintendent to the Asylum for Idiots, Earlswood.

THE information which I have to give upon this subject has been somewhat hurriedly got together in the intervals of routine work. Though not sufficiently definite or extensive for the foundation of any theory, and perhaps containing little that is new, the statistics and remarks upon individual groups and cases may nevertheless prove interesting to those who have not made idiocy their special study. The time at my disposal to-day being necessarily very limited, I will at once proceed to give short definitions of the terms "idiocy", "imbecility", "cretinism", and "dementia"; and afterwards some particulars of the causes of these affections, as far as I have been able to ascertain them by inquiries in eight hundred cases.

*Idiocy* may be defined as "an absence or arrest of development of the intellectual and moral faculties, either congenital, or occurring in new-born children". *Imbecility* is generally taken to signify "a milder form of idiocy, not necessarily congenital, but supervening in infancy". *Cretinism* may be termed "an endemic form of idiocy or imbecility, in which there is, moreover, characteristic arrest of development, malformation, and deformity of the whole organism". *Dementia* differs from imbecility in being "a loss, more or less complete, through disease or injury, of faculties formerly possessed". The causes of these affections may be divided under four heads:—Endemic; hereditary, or family-predisposing; parental; and accidental; any or all of which may be more or less combined. The same cause may produce effects differing with the patient's age at the time of its application: thus epilepsy will cause idiocy in early infancy; in more advanced youth, imbecility; and, later in life, dementia.

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* Read before the East Sussex District of the South-Eastern Branch.

A somewhat singular fact may now be stated regarding the sex of the patients who have come under my notice. At Earlswood, the males are always twice as numerous as the females. Making every allowance for the supposition, that female idiots are more tolerable in private houses than males, and, therefore, less frequently sent to asylums, it would still appear that a large majority throughout the country are of the male sex. Nearly 65 per cent. of my eight hundred cases are stated to be congenitally defective; and, when we consider how difficult it is, even for a skilled observer, to detect idiocy in early infancy, we may feel sure that this percentage has not been overstated.

Hereditary predisposition is without doubt the chief agent in the production of mental deficiency; but it is extremely difficult to ascertain the real facts of the case, especially as it affects the upper classes of society, who appear to be almost more anxious to deceive themselves than their medical advisers on this point. Many of my patients not born with defective intellect have nevertheless inherited a predisposition which ultimately led to it. In about 18 per cent. of my cases, hereditary taint is admitted; but I am convinced that it exists in a far greater proportion of them; indeed, I have, in numerous instances, found this to be the fact from observation of the parents, or inquiries among their acquaintances. A mother, from whom I could learn no history of mental disease, and who certainly showed no indication of it in my presence, was afterwards found to be frequently moving to new lodgings, because "poison was put down the chimney into her food". In another case, I learned, after strenuous denial of any mental affection in the family, that two of the mother's sisters had been insane, and that she herself was highly hysterical. Where actual mental disease cannot be ascertained to have existed, we frequently find history of neuroses, as chorea; and often a great degree of eccentricity in one or both parents. A lady tells me, in a letter, that "her husband used to say that there was no such place as Hell; but she hopes now that he has found out his mistake".

Intemperance in the parents is even more difficult to ascertain. In six cases only of my eight hundred is it stated as the probable cause, and in two of these there was also hereditary insanity. Doubtless, *habitual* intemperance does play an important part in the production of idiocy; but I have been quite unable to assign (as has been done by my predecessor at Earlswood) any particular type of idiocy to "drunkenness during conception" as its cause. This vice is extremely common with newly married couples of the lower orders of society, whose first children are nevertheless, as a rule, at least as healthy as those of more wealthy parents.

Consanguinity of the parents accounts (partially only) for about 6 per cent. of the cases which have been admitted into the Asylum during the last six years and a half. In 11 cases only of 543, the parents were first cousins, and no other cause could be ascertained. Where hereditary predisposition coexists with marriage of consanguinity, we frequently find, as might be expected, more than one child affected. Noticing the frequency of tubercular disease as a cause of death at the Asylum, I have lately examined the papers relating to 249 cases, and find that in 55 of these, or 22 per cent., there is history of phthisis in the parents or near relatives. In 17 per cent., no other cause for the idiocy is given. Shocks or injuries to the mother, or severe anxiety while she is pregnant, are commonly supposed to act prejudicially on the child; and in many cases, in my opinion, with a high degree of probable truth. Rigid inquiry has failed to elicit any other cause in 85 out of 543 cases, or nearly 16 per cent. In many of these, the shock was a violent one; and I have an impression, not at present sufficiently confirmed by experience, that one very distinct, though small, class of the idiot is almost invariably attributable to this cause. This type usually occurs sporadically in a large and otherwise healthy family, without history of mental disease. No other cause appearing to account for these sporadic cases, we ought not to disregard the history which is forthcoming, and which I usually look for, of severe mental shock during pregnancy. As instances, I would name the bombardment of a city, a violent fall from a cart, the sudden accession of acute mania in a lady occupying the same bed, under circumstances of a peculiarly distressing nature. Interwoven with this part of the subject in many ways is the fact, that nearly 23 per. cent. of my cases were first-born children. Leaving the question of tedious birth for future consideration, let us bear in mind the anxiety which often precedes a first confinement, and the increased mental strain when the child is illegitimate, or has not been conceived in wedlock; also the struggle and uncertainty which newly-married couples often experience in gaining a living. The old Mosaic law was wisely conceived, which exempted the newly married for one year from labour or necessity. Tedious birth, in some cases requiring instrumental assistance, is assigned as the sole cause of idiocy in 13 cases out of 243; but probably this number is much understated. Inquiry often elicits the fact, that the child was born in a state of asphyxia, and often even laid aside for a considerable time as past recovery. Probably some severe congestion of the brain here occurs, from which it may never entirely recover; or imperfect expansion of the lungs may take place, giving rise to a cyanotic condition accompanying mental deficiency through life, but in which no malformation of the heart may exist. These cases of cyanosis are, however, by no means common. Convulsions within a few months after birth, or during the first dentition, account for nearly 20 per cent. of my cases; but it is certain, from inquiries made, that in many of these there was also some predisposing cause, the dentition exciting it only to action.

Undoubtedly, many children who were born sound become idiotic, imbecile, or demented from injuries, illness, or shocks during infancy or childhood. Including hydrocephalus supervening after birth, I find that there are about 12 per cent. who may be fairly supposed to have had their mental faculties destroyed or impaired by causes of this nature. Scarlatina, typhoid, measles, whooping-cough, severe injury to the head, being run over by a cart, ill-treatment, etc., appear in this category. A bad wet-nurse, or innutritious diet, leads to the same result in some instances.

Syphilis in the parents may account for a few cases. Information is not readily obtainable under this head; but I have seen well marked secondary syphilis in several of the children under my care.

The old age of a parent accounts for one or two cases, and premature birth for eight others. Masturbation is rarely a cause of the affections seen in an asylum for idiots. It is not uncommon, even with very young children; but is rather a symptom than a cause of their condition, which, however, it is capable of aggravating to a great degree, if unchecked. I have seen the habit cured by an occasional drop of acetum cantharidis on the prepuce in the male, and by administration of bromide of potassium in the female.

In about 27 per cent. of my whole number, no cause could be ascertained. The varieties of idiocy, using the term in a general sense, are very numerous, and run so much one into another, that it is difficult to classify them; and, as a rule, it is impossible to connect the various types with their respective causes. It may, however, prove interesting to describe the salient features of some classes, with a few remarks on diagnosis and prognosis. Idiocy, unless very marked, is not always to be recognised in early infancy. The form and size of the head alone must not be relied upon, but may furnish valuable evidence when considered in conjunction with other physical and mental signs. Some idiots have well proportioned heads, and a small head does not necessarily betoken idiocy. It is necessary to observe the way in which the infant takes and swallows nourishment; its general aspect; the flaccidity or otherwise of its muscles; its ability to raise or steady its head; to grasp the finger with its hand; its capability of noticing any passing objects, and following them with its eyes; its listening to or disregarding sounds; and the character of its voice. As life advances, the diagnosis becomes daily more easy. We compare the progress the child makes with that of other children; notice the state of the fontanelles as to closure; the form, size, and symmetry of the head; the palate, whether highly arched; the existence of any deformity; the state of the hands, as to their power of grasping; whether the fingers are thin, tapering, moist with saliva, and flaccid; the power of co-ordinating the muscles and directing the movements of the eyeballs; the circulation, whether feeble in the extremities; the presence or absence of paralysis or epilepsy: all these points will aid our diagnosis. A large proportion, nearly 130, of the inmates of the Earlswood Asylum suffer, more or less frequently, from epilepsy. This class comprises all the degrees of idiocy, imbecility, and dementia. Some are simply weak-minded, and capable of making themselves very useful; while others have lapsed into a condition of profound dementia. They vegetate rather than live, having almost no intercourse with the outer world, and little or no sensation, general or special. To this entire absence of mental wear and tear, we may perhaps attribute the fact that, though afflicted with numerous fits daily, they grow fat, and live on for many years. Epilepsy is occasionally cured; but, as a rule, these cases gradually, but surely, deteriorate. The recurrence of the fits often annihilates all memory for recent events, entirely undoing any good which may have been acquired in their interval.

As the epileptic cases may be considered the most unpromising, so those may be deemed most capable of improvement in whom there is feeble-mindedness uncomplicated by paralysis, deformity, disease, or defective circulation; whose sensation, general and special, is normal, as also the power of co-ordinating the muscular movements.

True idiocy, unlike insanity, is invariably accompanied by other functional anomalies. Physical weakness or degeneration is constantly met with. The extremities are cold and livid, chilblains occurring, even during the warmer months, upon slight exposure. Assimilation is very imperfectly performed; the food, if not very digestible, sometimes passing almost unchanged. Diarrhœa in some is the rule rather than the exception. This defect of assimilation is seen in its most marked form in those rare cases where, in the face of a proper supply of vegetables, scorbutus occurs, and causes the destruction of one or more of the larger joints, as the knee or elbow, and, later on, the death of the patient.

A spongy and swollen state of the gums is frequently seen, also irregular decaying teeth and offensive breath. The secretions of the skin have likewise a peculiar, unpleasant odour. Undue brittleness of the bones is not uncommon. I have seen the femur and the humerus broken during the struggles caused by an epileptic fit; and I have found the long bones generally reduced to a mere shell after death. In many patients, general sensation is very low in degree, the extraction of a tooth or a toe-nail causing little or no pain. A child, who had severely burned his hand by holding it in a gas-flame, took the first opportunity after recovery to endeavour to renew an experience which to him did not appear painful. Verily, the burnt child does not always dread the fire. The special sensations are likewise affected. The taste appears to be perverted; but, perhaps, it should rather be regarded as absent, reasoning from what we know of the other senses. The organs of sight and hearing may be perfect, and yet useless: the patients see, but do not perceive. The impression formed on the optic or auditory nerve is duly transmitted to the sensorium, but no idea is thereby excited. The skin may be alike insensible to touch, heat, or cold.

A highly arched form of the palate is frequently seen in patients of weak intellect, and was attributed by Virchow to premature ossification of the sphenoido-basilar suture. The suture itself furnishes the material of ossification; so that, under ordinary circumstances, a skull-bone can only increase equally in all directions when this bone-originating suture-substance lies on all its sides. If, then, adjoining skull-bones be soldered together by premature ossification of the suture, a limit is set to further growth in that direction. If this happen to many sutures at the same time, a microcephalous skull results. If it only happen to one suture, or a part of one, an asymmetrical or deformed skull follows.

Some microcephalic patients are found to be capable of considerable improvement; one of the most marked cases of this type at Earlswood has learned to read and write, and is exceedingly useful in domestic work. On the other hand, a very unintelligent patient had a brain weighing 56¾ ounces after death.

The prognosis in congenital idiocy or imbecility is, as a rule, more favourable than in those cases where it has resulted upon convulsions during infancy; yet some of our most successful cases at Earlswood belong to the latter class.

Juvenile insanity is occasionally met with, accompanied by incoherence and delusions. Sometimes lucid intervals occur, when only a certain degree of weak-mindedness is apparent. These are unfavourable cases. Delusions are very rare in an idiot asylum, indicating, not absence, but perversion of intellect. Moral insanity, accompanying weak intellect, is more common. Patients affected with this variety of disorder are, perhaps, the most troublesome ones with whom we have to deal. The mischief and destruction wrought by them is almost incredible. Sometimes they have a very intelligent look; and they certainly know right from wrong, as they invariably choose the latter. They are cunning in the extreme, and evidently fear detection, though punishment would have no effect in correcting their perverse nature. Improvement to any great extent does not often occur in this class.

Another variety appears very promising, but causes much disappointment. It consists of bright, vivacious, intelligent-looking children, rom whom much might be expected; but they are taught with extreme difficulty, appearing to lack the power of concentrating the attention upon any subject.

A rare class consists of sporadic cretins: stunted beings, with pale r discoloured skin, highly arched palate, deformed head, and tumid bdomen. These have been supposed by Dr. Fagge to have no thyroid land; but this supposition has been proved to be incorrect by the ccurrence of bronchocele in a typical instance under my care. Dr. Down read a paper on a case apparently of this type, which he attributed to drunkenness during conception.

Another very distinct class has many features in common with these last; but its members are much more improvable, though they seldom get beyond a certain stage. This type I hope to make the subject of a special paper. The Asylum contains a few patients who are affected with involuntary movements simulating chorea, but arising from a defect of co-ordinative power, which is, as far as I have been able to learn, congenital. The involuntary movements are remediable to some extent; but usually persist more or less through life. The mental faculties, on the other hand, may materially improve; indeed, it is wonderful to see what some of these patients can do with their hands, in spite of their infirmity.

A curious class may be termed that of the idiot "savans", in whom one or more faculties are amazingly developed, perhaps to the detriment of the rest. One has a marvellous power of acquiring languages and musical knowledge; another, great mechanical skill and original constructive ability; a third, though very childish, is no mean mental arithmetician; a fourth remembers all he reads; a fifth delights in dates; while a sixth can tell the time when awakened from sleep. General improvement has taken place in all these cases.

Dr. Seguin, a well known authority on idiocy, has given the support of his pen to a theory "that idiocy is found in its simplest forms among the labouring classes, and that, among the wealthier classes, it is not only oftener aggravated by accessory diseases, but also complicated with abnormal semi-capacities or disordered instincts, which produce heterogeneous types to an almost unlimited extent. It is from this class almost exclusively that we have musical, mathematical, architectural, and other varieties of the idiot savant; useless protrusion of a single faculty, accompanied by a woeful general impotence". I am quite unable to agree with this view; my experience of many of these idiot "savans" proving them to have sprung from parents in humble circumstances, and leading me to believe them to have resulted in many instances from hereditary insanity.

Permanent deafness and dumbness often accompany weak intellect, but do not prevent improvement under proper training. Some have even to some extent acquired the art of lip-reading. As to the general results of training, Dr. Seguin says with truth that "some have made more or less rapid progress, and qualified for different grades of manhood. Some present meliorations, which could not have taken place without the training, though they are mostly attributable to growth, increased strength, automatic habits, and unavoidable surroundings. Some are decidedly as idiotic as ever. Some actually retrograde, either by an *ab initio* falling off, or since a certain date, event, or sickness; or by the effects of that young senility of which idiots give the curious and, as I believe, unique example."

The diseases of idiots are of an asthenic type; they have little power of resisting any acute disease. Phthisis is frequent among them, often running a rapid course in a few weeks, unaccompanied by cough or expectoration. Too much importance has been attached to certain critical periods, when some sudden improvement is not uncommonly anticipated by the friends of the patient. I have witnessed no facts supporting these expectations. The age of puberty is undoubtedly a critical time with idiots; degeneration often commences then, and deaths are frequent; but I have not seen improvement suddenly commencing at this period. Those who survive it frequently remain without sexual development, and sometimes, in the case of females, great obesity supervenes.

The death-rate at Earlswood has been very low during the last six years and a half, no death having occurred from epidemic or infectious disease, which in former times has occasionally been very fatal. In this period, 160 deaths have taken place, at the average age of 17.6 years, from the following causes.

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|---|---|---|---|
| Tubercle in Brain or Membranes .. | 3 | Tubercular Peritonitis ........... | 2 |
| Cerebral Disease, Softening, etc. .. | 6 | Inflammation or Ulceration of Bowels ........................ | 5 |
| Meningitis ........................ | 7 | Diarrhœa ........................ | 2 |
| Epilepsy .......................... | 38 | Hepatic Disease ................ | 2 |
| Phthisis Pulmonalis ............... | 59 | Renal Disease.................... | 6 |
| Bronchitis and Pneumonia ........ | 9 | Cancer of Ovary ................ | 1 |
| Disease of Heart ................. | 2 | Caries of Vertebræ ............. | 2 |
| Juvenile Senility ................ | 7 | Disease of Knee or Shoulder-joint | 3 |
| Tabes Mesenterica ............... | 6 | | |

Thus 72 deaths are recorded from scrofulous diseases, ascertained to have existed, and 38 from epilepsy and its results. Many of the epileptics, moreover, had tubercular deposits in the lungs at the time of their death. Upon the other causes, it may be remarked that diarrhœa is frequent with idiots, and inflammation of the mucous coat of the intestines not uncommon, occasionally running into ulceration and perforation. The heading Cerebral Disease includes one or two cases in which a *post mortem* examination was not made, so that its precise nature was not ascertained. Tubercle in the brain-substance occurred in one case. There were several hard masses as large as a filbert in the white matter of the hemispheres, while the corpus dentatum of the cerebellum was almost entirely supplanted by a hard scirrhus-looking mass, through which nerve-fibres appeared to pass. Doubting the nature of this product, I submitted it to Dr. Lockhart Clarke, who kindly examined it, and pronounced it to be tubercle. The child in whose brain this deposit occurred will doubtless be remembered by some of the members of this Branch, as having been pointed out to them when they visited the Asylum. He had never learned to walk, seldom used his hands, though they were by no means powerless; but could make wonderful use of his feet, with which he would throw or catch a small cushion, hold a biscuit while eating it, rub his eyes, or scratch his head. The movements of the eyeballs were imperfectly controlled, but this was the only apparent defect of co-ordinative power. The child died very suddenly, without any previous illness. A case of disease of the knee-joint and another of the shoulder-joint were originally due to a severe attack of scorbutus, the former surviving three years, and the latter about three weeks.

One of the cases of caries of the vertebræ was interesting, from the fact, that, though dislocation of the axis and atlas actually occurred, death did not immediately result from it. The nature of the disease was suspected some time before death, and the patient very carefully attended to in bed. The actual cause of death was intense inflammation of the membranes, consequent upon the entrance of pus into the cranium through the foramen magnum.

The term Juvenile Senility is the only appropriate one with which I am acquainted for describing a not uncommon cause of death in idiots. An undeveloped child (perhaps I ought to say "man", for he was 22 years of age, though only 2 feet 4 inches high), suddenly began to fail in spirits and in appetite. His circulation became gradually more feeble, and his temperature fell, until his extremities were perfectly cold. Death resulted in a few days, and a *post mortem* examination revealed no disease.

## THE DETERMINATION OF REFRACTION OF THE EYE.

By W. LAIDLAW PURVES, M.D.

EVERY one who has to determine the refraction of numerous patients, knows the trouble and labour involved in finding the number of lens in the test-box, cleaning the lens when found, placing it in a proper position before the eye of the patient, and replacing it in its proper slit in the box. When to these are added, in the case of patients with astigmatism, the placing of the axes of the cylindrical lenses always in the already determined meridian, no one is able satisfactorily to order glasses in the usual hours of a *clinique* for half the cases of astigmatism which present themselves at any large ophthalmic hospital. I believe that half an hour is about the limit which should be given to a case at a visit. Though the surgeon may not have tired of observing, the patient is generally by that time in a condition in which his answers cannot be well relied on; and, if the surgeon have not by that time satisfied himself of the lens necessary, it is better to hold by the observations already made, and add to them on a future occasion. Any means which will set aside the difficulties above mentioned, and at the same time determine the refraction with accuracy equal to the means already used, will prove of use both to patient and to surgeon; and it is on this account I have had the following instruments constructed.

In two discs revolving from their centres, and placed on a telescopic stand, are cut thirteen apertures, in twelve of which are fixed twelve plano-convex and twelve plano-concave spherical lenses; the discs containing the one kind of lenses revolving, so that any number of lens in that disc can be brought against any lens in the discs containing the opposite kind of lens, as in the ophthalmoscope I proposed in the beginning of 1873. The two remaining apertures are left vacant. By these means, numerous powers are obtained, which will be found especially useful in cases of high degrees of ametropia.

The glasses placed in the discs are as follows: + and — 2, 3, 4, 5, 6, 8, 10, 13, 18, 24, 36, and 48; and by these are obtained the following + or — powers; viz., 2, 2.08, 2.11, 2.18, 2.25, 2.36, 2.5, 2.66, 3, 3.2, 3.27, 3.33, 3.42, 3.6, 3.9, 4, 4.28, 4.36, 4.5, 4.8, 5, 5.14, 5.58, 5.77, 5.80, 6, 6.31, 6.66, 6.85, 6.92, 7.2, 7.5, 8, 8.12, 9, 9.6, 10, 10.28, 11.14, 12, 12.63, 13, 13.33, 13.84, 14.4, 15, 17.14, 17.82, 18, 20, 20.8, 20.34, 22.5, 24, 28.36, 28.8, 30, 36, 40, 43.33, 46.8, 48, 72, 144. Each of these is engraved on one disc, and seen through apertures made in the other disc; but, should there not be sufficient to satisfy the demands of some, the enlarging of the discs and the substitution of other or more glasses is easy.

For the determination of astigmatic cases, the same method of revolving convex over concave cylindrical lenses, or *vice versâ*, is used; the placing of the axes in the different meridians being obtained by the same method as in Javal's optometer, or by causing the patient to look through the aperture in the disc corresponding to the meridian of his astigmatism. The two discs are so constructed as to revolve round a graduated circle external to their peripheries, so that any glass is brought before the eye with its axis in any desired meridian; while, being at the same time able to revolve upon a central axis, any single glass or single combination of glasses in the discs may be used as in the discs containing the spherical lenses. The cylindrical glasses used are as follows: 5, 6, 8, 12, 36, and 48 + and —, by which the following powers of each kind are obtained; viz., 5, 5.58, 5.80, 6, 6.85, 7.2, 8, 8.57, 9.6, 10.28, 12, 13.33, 16, 18, 24, 30, 36, 48, 144.

The two instruments may be used separately or together.

For the purpose of controlling the patient's accuracy of observation for the different meridians, I use a disc with varied numbers of lines engraved in different meridians, by the revolving of which one can determine whether the patient sees accurately in any meridian by his counting correctly the number of lines placed in that meridian. I have had lines and letters similar to Pray's cut out in metal, and so placed against a light that patients in whom the circles of diffusion are abolished sufficiently by lenses, can recognise the number of lines or the letters used; but I find the above described method the simplest.

As the calculation of fractions is a trouble to some, I have had a boxwood scale made, which will suffice for calculating the fractions on the ophthalmoscope and optometer, the latter of which would be considerably lessened in price by the using of the card instead of the engraving and boring of the discs necessary to show the combinations.

This optometer fulfils, I believe, all the requirements necessary in determining cases of ametropia, in that by it we can determine at the same time the condition and degree of refraction and the acuteness of vision, the latter of which has, in the optometers of Young, Lawrence, Burow, Graefe, Javal, etc., to be determined as a second step, and all artificial values are done away with.

I trust that, by thus simplifying the determination of ametropic cases, general practioners may be induced to give more attention than hitherto to the relief and prevention of the numerous and varied consequences which the non-use of glasses in ametropes often entails.

## MICROSCOPICAL EXAMINATION OF THE SPUTUM IN PHTHISIS.*

By JAMES SAWYER, M.D.Lond., M.R.C.P.,
Physician to the Queen's and Children's Hospitals, Birmingham.

I DESIRE to say a few words upon the method and value of a microscopical examination of the sputum in phthisis. During several years, I have been in the habit of occasionally using the microscope in the examination of pulmonary expectoration. In some cases of chronic phthisis, such a procedure may sometimes give information which no other mode of research can furnish. It is not necessary for my present purpose that I should enter into a discussion of the pathology of consumption of the lungs. My remarks concerning sputum apply to cases of ordinary chronic phthisis. The term "phthisis" has now become generic; it includes several varieties of pathological change, the discrimination of which is of the highest practical importance. But all my hearers—whether, with Laennec and many others, they believe in the existence in the lungs in phthisis of crude lumps of yellow tubercle; whether, with Niemeyer, they hold such masses to be simply inflammatory products which have undergone a cheesy metamorphosis; or whether, following the example of many English pathologists, they take that middle course which is usually held to be the safest—whatever be their own views on a subject which is certainly at present far from clearly worked out, my hearers all know what I mean when I speak of the ordinary form of chronic pulmonary phthisis. I mean the commonest kind of consumption. I mean the commonest of all diseases of the lungs. I mean a disorder which runs a chronic course, and is characterised by the extensive and extending solidification, softening, and excavation of circumscribed portions of pulmonary tissue.

So far as I remember, my attention was first drawn to the importance of a microscopic examination of the sputum in some cases of phthisis by a paper from the pen of Dr. Fenwick, which appeared in one of the medical journals in 1868. The method of procedure therein advised I have frequently found in practice to be most satisfactory in its results. If we compress a portion of phthisical sputum on a slide, we can readily see, with a quarter-inch, epithelial cells from all parts of the respiratory passages, mucus and pus-corpuscles, blood-discs, "exudation-corpuscles", etc. But such a plan will not very readily bring into view minute portions of pulmonary tissue, and these are the characteristic marks of destruction of lung-texture. Dr. Hughes Bennett was the first, so far as I am aware, to make the discovery of elastic tissue from the lungs in the expectoration of consumptives. Mainly following Dr. Fenwick, I have found it best to slowly boil about two drachms of the sputum to be examined in a test-tube with an equal quantity of the solution of caustic soda. The alkali soon destroys the ropiness of the expectorated matter, and reduces the mixture to the limpidity of urine. Mucus and pus-corpuscles are disintegrated, and fragments of less easily destroyed tissue, such as minute portions of lung-texture, fall to the bottom of the tube, and may be conveniently removed by a pipette and placed upon a slide for examination. We may find the beautifully slender and curling fibrils of the yellow elastic tissue of the lungs, or scraps of the smallest bronchial tubes, or shreds of the outlines of groups of air-cells. I have rarely seen more attractive microscopic objects than those afforded by phthisical sputa. I have seen in the field at once the outlines of half-a-dozen groups of air-cells as clearly marked as in a diagram, with here and there the traces of red blood-cells, and scattered amongst all, what is a very common object in these cases, minute portions of coal, or other hard, black, and insoluble material.

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* Read before a meeting of the Microscopical Section of the Birmingham and Midland Counties Branch.

In many cases of phthisis, there is no need, at least for purposes purely diagnostic, to go to the trouble of making a microscopic examination of the sputum. But, even when the physical and other signs are so unequivocal as to leave no room for doubt as to the nature of the disorder, the discovery of fragments of pulmonary texture in the expectoration will furnish very interesting confirmatory evidence as to the condition of the patient. But do we not all of us sometimes meet with early cases of consumption, in which, though suspecting the malady, and even after frequent and very close investigation of the facts before us, we still remain in doubt as to the actual existence of phthisis? For the further elucidation of such cases, I would suggest the careful microscopical examination of the sputum. The discovery of shreds and fibres of the tissue of the lungs will indisputably demonstrate the results of the breaking down of pulmonary texture. When we are hesitating as to a conclusion, a grain of new fact is worth a bushel of speculation.

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# MALARIA: REJOINDER TO DR. MACLEAN.

By T. INMAN, M.D.,

Late Lecturer on Medicine at the Liverpool Royal Infirmary School of Medicine;
Consulting Physician of the Liverpool Royal Infirmary.

It certainly is not requisite for a man to have visited Hindostan and China, Ceylon and Sierra Leone, to understand whether an author who writes upon those parts is logical in the conclusions which he draws from his facts. Experience has also abundantly proved that travellers who stay at home, read, and think, know more than those whose pen simply reflects what the eye sees and the ears listen to.

Dr. Maclean is aware, he tells us, that paroxysmal fevers occur in ships at sea; and attributes it to bilge-water. I can tell him that his theory is valueless, for the folks attacked are not those who sleep between decks, but those who sleep in the open air; and that the use of an awning, or even a good blanket, will prevent the spread of the fever, the bilge-water remaining the same. Again, the bilge-water being a nearly constant quantity in ships, it follows that, if it be the cause of fevers, ships must be as bad as marshes, especially when sailng before the wind and almost incapable of being ventilated. But evers at sea are rare, and are determined by heavy work on a hot day nd sleeping on deck during a starlight night. I have not, in the ourse of my reading, found out that any maritime population sleep in he open air when hot with work in tropical climates. The immunity rom fever which Dr. Maclean claims for such, I should say was due to he good sense which has taught them to sleep under shelter.

In Dr. Maclean's fourth paragraph, he allows that ague may arise in ocky districts, where there is little or no vegetation; and then talks aguely about rotten granite, fungi, water below the surface, old wells, c. This again reminds me of Tenterden steeple and the Goodwin nds. Why, there is not to be found a spot on the earth's surface here water cannot be found by those who dig for it. Consequently, if water be the cause of ague, the disease ought to be universal; and, if rotten granite and fungi be a cause of paroxysmal fevers, those affections ought to be found largely in Cornwall, where there are vast moors covered therewith.

But Dr. Maclean not only attributes disease to impossible causes; he ignores those which are known to be in common, almost constant operation—viz., the relative heat of day and night, when a person is necessarily exposed to both without shelter. The worst place for ague which is known in the world are certain black basaltic rocks—I think on the Rio Negro, in Peru. Few parties encamping on them at night escape. Here, however, there is no rotten granite, no fungi, no water near the surface, no soil, no bilge-water, no old wells, etc. Whence, then, comes the fever? In replying to the question, after ascertaining the truth of the "facts", the careful inquirer endeavours to discover what there is in common between this locality and the Pontine marshes, the Maremma, the sandy shores of Walcheren, the parched wastes near the Douro, so fatal in the Peninsular war. He compares these arid rocks with those of Aden; with the sandy Sahara; the deadly rivers in India, Burmah, and Africa; with the swamps of Florida and below New Orleans; with trenches newly dug; and with ships at sea having stinking hides or bilge-water aboard. It is this inquiry which a physician can make in his study, quite as well as a regimental surgeon who knows fever at Hong Kong, but not at Sierra Leone or Gambia. I most unquestionably do not feel a high respect for those who attribute effects to what seem to me to be inadequate if not absurd causes; but I do not intentionally use a sneer in lieu of an argument. Let me for a moment refer to a matter mentioned by Drs. Maclean and Tilt, who attribute certain cases of fever to the formation of excavations for drains and the emanations consequent thereupon. "Fever comes from digging holes", is the proposition. Well, suppose it does: then fever must have been common at the sieges of Sebastopol, Seringapatam, Burtpore, Paris, Badajoz, Vicksburg, etc.; it ought to have followed the "navvies" along every one of the railways which exist in Europe. There is not an acre, which has been drained deeply, which ought not to have produced its paroxysmal fever; there is not a well-sewered town the course of whose deep drains must not have been mapped out by fever, or a canal whose makers have not been scourged with agues or remittents. The new Suez Canal, with its saline lakes, its salt marshes, and deep-seated water, ought to have caused the death of myriads; and ploughing and delving on the Maremma ought still to be a fearfully fatal occupation. Is any one of these things so? Does sewering produce ague—here or in France? If not, surely it is provocative of a smile to see a single accidental case of fever, occurring in a street containing probably five hundred to a thousand inhabitants, attributed to the formation of a drain; and when this bit of reasoning is ushered in by a sneer at the author of inductive reasoning, and by a reference to some glacial theory of the class, *risum teneatis amici?* Equally curious it is to see that coffee-planters at Ceylon are used to support the digging theory hatched at Hong Kong. If trenching could produce agues, the troops at Chatham and labourers at the fortifications about Portsmouth ought to be very unhealthy; and this they are not. Again—to use some more inductive reasoning—let me ask why labourers who used to plough, trench, dig, and excavate in the Fen country and on the Italian marshes were once as subject to ague as the coffee-planters in Ceylon? why those who so delve in England are now free? Is it not certain that there is, or was, a cause in Italy and Ceylon which is not now in existence at home? In all cases, there are soil, water, excavating; nor can the keenest observer find a distinction in the ground thus disturbed. The cause is patent to a close observer, but I need not dwell upon it. I have, without going to Netley, seen men with the stamp of ague on them—some in the dead-house of the Liverpool Royal Infirmary, many more in the wards of that institution, and still more in Southern Italy; but seeing ague-patients alone does not give us information about the agent that worked the mischief. But I have also had—what I shall not find at Netley—the benefit of the experience gained by a civil engineer who has long had to do with fevers occurring in a set of African steamships which trade also to American ports, all notoriously "malarial". The loss and injury to health amongst the men employed was extremely serious, and my friend endeavoured to diminish the unhealthiness. He succeeded. Without knowing even of the existence of Dr. Oldham, he traced the fevers to the same cause as the doctor does; and, by insisting that all who sleep on deck shall put over them a light awning made for the purpose, and thus prevent chill by radiation, the ships under his eye are free, or nearly so, from "malarious" disease.

As I notice that Dr. Maclean does not support his emanation theory by proving that agues are caught by day, when emanation is lively, nor by insisting that emanations are most active when air, heavy with dew, is slowly falling to the ground, and as he acknowledges that, even in

England, chills after exertion in a heated atmosphere may produce some of our most formidable acute disease, I will not make further remarks upon emanation *versus* chill.

## ALCOHOL AS A MEDICINE.

By WILLIAM BERRY, M.R.C.S.Eng., L.R.C.P.& S.Ed.

THE interesting papers of Drs. Russell and Sutherland on Alcoholism, as well as the paper of Mr. Lucas, in the JOURNAL of November 14th, will be read by many with the interest and attention they deserve. These admirable papers will cause members of our profession to pause before prescribing alcohol as a remedial agent, especially for women and children, and, to the more inquiring, will cause them to ask themselves what other remedy they can employ instead with equal benefit to the patient. I, for one, do not believe that medical men, as has been asserted, are answerable for the moral degradation of the people from drunkenness, through their indiscriminate prescriptions, but believe, on the other hand, that they are capable of wielding a mighty power against its spread whenever they see a tendency to the development of that habit we call dipsomania.

I am pleased to see that this subject is demanding the attention of eminent members of our profession, that legislation is likely ere long to deal with the subject, and to provide some means of treating this form of mental weakness. That alcohol is a valuable therapeutical agent cannot be denied; and that it has stimulant and narcotic properties, according to the dose, is equally certain, although Mr. Lucas is pleased to term its narcotic effect over-stimulation.

In acute febrile diseases, we see marked benefit derived from its moderate and judicious employment, and have little fear of setting up the habit of its continual employment, if we reduce the dose while the patient is convalescing. It is in nervous people, especially women suffering from neuralgias, faintness, or nervous depression, that we require to be more guarded, and, if possible, to employ a substitute. In these cases, as in all others, the medical man should be definite in his prescription, and should never prescribe it *ad libitum*, but order a certain quantity every three, four, or six hours, or as often as he thinks it requisite; and, as soon as improvement is noticed, he should diminish the dose, finally substituting a nervine tonic in its stead. It is also a good plan to order a biscuit or a small quantity of food to be taken with the stimulant.

Mr. Lucas has arrived at erroneous conclusions from the experiments he has made, when he denies the narcotic effect of alcohol. He admits that alcohol does not pass unchanged out of the body, but is largely oxidised; and he says also that it is to the result of this oxidation that we have its narcotic properties. He believes, moreover, that it is a *pure stimulant*. In large doses, he says, it stimulates to death, giving as an example a person having drunk a quart of rum or brandy falling down dead from over-stimulation, dying from exhaustion of nerve-force; but is it not more likely to be from paralysis of the nerve-centres? The person does not show any signs of stimulation, excepting such as we see in narcotism from other drugs. Opium, for instance, is a narcotic poison, but in small doses it is a powerful stimulant; surely, then, we should not say, in a case of poisoning by opium, that it had stimulated to death.

In admitting that death from a large quantity of alcohol is due to exhaustion of nerve-force from over-stimulation, we must believe that nerve-force is capable of expending itself, after the manner of gunpowder when a lighted fusee has been applied. That its narcotic effects cannot always be explained by its decomposition into carbonic acid and other impurities, thereby charging the blood with the same, is equally certain, and is disproved by the case of the toper who becomes suddenly narcotised after a large dose, and before the blood could possibly become charged with the results of its decomposition. That in cases of drunkenness, the stupor and sleepiness may be theoretically explained in this way, I am not prepared to deny. The effect of alcohol stimulating the animal passions needs no comment. In medicine, it is never used for such a purpose; therefore, this question does not affect us as practitioners. Moral men, of course, ought to keep within bounds, or be total abstainers.

Mr. Lucas also questions the theory of alcohol preventing waste. Dr. Parkes found that urea was not diminished by the use of alcohol in the healthy adult; but the late Dr. Anstie found that the quantity of urea was considerably diminished by its use in a case of typhus. Now, if this were really accumulating in the blood, as Mr. Lucas suggests, its formation not being prevented, we should have uræmia in its worst form; but is such the case in fever-cases, in which large quantities are taken to sustain life? Its action on the albuminous tissues, as shown by Dr. Ross, and also by Dr. Beale, will explain how it prevents the formation of urea, thus diminishing its excretion when the quantity is large.

To my mind, Mr. Lucas totally fails to show that alcohol is not an useful and suitable medicine when properly employed; neither has he suggested any other remedy in its stead. We have depressing effects after the use of any stimulant, unless its effects be kept up, either by repetition or an equivalent in the form of food or another stimulant substituted; but, in treating diseases which require stimulation, the convalescence of the patient removes all demand for the remedy. It does not matter whether we administer alcohol in shape of spirits of wine, brandy, or wine; but it is well to have a choice, as no one form is suitable for all cases. I have seen drachm doses of spirits of wine, coloured with cochineal, and taken every four hours, produce beneficial results, when the same amount of brandy would have been refused on moral grounds.

How far alcoholic stimulants are necessary to healthy people, either taken with food as an article of diet, or at bed-time as a night-cap, I am not prepared to say. Its habitual use, even in moderation, and that of tobacco, which is also held to be unnecessary, form subjects for the moralist to discuss, and do not affect us as physicians, or its use as a medicine.

# REPORTS
# OF
# MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

## GREAT NORTHERN HOSPITAL.

### A CASE OF INJURY TO THE FACE, PRODUCING DEFORMITY OF THE FEATURES: THE DISTORTION IN PART REMEDIED BY PLASTIC OPERATIONS.

(Under the care of Mr. W. SPENCER WATSON.)

James C., aged 25, was kicked in the face by a horse, ten years ago. While training the horse, by whipping it round in a circle with a long leading-rein, the animal suddenly backed on him and kicked him violently in the face. He was knocked down, and when picked up the left side of his face was, as he described it, lying on his left shoulder. There was still evidence that both jaws must have sustained compound comminuted fractures; the nose was split open nearly vertically, and the anterior wall of the antrum broken into through the integuments of the cheek. The contraction of the cicatrices formed during the healing of these injuries, resulted in a drawing down of both the left eyelids to a point above the middle of the inner side of the nose, so that the patient was unable to open his left eye by any movement of the muscles attached to the eyelids, though when the palpebral aperture was dilated by the fingers, the eyeball was seen to be perfect, and the sight of the eye itself was unimpaired. The jaws were much distorted, and could only be opened to a limited extent. Nevertheless, mastication and articulation could be very fairly performed. In the middle of the left cheek was an opening communicating with the antrum, and the skin surrounding this opening was drawn down towards it in the form of a funnel-shaped depression.

The above description applies to the condition of the patient when he was admitted into the Great Northern Hospital, in July 1874, for the purpose of having an operation performed, designed to restore binocular vision.

Having several times successfully operated for ptosis, by removing portions of the upper eyelid, and so bringing the eyelid within reach of the fibres of the occipito-frontalis, Mr. Watson proposed a series of plastic operations in which this principle might be rendered available.

On July 16th, chloroform having been administered, a flap was taken from the upper eyelid, of a somewhat elongated oval form, and inserted in a raw surface left by making a free incision below the lower eyelid, dissecting the skin upwards, and freeing it by making deep cuts into the hard fibrous cicatricial tissue, by which it was bound down to the upper jaw. The edges of the wound in the upper lid were then brought together, and the flap retained in its new position below the lower lid by sutures. The whole of the parts operated on were then covered by a layer of cotton-wool saturated with styptic colloid. In this operation, care was taken to dissect up the lacrymal sac with the inner end of the eyelids. An attempt was made to draw up the flap thus formed, without dividing the lower end of the sac and the commencement of the nasal duct, but this was found to be impossible; the lower end of the sac was, therefore, cut across, and the divided ends separated in the act of drawing the eyelids into their new position. Notwithstanding that a portion of the transposed flap underwent considerable shrinking, and partially sloughed, the ultimate effect of this operation was a decided gain. The inner canthus was raised half an inch higher than the outer, which was before the higher of the two; and there was a slight power of raising the upper lid, so that the patient could see before him when he held his head up and threw it back slightly.

It was, however, necessary to raise the outer canthus; and, in order to do this, on August 26th, an operation of a precisely similar kind was performed at the outer side of the eye, the flap being taken from the skin and subcutaneous tissues, including muscle, of the outer half of the upper eyelid, and this flap transposed to a gap made by a horizontal incision below the outer two-thirds of the lower lid. Styptic colloid was applied to these incisions as in the former operation. The result of this operation was to increase very considerably the power of opening the eyelid, the level of the palpebral aperture also being very much raised; but the outer half of the upper eyelid remained everted slightly, and this unsightly effect was subsequently remedied by removing the protruding portion of the conjunctiva, and a small piece of the tarsal cartilage.

On October 14th, the following operation was performed, for the closure of the antral fistula, which lay at about the middle of the cheek, in a hollow, close to the side of the nose. Three flaps were taken from the skin of this hollow, by dissecting them from the central aperture outwards; the two lowermost flaps were then brought together by quilled sutures, so that their deep surfaces were in contact, in the form of a raised eminence, over the site of the depression, and the uppermost flap was attached to a point above them near the root of the nose, its lower edge being also attached by sutures to the upper borders of the two lower flaps. Styptic colloid was then applied in the way usually employed at the Great Northern Hospital.

On the fifth day after this operation, the crust of colloid fell off, and the flaps were seen to be in good position, and in great part united by primary union. On the fifteenth day, the wounds had become completely healed, and no trace of the fistula remained. A prominent nodule of redundant skin marked the union of the two lower flaps by the quilled suture. On November 1st, there being still an insufficient power of raising the upper eyelid, the following further operation was performed.

1. The prominent fold of mucous membrane projecting from the outer half of the upper lid, and a portion of the cartilage, were removed, the cut edges being brought together by sutures. 2. A portion of the skin of the upper lid, between the inner canthus and the inner extremity of the eyebrow was dissected off. The edges of this raw surface were brought together by sutures. The object of this operation was to diminish the extent of the skin of the upper lid at this part, and so bring it within reach of the fibres of the occipito-frontalis. The piece of skin removed was about the size of a shilling, but triangular in shape, the base of the triangle being outwards. At the same sitting, Mr. Watson removed the prominent nodule on the cheek by means of the toothed scissors. On November 17th, the wound had healed, and there was decidedly more power of uncovering the cornea; but the inner end of the eyelid was slightly everted, and the patient expressed himself as anxious to have this remedied.

To effect this, it was clearly desirable, first, to remove the everted conjunctiva which overlapped the cornea and the pupil at the inner third of the palpebral aperture, this being caused by the undue eversion of the upper tarsal cartilage; and, secondly, to reduce the length of the upper tarsal margin, and bring its inner end more towards the root of the nose. By this means, it was anticipated that the cornea would be more readily uncovered, and the aspect of the patient much improved. Accordingly, on November 26th, the inner fifth of the margin of the upper eyelid was removed with the eyelash, and with a V-shaped portion of the cartilage. A raw edge was thus left, just external to the upper punctum lacrymale. From the inner extremity of this, an ncision was carried obliquely upwards and inwards, and a triangular piece of skin removed immediately below the inner extremity of the eyebrow. The raw edge of the tarsal margin was then attached by wire sutures to the upper and inner angle of the triangular surface, and he margin of the lid was thus considerably shortened. Sutures were placed in the adjacent edges of the flaps, and the whole covered with cotton-wool and styptic colloid. On December 15th, the wounds had quite united, and the tarsus maintained its new position, giving a more ree aperture for seeing purposes, though it was still difficult for the patient to see directly upwards with the left eye. A slight eversion of he outer half of the conjunctival surface remained, and was very unightly; but this may possibly be remedied by the application of mineral stringents.

## GENERAL HOSPITAL, BIRMINGHAM.

### FRACTURES AND DISLOCATIONS TREATED DURING THE THREE WEEKS DECEMBER 14TH TO JANUARY 2ND.

[Reported by WALTER OTTLEY, M.B.]

THE number of fractures that occurred in Birmingham during the late frosty weather having been unusually large, I felt that it might be of interest to draw up a table of those attended to at this hospital during the last three weeks. The majority of them could be traced to the slippery state of the pavements. In the case of compound fracture of both legs, amputation through the upper third of each leg was performed by Messrs. Goodall and Jolly simultaneously. The patient has since done remarkably well. The following is the list.

| | |
|---|---|
| Fracture of femur ... ... ... ... ... | 13 |
| Fracture of tibia and fibula ... ... ... ... | 10 |
| Fracture of tibia ... ... ... ... ... | 3 |
| Fracture of fibula ... ... ... ... ... | 25 |
| Fracture of patella ... ... ... ... | 1 |
| Fracture of base of skull ... ... ... ... | 1 |
| Fracture of inferior maxilla ... ... ... ... | 1 |
| Fracture of ribs ... ... ... ... ... | 18 |
| Fracture of coccyx ... ... ... ... | 1 |
| Fracture of humerus ... ... ... ... | 4 |
| Fracture of radius and ulna ... ... ... ... | 6 |
| Fracture of radius ... ... ... ... ... | 7 |
| Fracture of ulna ... ... ... ... ... | 1 |
| Fracture of olecranon ... ... ... ... | 1 |
| Colles' fracture ... ... ... ... ... | 41 |
| Fracture of metacarpal bones ... ... ... | 6 |
| Fracture of clavicle ... ... ... ... | 5 |
| Compound fracture of femur and leg ... ... ... | 1 |
| Compound fracture of both legs ... ... ... | 1 |
| Compound fracture of tibia and fibula ... ... | 1 |
| Compound dislocation of ankle and fracture of pelvis ... | 1 |
| Dislocation of humerus ... ... ... ... | 7 |
| Dislocation of fingers ... ... ... ... | 2 |
| Dislocation of clavicle ... ... ... ... | 2 |
| Dislocation of elbow ... ... ... ... | 1 |
| Total ... ... ... ... ... | 160 |

# REVIEWS AND NOTICES.

COMPENDIUM DER NEUREN MEDICINISCHEN WISSENSCHAFTEN, ENTHALTEND: 1. Thermometrie. 2. Sphymographie, etc. Für Aerzte, Lehrende, und Lernende nach dem gegenwärtigen Stande der Wissenschaft fasslich, die Materien erschöpfend. Dargestellt unter Mitwirkung hervorragender Fachgelehrten, von Dr. BERNARD KRAUS, Chef-Rédacteur der *Allgemeinen Wiener Medicinischen Zeitung*, etc. Wien, 1875. Moritz Perles. [Mit 71 in dem Text gedruckten bildlichen Tafeln].

AN EPITOME OF THE SCIENCES ACCESSORY TO MODERN MEDICINE, including Thermometry, Percussion and Auscultation, the use of the Ophthalmoscope, Laryngoscope, Sphygmograph, and Microscope, Anomalies of Speech, Aural Surgery, the Examination of Urine, Electro-Therapeutics, Hygiene, and Toxicology; for the use of Medical Men, Teachers, and Students. Edited by Dr. BERNARD KRAUS, assisted by eminent Professors. Pages 852, with upwards of 70 figures. Moritz Perles. Vienna, 1875.

HERE and there one meets, even in the most distant colonies, with men who make themselves familiar with all the advances of medical science. These are the men who furnish us with new tests for blood, and fresh disinfectants from Australia; contribute to our knowledge of helminthology from the frigid shores of Iceland; or write manuals of ophthalmic surgery and medical jurisprudence beneath the burning sun of India. It must be confessed, however, that such men are rare, and it can scarcely surprise us to find that they are so. In the last half century, a number of new instruments have been pressed into the service of modern medicine, and the use of old ones, such as the thermometer, has been revived. The crude guesses of the old water-doctor have been changed by methods of precision into matters of certainty. The microscope and chemical tests reveal fragments of expectorated lung-tissue before even Laennec or Louis could detect pulmonic mischief by the most careful auscultation or percussion: and the ophthalmoscope gives warnings of grave cerebral disease before the patient complains of either his sight or his sensations. But, alas, the literature-of these new processes and new discoveries is not only voluminous enough to need a new Atlas to carry it, but is scattered through hundreds of periodicals and volumes. Even when the practitioner knows where to find what he wants, it is often difficult for him to find the time required for its perusal; and then again, many of the desiderated treasures are in a foreign tongue, which he does not read at all, or reads with difficulty.

Obvious considerations of this kind, and twenty years' editorial experience in conducting a well-known Vienna medical newspaper, have convinced Dr. BERNARD KRAUS of the absolute necessity for a volume of this kind; nay, to show still farther how popular such a book is likely to be, we understand that an eminent publishing firm are already making arrangements for an English edition of the volume before us. Making allowance for some personal peculiarities (which culminate in an amusing paragraph denouncing English microscope-makers), we think Dr. Kraus, as might be expected from his trained pen, has done his share of the work exceedingly well. The same cannot be said for some portions of the work of his coadjutors.

In particular, the section on Hygiene is a sample of book-making of the worst kind. Admitting that the space at the compiler's disposal (130 pages) was little enough in all conscience, we yet submit that what was written should bear comparison, bulk for bulk, with that part of Sonnenschein's *Handbook* which treats of similar subjects; whilst those who wish to see what can be said on such topics, in a very few pages, may compare Dr. Proctor's *Hygiene of Air and Water*, or Dr. Stocker's *Hints on Health*. The fact is, this portion of the work is spoilt by a pretentious universality, which aims to include gas and gussets, potatoes and perfumery, latrines and lupanaria, petticoats and police, chignons and clockmaking; and a thousand other things, mere matters of detail, where principles and practical precepts are required.

We consider this, and the section on the Sphygmograph, the worst parts of the book. The name of Marey, it is true, is mentioned, but the reader looks in vain for any description or directions for the use of any working form of pulse-recorder newer than the somewhat cumbrous instruments of Vierordt. On the other hand, the section on Toxicology, though brief, contains many useful memoranda, and is a great improvement on most previous performances on poisons. Similar commendation may be given to the chapters on Auscultation and Percussion, though rather too brief, and containing one or two notable omissions. We quote a short specimen from this part.

"Lastly, let us mention the singular symptom known as 'Cheyne-Stokes' Respiration', first observed in 1816 by Dr. Cheyne in Dublin, and of late the subject of much discussion. Stokes has only met with it in fatty degeneration of the heart, or a few weeks before the patient's death. He describes it as a series of inspirations, which reach a maximum, and then decrease in both depth and length, till a condition of apparent entire cessation of breathing is reached. This may last so long, that the bystanders may deem the patient dead; a feeble inspiration, followed by one a little stronger, marks the beginning of a fresh ascending, and then descending series of breathings, as before. The decrease in the depth and length of the respirations is just as regular as the preceding progressive increase. Every successive inspiration becomes shallower than the one which preceded it, till they become almost imperceptible, and a condition of apparent apnœa sets in. The deepest inspirations assume the aspect of dyspnœa. It is not easy to explain these phenomena. Schiff, Traube, Fräntzel, etc., have endeavoured to seek the true pathology from clinical and *post mortem* room studies. According to the two former observers, there are two distinct conditions under which we meet with this kind of breathing; *a.* Cases in which the heart is all right, but the cranial contents are structurally affected; and, *b.* Cases where the cranial contents are uninjured, but the heart has undergone structural changes. In both kinds, similar conditions underlie the respiratory phenomena, viz., a defective supply of arterial blood to the medulla oblongata, the great centre for respiratory action. The old notion, that it is only in cases of fatty degeneration of the heart that we find this kind of breathing, may be considered quite obsolete, since it has been noticed in many other kinds of disease. It must, however, be confessed, that there is yet much to learn regarding the true pathology of the 'Cheyne-Stokes' Respiration'."

The introductory chapter on Thermometry is far from being a mere *réchauffé* of Wunderlich. There is a good deal of original matter from H. Roger, Alvarenga, Sydney Ringer, Güntz, and Bäumler. Under the Ophthalmoscope, there is but slight reference to the medical uses of that instrument as distinguished from its special surgical applications. The chapter on Anomalies of Speech omits all notice of aphasia and the kindred lesions met with in some forms of insanity. The chapters on the Laryngoscope strike us as good, though the diagrams are simply hideous. Urology contains, in eighty pages, one of the very best accounts of the urine, and its constituents in health and disease, we have ever met; and in this section the woodcuts are very clear. So are most of the optical diagrams. In the chapter on Histology, some familiar things, such as blood, elastic tissue, spermatozoa, and the like, are scarcely to be recognised in the woodcuts by eyes only accustomed to see such things under the defective lenses supplied us (*teste* our author) by English microscope-makers!

Electro-therapeutics is one of the best sections in Dr. Kraus's compendium. It is clear, practical, and has, in common with other portions of the book (but perhaps rather more than these), interesting historical memoranda on the various subjects mentioned. A practitioner possessing this, would not only clearly understand the distinctions between *constant* and *interrupted*, *primary* and *secondary*, *induced* and other *currents*, and such words as electrodes, faradisation, and the like; but he would be able, also, if at a distance from instrument-makers, to construct apparatus for himself. With one more extract, this time from the section on the Microscope, we take our leave of a book which, in spite of the faults we have indicated (and hope to see amended in future editions, whether German or translations), is a perfect storehouse of facts, and a true "pocket cyclopædia" of medical science. This extract (from pages 223-226, with a few omissions) gives a fair idea of the style of the book.

"Fungi include some of the simplest cell-forms. They are free from starch and chlorophyll, but very rich in nitrogenous substances. The simplest forms of fungi are uni-cellular organisms. The more developed produce a delicate layer, or *thallus* of cells, extended lengthwise. From this thallus, also called *mycelium*, either separate cells, called *spores* or *conidia*, are simply evolved; or from these again a new colony is developed; or a fresh formation of spores takes place, it may be by a special fructifying organ (Sporangium); or the further development takes place by *division of the mycelial threads*. If the mycelium is tough and thick, and requires a period of rest before further development, it is called a *Sclerotium*, or permanent mycelium. The branches or stalks bearing the conidia, and originating in the mycelium, are called *Hyphæ*. Different genera of fungi are constituted by the hyphæ sometimes bearing the conidia on their summits, sometimes at their sides. The conidia themselves are sometimes simple, sometimes divided by partitions (chambered conidia). Very often they are numerous, aggregated, and surrounded with a covering or sheath (peridium). Besides these modes of reproduction, we sometimes find some individual cells of the mycelium separated from it, and thickened at their summit; these also promote the multiplication of the individual; and are called *Macrogonidia* or chlamydospores. Very often two kinds of spores can be recognised, and divided into male and female organs of fructification, *Antheridia* and *Oogonia*.

"Microscopic fungi are so extremely polymorphous, that accurate study of their growth and development has led many to the conclusion that different varieties may originate from one and the same cell, according to the soil in which it is placed. The natural history of these minute bodies is, however, still very obscure. The separate forms of parasitic fungi may be grouped under the following types:

"(*a*) granules, and granule-forming protoplasma;
"(*b*) yeast, properly so-called (in separate free cells);
"(*c*) chain, and string-forming germinating yeast,
"(*d*) submerged, and
"(*e*) true aërial moulds, and
"(*f*) mycelial forms of very varied structure."

After some further definitions and explanatory figures, which are very clear, we are told—

"A natural grouping of these forms is given in the following table:

"I. *Yeast Fungi, embracing*—

"A. *True Yeast*—*a*, *Micro-coccus*, granular yeast; *b*, *Crypto-coccus*, germinating yeast; *c*, *Arthro-coccus*, chain-like yeast.

"B. *Yeast, with fibrillated, or chain-like structure*—*a*, *Leptothrix*, granular yeast; *b*, *Hormissium*, germinating yeast; *c*, *Mycoderma*, chain-like yeast.

"C. *Yeast-Colonies*—*Sarcina*.

"II. *Mould-like Forms: Mildew*—

"A. *True Mildew*, aërial mould: *a*, *Mucor*, mould with heads; *b*, *Penicillium*, pencil moulds.

"B. *Pseudo-mildew*, mould in the interstices of a tissue, or in fluids: *a*, *Oidium forms*, Oidium, Achorion, Microsporon, Trichophyton; *b*, *Smut, or brand mildews*, Ustilago, Tilletia."

This is followed by several pages on parasitic diseases in which fungi are found.

Dr. Kraus deserves the thanks of the profession for originating and carrying out his idea, and we can assure him that our criticisms, even when severe, are not unfriendly.

On the Condition of the Mouth and Teeth during Pregnancy. By Oakley Coles, L.D.S., Dental Surgeon to the Hospital for Diseases of the Throat. Pp. 31. London: Wyman and Sons.

This little treatise deals with—1. The changes and general condition of the teeth during pregnancy; 2. The condition of the gums; 3. The oral secretions, with their changes and influences upon the teeth; 4. The neuralgia of pregnancy; and, lastly, the remedial agents useful during pregnancy. The author has evidently paid considerable attention to the subject, and gives many useful hints as to the management and relief of the distressing toothache and neuralgia complicating pregnancy.

An acid state of the saliva seems to play an important part in the production of caries, and this acidity almost invariably accompanies rheumatic pains in the face; whereas, in pure facial neuralgia, the saliva is alkaline—a point well worthy of notice in endeavouring to arrive at a correct diagnosis. The remarks on treatment are practical, and well repay perusal. Much unnecessary suffering might be saved by a more careful study of the subject, and the practitioner will do well to carry out the suggestions offered by the author.

# REPORTS AND ANALYSES

AND

## DESCRIPTIONS OF NEW INVENTIONS IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

### A NEW INSTRUMENT FOR THE DIRECT APPLICATION OF TOPICAL MEDICINES TO THE VAGINA.

M. Delisle of Caen has lately laid his new apparatus, which he calls a vaginal *porte-topique*, before the Paris Academy of Medicine. The instrument is manufactured by M. Galante of Paris, in vulcanised India-rubber. It gives to women the facility of applying to the vagina, and even to the neck of the uterus, all those medicinal substances which the physician wishes to have applied locally, such as plugs of wadding or int, sponges, bags filled with medicinal powders, or poultices, ointments, and powders of every kind, with as much facility as she can give herself a liquid injection. The *porte-topique* will also permit the patient to apply, according to the physician's orders, all vaginal topical applications, whether solid, soft, or pulverulent; and even liquid topical applications, in which wadding, lint, amadou, or sponge have been soaked, or which have been absorbed into a powder or a poultice. This topical application, made by the patient herself, has the advantage of allowing her to repeat every day, and even several times a day, dressings which usually are only applied once or twice a week. The physician may also substitute in his prescriptions the injection of a powder, of an ointment, or even the application of a plug or bag soaked in liquid injection, and consequently replace the rapid and temporary action of a liquid by the continuous action of a permanent topical action.

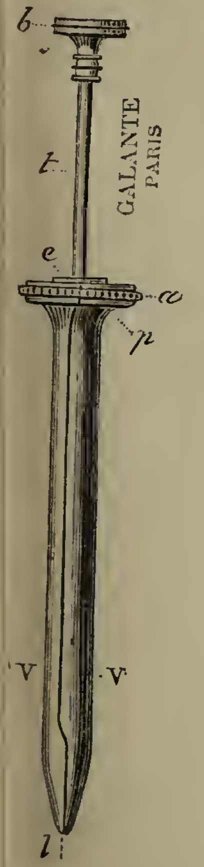

Fig. 1.

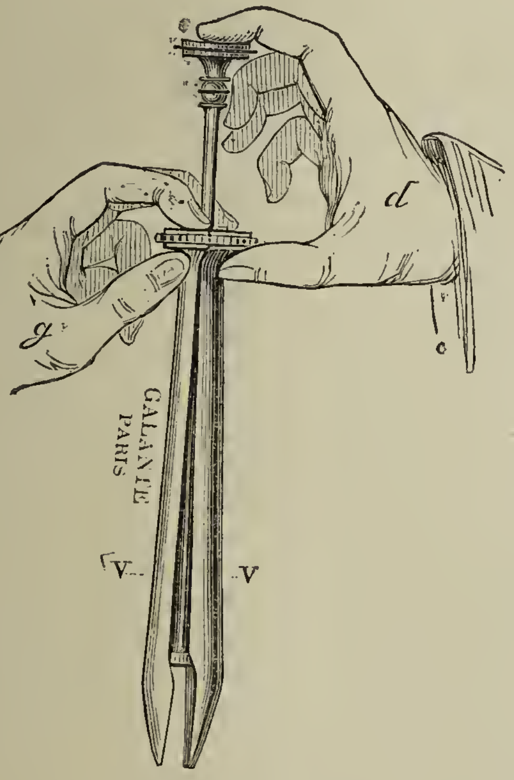

Fig. 2.

ig. 1.—*l*. Stroke indicating the line according to which the *porte-topique* is divided throughout its whole length into two valves, V V. *p*. Mouth furnished at its circumference with a groove, in which a ring of India-rubber (*a*) which by its elasticity keeps the valves in proximity. *e*. Stopper closing the opening of the mouth (*p*), in which the piston-rod (*t*) works.

ig. 2.—Position of the hands when using the instrument. The left hand (*g*) supports the instrument, while the right hand (*d*) pushes down the piston. The valves (V V) separate under the pressure of the piston, to give way to the medicament introduced into the instrument.

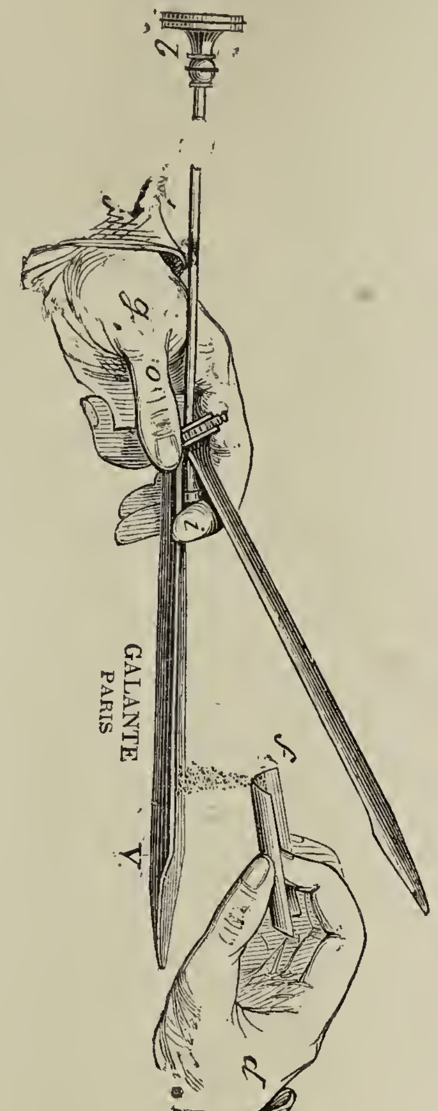

Fig. 3.

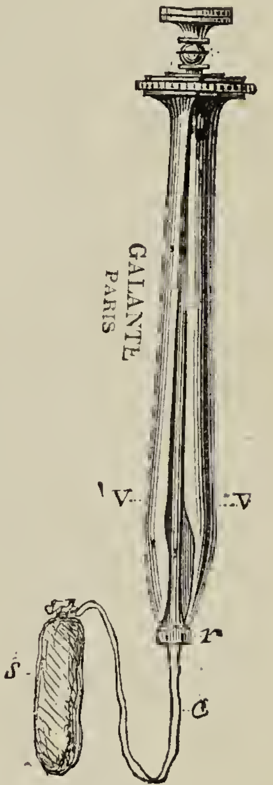

Fig. 4.

Fig. 3.—Position of the instrument when it is being charged with the medicinal substances.

Fig. 4.—Arrangement of the instrument to take hold of the top (*c*) of a plug of a bag (*s*), or of a sponge at the puncture of the piston.

Syphilitic Meningitis.—A case is recorded by Bruberger in Virchow's *Archiv*, vol. lx, in which a man aged 30, the subject of syphilis, suddenly fell senseless after a very moderate use of alcoholic liquors, and for eight days was quite incapable of motion. The cutaneous sensibility was but little, if at all, impaired; and the electric irritability of the muscles of the lower limbs was nearly normal (at least at the beginning). After suffering for two years, he died. The changes found in the central nervous system explained all the symptoms of the illness, as well as its sudden commencement. There was extensive meningitis of the base, by which the membranes appeared to be converted into a thick grey yellowish mass (paralyses of the cranial nerves, however, were not observed). The vertebral and basilar arteries were adherent to this mass; their lumen was dilated, and their walls thick and rigid. The arteries in all other parts of the body were healthy. The whole of the cervical spinal cord was narrowed by the thickened membranes; and there were adhesions of the membranes in several parts of the vertebral canal. The grey matter of the cord was atrophied; the central canal was dilated; the cord itself was studded with hæmorrhages, to the occurrence of which Bruberger is disposed to refer the sudden attack. There were also indications of syphilis in other organs.

## BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1875.

SUBSCRIPTIONS to the Association for 1875 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, JANUARY 16TH, 1875.

## EXCRETION AND THERAPEUTICS.

THE assimilation of food entails the removal of waste. When food is taken and digested, it serves two distinct ends. Part of it is burnt up, either forthwith or at some more distant date, while another portion is utilised in tissue-building and repair. The products of such assimilated material are, speaking broadly, carbonic acid, water, and nitrogenised matters in various stages of oxidation. These excreta, if retained, act in a prejudicial manner. Of water, there is little to be said, though certain mischievous results follow when its excretion is interfered with. Carbonic acid is a well known poison, whether respired or generated within the body, and but insufficiently excreted. Carbonic acid poisoning is the great danger of bronchitis, where the patients do not die so much because they cannot inspire oxygen as because they cannot get rid of their carbonic acid, the experiments of Rosenthal and Pflüger notwithstanding. The disastrous consequences of nitrogenised waste matter in excess in the fluids of the body are well known, whether as attacks of gout, as other manifestations of lithiasis, or as uræmia—the result of excess of the earlier products of retrograde metamorphosis of azotised matter. At one time, up to a very recent period indeed, it would have been deemed proper to have written "the earlier products of retrograde tissue-metamorphosis". This we now know to be inaccurate. Much of the nitrogenised waste is the result of the splitting up of albuminous matter in the liver, the resultant products being glycogen and tyrosine, creatine, creatinine, and the other early forms of azotised waste, which by oxidation become converted into uric acid and urea. The products of waste of tissue are also water, carbonic acid, and the above mentioned nitrogenised matters. In consequence of the poisonous characters of these waste matters, they are eliminated from the body by various emunctories, and the amount at one time within the organism is kept under ordinarily by the action of one or more of the excretory systems. What these excretory systems are, will next engage our attention.

Water is excreted by the skin, the kidneys, and the lungs. A certain flow of water through the body is essential to the elimination of waste products, many of which are held in solution. Carbonic acid finds its way out of the body chiefly by the lungs. Nitrogenised matters pass off by the skin as well as by the kidneys; but, under certain circumstances, especially of impaired respiration, carbonic acid passes off by the skin; and uræmic diarrhœa is far from uncommon in the subjects of chronic renal disease. We are too much inclined, indeed, to regard the functions of the different excretory organs as being highly specialised, and to lose sight of their common characters of the unity of function which accompanies their homologies of structure.

The different excretory organs of the body are but involutions of the common tegument, and retain in their most elaborated form their primitive characteristics. In the lowliest forms of life, the tiny organism taken as food can be seen to melt away in the speck of sarcode by which it is engulfed. The waste products pass away from the general surface, and no one part can be recognised as being more especially functional than another. A little higher up, we find a simple short tube, which may be turned inside out, and its intestinal canal converted into a tegument, and its external surface into a digestive canal, apparently without disturbance to the animal. As we ascend, the scale of creation and evolution gives us more elaborated forms; we find that different portions of the general surface have undergone modifications; certain parts have become limbs, organs of progression, while others again have been converted into organs of excretion. We find that one deep involution of the general surface has become a gastric pouch, which in time becomes a long digestive track, along which are secondary involutions, giving us the salivary glands, the liver, and the pancreas. Another involution furnishes the urinary apparatus, the first sac forming the bladder, with its secondary involutions the ureters and kidneys. In the desquamation of the uriniferous tubules of the kidney during the cutaneous exfoliation of scarlatina, we find a marked clinical instance of the relations of the skin to the epithelial lining of the kidney.

When we come to consider the community of origin of the various excretory organs, we can the more readily comprehend the unity of function which underlies their apparent specialisation.

This is no mere hypothesis nor pure induction unsupported by facts. We are all familiar with the fact that, when there is a defective elimination or excretion of bile by the liver, or when the bile-duct is obstructed by a ligature, the bile passes into the circulation generally, and is found in large quantities in the urine, as well as being excreted by the skin to such an extent as to tinge the linen. Not only so, but it has been found in the pancreatic juice and the mammary secretion. Urea was found in the sweat by Schottin in cholera collapse, where suppression of urine is common. Further examinations were made by different observers, until it has been found that, in the presence of urea, the phosphates and chlorides of the alkalies, the constituents of sweat, are those of urine. Fourcroy had long ago found urea in the sweat of horses. By a series of elaborate experiments, Leube has shown that there is such a relation existing betwixt the skin and kidneys in function, that, when the skin is active, the kidneys secrete less than their normal amount of urea. All who have had much experience are familiar with the urinous odour of the breath, and the ammoniacal character of the vomited matters and the dejections in cases of uræmia. Zalesky found that ligature of the ureters in serpents was followed by an incrustation of uric acid upon the mucous and serous surfaces of the ophidians. An offensive odour of the breath is commonly found along with inaction of the bowels or skin.

We have, indeed, abundant evidence of the capacity of one emunctory of the body to supplement the function of another when impaired or suppressed. This leads us up to two general considerations, both of much practical value. One is the supplementing of the function of an organ, when that organ is disabled by disease, by exciting compensating activity in another organ. The second is the true and proper treatment of excessive activity in any organ, when that activity is rather a compensatory action than a morbid process. These are practical considerations of the greatest weight in rendering our therapeutic measures not only more rational, but also more effective.

We are all familiar with the burning skin of pneumonia, which has been attributed to an increase in the cutaneous respiration when the ordinary respiration has been interfered with by disease. In the lowe vertebrata, the cutaneous respiration is a much more importan matter than it is in man; nevertheless, a certain amount of carboni acid is normally given off by the skin in human beings. This powe of the skin to aid in respiration when the ordinary respiratory organ are the subject of disease, may help to explain the good effects of diaphoretics in the treatment of such ailments. The dilatation of th cutaneous vessels, the increase of moisture on the skin, so favourable t the transpiration of gases, probably increase the cutaneous respiration and in this we may find the explanation of the beneficial effects of thos remedial agents which empiricism has already taught us to employ Of course, it will not do to overlook the effects of dilatation of th cutaneous vessels, and the consequent enlargement of the vascular are which produce the same effect upon the circulation as venesection; fact, it is only bleeding the patient into his own vessels. Probably, the treatment of acute affections of the respiratory organs, the method of giving a patient a bath in his bed will ere long obtain among adults, as it already does among children. With them, it is easy to roll them up in a blanket wrung out of hot water, the beneficial effects of which are familiar to all; but for adults a more complicated apparatus is necessary. Such apparatus is now easily procured.

When there is any impairment in the functional activity of the kidneys, the resort to supplementary action in other excretory organs is alike the refuge of nature and of art. Where there is imperfect water-elimination, we at once act upon the skin and bowels, and excite them into increased functional activity, to compensate the defective action of the kidneys. It is not, however, in water-elimination alone that efficient aid can be furnished by exciting other organs into high activity—the same holds good of the solid matters of the renal secretion. We have just seen that the elimination of nitrogenised waste is a much more general matter than is commonly supposed. Consequently, when there is any accumulation of azotised waste in the system, we proceed to set the bowels in action, and also to excite the activity of the skin. Long ere physiological investigation had laid bare to us the *rationale* of the measures employed, empiricism had pronounced in their favour. Full doses of cathartics, the more hydragogue the better, and sharp action upon the skin, by any form of bath, are the measures upon which we rely in the treatment of the ailments which are the results of imperfect renal action. If by our measures we can keep down the amount of nitrogenised waste in the system, until the kidneys are once more efficient, the organism is tided over a period of mortal peril; if our measures be insufficient from any cause, then the individual perishes—poisoned by self-made waste. This application of remedies to the relief of various ailments, the result of imperfect excretion, leads us straight up to the question of the proper treatment of what are rather compensatory actions than morbid processes. A good example is furnished by the consideration of uræmic diarrhœa. This is a spontaneous supplementary action of the bowels far from uncommon in adult and advanced life. Here the action of the bowels is not a morbid process to be arrested at all hazards; it is compensatory action, to be conserved until other emunctories are opened. Certain it is that such action ought to meet with no attempt to check it, until other channels are patent. It is so common to meet with a limited bulk of urine in diarrhœa, that the more or less complete suppression of the urine in these cases is scarcely noted. Nevertheless, if the diarrhœa be arrested—and usually very active measures are required to achieve this result ere the function of the kidneys is re-established—the consequence is, that the symptoms of uræmic poisoning come on, and the activity of the treatment is followed by the destruction of the patient. This is an eminently undesirable result for all concerned. The rational and proper plan is to meet such diarrhœa by measures calculated to rouse the action of the skin, to apply hot poultices over the loins, to give gentle diuretics, as potash and buchu, in small doses, and to avoid the further production of azotised waste, which would result if beef-tea were given in any great quantity. By such measures, the case may be steered to a desirable termination; the diarrhœa gradually ceasing as the action of the kidneys is re-established. In practice, it is most necessary to follow the rational indications. Too frequently, it is to be feared, the salvation of the patient lies in the difficulty of arresting the diarrhœa. Many cases owe their good results, not certainly to the treatment, but to the fact, that these preservative processes are hard to check, and that consequently the sick person survives in spite of the treatment.

In gouty bronchitis—and much winter bronchitis in those advanced in life is of this nature—we find that iodide of potassium and warm clothing are the most efficient methods of treatment. But neither of these agents exercises any direct effect upon the bronchial membrane. Yet they exercise no slight indirect action. In this form of bronchitis, the hyperæmia of the lining of the respiratory tract occasioned by the low temperature of the respired air results in a certain amount of mucous flow, and this soon furnishes an excretory surface for the elimination of uric acid. The low temperature arrests the action of the skin, and, the functional power of the kidney being insufficient, an accumulation of uric acid in the blood results, while the bronchial lining furnishes an outlet. The iodide of potassium renders the uric acid or urates soluble, and they wash away in the water-currents of the system, while the warm clothing keeps up the action of the skin. Consequently, we see that the measures we have been taught to adopt are those which are best fitted to achieve the desired end.

It not rarely happens that a diarrhœa which is intractable to ordinary measures yields readily to doses of citrate of potash, and a free flow of urine precedes any abatement of the diarrhœa. There are peculiarities in excretion with which we are not yet familiar. It is not sufficient in lead-poisoning to render the lead soluble by iodide of potassium; an occasional purgative is also indicated. The reason of this is, that the iodide of lead circulates in the portal system, and is being constantly thrown out and reabsorbed. A sharp purgative washes it through the bowels, and so hastens the process of cure by iodide of potassium.

Another point of much importance in the consideration of excretion is that of the relation of anæmia to imperfectly depurated conditions of the blood. We are all familiar with the presence of anæmia in lead-poisoning, in malarial and syphilitic poisoning, and also with other forms of poisoning, as in lithiasis, or the less known but common form of anæmia due to fæcal accumulation and reabsorption of fæcal matters. In all these cases, the bulk of blood is diminished by the action of the poison—whether by destroying the blood-corpuscles, or by interfering with their formation, is not known. The removal of the poison is followed by improvement, even before chalybeates are administered. Thus, in syphilitic anæmia, the improvement which follows the administration of mercurials is often marked ere iron be given: at times, indeed, the substitution of mercury for iron is at once followed by an improved condition of blood. We all know how desirable it is to combine purgatives with hæmatics when anæmia is associated with constipation. Not rarely in anæmic conditions of lithiasis, or irregular gout, the lips recover their hue, and the anæmia is much ameliorated before iron has been added. In fact, we have abundance of evidence to show us clearly that the efficient elimination of waste matter is an important factor in blood-formation, and that the treatment of anæmia is not the simple matter of giving liberal supplies of food together with chalybeates.

The series of agents denominated alteratives do not possess any mysterious or occult action. They are found in the different excretions; they increase the activity of excretory processes, and, by inducing more perfect depuration of the body-fluids, they lead to other blood-formation; and in so much they form excellent auxiliaries to restoratives and hæmatics.

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## MR. STANSFELD AND THE SANITARY ACT.

MR. STANSFELD has suffered many things at the hands of many sanitary doctors, he tells his constituents at Halifax; and he is certainly nothing the better, but rather the worse, for their treatment. One peculiarity of his malady shows itself in self-laudation at the accomplishment of sanitary results, in spite of the obstacles thrown in his way by "professed scientific sanitarians," and special reference is made to the British Medical Association. Another and very curious symptom is his belief that these results are his own, and not those of the sanitarians whose opposition he has so much cause to deplore. He says that the desideratum that there should be one local authority for all public health purposes in every place, so that no place should be without such authority, or have more than one, has been fully realised.

If it were so, it is what sanitarians and the British Medical Association have persistently urged on his attention as necessary, and what we were nearly brought to believe before this speech to be still unaccomplished. In subdistricts, boards of guardians are still called on to discharge many public health duties. Vaccination and the prevention of diseases still cause great conflicts of authority, and in some districts the highways, with their sewers and drains, are still in the hands of the highway boards; and, spite of the sarcastic writing of the *Times*, which says, "No one can twit us with having a mass of sanitary law, vast indeed, but in too confused and contradictory a state to be capable of ready and effectual application", this is precisely the existing state of things. The Act of 1872 did little more than transfer to the guardians the powers before exercised by the vestries—for the whole of England had been mapped out by the legislation of 1865-6 into districts—and in every district there was a sewer authority, with the same powers, obligations, and functions as are now attached to rural authorities. But the areas of these districts are so varying, so conflicting, and so entirely beyond summation or control, that sanitary progress is rendered impossible. The *Times* says it can no longer be objected that all that is wanting is to bring authorities already constituted generally and imperatively into working order. What does this mean? We confess it baffles us; but it is certain that the 49th Section of the Act of 1866 has quite failed in its "imperative" working, and the Act of 1872 in no way increases its power or applicability, or supplies its shortcomings. Sanitarians urged on Mr. Stansfeld—

1. Areas capable of supporting competent Officers.
2. Consolidation and simplification of the existing Law.
3. Unification of Sanitary Authorities.
4. Intermediate Representative County Boards.
5. Encouragement of Local Responsibility and Action.
6. Health-Officers of high status and character.

It is really amusing to read how Mr. Stansfeld, after constantly opposing these recommendations so urgently pressed upon him, is gradually coming round to an appreciation of their truth and importance; and it is still more amusing to notice how he transposes the notes of his speech to enter into unison with the Liberal ideas of his constituents at Halifax. Is it an hallucination on our part that Mr. Stansfeld told the deputations to which he refers that his intention was to lodge power in the Central Office, and that their constant iteration was the necessity of local inspectors, local boards, intermediate authorities, with only a resort to the central body in the last instance? The *Times* would have us believe that everything is in first-rate order, and yet that there are immense difficulties in the way of improvement. Our answer is the same as we have consistently urged on successive governments. Inquire locally by adequate means into the difficulties experienced in carrying into effect sanitary provisions, and the changes which should be made in boundaries and the extent of areas, before commencing any further tinkering legislation, which adds difficulty to difficulty, and every other session a new Act of Parliament to the statute-book, irreconcilable with its predecessors.

Mr. Stansfeld alleges that workmen's cottages have been improved as the direct consequence of the Act 1872. Where is the evidence of this? or that the Guardians like central interference and supervision? It is ludicrous to see what this so-called supervision did in the case of Mr. Stansfeld's inspectors, who, after two days' coaching, were sent into the country to inaugurate the new Act, and where every man hunted his own hare in such a way as to make the Local Government Board a laughing-stock through the whole empire. What one inspector recommended was in the next district disclaimed and disavowed. By one, small areas were held to be imperative; by another, large joint boards were declared indispensable.

The points for which Mr. Stansfeld takes credit are beyond rather than in the Act; and the agreements to employ skilled officers of health over large districts, persistently urged on Mr. Stansfeld and refused, but for which he now wishes to take credit, are only binding at the will of the various authorities combining to procure effective service. Mr. Stansfeld congratulates the nation on the compulsory appointment of officers of health. He forgets to say that his faulty law is satisfied by the appointment of such an officer at £10 a year, and that frequently the salary of the inspector of nuisances has exceeded, if it have not doubled, the salary of the skilled officer. We have not scrupled to assert that the execution of the sanitary law must be confided to officers of skill and competency, devoting their whole time to the duties of their office, and above fear or favour; a legal adviser, a surveyor, and an officer of health, supervised in an adequately large district by a representative local authority, have always been, in our view, essential to the proper working of these laws. There are circumstances which demand wider areas and larger authority, and this is easily provided for by county or other authorities, consisting of the chairmen of all the boards, to be governed with the addition of an equal number of magistrates, chosen at Quarter Sessions, and acting for a year: this intermediate authority to be a court of appeal, as well as a power for enforcing necessary works. Mr. Stansfeld's speech is full of the decry of centralisation; his acts were full of its extension and application. It has not been successful; and in saying so, we only speak with the voice of the various sanitary authorities in the country.

## BABY-FARMING.

"At Newton Abbot, on Saturday, Betsy Benmore was committed for trial for the wilful murder of the illegitimate child of Mary Phillips." This brief announcement has been going the round of the papers. Betsy Benmore is a woman who takes in children to nurse for hire—in other words, a baby-farmer. Mary Phillips, the mother of the child, swears that it was perfectly well when entrusted to the prisoner's care. She heard nothing from the prisoner for several weeks before the news reached her that the child was dead. If the mother had been contributing a weekly sum for the child's maintenance, communications would necessarily have been kept up between her and Betsy Benmore. The reasonable presumption therefore is, that the child was farmed out on the "lump-sum" system, being taken off the mother's hands altogether by the baby-farmer, in consideration of a given sum. The horrible feature of the "lump-sum" system is, that the baby-farmer has a vested interest in causing or accelerating the child's death. The shorter the time that it lives, the larger her profits. This system was fully explained in this JOURNAL and in a pamphlet published some years ago by Mr. Ernest Hart, and also by several of the witnesses who gave evidence before the Infant Life Protection Committee. The "lump-sum" ranges as high as £20, and as low as 30s. The baby-farmer probably thinks that the gradual extinction of the feeble spark of life in an infant is as little criminal as the Lancashire rough does the slowly kicking a wife to death; but a husband was hung for the latter crime after the last Liverpool Assizes, and at least one baby-farmer has undergone the extreme penalty of the law. At Manchester, a baby-farmer was sentenced by Mr. Baron Martin to twenty years' penal servitude for letting a child entrusted to her care slowly starve to death.

The existing law, if firmly enforced (and we have every reason to believe that our present Home Secretary will not exercise the Royal prerogative of mercy rashly), is adequate for the punishment of criminal baby-farming, when its system of foul play to the most helpless of beings has been fully exposed to the light of day in a court of justice. The complaint we have to make is, that the State does not take adequate security from persons who make a trade of nursing infants, that the infants will be properly cared for. The Infant Life Protection Act of 1872 happily asserted for the first time the principle that it is the duty of the State to protect little infants, whose lives are endangered, against their own mothers and those who place themselves *in loco parentis*. The assertion of this *principle* was a most important achievement in the interests of humanity and social reform; but the *application* of the principle was of the most limited character. It was originally intended that the protection should extend to a single infant put out to nurse for hire. The protection was not to cease at the end of the first year, but was to continue till the sixth; and provision was to be made for the periodical medical inspection of the infant and of the nurse's dwelling. Mr. Jacob Bright opposed the Bill, and succeeded in persuading the then Government to insist on confining the Bill to the case of "two or more infants" taken in to nurse for hire by the same baby-farmer; Lord Portman, in the House of Lords, excluding any case where the two infants were twins. The age was cut down to the first twelvemonth; and the system of medical inspection was discarded altogether, the infant being handed over to the tender mercies of "police supervision". What has been the consequence? That, in the entire metropolitan district subject to the jurisdiction of the Board of Works, only ten baby-farmers have been registered; and in some important towns, such as Manchester, it is doubtful whether a single baby-farmer has ever been registered. Baby-farming establishments, where only one infant is taken in at a time, escape registration altogether; and some of the worst cases of dosing or starving infants to death have occurred in these establishments.

Attention has been recently called to the case of Edward Taylor, an infant of three years, who died while in charge of a Lambeth baby-farmer of the name of Davis. According to the medical evidence, "there was not a particle of food in the stomach and intestines". The baby-farm was "in a frightful state of neglect and dirt". Mrs. Davis "was in the habit of going out and locking the child in her room for hours without food or fire." On the day of the child's death, and for several days before it, this model nurse was in a state of beastly intoxication. As the Infant Life Protection Act was originally framed, Mrs. Davis would have been required to register, and have been subject to medical inspection. As she only took in one infant at a time, and that an infant of the mature age of three, she was clearly exempt from registration under the existing law. A curious illustration of the effect of Lord Portman's amendment was afforded by a case which recently occurred in the neighbourhood of Hull. A baby-farmer was recently committed to take her trial for neglecting two infants entrusted to her care, and thereby causing their deaths. A member of the Committee of the Infant Life Protection Society wrote to the local authorities, pointing out that the woman must have violated the provisions of the Infant Life Protection Act, and therefore be obnoxious to its penalties. The reply was: "The woman has not violated the provisions of the Infant Life Protection Act. 'Twins' are excepted from the operation of that Act; and the two infants whose lives were sacrificed were twins!"

There is one remarkable feature connected with the case of Betsy Benmore which it remains to notice. "The Bench", we are told, "committed the prisoner for trial, expressing regret that none of the medical men who were applied to would attend the child. This remark elicited applause in court." What is everybody's duty is nobody's duty. The medical men of Newton Abbot, or at least those of them who were "applied to", had probably their hands quite full of other work. Happily, inhumanity is a charge to which the members of the medical profession are rarely, if ever, obnoxious. There is no class of persons that devotes so large a portion of their time to the relief of human suffering, without any reward except the answer of a good conscience, as the medical profession. The irony of "the Bench" falls blunted and harmless, and so does the applause of the unthinking crowd. But if the provisions of the Infant Life Protection Bill, as originally introduced, had been passed into law, Betsy Benmore, although she only took in one infant to nurse for hire, would have been obliged to register, and the Medical Officer of Health of Newton Abbot would have been obliged to inspect the infant entrusted to her and her establishment. There would have been a special officer told off for this special duty, and there would have been no need to go rushing about Newton Abbot applying for medical aid. The Metropolitan Board of Works felt so strongly the necessity for arming themselves with more ample powers for the registration and supervision of baby-farms, that they placed themselves in 1853 in communication with Mr. Lowe, the then Home Secretary, and urged upon him the advisability of his recommending the Government to introduce a measure for that purpose. Mr. Lowe declined; but Mr. Cross is now at the Home Office, and there is every encouragement to the Metropolitan Board to renew their application. If the Government will not take the matter up, let Sir James Hogg himself introduce an amending measure in the coming session. The class of politicians represented by Mr. Jacob Bright, which thinks it can detect a conspiracy of medical men against the liberty of the subject in every measure of social or sanitary reform, is, happily, not powerful in the present Parliament.

## MANSLAUGHTER BY INFECTION.

This week, at Coventry, after a long coroner's inquiry, a verdict of manslaughter was returned against a midwife named Elizabeth Ingram. The evidence showed that she had attended a large number of confinements, and had conveyed puerperal fever to the patients. On the 18th of December, she was cautioned by the coroner to cease from practice, but did not do so. Since then, two inquests have been held on fatal cases she had attended. At the first inquiry, Ingram was censured, and she was committed to take her trial on a charge of manslaughter. Four other cases of puerperal fever have proved fatal. The case is one which presents features of obvious importance. The principle affects medical men not less than midwives. Is it certain that puerperal fever is contagious? Supposing it to be so, is a person who conveys contagion to a patient open to conviction of manslaughter? Such a case raises questions highly important in science and very momentous in practice.

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Dr. Thomas Underhill of West Bromwich has qualified as a magistrate for the county of Stafford.

The Hospital Sunday collection in Liverpool amounted to £8,000. The Unitarian chapel heads the list with £423.

Dr. E. M. Grace, the well-known cricketer, is a candidate for the coronership of West Gloucestershire, rendered vacant by the resignation of Mr. W. S. Garsford, who has held the office for nearly twenty years.

The proceeds of the opening concert of the third season of the Royal Albert Hall Amateur Orchestral Society, of which the Duke of Edinburgh is president, will be given to St. Thomas's Hospital. The Prince and Princess of Wales patronised the concert.

The Mayor of Birmingham has presented a cheque for £5,308 to the chairman of the General Hospital, as the proceeds of the congregational collections made in aid of the charity on the last Hospital Sunday. The General Hospital alone has now received from this source more than £26,000.

Dr. John Willett, of Shrewsbury, is a candidate for a vacant coronership in the county of Salop. His address is awkwardly worded, but it lays just stress on the necessity of medical instruction in a public officer who is to inquire, commonly without other aid than that of a single medical witness, into the cause of death.

A sum of £1,000, bequeathed by Miss Harrison of Sheffield, has been appropriated by the Turkish Aid Mission Society towards the endowment of a professorship in the medical department of a Christian College established by the society at Aintab in Central Turkey. It is proposed to raise £5,000 in Great Britain for the full endowment of the professorship.

Mr. Murray promises for the ensuing season a new book by Darwin, called *Insectivorous and Climbing Plants*. It will consist of two parts, the first of which is devoted to a discussion of the sensitiveness of the leaves of *Drosera*, *Dionæa*, *Pinguicula*, etc., to certain stimulants, and their power of digesting and absorbing animal matter; and the second to the habits and movements of climbing plants.

### THE HOSPITAL FOR WOMEN.

We are informed, by good authority, that although the Committee of the Hospital for Women in Soho Square refused to investigate the condition of the nursing in that institution when six of the medical officers stated that improvement was necessary, and felt themselves obliged to resign their appointments as they could not conscientiously hold office longer under such a *régime*, the Committee have since discharged, not only every nurse, but even the dispenser and hall porter. The house-physician and matron both resigned almost at the same time that the medical officers ceased to act.

### THE DANGER OF ANÆSTHESIA.

UNDER the above title, the *Pharmaceutical Journal* records the death of a patient in the dental chair, whilst under the influence of chloroform, as having taken place at Boston. The medical evidence at the inquest was to the effect that the lungs of the deceased were affected with phthisis, and unable to throw off the influence of the chloroform. The jury, however, returned a verdict that the death was due directly to the inhalation of the chloroform, and added a rider, recommending legislation to prohibit the administration of chloroform, as in their opinion, in the present imperfect state of knowledge respecting its action, its use as an anæsthetic is quite unjustifiable. The *Scientific American* deprecates special legislation against the use of chloroform as an anæsthetic, which it considers to be unnecessary, because the growing tendency of the medical profession in the United States is to use either pure sulphuric ether or a mixture of chloroform, ether, and alcohol, whilst the employment of nitrous oxide in dentistry is greatly extending.

### CLINICAL SOCIETY OF LONDON.

AT the annual meeting of this Society, held on Friday last, the gentlemen whose names were published in the BRITISH MEDICAL JOURNAL of the 2nd instant, and who had been nominated by the Council, were unanimously elected as officers of the Society for the ensuing year. The reports of the Council and of the Treasurer were read, and both contained encouraging accounts of the condition and prospects of the Society. The Council's report dwelt at some length upon the debate on pyæmia, which occupied four meetings last spring, and which, although it was a novelty, was a great success. Its publication *in extenso* had added considerably to the expense of the *Transactions*, but had greatly enhanced the value of the volume. Members of the Society were urged to bring forward for discussion cases which had been thoroughly reported in all points. The Treasurer's report stated, that the present yearly income of the Society was about £288; the annual expenditure about £250; the balance in hand about £100; and the amount invested in consols £300.—Mr. Hulke, in proposing a vote of thanks to the President and Vice-Presidents, remarked that, during Mr. Hewett's tenure of office, he had been only once absent from the presidential chair.—Mr. Mac Cormac seconded the proposition, which was carried by acclamation.—Mr. Prescott Hewett thanked the meeting for the vote of thanks they had just passed, and thanked all the members for the support they had given him. He begged leave to congratulate the Society on the new President they had just chosen (Sir William Jenner).

### THE OBVIATION OF STAMMERING.

IN a lecture on singing, speaking, and stammering, delivered at the Sunday Lecture Society on the 3rd instant, by Dr. W. H. Stone, the lecturer mentioned a fact not generally known, that the late Bishop of Winchester suffered from stammering in his youth. By careful treatment, however, this defect was obviated, and Dr. Wilberforce, as is well known, subsequently became one of the most easy and agreeable of speakers.

### COLD AND ALCOHOL.

ON New Year's Day, a private of Her Majesty's Fusileer Guards had leave of absence, and visited various public-houses in the metropolis in the course of the day. He became very jovial; and at midnight, when going home with a companion, he suddenly staggered into his friend's arms and died forthwith. At the inquest, it was proved that the cause of death was congestion of the lungs, brought on, the jury said, by the intense cold. Doubtless the cold had a great deal to do with it; but the repeated changes of temperature to which the lungs were exposed in the visits to the various public-houses, had also something to do with it. Probably these visits took their origin in the popular impression that alcohol in all its forms increases the body-heat, and that the different drinks taken would keep out the cold. The consequence, however, was not in accordance with this view, and in the cold of midnight the vasomotor disturbance of the pulmonic circulation became so great that fatal congestion of the lungs came on. In all probability there was a general lowering of temperature from the action of the alcohol upon the cutaneous vessels, and the general chill aided in the production of the pulmonary congestion. The lesson taught is one with which we are familiar enough; but unfortunately it will probably affect but little the erroneous impressions which obtain about the action of alcohol, as to which it cannot be too widely known that it lowers instead of raising the temperature of the body.

### BLIND BEGGARS.

WE observe that, at a meeting of the Ipswich Blind Institution, Lord Hatherley commented on the evil resulting from giving to public mendicants. With this view we entirely concur. Those who have the longest experience among the blind, are satisfied that, as a rule, those who beg in the streets are unworthy of relief, and it is better not to give at all than to give indiscriminately; at the same time, there is another side to this question. There are not a few among blind beggars who feel the degradation acutely, but who prefer this life to their only alternative of going into the workhouse. If such persons be not rescued from the streets, they are likely to lose the sense of shame, and to become beggars for life. The principal agencies at work against mendicancy among the blind, are the associations for their employment, which now exist in most of our large towns; and societies, of which the Indigent Blind Visiting Society is the principal, which, besides raising the moral and intellectual status of the blind, gives relief to those who are unable to maintain themselves, but in an organised methodical way. The better the general and technical education of the blind becomes, the smaller the residuum to be dealt with by way of charity; but what is important to remember is, that from old age, infirmity, or other causes, that residuum must always remain a large one, and that the way to deal with it, is not to ignore its existence, or to hand over all such unfortunates to the workhouse, but to assist each case by kindness and wisdom, and by such machinery as will render acting from impulse or deception alike impossible.

### PHYSICAL TRAINING FOR SOLDIERS.

PHYSICAL health and physical strength, we are told, are the objects now to which the military authorities must chiefly attend if they wish to improve our forces. Powers of endurance, activity of body, and rapidity of locomotion, are points to be looked to in the training of our soldiers. We have remarked, in our columns, on the necessity for more regard to the subject of proper physical training than it has received; a necessity which is forced upon those whose life, in a great metropolis, especially tends to the deterioration of health. What do we imply by training but the means by which the development of force and the power of regulating the movements of the body are secured. For a soldier, what we most require is activity of motion. We cordially agree with the remarks which a contemporary makes on the subject of military training. We should like to see less drilling and more gymnastic exercise. What assistance can the stiffness of the military drill afford in the hurried assault or the quick retreat? Let us learn a lesson from classic wisdom, and develope the physical powers of our soldiers to the full extent, which the various demands of active service require. It is a question which ought to interest the members of the medical department of the army; and it is to them that we must look for the careful instructions which ought to regulate the system of gymnastic exercises. There is Professor Parkes, and there are many others, who are fully competent for this important service, and to whom the country will feel grateful for the exhibition of energy and scientific knowledge in the work of the physical training of our national defenders.

### SHELTER FOR CABMEN.

We heartily applaud the movement which has been set on foot, having for its object the providing of places of rest and shelter at cab-stands. When the needless exposure which cabmen suffer from the want of such shelter is considered, it can scarcely be wondered at if they should resort to the publichouse to while away the dreary hours in which they are waiting for a fare. It is not creditable to a city like London that it is only now beginning to recognise this fact. In Liverpool and other large provincial towns places of shelter have been provided for the men, and do much to promote the health and comfort of an useful and large class of public servants.

### A RING IN THE WIND-PIPE.

The successful removal of a ring from the larynx by laryngotomy was performed (for the first time in America) in New York recently by Dr. G. M. Lefferts. The ring had been impacted in the larynx for four years, being swallowed when the child was but six and a half years old. Severe convulsive spasms occurred at intervals, and were increasing in severity and number, when a laryngoscopic examination was made and an operation decided upon. The ring was found grasped by the left aryepiglottic fold, but came away readily when seized by forceps. A tracheotomy-tube was left in for several days, during which there was slight inflammation of the larynx, but the progress made was rapid and satisfactory. The ring was a solid one, about the size of a sixpence, and belonged originally to a watch or locket. The child is now quite well.

### KLEPTOMANIA.

At the Manchester City Sessions, on the 9th instant, a lady was indicted for stealing various articles, as sweets and scent, at shops in that town. Insanity was set up as a defence, and successfully, the jury finding that she committed the acts while in a state of unsound mind. The insanity, however, was not inferred solely from the acts. Evidence was forthcoming that she had had an attack of puerperal mania in 1872, and that since this date she had never been quite herself, but had laboured under delusions concerning her children, etc. In this case, the stealing was simply an insane act committed by an insane person, whose insanity was manifested in various ways; and this, we believe, will generally be found to be the case. Such stealing is frequently found in the early stages of general paralysis, and not long ago a paralytic patient actually served a term of imprisonment in one of our metropolitan prisons. But the diagnosis here, as in the case above mentioned, is by no means difficult.

### THE BURIAL OF THE DEAD.

Mr. Seymour Haden, in a letter which fills more than two columns of the *Times*, argues that all the evils which the advocates of cremation assert are inherent in the principle of interment, arise from the fact that the dead are improperly buried. Mr. Haden contends that "the natural destination of all organised bodies that have lived and that die on the earth's surface is the earth"; that the source of the evils arising from our present mode of interment is to be found "not in the burial of the dead, but in the unreasoning sentiment which prompts us to keep them unburied for as long as possible, and then to bury them in such a way that the earth can have no access to them". The burial of the body, Mr. Haden asserts, "supposes its resolution by the direct agency of the earth to which we commit it, and that the earth is fully competent to effect that resolution", and he holds that "to seek to prevent this beneficent agency by enclosing the dead in hermetically sealed coffins, brick graves, and vaults, is in the highest degree unphilosophical, since it does but engage us in a vain resistance to an inevitable dispensation, and since it has led us to accumulate in our midst a vast store of human remains in every stage and condition of decay". Mr. Haden proposes that interment should take place in not more than thirty-six hours after death; and that a public officer should be appointed in each district to take cognisance of everything relating to the dead of that district; and he suggests that coffins, if they are used at all, should be of some light permeable material such as wickerwork, open at the top, "and filled in with any fragrant herbaceous matters that happen to be in season". The earth would not then be prevented from doing its own work of resolution, which would be accomplished in five or six years, and we might bury again in the same ground. Mr. Haden recommends the abolition of the permanent tenure of the ground by the dead, and of the use of brick graves and vaults, and suggests that our dead might be buried in the lowland tracts of alluvial soil on the Kent and Essex banks of the Thames, by which means much of the valuable land in and about the city, now occupied as cemeteries, might be restored to better uses, and the lowlands of Essex and Kent be drained, planted, and beautified, with equal benefit to the land and to ourselves. Cremation Mr. Haden objects to, as a troublesome and wasteful form of disposal of the dead; on this head, however, we differ with him.

### MANCHESTER PROVIDENT DISPENSARY ASSOCIATION.

We are glad to learn from the *Charity Organisation Reporter*, of the 6th instant, that the Manchester Provident Association is progressing favourably, and that its Honorary Secretary looks forward confidently to the future. He writes: "We are getting our provident dispensaries gradually to work. We open another on the 5th January, and a third about ten days after. We have fixed upon seven to begin with. It will take time to educate the people; but, as to our ultimate success, I have not the slightest doubt."

### THE OBSTETRICAL SOCIETY OF LONDON.

The annual meeting of this Society was held on Wednesday, the 6th instant, when a large number of Fellows were present. The Treasurer's report, read by the Secretary, showed that the finances were in a very satisfactory state. Considerable additions had been made to the library during the past year: the report of the Honorary Librarian (Dr. Aveling) showing that, "a larger sum than usual had been spent on books; that more works had been presented; that more visitors had entered the library, and that more books had been taken out of it, than in any previous year". The balloting list of officers for the ensuing year, recommended by the Council, was unanimously approved of, Dr. Priestley being the new President. The retiring President, Dr. Tilt, in his address, referred briefly to the loss sustained in their ranks by the death of fourteen Fellows of the Society during the past year, including Dr. Thomas Ballard, Dr. Frederic Bird, and Dr. John J. Phillips. The name of Dr. Bird called to mind the rapid strides that the subject of ovariotomy had made during the last thirty years. In 1843, Dr. Bird performed his first operation, and for the next ten years he remained the chief London operator. In 1850, Dr. Robert Lee, when preparing a paper for the Royal Medical and Chirurgical Society, endeavoured unsuccessfully to obtain from Dr. Bird the records of his thirteen cases, which caused much discussion at the time, and provoked much ill feeling. Dr. Bird subsequently published an outline of all his cases, including eighteen in which an exploratory incision had been made. His conduct with regard to ovariotomy was perfectly honourable; he no more concealed his fatal than his successful cases. The death of Dr. Phillips was felt to be a great loss. He was the very model of a secretary, with great aptitude for business; he was never in a hurry; he had always his work well in hand. He was as judicious in counsel as in debate, and a charming reader. To make up for the losses sustained by death, etc., forty-eight new Fellows had been elected during the past year, making a total, including twenty-seven Honorary Fellows, of 657. Some of the most animated discussions had been the *impromptu* ones on specimens exhibited, which were always of interest. The forthcoming volume of the *Transactions* will be enriched by an index to the fifteen volumes already published, which will prove of great service for reference, the Society being indebted to Dr. Potter for this addition. During the past year, the question of the admission of women as Fellows was discussed by the Society, and negatived almost unanimously, the verdict really meaning that women were not qualified by nature to make good midwifery practitioners; that they were unfit to bear the physical fatigues and the mental anxieties of obstetrical practice; and that it was unfair to society to encourage women to suppose that they could ever fit themselves to assume the responsibility in some of those formidable obstetric emergencies which too often completely paralyse men of experience as midwifery practitioners. The education and registration of midwives had also been persevered with, but owing to the change in the ministry, legislation on the subject was still in abeyance.

### THE PAYMENT OF CLUB DOCTORS.

Dr. Milsted Harmer's proposal for improving the payment of club doctors, which we noticed a few weeks ago, has been unfavourably criticised by the *South-Eastern Advertiser.* Though this newspaper speaks in high terms of the self-denying manner in which medical men, as a rule, discharge the duties of their laborious and responsible profession, and though it maintains that they ought to be well paid, yet it expresses surprise that any complaint is made of the remuneration given by benefit clubs. It maintains that the profession at large does not feel the grievance; and this statement it attempts to prove by pointing to the competition which there is for club appointments. That such competition exists, no one will deny. We have repeatedly referred to it with regret. It is, however, as a mere matter of self-defence that medical men go in for these appointments, knowing well that, unless they accept the terms offered, practitioners from a distance will be introduced to the detriment of the local doctors. It must not, therefore, be taken as a proof that they are satisfied with the remuneration. We can assure the *South-Eastern Advertiser* that such is very far from being the case. There is, on the contrary, a wide-spread and very general feeling of discontent; such a feeling is, in our opinion, well grounded. The class of persons usually enrolled in clubs can quite afford to pay more, and we trust that the agitation upon the subject will not cease until some more equitable arrangement has been arrived at, not merely in Sussex, but throughout the whole country.

### SMALL-POX IN MONTREAL.

It would seem that preventive measures, or isolation with regard to small-pox, are needed in this flourishing city. The small-pox is said to be very prevalent indeed there, and is rapidly spreading in all parts of the city. For the past two months the deaths from small-pox have averaged 35 a week, and that in a population of about 120,000. In London, with nearly four millions of inhabitants, 35 deaths a week from small-pox would cause a panic, so that the state of alarm produced by it, in so comparatively small a city, can be readily imagined.

### SALE OF POISONS ACT: A NICE POINT.

An inquest was held on the 4th instant on the body of Celine Marin, a young Frenchwoman who was accidentally poisoned. According to the evidence, she had been suffering from diarrhœa, and sent out for some bismuth, which had been recommended medicinally. The young man who was sent rang the bell of a druggist in Rathbone Place (it being Sunday), and was served by "a lady" with a spoonful of white powder without directions, which the deceased took in the accustomed manner, and was immediately seized with burning pains, in consequence of which Dr. Roupell was sent for; and he did his best to ascertain what poison had been inadvertently served, with a view to administering an antidote. The "lady" who served the poison also called on the deceased with a doctor; and she said it was an unfortunate affair, that it was an accident; but she could do nothing more, as her husband had made many mistakes on similar occasions, and nothing was done to him. The deceased had not been taking any medicine previously. The medical evidence proved that death was caused by the action of corrosive sublimate, which, although it somewhat resembles bismuth in appearance, could be readily distinguished from it by a practised eye, though a woman might readily mistake the one for the other. Winifred. Kaut, who sold the poison, was examined at her own request, and stated that she was placed in charge of the house, and had nothing to do with the business carried on by Mr. Kerpinns, who was never there on Sunday. On the 13th of December, a man came to the shop and asked for sixpennyworth of rhubarb-powder and twopennyworth of bismuth. She gave him the rhubarb, and what she verily believed to be bismuth from the same place that she used to take it from. The shop was shut; but she went to the same place, and took it from the same bottle. She should not have given it him on any account whatever if she had not known the man. She saw "bi" on the bottle; but she did not stop as she should have done, and in her hurry she measured him some out in a spoon quickly. It was a very small spoon, and she gave it him nearly full. The coroner, in summing up, said there was no doubt this woman died of having taken corrosive sublimate. By law, persons were not allowed to sell poisons unless they were properly qualified under the Pharmacy Act; but the woman Kaut did not come under the Pharmacy Act, because she did not keep a shop in which poisons were sold. The jury said they wished to have more evidence as to whether the witness Kant had not been in the habit of serving in the shop. The inquest was adjourned for that purpose.

### THE HAMPSTEAD HOSPITAL.

At the last meeting of the Metropolitan Asylums Board, a resolution was carried in reference to the Hampstead Hospital, directing the local committee "to proceed, under the reference to them of the 24th October last, to obtain plans for the construction of the buildings at Hampstead". An amendment was moved by Mr. Marshall, the representative of Hampstead on the Board; and all the arguments against placing the hospital near the heath were repeated, but in vain. The motion was carried by twenty-eight votes against four.

### THE REGISTRAR-GENERAL'S WEEKLY RETURN.

It is announced that, from the beginning of this present year, the weekly return will contain information relative to the births and deaths registered in London and twenty other large cities and towns in the United Kingdom, having an aggregate population of 7,739,490 persons; and, in addition, will also be found similar facts relating to an "outer ring" of parishes situated around the Registration Division of London, of which the estimated population is 762,007. The population embraced by the enlarged weekly return will, therefore, be eight millions and a-half. The return will also contain information respecting the current death-rate in twenty-four great cities situated in all parts of the world, and containing a population of about ten millions. In the United Kingdom last week, 6379 births and 5834 deaths were registered in London and twenty other large towns. The mortality was at the rate of 39 deaths annually in every 1000 persons living. It was 45 per 1000 in Edinburgh, 66 in Glasgow, and 42 in Dublin. In seventeen English provincial large towns, the rate averaged 39 per 1000 against 35 in London. It was least of all, 19, in Portsmouth; and as high as 44 in Liverpool, 45 in Bristol, 48 in Salford, and 49 in Manchester. In London, 2853 births and 2296 deaths were registered; the births exceeded the average by 340, and the deaths by 615. The annual death-rate was 35, a result which may be attributed to the low temperature which prevailed until, and including, the 1st instant. To the principal zymotic diseases 184 deaths, being 84 below the average, were referred. Scarlet fever caused 61 deaths. Cold weather prevailed without interruption from December 9th to January 1st, both days inclusive; during this period of twenty-four days, the mean temperature averaged 31.1 deg., which was 7.9 deg. below the average. The deaths referred to diseases of the respiratory organs, which, in the five preceding weeks, had averaged 703, rose last week to 804, which exceeded the corrected weekly average by 380; of which 523 resulted from bronchitis alone. The mean temperature of the air last week at Greenwich, was 43.1 deg., or 6.6 deg. above the average. Rain fell to the extent of .12 of an inch.

### CLUB-PAYMENTS.

A circular has been issued by the North Wilts Medico-Ethical Association, notifying to all members of sick benefit societies that the medical men in North Wilts have resolved unanimously not to undertake or continue to attend any club at a less rate than four shillings per member *per annum;* oddfellows and foresters, five shillings; shepherds, six shillings; druids, seven shillings; and a fee of two shillings and sixpence for examining a candidate desirous of entering. "No clubman possessing or occupying premises rated at £10 shall be entitled to medical attendance". "All clubmen to apply for attendance or advice from 9 A.M. to 10 A.M. except in cases of emergency". This new code has been issued upon very brief notice, and as it decides that it is to take effect from the "coming year" the clubs are all taken by surprise, and are by no means satisfied with this peremptory order.

### ROYAL COLLEGE OF SURGEONS.

THE following is the programme of the ensuing lectures at the Royal College of Surgeons. On Monday, February 1st, Professor Erasmus Wilson, F.R.S., will commence his course of six lectures on Dermatology, and will be succeeded by Professor W. K. Parker, F.R.S., who will deliver eighteen lectures on the Structure and Development of the Skull, in continuation of his course of last year. Professor Henry Lee, F.R.C.S., will deliver six lectures on Syphilis and on some Local Diseases affecting the Organs of Generation; and Professor William Turner, F.R.S.Ed., will deliver three lectures on the Comparative Anatomy of the Placenta. Mr. Le Gros Clark, the President of the College, will deliver the Huntcrian Oration on Saturday, February 13th.

### UNIVERSITY OF LONDON.

A MEETING of Convocation will be held on Tuesday next, January 19th, when the following will be the order of business. The Chairman will take the chair at 5 P.M. A. P. Hensman, B.A., and G. Serrell, M.A., will move the following resolution: "That, in the opinion of Convocation, it is desirable that women should be permitted to take degrees in Arts in this University." Sir William Jenner, Bart., M.D., and F. T. Bond, M.D., will move the following resolution: "That, in the opinion of Convocation, it is desirable that a special examination be instituted in this University in the subjects which relate to Public Health."

### DEATH AFTER INTRAVENOUS INJECTION OF CHLORAL.

THE intravenous injection of chloral to produce anæsthesia for surgical operations (and in the treatment of acute tetanus), introduced by M. Oré of Bordeaux, and practised in ten or twelve cases by MM. Deneffe and Van Wetter, has, in a case of ovariotomy, been followed by death, before completion of the operation, which was performed by Dr. Lande of Bordeaux. The patient had lost a good deal of blood; to this the death is attributed by the reporters of the case; but it will probably be thought that the case illustrates some of the inherent dangers of this mode of producing anæsthesia.

## SCOTLAND.

THE Paisley correspondent of the *Glasgow Herald* says, that, during the past week, the death-rate in Paisley was sixty-five per 1,000 *per annum.*

### SCIENCE LECTURES IN GLASGOW.

FOLLOWING the example of some of the other large cities, Glasgow has started an association for the purpose of having lectures on scientific subjects, by eminent men in various departments. This winter, lectures are to be delivered by Professors Roscoc, Sir Wm. Thomson, and Williamson, and Dr. Carpenter.

### THE EDINBURGH MEDICAL MISSIONARY SOCIETY.

WE have received the Report of the Edinburgh Medical Mission for 1874. This Society has now been in existence for thirty-three years, and, from a small beginning, its operations have gradually expanded. It has educated and trained many young men who are now labouring as fully qualified medical missionaries, both at home and abroad, and its success has led to the establishment of similar institutions elsewhere. At the dispensary in the Cowgate of Edinburgh, "the number of patients registered, only on their first visit, during the past year, is 4051; 1575 patients were visited at their own homes, 307 poor women attended during their confinements, and 172 children vaccinated". In addition to the work conducted at the dispensary, there is a training college in connection with the Society, where there are now thirteen young men carrying on their education at the University with a view to becoming medical missionaries. Nurses for the sick poor are also trained and employed as agents of the mission. As the premises in the Cowgate have for some time been found quite insufficient, it is proposed to erect a suitable building, in which all the branches of the work may be carried on, as a memorial to the late Dr. Livingstone. The estimated outlay for this undertaking is £10,000, of which sum nearly £4000 has been already contributed.

## IRELAND.

THE total amount collected on Hospital Sunday in Dublin and the surrounding district was £3,300.

THE births registered in Dublin for the week ending January 2nd amounted to 205, and the deaths to 269. This increase in the death-rate over the birth-rate was principally due to the cold and damp weather, which raised the deaths from diseases of the respiratory organs from 47 in the previous week to 88 in the past week.

### TYPHOID FEVER IN THE GUARDS.

WE hear that the typhoid cases at the Beggar's Bush barracks have been only three in number; two of the patients, Captain Van der Weyer, and Captain Langham, have, unhappily, died; the third patient, not an officer, recovered. The origin of the disease has not been traced to any local cause; and, in the case of Captain Van der Weyer, it is believed that it was not contracted in the barracks.

### THE LATE DR. JOHN O'DONNELL.

THIS veteran member of the profession has just died at the advanced age of nearly ninety years. He was present at Waterloo, and retired on half-pay in 1825; and, since then, had resided at Ballyshannon, acting as surgeon to the constabulary, coastguard, and recruiting services. He was much respected, and his funeral was attended by a large number of the local gentry and townspeople of Ballyshannon.

### THE PUBLIC HEALTH ACT.

AT a special meeting of the Corporation of Limerick held last week, the salaries of the sanitary medical officers were increased from £10 to £20 *per annum.* They had previously been fixed at £10; but pressure from the Local Government Board obliged the Corporation, much against their inclination, to change them to their present amount.

### SCARLATINA IN DUBLIN.

THE deaths from this disease during the last eighteen months amount to 1,012; and, in reference to this epidemic, the Dublin Sanitary Association lately communicated with the Public Health Committee of the Corporation, requesting them to issue placards for the purpose of warning the inhabitants of infected districts of the necessity for disinfection and the isolation of patients, etc. The Public Health Committee, however, have refused this very reasonable request, and state that they consider that the proper discharge of their duty by the medical officers, and by their sanitary staff, is sufficient for any emergency. This matter has been repeatedly urged upon the Public Health Committee, but that body object, afraid of causing a panic by the issuing of these placards! It has, however, been suggested that the Dublin Sanitary Association, by a trifling subscription from its members, could easily distribute or post up these warnings and instructions, which they justly consider necessary.

## WHAT HAVE EXPERIMENTS ON ANIMALS DONE FOR PHYSIOLOGY?

### II.

An eminent physiologist, to whom we have put this question, has favoured us with the following reply.

You ask me to state my opinion as to the question, whether or not the science of physiology has been materially advanced by the practice of making experiments on living animals.

The only way in which a correct opinion can be formed on this subject consists in estimating the proportion in which the fundamental facts of the science have been derived from such experiments. To do this completely, would be a long and difficult task, though not impossible; for in every course of physiology, in every text-book, there is found ready to hand such a synoptical view of this subject as is calculated for his purpose. Any intelligent student who has carefully read through some one of those elementary treatises on physiology which represent the present position of the science, such as those of Ludwig, Brücke, Wundt, Fick, or Hermann, would, I think, be competent to form a reliable opinion on the subject.

In examining any such work, he would find that each chapter might be described as consisting of little more than a system of experimental results, stated and arranged in such order as to exhibit to the reader their mutual bearing on each other. He would find, in short, that of all sciences physiology is, at the present stage of its progress, more entirely experimental than any other, so that the physiological teacher or writer is compelled by the nature of his subject strenuously to guard against laying down general principles or giving any shape to his conclusions more definite than that which they necessarily derive from their experimental basis.

I have this morning set down a series of elementary questions on the great functions of respiration, circulation, digestion, and secretion. I send them to you. You will, I am sure, agree with me that they are all very elementary—such, indeed, as might with propriety be set to a student at the end of his first course of physiology. Yet, not one of them could be answered without stating the results of experiments on animals. The obvious significance of this fact is that, if experiments ought not to be made, physiology ought not to be taught, and students ought not to be examined in it. If it be wrong to obtain experimental results, it is, at least, equally objectionable to use them.

I may add, that I do not think it at all likely that experiment will be less needed in physiology for some time to come than it is at present. Anyone who is willing to take the trouble to cast his eye over the records of a recent physiological research as embodied in such works as Ludwig's *Arbeiten*, or Pflüger's or Du Bois-Reymond's *Archiv*, will have no difficulty in satisfying himself that the rapid progress which is now being made in the application of the exact methods of chemistry and physics to the investigation of the phenomena of life, would almost entirely cease, were the lower animals exempted from lending their unwilling aid to the physiologist in his laborious investigations. It is further to be considered in reference to this point, that we have only, as it were, just attained to that exactitude and method in experimental work which gives to such work its highest value, so that there never was a time in the history of physiology or pathology at which the competent investigator could look forward so confidently to the attainment of valuable results as he can at the present moment.

I do not imagine that among the many intelligent and highly educated persons who are now agitating against what they call vivisection, there are any who seriously intend to obstruct the progress of scientific investigation. But I have no doubt that many either forget, or were never aware, that it is by the method they so stigmatise that every great step has been made in the acquirement of the knowledge, which we now possess of the physical and chemical processes which constitute our bodily life.

### List of Questions.

*Circulation.*—1. State by what mechanical agency the circulation is maintained, and (approximately) what quantity of mechanical work is done per minute in maintaining it.—2. What is the velocity of the blood-stream in the great arteries: by what means can it be measured?—3. Describe the vaso-motor nervous system, and state what is known as to the situation of the vaso-motor centre.—4. State what is known as to the functions of the nerves of the heart. By what channels is the influence of the cerebro-spinal nervous centres exercised on the heart?—5. Describe the capillary circulation, referring to the modifications it undergoes in irritated or injured parts.

*Respiration.*—6. Explain the fact that the organs contained in the thoracic cavity are exposed to a pressure less than that of the atmosphere. Prove the fact itself, and state its influence on the circulation.—7. State what is the action of the internal intercostal muscles in respiration.—8. Describe the phenomena of dyspnœa, and prove that they are dependent on defects of oxygen, not on excess of carbonic acid.—9. Prove that the carbonic acid discharged in respiration is partly derived from the decomposition in the pulmonary capillaries of the carbonates of the blood.—10. What are the functions of the superior laryngeal nerve in respiration?—11. Describe the absorbent system of the lungs.

*Animal Heat.*—12. What grounds exist for believing that the cerebro-spinal nervous system exercises a direct influence on the temperature of the body?—13. Describe the distribution of temperature in different parts of the body of the higher animals, and state what is the probable temperature of the blood in man.

*Digestion.*—14. Explain the fact that during mastication of food the secretion of saliva is increased. State by what changes in the salivary glands this is accompanied.—15. Explain and account for *post mortem* digestion of the stomach.—16. Explain the mechanism of vomiting.—17. State what are the effects of reabsorption of the colouring matter of bile, and explain its mechanism.—18. Prove that the liver contains in large quantities a substance which is convertible into grape-surgar, under the influence of amylolytic ferments.—19. Describe the peristaltic contraction of the intestines, and state by what nerves and nervous centres it is governed.

*Kidneys.*—20. State what is known as to the conditions on which albuminuria depends.—21. State what is known as to the seat of origin of urea in the animal economy.—22. Describe the absorbent system of the kidney.—23. Describe the structure and functions of the ureters.

## ROYAL COLLEGE OF SURGEONS OF ENGLAND.

At the Quarterly Meeting of the Council of the College, held on Jan. 14th, a resolution was brought forward by Sir James Paget, and adopted by the Council, the purport of which was to propose a method of appointing Examiners under any conjoint scheme for an examination for practice in England, which method, if approved, may be submitted to other authorities co-operating in such scheme, and, if accepted by them, may be adopted by this College in the event of its obtaining the Enabling Act. The outline of the plan is as follows: The appointments of Examiners to be divided among the co-operating authorities; each authority to make the appointments assigned to it in such way as it may think fit; the appointment of not fewer than ten Examiners, nor less than one fourth of the whole number, including therein not less than three-fourths of the Examiners in Surgery, and not less than half of those in Anatomy and Physiology, to be assigned to the Royal College of Surgeons; the Universities to appoint one fourth of the Examiners in each of the subjects of examination; and the rest of the Examiners, including one-fourth of those in Anatomy and Physiology, and three-fourths of those in all other subjects except Surgery, to be appointed by the College of Physicians and the Society of Apothecaries, in such proportions as they may think fit; supplemental Examiners not exceeding one-fourth of the ordinary Examiners to be appointed in each of the subjects of examination, to act in place of ordinary Examiners disabled by illness or otherwise; the supplemental Examiners in Surgery and in Anatomy and Physiology to be appointed by the College of Surgeons, and those in the other subjects by the College of Physicians and Society of Apothecaries, in such manner as they may think fit.

# UNIVERSITY INTELLIGENCE.

## UNIVERSITY OF OXFORD.

Radcliffe Travelling Fellowship.—The examination for this Fellowship will begin on Tuesday, February 9th, in the medical department of the museum.

Physical Science Scholarships.—On Tuesday, February 9th, an examination will be held for at least two Physical Science Junior Studentships, of the value of from £85 to £100 *per annum*, and tenable for five years from the day of election.

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Bequests to Liverpool Charities.—Mr. R. L. Jones, timber-merchant, of Liverpool, has left the bulk of his property to the charities of Liverpool, which will, it is expected, benefit to the extent of about £325,000. The deceased gentleman was a partner in the firm of Jones, Bland, and Co., one of the oldest firms connected with the Liverpool timber trade.

# REPORTS OF SOCIETIES.

## PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, JANUARY 5TH, 1875.

Sir W. JENNER, Bart., K.C.B., M.D., F.R.S., President, in the Chair.

*Diseased Kidney.*—The report of the Morbid Growths' Committee on Mr. LUCAS's diseased kidney was read. The kidney, which measured six inches by three, was lobulated and uneven in its surface. At its lower end was a cavity formed from dilated calices. The upper end was but slightly altered, and the ureter was unchanged. In the middle of the kidney was a mass about an inch across, consisting of the normal elements of kidney structure. As the cavity was approached, the kidney tissue was gradually lost and merged into the usual material of scrofulous disease of the kidney.

*Aneurism of the Mitral Valve.*—Dr. WICKHAM LEGG exhibited two cases of aneurism of the mitral valve; the one at an early stage, the other more advanced. He regarded the term aneurism as of doubtful applicability, but preferred it to the term hernia. One aneurism was on the smaller flap of the mitral valve; the other on the larger. Both were the result of ulcerative endocarditis. They both pointed into the auricle from bulging during the ventricular systole. The smaller one occurred in a patient, aged 54, who came into St. Bartholomew's Hospital with bronchitis, and the *râles* quite obscured all heart-sounds. The larger occurred in a man, aged 22, who came into hospital for rheumatism. There was a double murmur heard at the base: it was aortic. Then a mitral presystolic murmur, with a thrill, appeared, and the diastolic aortic murmur disappeared. Embola followed in the left cerebral and brachial arteries.—The PRESIDENT asked if syphilis were present in these cases.—The answer was, in both.

*Hypertrophied Bursa Patellæ.*—Mr. NUNN showed a hypertrophied bursa patellæ from a female, aged 50, who had suffered from enlargement of the patella in early life from bruises. It became of the size of a moderate mamma. The case did well after removal by operation. The enlargement was due to fibrous thickening of the envelope.

*Disease of the Musculi Papillares.*—Dr. BURNEY YEO exhibited a morbid mass involving the musculi papillares of the left ventricle (a recent specimen). The man in whom it was found was brought to King's College Hospital on the preceding Friday in a cab, and on his arrival was found to be dead. At the inquest, it was found that he had suffered for some time from attacks of dyspnœa with fainting. There was no other morbid change in the body, except a small tubercle in one ung. The morbid growth involved two or three of the musculi papil-ares; it was one inch and three-quarters in length, and an inch in breadth. It grew from the apex of the ventricle. It did not interfere with the closure of the mitral valve. There was some dilatation of the ven-ricular cavity, but there was no valvular disease. The aorta contained everal small atheromatous patches. The man was twenty-seven years of age. On microscopic examination, the mass was found to consist of ounded cells, with fibrillæ.—The PRESIDENT inquired if there were ny syphilitic scars.—Dr. YEO replied that there was none. The heart-issue was merely flabby.—Dr. CAYLEY had met with a case, where he growth was in the wall of the left ventricle. There was a history f syphilis.—Dr. GREENFIELD related a case of growth in the right entricle, where there was no history of syphilis.—Dr. DOUGLAS OWELL asked if any clot was entangled in the mass.—Dr. YEO an-wered that he could not tell, as he was not present at the *post mortem* xamination.

*Epithelioma of the Colon.*—Mr. NUNN brought forward a case which ccurred in an old gentleman, aged 75, who had enjoyed excellent ealth up to a week of his death. When seen he was moribund, with is abdomen collapsed. The skin was covered with small sessile warts. n *post mortem* examination, an extreme contraction of the bowel was und, so complete that a No. 3 catheter would scarcely be admitted. -In answer to several questions, Mr. NUNN said that there were no mptoms in life, and no examination with the microscope made.—Mr. AUNDER asked if the bowels were found loaded at the necropsy.—r. NUNN replied that there had been fæcal vomiting for a week.

*Complete Cancerous Occlusion of the Rectum.*—Mr. BRYANT brought rward this case. It occurred in a girl, eighteen years of age, who as under his care for seven weeks, when colotomy of the ascend-g colon was performed. The girl made a good and quick recovery. month before her death, she went to bed from sheer debility, and nk. The rectum was found to be so completely occluded that not en a hair would pass. There were several tubercles in the peri-eum. Under the microscope, the mass was found to contain cell-ments amidst fibres. He thought the mass cancerous. The principal point of interest in the case was the perfect occlusion.—In answer to a question from the PRESIDENT, Mr. BRYANT said that the symptoms were those of occlusion and not of cancer. The organs were all sound; and there had been no dysentery.—Mr. THOMAS SMITH asked if the fæces were easily retained in colotomy of the ascending colon.—Mr. BRYANT said that they were fairly so. There was no history of syphilis.—Referred to Morbid Growths' Committee.

*Extreme Ulceration of the Rectum cured after Colotomy.*—Mr. BRYANT showed a specimen, which had been handled until it had been torn. The patient, a female, aged 24, came into Guy's Hospital on August 29th, with a narrow stricture of the rectum. The bowel narrowed up to it. There were several fistulæ through which passed fæces. The suffering was so great that an operation was determined upon. The patient rallied well, and the pain was relieved. Nine weeks after the operation, a finger could be passed into the stricture, and the ulcerations were cured. Nineteen weeks afterwards, acute suppuration of the hip-joint set in, which proved fatal. The patient had had syphilis. Mr. Bryant thought that if the hip-joint disease had not come on, the patient might have lived to the ordinary length of days.—Mr. CHRISTOPHER HEATH felt some surprise that the bowel had not been narrowed by the cicatrisation of the ulcerated surfaces.—Mr. BRYANT answered that ordinarily such was the case, but that here the contraction was very slight. This formed his reason for bringing the specimen forward.

*Internal Stricture, with Rupture of Cæcum.*—Dr. WAY exhibited the specimen. The patient, two hours before death, felt intense pain, and also experienced a sensation of something giving way. The cæcum had ruptured without any evidence of previous ulcerations. The bowels were somewhat misplaced. The stricture consisted of a mass of scirrhus. In the channel through which the fæces passed, there was a vegetable seed of the size of a pepper-corn.—The PRESIDENT said that he had paid much attention to so-called seeds in the bowels, especially in the appendix vermiformis, and always found them to consist of fæcal and calcareous matter. He should like to know the results of a microscopic examination of the body.—Dr. HILTON FAGGE remarked that it was a fact that the rupture always occurred away from the point of stricture.—Mr. HOWARD MARSH gave a case in point.—Referred to Morbid Growths' Committee.

*Overdistension of Bowel from Umbilical Hernia.*—Mr. BRYANT gave some details of a case of overdistension of the bowel from a small umbilical hernia. Death resulted from rupture.

*Votes of Thanks* to the retiring officers followed, to which Sir WM. JENNER briefly replied, and the meeting adjourned.

## CLINICAL SOCIETY OF LONDON.

FRIDAY, JANUARY 8TH, 1875.

PRESCOTT HEWETT, F.R.C.S., President, in the Chair.

*Subcutaneous Urethrotomy.*—Mr. TEEVAN exhibited a patient, aged 31, upon whom he had performed this operation. The man had suffered from a severe stricture for seven years. Six years ago, he had some form of extravasation, which necessitated his entry into Charing Cross Hospital, where the abscess was opened and a catheter passed into the bladder. Three years ago, he came under Mr. Teevan's care for a tight stricture, complicated with a fistula and occasional attacks of retention. By gradual dilatation with soft bougies, the stricture was enlarged to 7, English gauge, and the fistula cured. As dilatation could not be carried beyond the size mentioned, the patient was taught to pass a No. 5 bougie for himself, inasmuch as a larger instrument always set up irritation and made him worse. After three years' absence, the man again came under Mr. Teevan's care last October, complaining that, for the three years he had been away, he had never gone longer than three days without an attack of retention, and was often obliged to pass the bougie six times a day. It was clear, then, that the bladder was not at fault, for a bougie always sufficed to relieve the retention. Continuous dilatation and various remedial measures having utterly failed to cure the patient of his repeated attacks of retention, Mr. Teevan on November 16th subcutaneously divided the stricture, which was situated in the centre of the perinæum, and was three-fourths of an inch long, on a grooved catheter-staff, with a sliding catheter. A fine tenotome was used for the operation. The shoulder of the sliding staff having been clearly made out, the skin was pierced in the *raphé* of the perinæum, and the tenotome inserted into the slit in the catheter-staff and run along to its end; the mucous membrane and stricture being afterwards divided with a sawing movement. No anæsthetic was given, and not more than a dessert-spoonful of blood was lost. The urine drawn off was very slightly tinged with blood. Mr. Teevan apprehended the patient would have rigors, as he had previously been attacked with them, and he, therefore, tied in the elastic catheter and gave the patient ten-grain doses of quinine just to demonstrate the inutility of those stock remedies, and to show that American surgeons were right in their views regarding the retention of a catheter after operation. Twenty hours afterwards, a rigor occurred, and the catheter was withdrawn. The puncture was healed in forty-eight hours. The after-treatment consisted in passing a large olivary elastic catheter every third day, and the patient left St. Peter's Hospital quite well on December 3rd, holding his water for six hours, passing a good stream, and not having had an attack of retention since the operation. Mr. Teevan remarked that the case imperatively called for operation, as the patient could not follow his avocation. He had selected this particular operation as he considered it specially indicated in the present instance. External urethrotomy would have been a severe procedure, as there was neither abscess nor fistula. He discarded the splitting operation, as that method was the most fatal of all urethral operations, and was followed by speedy and aggravated relapses. There remained, then, only internal urethrotomy and subcutaneous section, and he preferred the latter, as he knew he could by it completely divide the stricture, which encased the urethra like an iron hoop. He stated, that he believed he was the first surgeon who had ever divided a stricture in this country on a catheter staff, with a slit in it for the knife to run along. He drew attention to the fact that scarcely any scar was visible at the point of operation.

Mr. HULKE thought sufficient time had not yet elapsed since the operation, to judge of the patient's future condition. He was open to correction, but he certainly thought he had seen Sir W. Fergusson use a catheter-staff over twenty years ago, for division of a stricture; he himself had also used one.—Mr. MAC CORMAC asked for further particulars as to the operation; whether the mucous membrane was cut; and if the operation were strictly a subcutaneous one; whether there was any fear of extravasation, and if a catheter tied in the bladder after the operation would not be likely to prevent such an accident.—Mr. TEEVAN, in reply, said he was confident that the man would have a relapse unless an instrument were passed from time to time. In all cases of stricture, relapses occurred after every operation, unless the dilatation was kept up, by the passage of an instrument from time to time. He could now, at the end of a month, pass as large a catheter as before the operation; the period of relapse was more deferred than with other operative methods; the operation also occasioned the minimum amount of danger. Sir W. Fergusson, he believed, had never used a catheter-staff with a slit in its convexity for the knife to run in. The great advantage of the catheter-staff was, that it drew off the urine before the operation, so that the operator knew beforehand that he was cutting in the right direction. The instrument was first used by a surgeon in New York; the literature of this country did not mention it. The wound was to all intents subcutaneous, for, although a small puncture was made with the tenotome in the skin of the perinæum, and the instrument then divided the mucous membrane and stricture together, yet, immediately upon its withdrawal, the external opening was closed with lint, and at once healed. Infiltration might occur after any urethral operation, but it was almost unheard of; he had tied in a catheter simply to show that it would not prevent rigors.

*Fibrous Nasopharyngeal Polypus.*—Mr. HOLMES related a case of the kind occurring in a man admitted, at the age of 27, into St. George's Hospital, in May 1866. The tumour was removed by excising the whole of the upper jaw-bone, except its orbital plate, and tearing away the polypus from the base of the skull, where it was found to spring from the sphenoid or basilar process of the occipital bone. The operation was performed without chloroform. It was perfectly and rapidly successful. The patient, who had been exhausted by constant hæmorrhage, immediately revived, and was very soon at work again. In about a year, a like epistaxis again took place, but did not prove formidable till two years ago (six years after the first operation). He was readmitted into St. George's Hospital in November last, and, as the growth was found to be growing rapidly into the nostril, it was removed by opening up the old cicatrix; still without chloroform. He was well enough to go out in a week, and had not since suffered from hæmorrhage. The growth first removed was found to consist almost entirely of fibrous tissue, with a few fibre-cells intermixed. The recurrent growth had the same composition, but was looser in texture; the cells were in rather larger proportion and some of them were rounded. Microscopic sections of both were exhibited. The author remarked on the tendency to recurrence which such tumours possessed; on the easy access which was afforded by the removal of the upper jaw (leaving, however, its orbital portion) to the base of the skull from which the tumour grew; on the convenience of this method in case of recurrence, as was well illustrated by this case; and, finally, on the greater safety and facility of operating without chloroform, whenever the patient could bear the operation.

Mr. CALLENDER said that eight years ago he had removed a tumour from the wall of the nostril, close to the aperture by which it communicated with the antrum. He removed the greater part of the superior maxilla, leaving the orbital plate. The patient recovered and went again to the country, where, after five years or so, the growth returned. It was again removed by Mr. Callender, who, in scraping the bones to take away all the diseased parts, went as far back as the bodies of the vertebræ. Both these operations were performed under chloroform. After the second operation, the woman was again sent to the country. The latest intelligence reported that she was dying; and Mr. Callender believed she had since died. He feared the disease might recur in Mr. Holmes' case, and at each recurrence prove to be more and more malignant, and eventually fatal to the patient's life.—Mr. BARWELL was sorry to be obliged to concur in Mr. Callender's gloomy views of this case. He feared, also, that the disease would spread farther and farther, and become more malignant at each return. As regarded the position from which these growths proceeded, he had once removed the superior maxilla in operating upon a case of the kind, and then felt that the tumour came from the body of the sphenoid bone, of which he took so much away that he feared to go farther lest he might implicate the brain. He saw the patient for the next year or two, and then lost sight of her for thirteen years. She then brought to Mr. Barwell her child, which was suffering with a nævus of the soft palate and pharynx. Such a nævus was very rare. Did it have any hereditary connection with the mother's disease?—Mr. CROFT had operated upon such a case as that of Mr. Holmes in 1871. The polypus sprung from the position which Mr. Callender had described in his case—the outer wall of the nostril, close to the antrum, whence it projected back into the pharynx. Mr. Croft made an incision along the ala of the nose, then carried it outwards, reflected the skin, exposed the anterior surface of the superior maxilla, reflected the periosteum, cut away the denuded bone from the anterior wall of the antrum, and then excised the growth. Through the window in the bone he could see all the parts quite up to the base of the skull. He might have removed a tumour from the base through this limited opening, had it grown from such a position. The periosteum, being relaid, re-formed bone within two months after the operation, and no deformity was present. The mass removed was a spindle-celled sarcoma. It recurred; but Mr. Croft had not pressed any farther operation upon the patient.—Mr. HULKE remarked that Nélaton's method of splitting the palate gave every opportunity for the removal of small growths. He did it by two methods. Sloughing and deformity were apt to follow. Mr. Hulke had had three cases; in two of which the disease sprang from the posterior part of the nares. He would always advise the operator to save the roof of the mouth, if it were possible.

*Subperiosteal Excision of the Os Calcis.*—Mr. HOLMES exhibited a case concerning which he intended to speak at a future meeting.

*Hæmoptysis in a Syphilitic Patient.*—Dr. FARQUHARSON read notes of the case. The patient, a strong, well-built soldier, was admitted into the Coldstream Guards' Hospital, on August 10th, 1874, under the care of Surgeon-Major Trotter, who kindly allowed the case to be brought forward. During the previous April, he had been sixteen days under treatment for condylomata; but, although the cicatrix o the primary sore could readily be detected, no special history could be obtained of its nature or treatment. Three weeks before his present admission, he had began to complain of cough and dypnœa, and had expectorated tenacious mucus, latterly mixed with blood; but, on the above date, a careful physical examination of the chest, could detec nothing abnormal. He had not lost flesh, but his aspect was rathe anxious, and his face sallow and cachectic, and a syphilitic elemen being suspected, he was at once put upon twelve grains of iodide o potassium, and one drachm of liquor hydrargyri bichloridi, twice a-day The symptoms continued at first unchecked, consisting of a very fre quent, hard, irritable cough, followed by the expulsion of sputa, inti mately mixed with dark blood, but not attended by constitutional di turbance, nor abnormal physical signs. On the eighth day, howeve marked improvement was noted; and on the nineteenth, he was di charged from hospital, and had since continued in perfect healt The case seemed of interest in connection with others of a simil nature observed by Mr. Trotter, and in all of which the same train symptoms occurred in connection with a venereal taint. The recor of syphilitic diseases of the lung were chiefly pathological, and vario authors had described with much fidelity the appearances observe but clinical opportunities of tracing the early symptoms had been b rarely met with. In the present case, it seemed improbable th gummata could have been deposited in the lung; but the opinion w hazarded that mucous tubercles might have been thrown out on t delicate lining membrane of the ultimate pulmonary tissue. T gradual oozing of blood, consequent on the congestion and rupture capillaries, and its prolonged contact with the minute bronchi or cells, brought about the excessive lung-irritation observed, and had this not been checked, serious degenerative changes would probably have taken place. The true nature of the case, however, having been suspected from the first, specific treatment was attended by a perfectly successful result.

Dr. CAYLEY inquired if there were any trouble, such as ulceration, about the larynx, for there might be ulceration of the larynx without loss of voice or hoarseness. He should rather be inclined to the view that, as there was an absence of physical lung-symptoms, the disease in this case was in the larynx.—Dr. SOUTHEY remarked that hæmoptysis occurring, as in this case, in the course of syphilis, was not rare. The source of the blood was doubtful. Without previous complaint, the patient would have a sudden bad cough, and then came the blood, which, as Dr. Farquharson had said, was not frothed. The physical signs were simply loss of vesicular murmur over one part of the lungs. The hæmorrhage, Dr. Southey thought, was due to vesicular extravasation; and probably a thrombus of a pulmonary vein in some part existed.—Dr. BUZZARD inquired into the state of the patient's temperature, and said that it had been shown that, if a high temperature fell under the use of iodide of potassium, it would go far to prove that the case was one of syphilis.—Dr. FARQUHARSON thought the blood looked much more as if it had come from the lung than from the larynx. It was mixed with mucus, as if it had come after prolonged coughing.

# SPECIAL CORRESPONDENCE.

## EDINBURGH.

[FROM OUR OWN CORRESPONDENT.]

*Election of Infirmary Managers.—Antiseptic Properties of Chloral Hydrate.—Mortality in Edinburgh.—Large Number of New Buildings.—The Mammalian Ovary and Ovum.*

THE meeting of Infirmary contributors, which I mentioned last week, was a particularly lively one, the mode of election of the six managers being the disputed point. The Lord Provost, as chairman, ruled that one set of six must be put up against the other, and that it was not feasible to vote for each name individually. This greatly displeased the supporters of the ladies, and there is some talk of the matter being brought before the Court of Session. To prevent any similar confusion in the future, it has been determined that at these annual elections the names of all intending candidates shall be sent in at least a week sooner than the day of election, and a printed list of all candidates is to be handed to each voter as he comes into the meeting, so that he may indicate upon it the names of the candidates for whom he wishes to vote. This is a sensible arrangement, and will probably prevent any legal proceedings being taken in the matter.

A further experiment has, we hear, been tried with chloral-hydrate solution, as a test of its antiseptic properties. Two or more bodies belonging to the University dissecting-room were injected with it, instead of with the ordinary preservative solution. The result was satisfactory; entirely so as regards the skin and muscles; not quite so good with the internal organs. Should further experiment prove that the solution answers the purpose as well as spirit or other preserving agents generally in use, it will certainly be a considerable saving of expense.

The mortality of the city, which was 38.43 per 1000 of estimated population last week, has risen to 44.25 in the week just ended, and is still attributable almost entirely to the very unusual prevalence of chest diseases, induced by the severe weather from which we have lately been suffering. To add to our miseries, a severe epidemic of influenza has been passing over the town for some time past, not adding materially to the loss of life, but affecting health and comfort very considerably. From fever generally the deaths are 35 out of a total of 175 deaths from all causes—this includes 15 from scarlatina, and 5 from diphtheria. One sad case is much talked of, where three children died of the last-named disease within a week, in a house in one of the best and most healthily-situated terraces in town.

For the past few months the pockets of the charitable have been seriously bombarded from many sides at once, for contributions for building purposes. Indeed, the present time is marked by the unusual number of new buildings which are in course of construction, or in embryo, in connection with medical or scientific work. The University new buildings, for which the plans have just been sent in, the New Infirmary, a hospital for incurables, a new maternity hospital, a new and enlarged medical missionary dispensary, in place of the old one in the Cowgate—these are surely enough to tax all our energies before they are completed. It is, from one point of view, unfortunate that they are all endeavouring to push forward their claims at once; but at all events it shows a vast amount of energy and enterprise on the part of the promoters of medical charities.

At a recent meeting of the Royal Society, Dr. Foulis read an elaborate paper on the Structure and Development of the Ovary and Ova in Mammalia. The paper was the result of an independent investigation of the subject on which Dr. Foulis has been engaged for the past two years. On some points his conclusions were different from those commonly received by anatomists. He holds that the so-called tubes of the ovary are really depressions, resulting from the outward expansion of the adjacent parts through the development of ova. He also concludes, from his observations, that the tunica granulosa of the ovum is formed, not of epithelial corpuscles, as many suppose, but of cells developed in the stroma of the ovary. Another point, on which he laid stress, related to the theory of cell-development. Dr. Foulis attributes a much more important part in the multiplication of cells to the division of the nucleus, than has of late been assigned to it. The paper was illustrated by many beautiful microscopical preparations and drawings, and is to be followed by another, on the pathology and pathological anatomy of the ovary, to be read before the Medico-Chirurgical Society at its next meeting. We understand the papers will shortly be published in one of the journals.

# MILITARY AND NAVAL MEDICAL SERVICES.

MOVEMENTS OF ARMY MEDICAL OFFICERS.—Deputy-Surgeon Prendergast is taken on the strength of the Aldershot division from December 30th, as principal medical officer.—Surgeon Major Murphy has been ordered from the School of Military Engineering at Chatham to Dublin for duty early next month.—Surgeon-Major Comyn has been ordered to proceed in the *Euphrates* to Bombay.—Surgeon H. P. Brown has arrived at Ballinrobe and assumed medical charge of the detachment of the 2nd Battalion 17th Regiment.

OBITUARY.—The late Mr. R. J. O'Flaherty, C.B., Surgeon-General of the British Medical Department in the Bombay Presidency, whose demise took place last month at Bombay, joined the British Medical Service in 1835. He joined the army at Scutari in the beginning of 1854, as sanitary officer to the force there. He accompanied the army to Varna, and was appointed to the medical charge of the Heavy Cavalry Brigade. He went to the Crimea with the brigade, and, after the battle of Balaclava, was appointed to take charge of the transport which conveyed the wounded officers and men to Scutari, where he remained in charge of the General Hospital. While there, he received the thanks of the Duke of Cambridge when his highness visited the hospital, as well as those of other high military and medical officers. For his services, he received a Companionship of the Bath, medal with clasp, and the 5th Class of the Medjidie. He was appointed second medical officer to General Ashburner's Chinese Expedition in 1857, and, on the outbreak of the mutiny, was transferred to India. He arrived in December 1857. In 1858-59, he was with the Malwa Field Force under Sir John Michel. After the suppression of the mutiny he returned to England, and was appointed Surgeon-General in October 1872.

# MEDICAL NEWS.

## MEDICAL VACANCIES.

THE following vacancies are announced:—

ARMY MEDICAL DEPARTMENT—Surgeons. Applications to be made to the Director-General of the Army Medical Department.

ATHY UNION, co. Kildare—Medical Officer and Public Vaccinator. Salary, £120 and fees.

BAKEWELL UNION—Medical Officer for the Bakewell District and Workhouse. Salary, £25 and £36 per annum respectively.

BECKETT HOSPITAL AND DISPENSARY, Barnsley — House-Surgeon. Salary, £140 per annum, with furnished rooms, gas, and coals.

BIRMINGHAM and MIDLAND FREE HOSPITAL FOR SICK CHILDREN—Acting and extra-Acting Physicians. Applications not later than February 3rd.

BIRMINGHAM GENERAL DISPENSARY—Resident Surgeon. Salary, £130 per annum, with furnished apartments, coals, light, and attendance. Applications on or before the 20th inst.

BLACKBURN UNION—Medical Officer for the Harwood District. Salary, £25 per annum.

BRIDGWATER UNION — Medical Officer for No. 2 District. Salary, £70 per annum.

CASTLE WARD UNION—Medical Officer for the Ponteland District. Salary, £20 per annum. Also, the Workhouse. Salary, £30 per annum.

DERBYSHIRE GENERAL INFIRMARY—Assistant House-Surgeon. Board, lodging, and washing, but no salary. Applications to Secretary.

EMSWORTH—Certifying Factory Surgeon.

ESSEX LUNATIC ASYLUM—Second Assistant Medical Officer and Dispenser. Salary, £100 per annum, with board, lodging, and washing.

FIFE AND KINROSS DISTRICT ASYLUM—Assistant Physicianship. Salary, £80, with board, etc. Apply to Dr. Fraser, Medical Superintendent, Cupar-Fife.

GRAVESEND and MILTON UNION—Medical Officer for the District of Milton, and Workhouse. Salary, £85 per annum, and fees. Applications to be sent in on or before the 20th instant.

HARRIS, Parochial Board of—Surgeon. Salary, £66 per annum, including vaccination and medicine for the poor. The gentleman elected will get £90 per annum for attending the ratepayers and cottars within South Harris. Applications to be made to the Chairman of the Parochial Board of Harris.

HEADINGTON UNION—Medical Officer for the Wheatley District. Salary, £70 per annum.

HULL GENERAL INFIRMARY—Dispenser. Salary, £75 to £100 per annum. Election will take place on the 28th instant.

HOSPITAL FOR WOMEN, Soho Square—Surgeon and Assistant Physician.

INDIAN MEDICAL SERVICE—Twenty appointments as Surgeon. Examination in February 1875.

KILCHRENNAN and DALAVICH, Parochial Board of—Medical Officer. Salary, £60 per annum. Applications, on or before the 30th instant, to W. J. B. Martin, Ri-criun, Lochgilphead.

LEEK UNION—Medical Officer for the Endon District. Salary, £20 per annum.

LICHFIELD UNION—Medical Officer for the Alrewas District. Salary, £35 per annum.

LOCHMABEN, Parish of, Dumfriesshire—Medical Officer. Salary, £50 per annum, and fees. Testimonials to be lodged with the Inspector of Poor on or before the 16th instant.

MIDDLESEX LUNATIC ASYLUM, Hanwell—Assistant Medical Officer.

MITFORD and LAUNDITCH UNION—Medical Officer for the Workhouse. Salary, £45 per annum.

NORTH BRIERLEY UNION—Medical Officer for the Seventh District.

NORTH-EASTERN HOSPITAL FOR SICK CHILDREN, Hackney Road E.—House-Surgeon. Salary, £100 per annum, with attendance, rooms, coals, and light.

OKEHAMPTON UNION—Medical Officer for No. 1 District. Salary, £35 per annum. Applications to be made on or before the 22nd instant.

PLYMOUTH UNION—Medical Officer for No. 3 District.

POPLAR AND STEPNEY SICK ASYLUM DISTRICT—Assistant Medical Officer to the Asylum.

REDDITCH and DISTRICT MEDICAL ASSOCIATION—Medical Officer. Salary, £150 per annum, with fees and unfurnished house.

ROYAL FREE HOSPITAL—Junior House-Surgeon.

ROYAL INFIRMARY FOR WOMEN and CHILDREN, Waterloo Bridge Road—Physician.

ROYAL UNITED HOSPITAL, Bath—Resident Medical Officer. Salary, £100 per annum, with board and lodging.

ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN—Assistant to the Extra-Physician. Salary, 50 guineas per annum.—Resident Medical Officer. Applications to be made on or before the 20th instant.

RYDE DISPENSARY—Physician.

ST. BARTHOLOMEW'S HOSPITAL—Assistant Physician.

ST. LUKE'S HOSPITAL FOR LUNATICS—Second Clinical Assistant. Board and furnished apartments.

ST. MARY'S HOSPITAL, Paddington—Resident Registrar. Salary, £100 per annum, with board and residence.

ST. MARYLEBONE GENERAL DISPENSARY—Physician-Accoucheur. Applications on the 19th instant.

ST. MARY'S HOSPITAL—Resident Registrar. Salary, £100 per annum, with board and lodging.

SHEFFIELD PUBLIC HOSPITAL and DISPENSARY—House-Surgeon. Salary, £100 per annum, with board, lodging, gas, and washing.

SMALLBURGH UNION—Medical Officer for the Ludham District. Salary, £52 : 14 per annum.

STRATFORD-ON-AVON UNION—Medical Officer for the Welford District and Workhouse. Salary, £50 per annum.

STRATHKINNESS, Village and District of—Medical Officer. Salary, £10 from Parochial Board, with £110 from a workmen's club, exclusive of midwifery fees. Apply to Mr. A. Cowper, Kincaple, Cupar Fife.

TENDRING UNION—Medical Officer for the First and Second Districts. Salary, £97 per annum.

TORPHINS in the Parish of Kincardine O'Neil, Aberdeenshire—Parochial Medical Officer: £45 per annum. Applications to Chairman of Parochial Board.

TRINITY COLLEGE, Dublin—Professor of Chemistry: £500 per annum, and fees. Applications to the Rev. Dr. Haughton, Trinity College.

TYNEMOUTH UNION—Vaccination Officer.

UNIVERSITY COLLEGE HOSPITAL—Resident Medical Officer. Applications not later than February 13th.

UNIVERSITY OF EDINBURGH—Additional Examiner in Medicine.

WEST WARD UNION—Medical Officer for the Patterdale District.

## MEDICAL APPOINTMENTS.

*Names marked with an asterisk are those of Members of the Association.*

BLAKE, J. Ff., appointed Surgeon to the Islington and North London Provident Dispensary (Hornsey Road Branch).

POWELL, G. B., L.R.C.P.Ed., appointed Resident Medical Officer of the Nottingham Friendly Societies' Medical Institution.

SAUL, W. Wingate, M.D., appointed Surgeon to Her Majesty's Gaol at Lancaster Castle, *vice* J. Pearson Langshaw, F.R.C.S., resigned.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.*

### DEATHS.

*HEALEY, Edward, M.R.C.S.E., of Lister Street, Hull, aged 59, on January 9th.

*STEPHENS, Daniel Wells, M.D., at White House, Emsworth, Hants, aged 48, on January 7th.

## OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY ......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

## MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Mr. Maunder's Second Lettsomian Lecture, "On Wounds and Hæmorrhages; also, on the Use of the Antiseptic Catgut Ligature".

TUESDAY.—Pathological Society of London, 8.30 P.M. Mr. Wagstaffe: Papilloma of Tongue. Mr. Sydney Jones: Congenital Dislocation of both Hips (living specimen). Mr. Sydney Jones: Lymphangeioma secreting Chyle (living specimen). Mr. Sydney Jones: Hypertrophy of Limb from Disease of Knee-joint (living specimen). Mr. Hulke: Epithelioma. Dr. Hoggan: Microscopical Specimens of Sarcoma in Cod. Dr. Hoggan: Microscopical Specimens of Cancer prepared by a new Process Dr. Dowse: Invaginated Intestine. Dr. Dowse: Syphilitic Disease of Rectum. Dr. Pye Smith: Enlarged Liver and Spleen without Leukæmia. Dr. David Pearson: Cancerous Breast and Liver. Mr. Cripps: Fatty Degeneration o Muscles of the Leg. Dr. Gowers: Ulcer of Stomach. Dr. Greenfield: Contraction of Coronary Artery; Obstruction of Renal Artery; Fibroid Diseas of Heart.

THURSDAY.—Harveian Society of London, 8 P.M. Mr. H. W. Kiallmark, "O a Case of Cancer of the Liver".

FRIDAY.—Quekett Microscopical Club, 8 P.M. (University College). Mr. T Charles White, "On the Aquarium as a field for Microscopical Research".—Clinical Society of London, 8.30 P.M. Mr. T. Holmes, "Notes of a Case Subperiosteal Excision of Os Calcis"; Dr. Thorowgood and Mr Bywate Vernon, "A Case of Optic Neuritis, with complete Loss of Vision—Recover under Treatment"; Mr. Pugin Thornton, "A Case of exceeding infrequenc of the Pulse".

## NOTICES TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Cor spondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers Health if they will, in forwarding their Annual and other Reports, favour us wi *Duplicate Copies.*

AUTHORS desiring reprints of their articles published in the JOURNAL, are request to communicate beforehand with the printer, Mr. T. Richards, 37, Great Que Street, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, shou authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Edit those concerning business matters, non-delivery of the JOURNAL, etc., should addressed to the General Manager, at the Office, 36, Great Queen Street, W.C

DR. DODGSON.—We are unable to assist our correspondent in the matter. know of no other medical man who has tried them.

### THE WORTHING INFIRMARY.

WE very much regret to see that the embroglio at the Worthing Infirmary has creased, owing to the ill-advised action of a small meeting of five gentlemen, appear to have treated Dr. Goldsmith with studied discourtesy. Without enter into details, which are of considerable complication, we shall only say, that heartily hope that Dr. Goldsmith will be re-elected for the sake of the caus infirmary management. The management of the Worthing Infirmary has admittedly bad, and the reforms which Dr. Goldsmith advocates are such as, think, every well-wisher of the Worthing Infirmary ought to desire to see adop We are heartily glad to see Mr. Cleveland Smith's manly and generous-min circular, and we trust that no one will be found who will attempt to slip in Dr. Goldsmith, and so to undermine his professional brother in an undoubt righteous contest for useful reforms.

Correspondents are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

### The Scotch Poor-law Medical System.

Sir,—I beg to ask your advice in connection with the following circumstances. I commenced to attend a girl suffering from typhoid fever ten days ago. When I intimated the nature of the case to her sister, with whom she stays, she made application to one of the bailies of the town to get assistance from the Board. The bailie communicated with the officials of the parish to which the girl belongs, and in the meantime gave the necessary assistance from his own parish. The girl had never formerly required parochial relief, and as soon as possible after her recovery will provide for herself. There is no medical officer here appointed by the Board; but a pauper may go to any medical officer when in trouble, and the Board will refund the doctor to the extent of five shillings *per annum* for each pauper he may have to attend.

Now, I think five shillings quite inadequate remuneration for attending a case of typhoid fever, and would feel obliged if you would advise me in the manner I ought to act in such a case. Surely, £1 1s. would be a small enough fee for having to attend a case of serious illness for three weeks or a month. I shall look for an answer in this week's British Medical Journal, and am, etc.,

January 5th, 1875. A New Member.

⁂ The New Member has our hearty sympathy in the case which he has put before us; but we fear that, having attended the girl whose case he cites without, as it appears, any authority from any one to do so, he must be content to take from the parochial authorities just that which they may be disposed to give, even though it may be limited to that wholly inadequate amount which Scotch liberality defines as a sufficient honorarium for attendance on the necessitous sick. Bad as the English system of medical relief undoubtedly is, so far at least as the country is concerned, that existing in Scotland is infinitely worse. The Committee on Scotch Poor Relief, of which Mr. Crawford, ex-M.P., was Chairman, in their report, recommended that the Irish system of dispensary medical relief should be introduced; and subsequently Mr. Crawford brought in a Bill embodying such recommendations. Unfortunately, that gentleman aimed at too much, and his Bill was thrown out on the second reading; but we learn, on the authority of the present Lord Advocate and others, this occurred on no point connected with medical relief, on which subject there existed a general concurrence of opinion, that something ought to be done.

One of the latest novelties in the way of charms for watch-chains and guards consists of a piece of lunar caustic tastefully mounted. It is supposed to combine the *utile* with the *dulce* to the wearer, who, immediately he or she has been bitten by a rabid animal, applies the handsomely mounted piece of caustic (perchance a souvenir), and brings the charm of poetry into common life whilst burning out the part bitten by a dog or cat.

### A Medical Advertiser.

The following is taken from the *Hull News* of December 26th, 1874.

"Medical Dispensary (private), open daily (Sundays excepted), Brook Street (Prospect Street end). Professional consultations: Morning, 9.30 to 11; Evening, 7 to 8.30. Fees—To the Artisan and Mechanic Classes: Advice and Medicine, 2s.; to the Labouring and Poor Classes: Advice and Medicine, 1s. At the Dispensary *only*, and within the above-named hours. Midwifery Engagements. Vaccination of the children of private patients only every Tuesday afternoon at Three o'clock. Physician, Surgeon, and Accoucheur, E. H. Lineker, F.R.C.S.E., L.R.C.P.Lond., M.R.C.S. and L.M.R.C.S.Eng., L.S.A.Lond., etc., registered, late Medical Officer in H.M.'s Public and Military Service, etc. (Successor to the late Dr. Brownridge.) Private Residence, 16, Spring Bank.

Ir. W. E. Forster, M.P. for Bradford, having been requested to lecture on behalf of the Local Hospitals, replied that he did not feel able to comply with the wish of the constituents; but he could not allow the Hospital Fund to suffer from this cause, and enclosed a cheque for £50 in consequence.

### Is there any Form of Small-Pox of a Non-Contagious Character?

ir,—I shall be glad if you or any of your readers can supply an answer to the above question. We have been visited in this town of late by an epidemic of small-pox, imported some four months since. The Local Board of Health have erected a hospital, where patients are received, nursed, and attended, at great expense to the locality. Recently the rector, who had been most assiduous in his pastoral ministrations to those suffering from the complaint, was laid up and died. The practitioner in attendance certified that his death was caused by "variola sine eruptione". The Local Board and other public bodies were anxious to pay respect to their late esteemed minister, and many visited the corpse, which lay in state for five days; but on the promulgation of the above "cause of death", great anxiety was caused among all classes; and the other medical practitioners were of opinion that if such were the cause of death, it was not right that a public funeral should take place, but that every precaution should be taken for the public welfare. However, the following certificate, which I extract from the local paper, was affixed to the church-door, with the siguatures of two medical men attached to it.

"We hereby certify that the late Rev. —— died from small-pox poisoning, and herewith add that his illness was not in the least degree infectious."

What we want to know—for I write with the concurrence and for the information of others as well as myself—are these forms of small-pox, viz., variola *sine eruptione* and small-pox poisoning, non-infectious? I cannot find any such nice distinction in any of the books of reference at hand.

For obvious reasons, I do not mention the name of the town, but enclose my card as a guarantee of good faith. I am yours, etc., Carbolic.

R. J. M., A. Tutor, and H., Birmingham.—The officials of the College of Surgeons will only be too glad to relieve your anxiety, and that of the 350 candidates, by sending you the result of the recent Arts Examination as soon as the report has been received from the College of Preceptors. There are many hundred papers on the several subjects to be read by the examiners.

### An Insurance Query.

RE there any instances in which qualified medical men have taken an agency for Life Assurance Companies? What is the opinion of the profession on the subject? Is the proceeding considered compatible with professional dignity?

"Insurance."

Notice to Advertisers.—Advertisements for insertion in the British Medical Journal, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. Fowke, not later than *Thursday*, twelve o'clock.

Mr. Chubb (Torpoint).—Uuder such circumstances, it is customary and proper to make a separate charge.

Dr. J. M. Crombie's letter shall appear next week.

### To Such Strange Uses may We Come at Last.

The following paragraph appears in the *Irish Times* of December 23rd.

"*The Earl Street Medical Hall.*—The Earl Street Medical Hall, conducted by Messrs. J. Leonard and Co., has, within the last two years, taken a leading position amongst the medical establishments of the city. The late Mr. John King, of 19, North Earl Street, established there an extensive drug-hall, in which he did a large business as a chemist and druggist, and the Messrs. Leonard, having become possessed of his interest, have since successfully conducted the business which he had previously carried on, with the addition of a compounding department, managed by efficient assistants, under the immediate supervision of Dr. Leonard. The medical department, which forms one of the principal features of the establishment, and to which the utmost attention is paid, is in charge of Dr. Leonard himself, who has had large general practice since the period of his connection with the Richmond, Whitworth, and Hardwicke Hospitals. In what may be called the mercantile department, there is a display of every variety of goods usually found in a medical first-class drug-hall: pomades, hair-washes, creams, perfumes, caskets, bouquets, hair-brushes, toilet-soaps—all of the best quality. Amongst the specialities of the establishment are King's Spanish onion pomade and Spanish onion hair-wash, which have been highly esteemed as toilet requisites, and of which Messrs. Leonard and Co. are sole proprietors and manufacturers. It need only be added, that the Messrs. Leonard are determined that their establishment shall maintain the reputation which it has already achieved, and that it shall be found in every respect calculated to meet the wants of the large and important district in which it is situate."

X. Y. B.—Dr. Laidlaw Purves, Guy's Hospital; Mr. Dalby, St. George's Hospital; and Mr. Field, St. Mary's Hospital.

### Medical Degrees and Titles.

Sir,—The great body of general practitioners have been hardly used by recent changes in the regulations for qualification as compared with the old system. A student of twenty or twenty-five years ago found that the Apothecaries' Society's license was a *sine quâ non* to confer a legal right to practise; and M.D.s of Scotland could not legally practise their profession, and recover fees, in England and Wales. One has even heard of threats of prosecution against them for practising unlawfully. Under these circumstances, it was not surprising that men felt themselves compelled to go to the "Hall"; and they voluntarily went to the College of Surgeons, to the neglect of the Scotch Universities, which were altogether outside the pale of English law. All this was very anomalous, and is now properly changed; but I think that long ere this something ought to have been done to affiliate the general practitioner, who was the victim of circumstances, to some medical college on the *ad eundem* principle. Moreover, at the time to which I refer, degrees were only sought for by pure physicians, and they would have been considered a bar to general practice. The present fashion of M.D.-general practitioner is a hybrid of recent birth. The degree of M.D. is not a fixed quantity, but ranges, through a wide scale, from high honour to the utmost disrepute. Many degrees are no higher, and some a great deal lower, than the Apothecaries' license. It is not reasonable to concede the same even nominal status to a degree obtained after prolonged residence, great expense, and high standards of examination, and to others conferred after a curriculum not longer, and tests not higher, than those of the Hall. I leave out of account the *purchased "honour"*. Most surgeons must know of instances of men, before the late Acts, practising without any qualification under the wing of some qualified, perhaps absent, practitioner, until a stir was made. Then the gentleman's face was missed for a time, and he returned from some refuge for incompetence dubbed with the degree of M.D., or he obtained what some of your correspondents call the "coveted distinction" without any change of air and scene. In almost all towns, the positions of distinction and repute are quite as much held by plain Mr.s as M.D.s, sometimes more so; and to many such men the drawback to the title of Doctor would be the dubious merit of their *confrères* in its possession. The present state of things is a relic of medical barbarism; and something ought to be done, similar in principle to the College of Surgeons' early fellowships conferred upon surgeons of definite age and standing, to remove the injustice. You have recently said that, as a general rule, a man's qualifications remain what they are when he leaves London; and no doubt this opinion is quite accurate. If time permitted, the general practitioners could very well compete with young doctors, some of whom, according to the testimony of your own pages, do not know measles when they see it, although in theory they have taken honours. To the busy practitioner, the loss of time puts it out of the question, and he will not purchase; so some other remedy must be found, or he must remain a victim to an injustice which is discreditable to the profession and subversive of its best interests.—I remain, Sir,

December 17th, 1874. An Associate of Twenty-five Years Standing.

Sir,—I am very glad to find that the subject of the above title is being discussed in your columns. I have long been desirous of procuring an expression of opinion on it by the profession; and with that object in view, I put it, three or four years ago, on the agenda paper of the annual meeting of the South-Eastern Branch of the Association, but yielded to the persuasion of an old and highly valued friend and member of the Council to abstain from bringing it forward. I have regretted it ever since, but feel now that probably it is a matter which may be better and more calmly discussed in the Journal, than *vivâ voce* at a meeting.

It appears to me that all the letters which have yet appeared on the subject have failed to deal with that which is the very first point to be settled, viz.—What is the title "Dr.", and what is its signification? In my opinion, it is the ordinary colloquial abbreviation of the title "medicinæ Doctor" (M.D.), which is a degree granted by an University to its graduates; to whom *only* does it properly belong, and who *alone* have the right to assume it. Undoubtedly, a license to practise medicine (wheresoever obtained) cannot confer the right. Licentiates simply obtain a certificate or testimonial to the effect that they have passed a certain examination, and that they are qualified to do certain things. But they acquire no other right; they have no part or lot in the corporation or college that grants the license; they gain none of its privileges; and, when once in possession of the license, are utterly ignored by it, even when they wilfully and plainly neglect to observe all the conditions on which it was granted.

I have no sympathy with the proposition that, after so many years of practice, every medical man should be entitled to apply to the Universities, and obtain the degree of "M.D." after a sufficient examination. I have been M.R.C.S.Eng. and L.S.A. for very nearly thirty years, and I am quite content to remain as I am so far as titles go. After twenty-five years of practice, a man's opinion will be sought for, if it be worth having, without the accidental aid of any further title; and, if it be not so esteemed, no mere title will give it additional value.

I was much struck by some passages in a letter, which appeared in the *Edinburgh Medical Journal* of last month, from Dr. J. H. Balfour, on quite another subject, which have a marked bearing on this matter, and which, with your permission, I will transcribe. He says, "a degree of M.D. is higher than a diploma, mainly in the fact that the *preliminary* and *scientific* requirements" (the italics are his) "are, or ought to be, higher. The degree is not a mere qualification to practise, but is an University *honour*. It is not essential for practice, and no one need take it, unless he choose to assume a higher position than a mere practitioner. We look to our graduates as men who are to advance *science*, and who, in many cases, are to be the leaders of scientific expeditions." In another place, he says, "I desire to stand up for the *honour* of an University degree, and not to put it on the same level as the diploma of a College".

I am rejoiced to think that a large proportion of the licentiates disapprove of the assumption of the "Dr.", and do not use it. And I do not, for one moment say, or suppose, that all those who dub themselves "Dr." (that is, in my mind, a very grave point of the offence—they *dub themselves*—and have not waited for it to be accorded to them by the profession) are wilfully and consciously guilty of a dishonest act; I do not believe that they have ever looked at it in that light. But I cannot do other than believe that they assume that which does not belong to them, but which obviously is the right of quite another class of men. And I think further that, as honourable men, now that the matter has been put plainly before them, and the mind of the profession clearly expressed, they are bound to resign the title at once, one and all. It seems to me the only manly and straightforward course, and I hope that they will forthwith adopt it.

I am, Sir, yours faithfully,
WILLIAM HOAR.
Maidstone, December 17th, 1874.

SIR,—The subject of "Medical Titles" being again to the front, I take the liberty of troubling you with a letter. I was very glad to see the matter treated in a leading article, and hope it may lead to a solution of the enigma.

I think there is a general feeling that London has failed in its duties in not offering to the general practitioner the means of obtaining his degree. The College of Physicians sells a man a diploma which he is told is of no use to him; it was even tried to smite him on the other cheek by denying him the right to the title of the College—to call himself physician.

The proposition I would submit is, that all who have, or shall have, a diploma of a College of Physicians (such diploma entailing a separate and distinct examination from the conjoint Board) shall, on producing it for registration, have the degree of M.D. conferred upon him by the General Medical Council.

Doctor of Medicine of Great Britain is a title that would interfere with no existing privileges. The M.D. of London would be just as much valued by all who have the time, the talent, and the money to try for it. The same may be said of other universities.

The Colleges of Physicians would benefit, their diplomas being more sought after, and the degrading feeling of taking money without giving, or even offering, anything in return, would be spared them; they would be able to regard their licentiates as legitimate, and worthy of being recognised, instead of bar-sinisters in their escutcheons, to be kept out of sight as much as possible.

That the General Medical Council should give the degree, I think would be right. It is supposed to represent the profession throughout the kingdom, and therefore recognises all colleges. The gentleman who registered would feel that he was really receiving something at last for his money, and regard the Council with feelings of respect, which, I fear, few are at present able to do.

I am, Sir, yours faithfully,
D. M'D.
Dorset, December 29th, 1874.

SIR,—I was very pleased to see your leading article in the JOURNAL of last week referring to medical titles. I quite agree with you that some British University should make an opening for those senior practitioners who may desire to take the degree of M.D. I am a L.R.C.P.Edin. of ten years' standing, and have taken the title of "Dr." ever since I held the license. I am most willing to submit to a most searching practical examination for the M.D. degree, if I can find an University that will admit me. I am forty-three years of age, and am entitled to be admitted to examination at St. Andrew's, but find that I may be compelled to wait perhaps two or three years before there may be a chance, and then I have fifty guineas to pay for the degree. I trust, Sir, something may be done to enable senior practitioners, who may desire it, to obtain a degree from some British University, and not compel them to go on to the Continent to obtain a degree there. I enclose my card, and am, Sir, your obedient servant,

December 28th, 1874.
L.R.C.P.EDIN.

SIR,—Were it not for your article in last week's issue, I should have written in reply to M.D.'s letter, published December 19th. He seems to have given the matter very little thought. Your powerful advocacy of our cause cannot but be a source of gratification to all who are anxious to obtain the degree of M.D. from a British University; but I would venture to make one or two remarks further upon the matter. It seems to me not quite fair towards the L.R.C.P.s in actual practice, who have not spent four winter sessions at a medical school, to be debarred from taking their degree if they can pass the examination for it. Respecting the examination itself, it appears to me that in some subjects it should be very thorough, as much so as at the London University, but in others less so. I would mention pathology, medicine, midwifery, forensic medicine, therapeutics, etc., among the former; but the same knowledge of anatomy, I think, should not be required of us who have been several years in practice, as from a student fresh from the dissecting-room. It must be presumed that we have sufficient knowledge to be safe practitioners.

Notwithstanding your advancement of our cause, it seems to me that, unless we (*i. e.*, those practitioners who wish for the degree) take some step, in petitioning the University, it will be a long time before we obtain what we desire. I would propose that, as early as possible in the ensuing year, a meeting be held in London—say Willis's Rooms—where the matter may be set fairly on foot, and the necessary petition drawn up. Should this proposition meet with approval, through your JOURNAL, the most convenient time for the meeting to be held could be easily arranged.—I am, Sir, your obedient servant,

December 28th, 1874.
A COUNTRY PRACTITIONER.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

H. D. S.—Perhaps, the roll of the College of Physicians by Dr. Munk may give the desired information. Sir Stephen Fox, father of the first Earl of Ilchester and of the first Baron Holland, married a daughter of Mr. Whittle, one of the King's (Charles II) chirurgeons.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Gazette, The Western Daily Press; The Manchester Guardian: The Ulster Advertiser; The Sussex Coast Mercury; The Broad Arrow; The Surrey Advertiser; The Bedale and Northallerton Times; The Hackney Express; The Liverpool Porcupine; The Scotsman; The Liverpool Mercury; The Glasgow Herald; The Stroud News and Gloucestershire Advertiser; The Bradford Observer; The Morpeth Herald; The Portsmouth Times; The Western Daily Press; The York Herald; The Sheffield Evening Star; The Brighton Guardian; The Sussex Daily News; The Wrexham Advertiser; The Newton Directory; The Sussex Coast News; The Berkshire Chronicle; The Hull News; The Southern Times; The Worthing Intelligence; The Hampshire Telegraph and Sussex Chronicle; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

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## BOOKS, ETC., RECEIVED.

British Wild Flowers. Illustrated by John C. Sowerby. Described by C. point Johnson. London: October, November, and December, 1874, and 1875. John Van Voorst, Paternoster Row.

The Micrographic Dictionary. By J. W. Griffith, M.D., etc.; and Arthur Hen F.R.S., F.L.S. London: October, November, and December, 1874. Van Voorst, Paternoster Row.

# REPORT

### OF THE

# COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION TO INVESTIGATE THE ANTAGONISM OF MEDICINES.

By JOHN HUGHES BENNETT, M.D., F.R.S.E.,
Chairman and Reporter.*

## General Conclusions.

THE general results obtained from the investigations detailed in the preceding report are the following.

### I. *As to the Antagonism between Strychnia and Chloral Hydrate.*

In this investigation, one hundred and fourteen experiments were performed.

1. After a fatal dose of strychnia, life may be saved by bringing the animal under the influence of chloral hydrate.

2. Chloral hydrate is more likely to save life after a fatal dose of strychnia, than strychnia is to save life after a fatal dose of chloral hydrate.

3. After a dose of strychnia has produced severe tetanic convulsions, these convulsions may be much reduced both in force and in frequency by the use of chloral hydrate, and consequently much suffering saved.

4. The extent of physiological antagonism between the two substances is so far limited, that (1) a very large fatal dose of strychnia may kill before the chloral hydrate has had time to act; or (2) the dose of chloral hydrate must be so large in such a case to antagonise the fatal dose of strychnia, that there is danger of death from the effects of the chloral hydrate.

5. Chloral hydrate mitigates the effects of a fatal dose of strychnia by depressing the excess of reflex activity excited by that substance; while strychnia may mitigate the effects of a fatal dose of chloral hydrate by rousing the activity of the spinal cord, but it does not appear to be capable of removing the coma produced by the action of chloral hydrate on the brain.

### II. *As to the Antagonism between Sulphate of Atropia and Calabar Bean.*

In this investigation, one hundred and fourteen experiments were performed.

1. Sulphate of atropia antagonises to a slight extent the fatal action of extract of Calabar bean.

2. The area of antagonism is more limited than even Dr. Fraser has indicated in his paper on the subject.

### III. *As to the Antagonism between Hydrate of Chloral and Calabar Bean.*

In this investigation, thirty-one experiments were performed.

1. Hydrate of chloral modifies to a great extent the action of a fatal dose of extract of Calabar bean, mitigating symptoms and prolonging life.

2. Hydrate of chloral in some cases saves life from a fatal dose of extract of Calabar bean.

3. If hydrate of chloral be given before extract of Calabar bean, so that the animal is deeply under the influence of hydrate of chloral before it receives the extract of Calabar bean, the symptoms produced by the latter are much modified, and life is saved from the effects of what would otherwise be a fatal dose.

4. Chloral hydrate is of little service as an antagonist to extract of Calabar bean, if given some time after the latter. If the symptoms of the action of Calabar bean be in full operation, it will not save life, however it may modify symptoms.

5. The antagonism is limited—

*a. By the amount of dose of the extract of Calabar bean*—more than a minimum fatal dose of extract of Calabar bean destroying life, notwithstanding the administration of chloral hydrate.

*b. By the interval of time between the administration of the two substances.* There is a great probability of saving life in those instances in which the animal is under the influence of chloral hydrate before the subcutaneous injection of the extract of Calabar bean; there is less probability when both substances are given simultaneously; there is still less if the chloral hydrate be given from five to eight minutes after the extract of Calabar bean; and no chance at all if the chloral hydrate be given eight minutes after a fatal dose of extract of Calabar bean.

6. Even in cases in which a fatal result follows the action of the two substances, the physiological effects of extract of Calabar bean are considerably modified by those of hydrate of chloral.

### IV. *As to the Antagonism between Hydrochlorate and Meconate of Morphia and Calabar Bean.*

In this investigation, forty experiments were performed.

Hydrochlorate and meconate of morphia in no way antagonise extract of Calabar bean.

### V. *As to the Antagonism between Sulphate of Atropia and Meconate of Morphia.*

In this investigation, eighty-one experiments were performed on rabbits and dogs.

A. *In Rabbits:*

1. Sulphate of atropia is physiologically antagonistic to meconate of morphia within a limited area.

2. Meconate of morphia does not act beneficially after a large dose of sulphate of atropia, for in these cases the tendency to death is greater than if a larger dose of either substance had been given alone.

3. Meconate of morphia is not specifically antagonistic to the action of sulphate of atropia on the vaso-inhibitory nerves of the heart.

4. The beneficial action of sulphate of atropia in cases of poisoning by meconate of morphia is probably attributable to the action which the former substance possesses of contracting the blood-vessels, and thus diminishing the tendency to cerebral and spinal congestion produced by salts of morphia.

B. *In Dogs:*

Sulphate of atropia modifies the physiological action of meconate of morphia, and may even save life after a fatal dose of the latter. The limit, however, is so narrow as to be of no practical service.

### VI. *As to the Antagonism between Tea, Coffee, Theine, Caffeine, Guaranine, on the one hand, and Meconate of Morphia on the other.*

In this investigation, one hundred and seventeen experiments were performed.

1. Theine is antagonistic to meconate of morphia, inasmuch as the action of the one substance modifies that of the other, and may even save life from a fatal dose of either substance.

2. Meconate of morphia delayed the appearance of the convulsions characteristic of the action of theine; but, on the other hand, theine, if given in large doses, did not affect in a marked degree the action of meconate of morphia, because symptoms of poisoning by theine were soon manifested.

3. Further experiments on cats showed that, (*a*) while a cat may recover from the effects of a dose of 1¾ grains of meconate of morphia given alone, it will not recover from the effects of a dose of 2 grains, even although the effects of the latter dose are modified by those following the introduction of 4 or 5 grains of theine; (*b*) that in three cases the animals recovered from the effects of 1⅞ grains of meconate of morphia and 4 to 5 grains of theine, while they died when the same dose of meconate of morphia was administered eight days afterwards; (*c*) that, when the dose of theine was increased beyond five grains, the animals invariably died, apparently from the effects of theine.

4. Experiments on rabbits, as to the antagonism between meconate of morphia and theine, were found to be unsatisfactory as regards the purposes of this inquiry, because both drugs produce epileptiform convulsions in these animals.

5. The results obtained in investigating the action of caffeine and guaranine as antagonists to meconate of morphia were similar to those observed with reference to theine.

6. Experiments were made on dogs to ascertain the effects of strong infusions of tea and decoctions of coffee as antagonists to meconate of morphia. These were unsatisfactory, chiefly because the tea or coffee was usually vomited so soon as to prevent the possibility of the exercise of any physiological antagonism. At the same time, it was observed in several instances that the administration of tea or coffee so excited the animals as to prevent them from falling into stupor or coma after a dose of meconate of morphia, which would have produced this effect had the tea or coffee not been given.

### VII. *As to the Antagonism between Extract of Calabar Bean and Strychnine.*

In this investigation, thirty experiments were performed.

Although the symptoms produced by either substance were modified considerably by the action of the other, there was no instance of recovery from a fatal dose.

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* Concluded from p. 806 of the JOURNAL for December 26th.

VIII. *As to the Antagonism between Bromal Hydrate and Atropia.*

In this investigation, thirty-six experiments were performed.

1. There is a distinct physiological antagonism between bromal hydrate and atropine.

2. After a fatal dose of bromal hydrate, the introduction of atropia arrests excessive secretion from the salivary glands and mucous surfaces of the lungs, and thus obviates the tendency to death from asphyxia caused by the accumulation of fluids in the air-passages. Atropia also causes contraction of the blood-vessels, and thus antagonises the action of bromal hydrate, which causes dilatation of these vessels by paralysis of the sympathetic nerve.

3. While atropia may save life after a fatal dose of bromal hydrate, the converse apparently does not hold good, as we have never succeeded in saving life after a fatal dose of atropia by the subsequent injection of bromal hydrate.

In concluding this report, I feel it to be necessary to allude especially to the labours of two members of the Committee—viz., first, Dr. Alexander Bennett, who completely worked out the physiological actions of cocaine, theine, caffeine, and their allied compounds; and, secondly, Dr. McKendrick, on whom the bulk of these researches ultimately devolved, and by whom the lengthened investigation on the antagonism between the sulphate of atropia and meconate of morphia was carried out. To him also we are indebted for the remarkable discovery of the antagonism between bromal hydrate and atropia. The long survey into which I have entered can convey no adequate idea of the many hours spent in laborious toil; of the skilful manipulation, sustained power of observation, judgment in inventing and comparing the results of experiments, and, I may add, patience under failures, which have characterised the efforts of these gentlemen. Even the account of the investigations themselves, with the tabulated results of the experiments, can give only a feeble conception of the laboratory work accomplished. The preparation of the report and its careful revision was in itself a work demanding no small time and labour.

I venture, however, to say that such are the toils and sacrifices required by modern medicine, if it be sincerely desired to solve existing difficulties, and prosecute those new inquiries which are so necessary for maintaining its position as a science and as an art. I sincerely trust that no parsimony nor error in administration will restrain the British Medical Association from continuing the noble efforts it has commenced, and rewarding by liberal grants the arduous labours of men who will dedicate themselves to these pursuits. It is gratifying to know that the present and, it is to be hoped, the future flourishing state of its finances, will enable it to take a lead in this patronage of scientific and practical endeavour for the benefit of humanity. I shall always esteem it a proud distinction for myself that I first indicated at least one method in which this could be accomplished,* and have demonstrated, in the two reports I have had the honour of laying before the Association, on the one hand, how error may be corrected,† and, on the other, how new fields may be acquired for the therapeutist in neutralising poisons and extending our means for the cure of disease.

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## CASE OF IDIOSYNCRASY.

The following curious case of idiosyncrasy came under my notice lately. Mrs. R., aged 35, widow, a person of somewhat spare habit and active disposition, informs me that, since her early childhood, she has had a very strong aversion for *potatoes*. She knows no reason for this aversion; certainly it is not due to any fanciful notion. It is the result, apparently, of a peculiar idiosyncrasy. When she was quite a little creature, her uncle was very fond of playing a trick on her by concealing a small morsel of potato in a bit of butter, and inducing her to take it. The result always was *very severe vomiting*. She remembers her mother being very angry with her uncle on the occasion when he indulged in this practical joke. If she happened to be present where potatoes were being cooked, she became quite faint; and, until within a few years back, she could not even handle the tubers. At present, she would rather take the vilest medicines than taste a potato; indeed, she could not bring herself to do the latter. It is rather singular, that throughout life Mrs. R. has displayed an extraordinary susceptibility to febrile and "catching" diseases. Thus she states that, in her early childhood, she had hooping-cough, measles, scarlet fever, and since then small-pox, typhus fever, rheumatic fever, enteric fever, and lastly relapsing fever. Since suffering from relapsing fever, she has experienced some dyspnœa after exertion, and recently she had hæmoptysis.

James W. Allan, M.B., Belford Hospital, Fort William, N.B.

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# DESCRIPTION

OF A

# NEW PORTABLE THERMO-ELECTRIC APPARATUS FOR MEDICAL AND PHYSIOLOGICAL INVESTIGATIONS.*

By J. S. LOMBARD, M.D.,

Formerly Assistant Professor of Physiology in Harvard University, U.S.

Although many important facts regarding the general temperature of the body in disease have been ascertained of late years by the application of thermometers to clinical purposes, yet little or nothing has been done in the study of the temperature of different portions of the surface of the body as affected by morbid conditions of the internal organs. The reason of this is, undoubtedly, that it is only with thermo-electric apparatus that investigations of this kind can be properly made, and up to the present time all such apparatus has been of a nature to preclude its general employment by medical men. The writer has endeavoured, in the instrument to be described (see fig. 1), to combine portability and compactness with sufficient delicacy for all clinical and many physiological investigations. He believes that a very little practice will enable any one to use the apparatus with ease and accuracy. Portions of the apparatus are not new, having been devised by the writer in 1866, and described by him in *Archives de Physiologie*, July 1868.

The instrument may be divided into five parts—the galvanometer; the rheostat; the two thermo-piles; a tin kerosine lamp; and a brass stand, with a horizontal arm having a clamp at its end. Added to these are a compass and a magnifying glass. A board, three-tenths of an inch in thickness, and exactly fitting the interior of the box in which the apparatus is contained, with just sufficient allowance to permit of its being slid out at a door in one end, forms a second or false bottom to the box. The galvanometer, rheostat, lamp, and stand, are all on this board. The levelling screws of the galvanometer rest in holes in the board, and the rheostat also is secured to it. Calling the end of the box in which the door is the *front*, we have (fig. 2) from before backwards, on the left, first, the ebonite base of the rheostat, four and two-tenths inches from left to right, and three inches from front to back; second, the galvanometer, four and four-tenths inches in diameter at its base. On the right, we have, first, the tin kerosine lamp; and, second, the brass stand. This completes the description of the arrangement of that portion of the apparatus which is on the board.

Both the galvanometer and the rheostat can be removed from the board; but it is not intended that they should be, except in case the mercury cups of the rheostat are to be emptied. In experimenting, the board, bearing on it the galvanometer, rheostat, lamp, and stand, is simply slid out at the door of the box; and the lamp and stand having been removed, the galvanometer and rheostat remain on the board as permanent fixtures.

The Galvanometer is constructed as follows. It has a circular wooden base, the levelling screws of which rest (as before mentioned) in holes, or rather depressions, in the false bottom of the box. On this wooden base is screwed a square plate of ebonite, with rounded corners, so as to clear the groove in the wooden base in which the glass shade rests. On the plate of ebonite is fastened the frame on which the wire of the galvanometer is wound. The frame is one and nine-tenths inches long, one inch wide, and one and one-twentieth inches high. It does not stand in the centre of the ebonite plate, but at one side. Placing the board (fig. 2) so that the rheostat is to the front, facing us, and, therefore, the galvanometer to the rear, the frame stands on the left hand edge of the plate (the observer's left hand), its length being from before backwards: the wire of the coil runs, therefore, in the same direction.

From each side of the frame two flat brass stanchions rise, converging towards a point over the centre of the slit in the coil, until at a height of two and one-tenth inches they are united by a brass platform, three-tenths of an inch square. On this platform is a brass cylinder, three-tenths of an inch high, covering the platform, with the exception of its four corners; and again on the cylinder, in the centre, is a split tube two-tenths of an inch long. Both cylinder and platform are pierced by a hole of the diameter of this split tube. In the split tube, and through the cylinder and platform, there slides a second tube with a milled head, and to the milled head inside this second tube is fastened one end of the fibre of unspun silk, which forms the suspension of the

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* *Researches into the Action of Mercury, Podophyllin and Taraxacum on the Biliary Secretion.* Second edition. Edinburgh: Edmonston and Douglas, 8vo, 1874.

† See Address in Medicine for the year 1866, delivered at Chester.

* The instrument is made by William Ladd and Co., 11 and 12, Beak Street, Regent Street, London.

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needles, presently to be described. The attachment of the fibre to the milled head is made by passing the fibre through a small hole in the milled head, and then inserting into the hole a little wooden plug, by which the fibre is firmly clamped.

The so-called "needles" are made on the principle of those in the galvanometers of Sir William Thomson, consisting of two light flat pieces of steel, not quite half an inch long and three-twentieths of an inch in breadth. They are joined, with opposed poles, by a slender rod of aluminium. The upper needle is purposely magnetised the more strongly of the two, so that the system remains in, or nearly in, the meridian, the north pole of the upper needle pointing north. The upper needle is pierced at its centre by an aluminium wire, which constitutes the "index" of the galvanometer. The length of this wire, on the right hand side, is two and three-tenths inches. It gradually tapers to a fine point, and is blackened at its end. On the left hand side the wire projects only eight-tenths of an inch; and, therefore, to establish equilibrium, this end is much thicker than the other. The axis of the index is thus at right angles to that of the needles; and, on account of the length of the index, deflections of the needles—too slight to be observed directly—can be easily detected. On the ebonite plate, on the right hand side, is placed the scale, which consists of an arc of wood, covered with a similar arc of cardboard, graduated, resting on two brass pillars, which are screwed into the ebonite. The scale is graduated to 40 deg. on each side of the 0°; but the brass stanchions prevent the index from going farther than 30 deg., and in actual work the scale is not used above 25 deg., as beyond this point the proportionality between the degrees of the scale and the forces impelling the needles ceases. Up to 25 deg., however, the error is so slight that it may be neglected. Each degree of the scale is divided into halves; and as it is easy to read between the halves even with the naked eye, we can read to quarters of a degree. The object of the magnifying glass is to facilitate this reading. Our scale of 25 deg. is therefore divided into one hundred parts. The only portion of the galvanometer which remains to be described is the regulating magnet. This magnet, which is somewhat curved (the convexity of the curve being upwards when the magnet is adjusted), has a split tube of brass through its centre, and this split tube slides with slight friction on a brass rod six inches long, ending at one extremity in a cap with one side split, which cap fits over the milled head and brass cylinder before mentioned, resting on the uncovered corners of the brass platform. A hole in the top of the glass shade of the galvanometer permits the passage of the cap. The magnet is four-tenths of an inch wide, and the distance between its poles is three and three-tenths inches. When in the box, the magnet and rod are secured to the inside of the door.

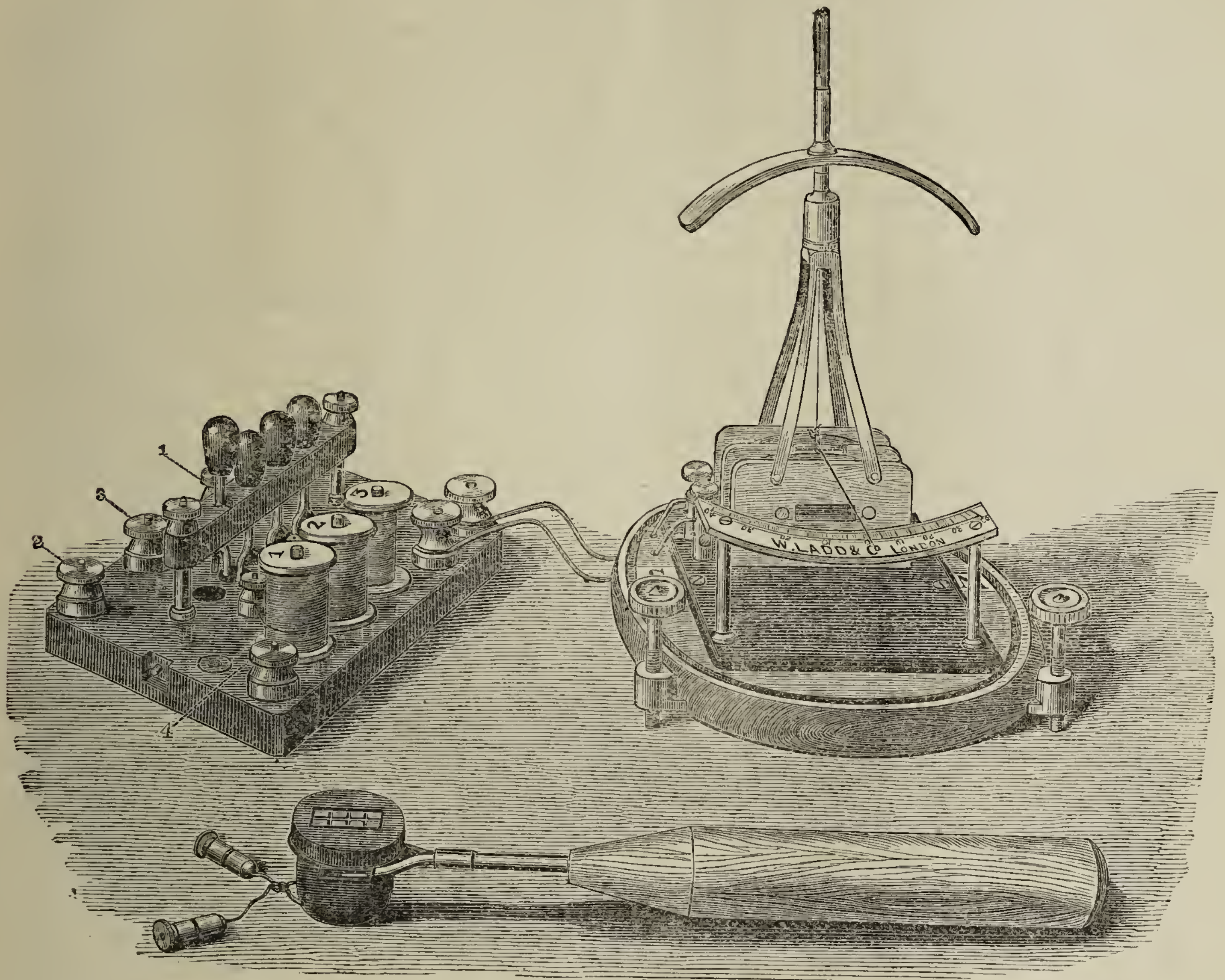
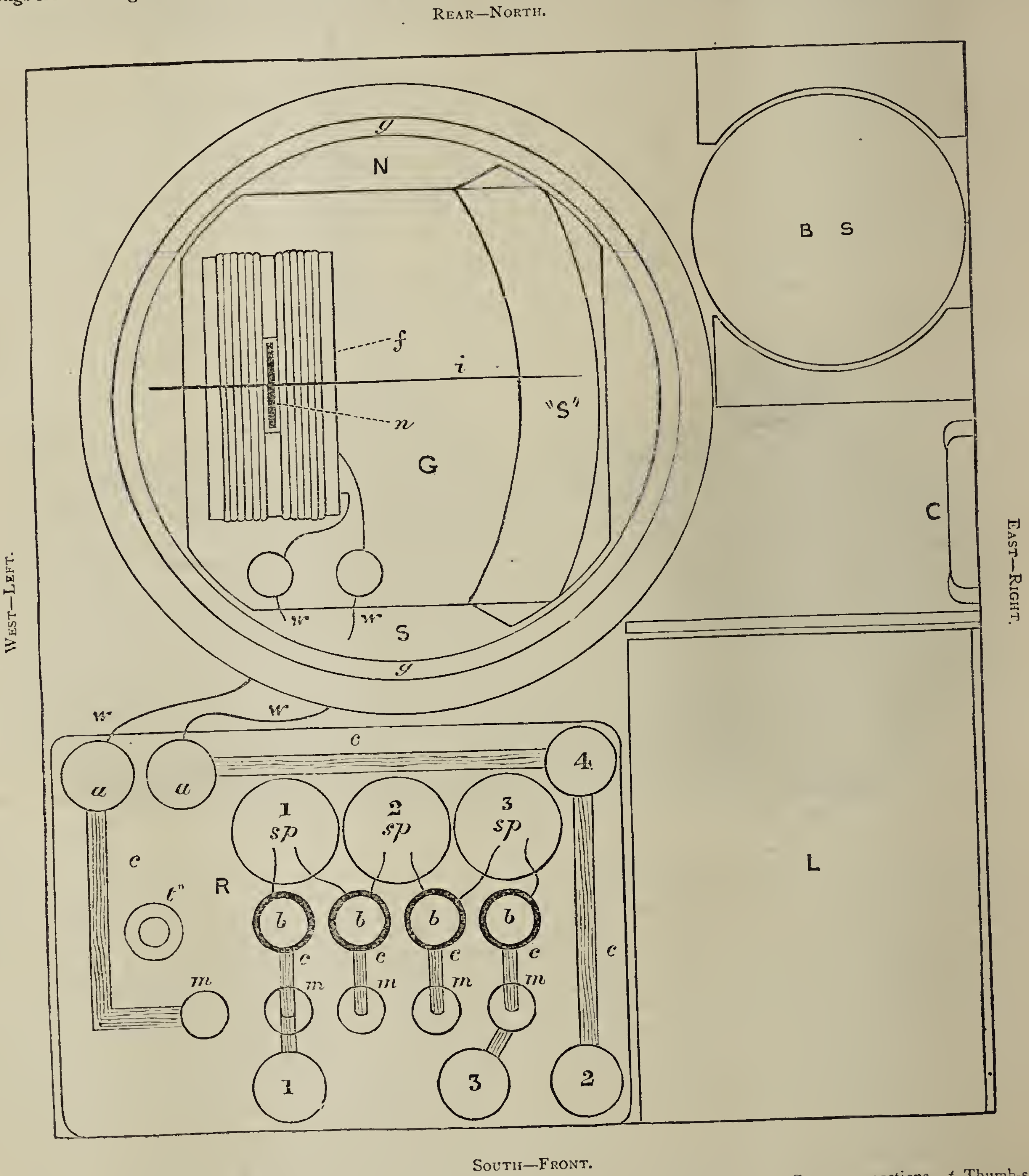


Fig. 1.

The Rheostat is constructed on the plan of a larger one devised by the writer in 1866, and described, with figures, in the *Archives de Physiologie*, July 1868. At the left hand back corner of the ebonite block forming the base of the rheostat (fig. 2) are two binding-screws, in which are fixed the ends of the two wires coming from the galvanometer. On the front of the ebonite base are three more binding-screws, numbered 1, 3, and 2, from left to right; and at the right hand back corner is another binding-screw, marked 4. Nos. 2 and 4 are both on the right hand side of the base, in opposite corners, and are connected by a stout piece of copper let into the under side of the base. A similar connection joins Nos. 4 to the right hand of the two binding-screws which receive the terminals of the galvanometer; hence Nos. 2 and 4 are connected with each other, and with one end of the wire of the galvanometer. As regards the other two binding-screws, Nos. 1 and 3, the disposition is different. Immediately behind these binding-screws is a row of five mercury cups, cut out of the thickness of the ebonite base. At each end of the row of cups is a small brass pillar, which at the height of four-tenths of an inch terminates in a flat surface, from the centre of which rises a rod seven-tenths of an inch long, the lower half of which is smooth, but the other half cut into a screw. A stout ebonite bar, three and three-tenths inches long, and four-tenths of an inch wide and deep, with a hole cut in each end, connects the two pillars; the rods of the latter passing through the holes in the bar, and the flat surface of the pillars forming a support for the bar to rest upon. The screw portion of the rods projects above the upper surface of the bar; and a thumb-screw at each end, which works down firmly on to the bar, keeps the latter steadily in place. The bar, therefore, passes directly over the row of mercury cups, its lower edge being four-tenths of an inch above the upper surface of the base. In the bar over the spaces between the cups are four holes: through these holes pass stout copper wires, with ebonite knobs on their upper ends. At a distance of seven-tenths of an inch from the knobs these wires bifurcate, forming two prongs, about four-tenths of an inch asunder, each prong dipping into a mercury cup, and thus forming a bridge from one cup to another. Of course, the three centre cups have each two prongs immersed in them, from two separate copper stems. By means of the knobs, the prongs can be lifted out and immersed at pleasure. In order to keep the prongs from falling back into the cups by their own weight when lifted out, each copper stem has on its side a little projection, which does not prevent the raising or lowering of the prongs, so long as the projection points to the right along the axis of the bar, a small slot being cut from the holes into the ebonite on that side through which the projection passes. When, however, the prongs having been raised from the cups, the knob is turned so that the projection is no longer over the slot, the stem cannot descend, the projection resting on the bar and preventing this. The first mercury-cup on the left communicates with the left hand of the two binding-screws which are connected with the galvanometer. The communication is effected like that previously described for binding-screws Nos. 2 and 4. With the second mercury-cup (counting from left to right), binding-screw No. 1 is connected, the



G. Galvanometer. "s." Scale of same. *f.* Frame on which is wound coil. *n.* Points to upper needle. *i.* Index. *g.* Groove in which fits glass shade. *w w.* Wires from galvanometer to rheostat.

R. Rheostat. 1 sp., 2 sp., 3 sp. Resistance bobbins. *b, b, b, b.* Binding-screws, to which are attached the terminals of the resistance-coils, and which connect with the mercury cups in front of them. *m m m m m* Mercury-cups. Circles 1, 2, 3, 4 (from left to right). Binding-screws with which thermopiles are connected. *a, a.* Binding-screws, to which wires from galvanometer are attached. *c, c,* . Copper connections. *t.* Thumb-screw, by which rheostat is held down.

L. Lamp.

B S. Brass stand.

C. Compass.

All currents entering at binding-screws 2 and 4 of rheostat, cause the index of the galvanometer to move north; and all currents entering at Nos. 1 and 3, cause the index to move south.

connection being made in the same manner as in the previous cases. When, therefore, the first knob on the left is lowered, its prongs establish a communication between binding-screw No. 1 and the left hand galvanometer binding-screw. Binding-screw No. 3 communicates with the last mercury-cup on the right; and consequently it is evident that, in order to connect it with the left hand galvanometer binding-screw, all the knobs must be lowered.

Next, as regards the resistance coils of the rheostat. Behind the mercury-cups is a row of small binding-screws, four in number, one behind each cup, except the first on the left. Behind these small binding-screws are three wooden spools, nine-tenths of an inch high, placed on end, on brass pegs, to keep them steady; and on these spools the wires constituting the resistances are wound. Each end of the wire of a spool is held by one of the four small binding-screws, and each binding-screw is connected (in the manner already described) with the mercury-cup in front of it. Spool No. 1 (counting from the left) has one end of its wire at the first binding-screw on that side; and as this latter is connected with the second mercury-cup, one end of the coil on this spool communicates with this cup; the other end is attached to the second binding-screw, which is connected with the third cup. Hence a current arriving at the third cup, on its way to the left hand galvanometer binding-screw, will, if the knob belonging to the second and third cups be raised, pass through the wire on spool No. 1, and thus reach the second cup. If the knob be lowered, the current will, of course, take the path of least resistance, and pass through the prongs. Spools Nos. 2 and 3 act in precisely the same way. It will be noticed, however, that only binding-screw No. 3—speaking now of the four original large binding-screws—is concerned in these resistances, for No. 1 communicates directly with the second cup, and is not at all affected by the raising or lowering of any of the knobs, except the first on the left. It will also be noticed that this first knob, when raised, cuts off completely all communication between both Nos. 1 and 3 and the left hand binding-screw of the galvanometer: it acts, therefore, simply as a "key".

The two Thermo-Piles consist each of eight pairs of bismuth and an alloy composed of 64.43 parts of antimony and 35.57 of zinc in 100 by weight. This alloy, with many others, is the result of a long and elaborate series of researches in thermo-electricity, made some years since by Mr. Moses G. Farmer of Boston, Massachusetts. It has an electromotive force nearly four times that of antimony. The pairs are fitted into ebonite caps, eight-tenths of an inch in height, and eight-tenths of an inch in diameter, measured on the bottom of the cap, where one face of the pile is exposed. The poles of the piles terminate in copper wires, which come out at the top of the ebonite caps and end in small binding-screws. The binding-screw connected with the alloy end of the pile is marked on its side with the plus sign. Each pile has a metallic ring round it, with slits in it, through which tapes may be passed, and the pile secured to any part of the body. Each pile is also provided with a wooden handle, in and out of which slides a brass rod with a claw at one end. The pile fits into this claw, and, the wooden handle being held by the experimenter, the face of the pile may be applied to the surface of the body without the risk of the warmth of the hand interfering. The piles and the handles are secured to the under side of the top of the box, which swings back on hinges.

The lamp and brass stand require but little explanation. The lamp is of tin, and its dimensions are three and six-tenths inches in length by two and six-tenths inches in width, and one and nine-tenths inches in height. The foot of the stand measures two inches in diameter; its stem is four inches and a quarter high, and on this stem slides a horizontal rod six inches and a quarter long, bearing at its end a screw clamp. The use of the lamp and the stand will be explained further on.

There remain in the box merely the compass, lens, and conducting wires, which require no special description. The box itself is eight and seven-tenths inches long, by seven and seven-tenths inches wide, and five and seven-tenths inches deep, outside measurements. As before stated, it opens both at one end and at the top. A handle is affixed to the top, by which it may be carried.[*]

*Directions for Using the Apparatus.*—Having opened the top and front of the box, remove the compass; and, having selected a steady table, find the magnetic meridian, taking care, meanwhile, to keep the box at a distance of a few feet, on account of the regulating magnet of the galvanometer. Next remove the funnel of the lamp and the conducting-wires, and then slide out the board forming the false bottom of the box. This done, remove the brass stand and lamp from the board, and place the latter so that the side of the galvanometer-base marked "N." is to the north. We then have the wires of the coil running north and south, and the scale to the east of the coil. The milled head is now carefully raised until the needles are at such a height that the index will just pass under without touching the bit of paper pasted on the north-east stanchion. The galvanometer is now levelled, until the needles swing freely in the centre of the slit in the coil, and the position the index takes is noted. If this position be to the north of the 0° point, turn the milled head from left to right, taking care in so doing not to lower or raise the needles. If, on the other hand, the index be to the south of 0°, turn the milled head from right to left. In this way, by means of the torsion of the suspending fibre, the index can be brought to 0°. Next adjust over the milled head the cap of the rod on which the regulating magnet slides. Place the magnet in the meridian, its marked or north pole being to the north, and slide it down the rod until the upper edge of the split tube which passes through the magnet is even with the mark cut on the side of the rod. If now the index fall off from 0°—which will probably be the case—move the magnet horizontally (taking care not to raise or lower it), according to the following rules. If the index be to the north of 0°, move the north pole of the magnet to the west; if the index be to the south of 0°, move the north pole to the east. A little practice will enable the experimenter to bring the index to 0° very readily. It is not necessary, however, to have the index accurately at 0°, so long as the degree at which it stands is noted, and is not far from 0°. The galvanometer is now ready for work.[*]

Suppose now we desire to find the relative temperature of two portions of the surface of the body—over the kidneys, for example. The two thermo-piles secured in their handles are connected thus: the positive pole of one pile is connected with binding-screws of rheostat Nos. 2 or 4; the positive pole of the other pile is connected with binding-screw No. 3. The two negative poles of the piles are connected with each other. One of the piles is marked on the side with a white spot, and this pile should always be used for testing the relative temperature of the two parts, the other pile being placed on a part of the body not directly concerned in the observation. The reason for thus selecting one particular pile is, that the two piles are apt to vary slightly in electromotive force, in spite of all care in their construction.[†] One pile is, therefore, placed on the arm, for example, and the other (the one marked with the white spot) is applied successively over the two kidneys. In order to tell which is the warmer of the two parts tested, we have simply to remember these rules. All currents entering binding-screws Nos. 2 and 4, cause the index to move north; and conversely, all currents entering at binding-screws Nos. 1 and 3, cause the index to move south. If, then, the pile with the white spot have its positive pole connected with binding-screw No. 4, and the unmarked pile have its positive pole connected with binding-screw No. 3, and the former pile be placed over one kidney, and the latter on the arm, and we obtain a deflection of 10° of the galvanometer scale to the north; then, if the other kidney be the hotter of the two, we shall have an increase in the deflection to the north, on application of the pile over this kidney; but if cooler, the index will fall to the south. The faces of the piles must be applied evenly to the surface, and with the same degree of pressure. Moreover, a few moments must be allowed to elapse after the piles are applied before an observation is made. Meanwhile, the knob which forms the key (the first on the left) is kept up. When all is ready, the knob is lowered and the observation made. The first swing of the index must not be taken, but the degree at which it finally settles.

We have next to deal with the thermometric values of the deflections of the index. With the two piles in the same circuit, as above described, all the knobs being down, so that the current passes directly across from one cup to another, we have the following approximate values.

20° galvanometer scale ........................ = 1° C.
1° ,, ,, ........................ = $\frac{1}{20}$° C.
½° ,, ,, ........................ = $\frac{1}{40}$° C.
¼° ,, ,, ........................ = $\frac{1}{80}$° C.

We can, therefore, read from $\frac{1}{80}$° C. to 1¼° C., counting to the 25° which forms our limit. If, now, we raise the second knob, we throw into the circuit the wire wound on spool No. 1, which resistance halves the deflection; and we now have 10° galvanometer scale = 1° C. Hence we measure from $\frac{1}{40}$° C. to 2½° C. Lowering this knob and raising we [illegible] in the resistance of spool No. 2, which quarters the third one, we [illegible] the deflection. Therefore, 5° galvanometer scale = 1° C., and we measure from $\frac{1}{20}$° C. to 5° C.

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[*] If the apparatus have to be carried any great distance, it is advisable to wind round the stanchions of the galvanometer a few turns of thread, just above the index, and then to very carefully pack a little cotton-wool around the upper needle, below the turns of thread. Great care must be taken in doing this, to avoid breaking the fibre of suspension. When this is done, the mercury-cups being empty, and the chimney of the lamp packed securely, the box may be inverted without the least risk. Ordinarily, it is not necessary to empty the cups in going from place to place, if they are not filled too full. To empty the cups, detach from the binding-screws of the rheostat the two wires coming from the galvanometer, then unscrew the thumb-screw on the left of the ebonite base, when the latter can be readily removed.

[*] The mercury-cups are readily filled by removing the horizontal ebonite bar above them.

[†] This is simply given as a precaution. If the experimenter find, on trial, that the piles are equal in power, one may be applied over each kidney, and the difference directly noted. The writer is of course speaking with reference to future instruments.

We have thus far dealt with cases in which the relative temperature of parts at the moment of observation only was concerned. Suppose, however, we wish to make a prolonged experiment on the temperature of a part. If the unmarked pile be placed on another part of the body, it is obvious that, in an experiment of any duration, this part may alter in temperature as well as the part under observation, and hence our results may be confused. To avoid this, we use one pile only on the body, and expose the other to a constant source of heat—the current thus generated being opposed in the galvanometer to that of the pile placed on the body. It is for this purpose that the lamp and brass stand are used. The unmarked pile is fixed in the clamp at the end of the horizontal arm of the stand, the clamp being applied between the points of exit of the wires of the pile and their entrance into the binding-screws of the latter. Care must be taken that the binding-screws of the pile do not touch the brass clamp, otherwise a connection may be established across. The positive pole of the pile is connected with binding-screw No. 3, and the negative pole with binding-screw No. 4. The marked pile is connected by its positive pole with binding-screw No 2, and by its negative pole with binding-screw No. 1. It will be seen that, thus connected, the current from the unmarked pile passes in the track of the resistance coils, while that from the marked one passes directly through the cups forming the key. We have thus two separate circuits opposed to each other. In experimenting with this disposition of the apparatus, we proceed as follows. The lamp being lighted, the stand bearing the unmarked pile is placed in front of it, the face of the pile being turned towards the flame. The marked pile is secured to the part to be experimented upon; and, after raising the knob of spool No. 3, we lower the first knob (the key) and note the position of the index. If the current from the pile on the body be the stronger of the two, the index will, of course, be to the north of 0°; if, on the other hand, the current from the pile in front of the lamp be the stronger, the deflection will be to the south of 0°. By regulating the height of the flame and the distance of the face of the pile from the lamp, we can bring the index to 0°. Any alteration in the temperature of the part under consideration will now show itself, in the case of a rise of temperature, by a deflection north; and, in the case of a fall, by a deflection south. The object of interposing the resistance of the wire on spool No. 3, is to check the "leakage" of the current of the pile placed on the body into the circuit of the other pile. A certain portion of the current of each pile will pass through the circuit of the other, instead of through the galvanometer. In the case of the pile placed in front of the lamp, this loss is of no account; but in the case of the other pile the loss is important, and must be limited. With this arrangement of the apparatus 23½° galvanometer scale = 1° C.

In conclusion, the writer would say that the instrument could have been made much more delicate, and, in fact, could have been improved upon in many ways, had he not endeavoured to reduce its cost to the lowest possible point.

## CALCULUS IN URETHRA OF A CHILD.

H. Sparrow, aged 4 years, was admitted into the Home for Sick Children, Sydenham, on December 19th, 1874, with retention of urine. For several days, it appears, he had manifested symptoms of great irritability of bladder. Upon examination, there was found to be priapism, with an elongated prepuce, which was distended with urinary excretion. There was constant stillicidium urinæ. The bladder was distended, and painful upon manipulation. The penis was much swollen and œdematous. The countenance was distressed and anxious; pulse frequent. My colleague Dr. Bird kindly administered chloroform, when a catheter was inserted into the preputial orifice, but could not be introduced into the meatus urethræ. The prepuce (rather than circumcision) was slit up by means of a curved bistoury, and just within the urethra was discovered a small round calculus, firmly impacted, giving rise to the retention. After passing a bent probe beyond the calculus, it was at length hooked, and ejected with a certain amount of force, causing it to fall upon the floor of the room. Its character was phosphatic. A catheter was then passed, and the over-distended bladder relieved of its contents. After the application of two sutures to the wound, the penis was enveloped in oiled lint, and the child was put to bed, when he almost immediately fell into a tranquil sleep. He is now convalescent, although not yet discharged from the Home.

Spencer T. Smyth, M.D., F.R.C.S.,
Honorary Surgeon to the Home for Sick Children, Sydenham.

# CLINICAL LECTURE
ON
## ITCH IN PRIVATE AND IN PUBLIC PRACTICE, AND ITS TREATMENT.

By TILBURY FOX, M.D., F.R.C.P.,
Physician to the Department for Skin-Diseases of University College Hospital.

Gentlemen,—There are certain differences in the cases of itch that come under our treatment in public and in private practice respectively, to which I wish particularly to direct your attention. By public practice, I mean such as hospital, infirmary, and Poor-law practice, amongst the poorer classes. The matter is one of practical importance to you. You know that, in describing scabies to you, I do not follow the usual method of books, and divide the disease into papular, vesicular, and pustular scabies, and so forth; but I speak of the disease as consisting in an *essential* element or lesion, the acarus in and with its furrow, and certain *accidental* concomitants, which result as consequences of the irritation set up, and the scratching practised for the relief of the latter; of, in fact, the acarian furrow and imbedded acarus, and the results of irritation. These latter vary in kind, and include hyperæmic papillæ and follicles, vesicles, pustules, and excoriations, etc. Now, in private practice amongst the better classes, the differences in cases of scabies, as compared with those observed in hospital practice, are those of *degree*, not kind, and have reference chiefly to the *accidental* concomitants, and only slightly to the essential lesion of scabies.

In private practice, cases are occasionally met with equal in severity to any that are seen in public practice; but, on the other hand, as the rule, they are not so severe, and the disease is not so extensive, and *very frequently in private practice instances come under observation in which the accidentals of scabies are scarcely if at all marked*. There are a certain amount of itching, and an acarus or two here and there, and nothing more; and such cases are often erroneously diagnosed. There are many instances of scabies only a slight shade worse; a few acarian furrows, with a few papulations.

The variations are due to several causes, chiefly to the observance of greater cleanliness, the seeking of medical advice earlier (so that the disease has not time to put on the aspect of severity), and to the better nutrition, amongst the better to do, as compared with the poor classes. Cleanliness has greatest influence, because it is a great check to the development, and migration from part to part, of the acari; and malnutrition amongst the poor favours the development of the pustular concomitants; and, lastly, the longer the disease lasts, the greater, of course, is the scratching. When want of cleanliness, much scratching, and malnutrition go together, the worst cases of scabies occur, and they may now and then, as I have said, be met with in private practice. But, inasmuch as private patients are more cleanly than public ones, seek advice earlier, and are well fed, scabies amongst them occurs in its least expressed form. But even when the disease has existed some time, it is surprising how slightly marked the disease is in some cases, on account of the extreme cleanliness observed, and the repeated washings practised by private patients.

It is with these slighter cases of scabies that I wish to deal specially—with those in which a solitary or a few acari are present, and very little else. A hasty observer may readily overlook the nature of such cases as those to which I now refer more particularly. I occasionally see instances of scabies which, at first sight, would seem to be instances of pruritus simply. There are two circumstances, however, about them, which should always put you upon your guard. The one is the seat of the pruritus—viz., the front of the abdomen, the penis, the inner and upper part of the thigh, and the front of the forearms; and the other is the occurrence of the pruritus especially, or perhaps only, at night, when the sufferer gets warm beneath the clothes. If careful examination in such cases be made, a reddish papulation may be detected along the upper line of the penis, or a solitary acarian furrow at one of the interdigital spaces or about the wrist; and this may not be readily found. I have often detected after careful search a stray furrow concealed by some of the little folds of skin in the interdigital spaces, which had escaped observation for awhile. About the forearm may or may not be a few very delicate papulations that require, for their clear detection, that the skin should be looked at obliquely. Of course I mean that, in the cases I describe, acari have been actually extracted from these solitary cuniculi. There may be no eruption anywhere but on the penis, one or two acarian furrows being seated there. I have known such cases complicated by glandular swellings in the groin, and mistaken for syphilis; but, if careful examination be made, the acarian furrows may very plainly be made out; and the swelling accompanying the furrow lacks the indurated character of a true chancre, and is clearly simply inflammatory. In these cases of very slightly marked scabies, there is mostly no concomitant aid to diagnosis; I mean, for instance, no infection of others in the same family, etc. In a somewhat more marked degree, where there are a few acari and furrows about the interdigits, or the wrists, or perhaps the penis, with a small amount of rash on the forearms and the abdomen and thighs, the disease is very common. The acarian furrows, if the persons attacked be very cleanly, may readily be overlooked again, because they are not discoloured and rendered more distinctly visible by dirt; and frequently the acari are scratched away, and only the opened up cuniculus remains; but the form or skeleton of the cuniculus is seen. A little circular area, whence the cuticle which was upraised into the vesicle is gone, is seen; and, stretching away from this, is a line marked out on each side by loose cuticle, forming at one time the walls of the now opened up cuniculus. This is practically diagnostic of scabies. The papulation, if any, in these cases, about the forearms and the thighs, is made up of hyperæmic papillæ and follicles more or less scratched. There are no acari anywhere, but about the wrists and interdigits and the upper line of the penis. In these cases, the occurrence of itching at night, and the presence of fine papules on the anterior surface of the forearm and about the abdomen and thighs, at once suggest the probability of scabies being present.

The next degree of scabies of course does not differ from that ordinarily seen in public practice. I would say, then, as regards private practice, be very careful to satisfy yourselves that scabies is not at the bottom of what at first sight appears to be pruritus, which is intensified or developed at night, and is specially seated about the abdomen, the inner part of the thighs, and the forearms or hands. I know that such cases are oftentimes scabies, but are not diagnosed correctly till the disease developes to a decidedly significant extent.

Of course, I have been speaking of the disease in adults. In the case of children, there may be no characteristic evidence of scabies about the hands, but only about the feet and buttocks. It is often difficult to detect cuniculi acari in very young children. But one very good guide is to be found in the character of the eruption. The disease most liable to be confounded with scabies is lichen urticatus. Well, that consists of wheals leaving behind papules. It may be said to be an uniform disease as regards eruption. There is no eruption besides the wheals and papulation. But in scabies the eruption is multiform. It is papular, vesicular, and pustular. In public practice, the scabies of children is marked by complicating ecthyma, as might be expected; but this is not so common in my experience in private practice.

Turning to scabies in public practice, I have only to observe, on this occasion, that the diagnosis of scabies, as ordinarily seen, is, as the rule, very easy. But, in rarer instances, the disease is so general, and so intermingled with excoriations and pruriginous papules, etc., that it presents the aspect rather of a pruriginous eczema, or phthiriasis mixed with eczema, than a scabies, since the eruption is not confined to the usual seats of itch-rash, but attacks the parts about the shoulders, the back, the lower parts of the legs, and back of the forearm, as well. But there is one very safe guide in these cases; and that is, the history of the eruption, which shows that the latter began as scabies usually does, whilst acarian furrows will be detected, although most of them may be obscured by the free suppuration about them.

*Treatment.*—I have some special remarks to make in regard to the treatment of itch-cases in private and in public practice. You may very readily overtreat cases of itch in the former, for the reason that the disease is less severe, and the acari are not present over so large an area. In the mass of instances occurring in public practice, the disease exists, for the reasons I have before given, extensively over the surface, and acari have burrowed, not only about the hands, but in other parts of the body, especially the penis, the feet, the scrotum, and the abdomen perhaps. But in many cases in private practice, I mean amongst the well-to-do, the acari are *only* present at the interdigital spaces. Hence it is a rule of prime importance in treating itch, to accurately determine, at the outset, how far the acari have disseminated themselves about the body. The reason is obvious. There is no need to apply parasiticides to parts in which acari do not exist, because the irritation and eruption elsewhere are due to sympathetic action; and these irritated parts will get well if the acari be destroyed, and they do not require the use of irritant remedies, such as parasiticides are, but soothing remedies. The practice is to apply the remedy to every part of the body where eruption exists in cases of itch. Clearly this is wrong, from what I have just said. My rule is this: if the disease be recent, if it be only slightly marked, if it began about the hands, and there be no cuniculi about the penis, I order the parasiticide to be rubbed into the interdigits, the palm of the hand, and the wrists, and I apply a soothing lotion to all other irritable parts of the body. If, however, there be—I am speaking of the slighter degrees of disease—cuniculi about the penis as well as the hand, and especially if the disease appeared to begin coincidently in point of time by itching about the lower part of the abdomen, then I apply the parasiticide to the hand and the penis; but even here I do not rub in the remedies very long (for three nights and three mornings), and I only, for precaution sake, let the patient smear the parasiticide upon the scrotum and the thighs, and for two or three times. I then order a soap bath, a change of linen, and I expect my patient to be quite well. The absence of pruritic irritation at night on the third day I take as a good test to the cure of the disease. In no case do I use any but parasiticides of moderate strength; half a drachm of sulphur to the ounce of lard is a sufficiently strong ointment, if sulphur be the remedy chosen.

But I will suppose that a well marked case of itch comes before you in a well-to-do person. Here I recommend you not to depart from the rule I have laid down, viz., not to use your parasiticide generally to all the body, but to rub it freely in where the acari are, about the hands, the penis, and the scrotum, and to smear it gently on a few times only to the adjoining parts; to use it for three days only, and not in too great strength. This suffices to kill all acari, and the secondary results, viz., those of irritation, quickly subside. What frequently happens is, that the remedies kill the acari, but their use is persisted in longer than is necessary to effect this object, and only aggravates the already existing irritation and secondary eruption.

I repeat, then, by way of summary, that in private practice, if the disease be slight and recent, use the parasiticide to the hands only, and soothe the other parts with some emollient or astringent lotion or ointment; and, in all other cases, treat actively the hands and the parts about the genitals, but other parts only very slightly. In all cases, use remedies of moderate potency; at the end of three days leave off the parasiticide, give a soap and water bath, and see if the itching at night have ceased. If any vesicles appear between the fingers or about the wrists subsequently, these may be touched by the parasiticide. But if the latter be used for any length of time, the itching and irritation which had at first subsided, may increase, and this increase is often mistaken for an exaggeration of the itch, whereas it is that of the secondary pruritic eruption. In these cases, the skin becomes so irritable that it is a difficult matter to get it into a quiescent and healthy condition. *Over-treated cases of itch in private practice are by no means uncommon.*

I have one word to say, in conclusion, about bad cases in private and public practice, and the use of sulphur vapour-baths. In these bad cases, no doubt the acari are disseminated widely, and active treatment is needed. One remedy in common use is the sulphur-bath. I think a caution is needed as regards its use. I believe that it is abused. Though I much prefer a good soaking in a sulphuret of potassium bath, and the prescription of a mild parasiticide ointment, yet sulphur vapour-baths may be employed; but I think a single one properly administered—at most two—sufficient. I would have the patients well washed, first of all, with soap and water, and then put into the sulphur-bath. If the effect be that the pruritus at night is destroyed, I do not think it needful to repeat the bath, especially where the skin is much inflamed. You have seen, yourselves, many cases in which these baths have cured the actual scabies, but have set up a severe inflammation and pruritus in the skin that are most difficult to subdue. I never use sulphur vapour-baths in itch, on that account, except where the disease is of the severest kind, because I believe all the acari can be destroyed by simpler and less irritating applications. In these cases, the same rule holds good, I think, as in the simpler cases. It is easy to overtreat these cases. If, at the end of a few rubbings with mild sulphur or storax ointment the skin be less inflamed, less irritable, the vesicles and pustules drying up, and the patient get a good night, I consider that the itch itself is practically well, and I then treat by parasiticides the usual haunts of the acari and soothe other parts. But there is another very important matter in these cases. It is to keep the same linen on next the skin during the use of the parasiticide, and when a change of linen is made, to disinfect all the clothes by heat. I cannot now go into the question whether the acari dwell temporarily in the clothes. They can, no doubt, live long enough off the body in the clothes to be conveyed by clothes from one person to another, and, if so, then it is important to prevent these clothes from serving as the media of re-propagating the disease, or transmitting it from the infected to the healthy.

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TESTIMONIAL.—The Huddersfield small-pox patients have presented to Mr. John B. Pritchett, the medical officer of health for the urban sanitary district, a gold pencil-case and a silver goblet. On the former is engraved, "To J. B. Pritchett, with a silver goblet, from patients in the Huddersfield Borough Hospital during 1873 and 1874."

# ABSTRACT OF A CLINICAL LECTURE
ON
# A NEW METHOD OF TREATING BAD CASES OF VARICOSE VEINS OF THE LEG.

*Delivered at University College Hospital, London.*

By JOHN MARSHALL, F.R.C.S., F.R.S.,
Surgeon to the Hospital.

[*Reported by* J. W. LANGMORE, M.D.London.]

A HEALTHY looking man, aged 38, was admitted into University College Hospital on November 21st. He had been in early life a farm-labourer, but for some years past had been a railway "plate-layer". He stated that he had generally enjoyed good health, but that when he was only sixteen years of age the internal saphena vein of the left leg began to enlarge. The veins of the foot and leg were not distended first, but the vessel seemed to enlarge all the way up the limb at the same time. Afterwards the veins of the right leg became distended in the same manner, and they had been getting worse ever since. He had worn a bandage on the left leg for some years, but lately he had suffered so much pain on standing, that he had been unable to continue at his work, and had been compelled to apply at the hospital. On admission, the internal saphena veins were found to be in an extremely varicose condition on both legs; that of the left leg was especially large and tortuous, most so over the inner side of the knee and the upper part of the leg; there was a large dilatation also just below the saphenous opening.

Mr. Marshall gave a short sketch of the etiology and pathology of varicose veins. He held that the primary cause was some mechanical obstruction, some impediment to the progress of the circulation, and that this obstruction was generally situated high up in the trunk, and that even the action of the heart might be concerned in it. Generally, the enlargement began in the veins of the foot and leg and crept gradually up the thigh; but, in the case under notice, the distension of the vein in the thigh seemed to have occurred very rapidly. The enlargement at the saphenous opening was also worthy of notice; it was cases like the present which had caused some surgeons to think that the principal obstruction was at this point. Mr. Herapath used to enlarge the opening in the hope of removing the supposed impediment. But, when we had an opportunity of examining the deep veins in such a case, we found that they also were enlarged in the same manner. Alteration in the coats of the veins was a secondary change which confirmed and exaggerated the disease, but which was not itself the cause. As the result of long continued distension, the veins lost their elasticity, their coats became thinned, the muscular and elastic elements degenerated, and were replaced by simple connective tissue. The valves also became incompetent in consequence of the enlarged calibre of the vessel; and the increased weight of the longer column of blood on the lower part of the vein helped to increase the mischief.

Mr. Marshall then passed on to notice some of the chief operations which had been proposed and practised for the cure of this troublesome ailment. All operations were, of course, only palliative; they merely shifted the disease from one locality to another. Still, by a judiciously planned operation, the patient might be relieved for months or even years. The simplest mode of giving relief was by means of elastic bandages or stockings; but, if these failed, if the patient still suffered from pain when standing or walking sufficient to interfere with his ability to work, or if he were the subject of those troublesome chronic ulcers which frequently accompany this disease, then the surgeon was justified in having recourse to operative interference. The object of all the various operations which had been practised was the same, viz., to obliterate the vein; but this was not as easy as might have been expected, and consequently the operations were not always as successful as could be wished. The object, then, was to excite inflammation in the coats of the vein which should be followed by adhesion of the opposed surfaces of the inner coat, with consequent obliteration of the canal, and finally by atrophy of the vein and its contraction into a fibrous cord.

One old plan was to apply the actual cautery at intervals along the course of the vessel; but a mere burn of the skin was not sufficient for the purpose, it must go through the skin and into the vein; and this was a severe measure, often followed by diffuse phlebitis, and consequent blood-poisoning.

John Bell cut out small pieces of the vein at intervals; but this was also a severe and dangerous operation, often followed by extensive inflammation and hæmorrhage. Von Gräfe used to lay open the vein, stuff the cavity with lint, and allow the wound to heal by granulation from the bottom; this was, of course, an effectual cure, but it was a tedious one, and was not unfrequently complicated by suppurative phlebitis.

The plan most commonly employed now is to obstruct the vein by ligatures placed at intervals along its course; but, unless these be placed very close together, this plan is often ineffectual; the vein is obliterated only just at the point of ligature, the intermediate portions remain patent, and the blood soon finds its way into them by means of collateral branches. To obviate this tendency, some surgeons, after placing the ligatures, have divided the vein subcutaneously between each pair; this gives more satisfactory results, but is sometimes followed by troublesome inflammation and suppuration.

The plan of treatment, said Mr. Marshall, which I have carried out on this man, and which I propose to try more extensively as opportunities offer, is not altogether new, but presents, I hope, sufficient novelty to deserve the notice of the profession. It resembles that of Von Gräfe, which I have just mentioned. The grave objections to his plan were the occasional occurrence of troublesome hæmorrhage, and the risk of diffuse suppurative phlebitis followed by embolism, septicæmia, etc. The former danger might, I thought, be obviated by elevating the limb well and by carefully applying Esmarch's bandage before the operation; and the latter risk might also be avoided by the use of antiseptic dressing. The operation in this case was performed as follows. I drew with ink a straight line, six inches in length, over the course of the tortuous vein, just below the knee, where it was most enlarged. Esmarch's bandage having then been applied, I next passed a hare-lip pin under the vein at the top and bottom of the marked portion, and secured it with the usual figure-of-8 and bougie ligature. I then cut through the skin over the course of the vein, opened the vein itself just above the lower ligature, and slit it up on a director as far as the upper pin—a distance of about nine inches. But, when I had thus laid open the vessel, it struck me that the healing of the wound would probably be accelerated if I removed entirely this ragged-looking piece of useless membrane; I, therefore, cut it across at each end, and removed it by dividing some small branches. The vessel was quite empty, and no blood was lost during the operation. In performing it another time, I should, after exposing the vein, cut it through, and remove it at once without opening it. Three hare-lip pins and figure-of-8 ligatures had also been placed on the vein higher up, a little above the knee. The wound was dressed antiseptically, according to Lister's method, and a bandage applied firmly as high as the knee.

As regards the after-progress of the case, I need only remark that, on December 1st, the wound was found to be nearly healed, and the carbolised dressing was left off; it would have been better for the patient if this had been continued for a few days longer, for his recovery was somewhat retarded by a slight attack of erysipelas, which now invaded the limb. It is, however, worthy of note, that the wound in the leg healed first, and that the patient was kept in bed for some days longer solely by the state of the vein in the thigh where the pins only had been used. In this case, therefore, the two methods were contrasted on the same patient, and the part where the vein was extirpated healed first; the other went through the ordinary course of slow peri- and endo-phlebitis. It seems, therefore, that, not only is the operation of removing the vein a more certain and effectual mode of treatment, but that it is also speedier—that the more formidable looking clean cut wound thus made is, when dressed antiseptically, more rapidly cured than is the apparently trivial inflammation which is set up by the pins. In operating on another similar case, I should not hesitate to remove a much greater length of vein, even two feet, if it seemed necessary or desirable to do so.

The patient was then introduced, in order to show the result of the operation. Though dilatation at the saphenous opening was still apparent, the vein in the thigh was greatly diminished in size, and below the incision was apparently obliterated nearly down to the ankle; altogether, the state of the limb operated on presented a marked contrast to that of the right leg, which, at the time of the patient's admission, had been decidedly the less varicose of the two. He stated that he was now quite free from pain in the limb; he was wearing an elastic stocking by way of precaution, but Mr. Marshall thought that this would soon be unnecessary, and advised him to use it for the right leg.

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VACCINATION.—Mr. T. L. Gentles, Medical Officer and Public Vaccinator for the South District of the Derby Union, has received a Government award of £70 : 6 for efficient vaccination.

# DIPHTHERITIC PARALYSIS:

## ITS NATURAL COURSE, PATHOLOGY, TREATMENT, AND RELATION TO PARALYTIC AFFECTIONS FOLLOWING FEVERS.*

By SIR JOHN ROSE CORMACK,
Chevalier of the Legion of Honour; M.D. Edin. and Paris; F.R.S.E.; Fellow of the Royal Colleges of Physicians of London and Edinburgh; Physician to the Hertford British Hospital, Paris; etc.

[*Continued from* BRITISH MEDICAL JOURNAL, *December 12th, p.* 735.]

I PROCEED now to illustrate the paralytic affections which occur during and after Relapsing Fever, Enteric Fever, Cholera, Typhus, Dysentery, Rheumatism, the Exanthemata, and some other diseases.

### PARALYTIC AFFECTIONS DURING AND AFTER RELAPSING FEVER.

In my account, published thirty-one years ago, of the Relapsing Fever as I saw it in 1843, in the first months of that most remarkable epidemic, I mention that paralysis of the deltoid and other muscles occurred in a few cases. In a woman, aged 36, there was loss of power in both deltoids, which continued for about ten days after restoration to health had taken place in all other respects. As my fever-patients, on leaving the hospital, generally ceased to be under my observation, I had comparatively few opportunities of studying paralysis and the other sequelæ of relapsing fever. In later writings on relapsing fever, I find notices of partial paralysis having occurred during convalescence in the practice of various observers.

Dr. R. T. Lyons, of the Bengal Army, in his valuable treatise on *Relapsing or Famine Fever*, published in London in 1872, says that paralysis is more commonly associated with that fever in India than in Europe. In this opinion, he is probably correct. Possibly, however, the Indian fever epidemics which, from the published descriptions, he considers to have been epidemics of relapsing fever, were not all of that nature, using the term *relapsing fever* in the special and restricted sense in which clinicians have employed it for the last thirty years. Be that as it may, it is evident that many of the Indian epidemics in question were essentially similar in kind to well observed and accurately described European epidemics of relapsing fever. But, even supposing that the fever which we know in Great Britain under the name *relapsing*, is not the same as any Indian fever, the following extract from the work of Dr. Lyons furnishes, in a concise form, some most interesting and precise statements in proof of the frequency with which various forms of paralysis have been observed as *sequelæ* of fevers in India. Such statements strengthen the opinion that there is nothing absolutely *sui generis* in the paralysis of diphtheria.

Again, at page 148, Dr. R. T. Lyons says:

"In the Kimedy epidemic of 1833, M'Donell met with two cases in which paralysis supervened, and in one of these there was also anæsthesia or numbness; in both, the paralysis occurred during convalescence. In the Mercara epidemic of 1842, Lawrence says that several patients experienced loss of power and sensation in the lower limbs, and walked with a tottering gait, these symptoms being sometimes preceded and sometimes followed by œdema of the feet and hands. In the Mangalore epidemic of 1845, the same author found paralysis to be a frequent complication, and he further states that convalescence from paralysis was protracted and retarded by a temporary recurrence of the earlier symptoms: whether these were increase of circulation, œdema, or febrile heat, the paralytic symptoms were always increased at the same time. Eyre met with three cases of palsy, which were mistaken for beri-beri; all these proved fatal. In one case, the paralysis occurred in the primary fever, in another during the intermission, and in the third in the relapse. In the Umballa epidemic of 1866, Bateson found one of his two cases of hæmorrhage of the bowels affected with facial paralysis. Gray likewise met with a few cases of partial paralysis in the epidemic in the Lahore Jail in 1864. Hugh Clark observed one case of dysphagia. In the *Indian Medical Gazette* for April 1867, Garden describes eighteen cases of partial paralysis in children after fever. I consider the disease, from Garden's description, to have been relapsing fever, for the following reasons. The duration of the fever from two to eight or ten is more consonant with the character of relapsing fever than of typhus or typhoid, the former, moreover, being rare in India and the latter rare in Upper India, where Dr. Garden's cases occurred. In his account of the Saharunpore epidemics of 1869-70, he states that the disease was of annual and constant occurrence in his district. It is probable that it was occasionally in 1866, in which year Garden made these observations. In the eighteen cases, paraplegia occurred in ten, paralysis of the left leg in one, of the right wrist in two, of the left arm in one, of the pharynx in one, and hemiplegia in two. All these cases occurred during convalescence. There was a natural tendency to recovery after an indefinite duration; but the more protracted cases became permanent."

Here we see two very strong points of similarity to diphtheritic paralysis: the "natural tendency to recovery" and the tendency of the "more protracted cases to become permanent". It is not inconsistent with a belief in the tendency to natural recovery to state that protracted cases sometimes become permanent; this permanence depends generally on muscular atrophy—a condition which is brought about by the paralysis, and which, acting as a new morbid cause, prevents natural recovery. A vigilant physician, with full command of his therapeutic opportunities, may often intervene, so as to prevent muscular atrophy—and its necessary consequence, permanence of the paralysis—whether its origin be diphtheria, enteric fever, or relapsing fever.

More serious than atrophy is the degeneration and destruction of muscular tissue—and specially of certain muscles—which is frequently observed after certain fevers and other diseases. That is a subject to be afterwards discussed.

### PARALYTIC AFFECTIONS DURING AND AFTER ENTERIC FEVER.

After enteric fever, partial paralysis frequently supervenes. I have also met with cases of paraplegia supervening as a sequel to enteric fever. Paralysis, general or partial, is, perhaps, much more commonly a sequel of this disease than is generally supposed. Both in hospitals and in private practice, I have repeatedly seen it overlooked during convalescence, from its being mistaken for, or masked by, general post-febrile debility. Generally, the paralytic affections are limited in character, slight, and transitory. I have, however, sometimes seen them very severe and long-continued.

I subjoin the histories of two exceedingly interesting cases which I carefully observed, and reported from day to day when under my care. They were both cases in which the diagnosis was certain, and in which the fever ran a course of great severity. The first case occurred in 1870, in my military practice during the German siege of Paris; and the other was treated by me in the Hertford British Hospital in 1874. I shall afterwards succinctly describe some other cases.

CASE.—The patient was well formed, a soldier of the Garde Mobile, aged 24. He was sent into Paris on a frosty morning in December 1870, from one of the outposts, with a medical certificate to the effect that he was unable for duty, and labouring under severe dysentery. He had been, in succession, refused at four hospitals before he came to me, including two great hospitals—La Charité and the Hôpital Beaujon. At that date, all the hospitals, civil and military, and much of the extra ambulance accommodation, were overwhelmed with the sick and wounded. Both my hospitals were chiefly for wounded men; and the spare accommodation I had was being kept in reserve, in anticipation of a sortie. I, too, refused him; but, four hours after my refusal, he was returned to me with peremptory orders to receive him, as I had that day reported a certain number of beds as unoccupied. The poor fellow had been jolted about for six hours over the then rough and deeply rutted streets of Paris on a bitterly cold day. I was in my ambulance at the Ternes when he was admitted. He looked a doomed and almost a dying man; his countenance was haggard; his pulse feeble; his whole surface was cold; his respiration jerking and shallow; his shirt, great-coat, and red trousers were saturated with his alvine evacuations, which had become frozen. A small blanket in which he was wrapped was also stiff with frozen filth. From the time of his leaving the outposts till I received him, he had had only brandy and water, but of that he seemed to have had a large quantity. Two beds were forthwith prepared for him. His clothes having been taken off, he was quickly and entirely wrapped up in a large blanket wrung out of very hot water. Under this blanket, and in the recumbent position, he was carefully washed and scrubbed. After taking some beef-tea, he slept for half an hour. When he awoke, he was removed from the *wet* warm bed to one adjoining, which was *dry* and warm. The moving brought on vomiting, which, however, soon subsided. When I left him about nine o'clock, he had rallied somewhat, and had taken with satisfaction some tablespoonfuls of hot camphorated wine. The orders for the night were:—an astringent mixture if required; camphorated hot wine and beef-tea alternately at intervals; and turpentine stupes to the abdomen and legs. I saw him at seven next morning; he was lying on his side; his skin was naturally warm. He had had three dark liquid motions without any trace of blood. On the chest and abdomen, there was a characteristic and tolerably abundant eruption of the pink lenticular spots of enteric fever.

The case in its future progress was in all respects a typical case of uncomplicated enteric fever. In thirty days from the date of admission, he was in full convalescence. A few days later, as we were short of hands, he was occasionally accepted as a volunteer assistant at the surgical dressings. All seemed to be going on well till the seventh week from admission, when he complained of inability to put on his coat, which he ascribed to rheumatism. A day or two later, his gait was dragging, and the grasping power of both hands enfeebled. For ten days longer, he was able to move about the ward; but, during all that time, his locomotive power was daily diminishing. At last, he had to keep his bed, after which time the paralysis advanced so rapidly that soon he was unable to get out of bed for necessary purposes. There was paralysis of the external oblique muscle of the left eye for a week or ten days, and, on several occasions, there was atony of the bladder, requiring the use of the catheter. Notwithstanding the many disadvantageous circumstances incident to the siege, this man made a complete recovery. For several months, he remained under my treatment. At the close of the Second Siege, when the Government regained possession of Paris, he was sent to a military convalescent station in the country, whence he ultimately returned in robust health. During a great part of his residence at my hospital, the diet, from siege exigencies, was scant and bad, but supplemented largely by good red wine, which fortunately we could command in abundance. The internal treatment of this man, from the time the paralysis showed itself till it ceased, consisted in his taking fully two *litres* of excellent claret daily, and twenty drops three times a day of the tincture of the chloride of iron of the *British Pharmacopœia*. The external treatment consisted in the application of a succession of small blisters to the legs and arms.

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* Partly read before the Medical Section at the Annual Meeting of the British Medical Association in Norwich, August 1874.

It is worthy of remark, that the urine was albuminous immediately before and during the first ten days of the paralytic symptoms.

[*To be continued.*]

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## THE TREATMENT OF SYPHILIS BY MOIST MERCURIAL FUMIGATION.

By JOHN ST. S. WILDERS, M.R.C.S., Surgeon to the Queen's Hospital, Birmingham.

As a pupil, and afterwards the friend and colleague, of the late Mr. Langston Parker of Birmingham, I musk ask to be allowed space to reply to the following extract from a lecture delivered by Mr. Lane, on the modern treatment of syphilis, which appeared in the JOURNAL of December 12th ult. "Inunction is, perhaps, on the whole, to be preferred, especially for hospital patients; but it is troublesome and dirty, and, therefore, it is often undesirable to resort to it in private practice. The same objection applies to fumigation, with the addition that it is as a rule more debilitating, for the nightly vapour bath has a decidedly depressing influence."

With Mr. Lane's remarks on inunction, I quite agree; but I venture to take very serious exception to those on fumigation. To what method of fumigation he alludes (whether moist or dry) the writer does not explain; but I presume the well-known moist mercurial vapour-bath, first used by the late Mr. Langston Parker, about 1849, is the one called in question. Now, notwithstanding the fact of Mr. Lane's twenty-three years' experience as surgeon to the Lock Hospital, I affirm with the utmost confidence that the treatment of syphilis by moist fumigation is neither troublesome nor dirty, nor has it a decidedly depressing influence on the patient, but, on the contrary, that it is a cleanly, rapid, and most manageable method, and the most powerful therapeutic agent in the removal of disease, and the least hurtful to the constitution of the patient. This latter will, of course, depend upon the care which is taken in watching the effect of the baths, and by properly timing the intervals between them. Even the administration of Mr. Lane's favourite blue pill would require similar precautions. This method of treating syphilis was employed by the late Mr. Langston Parker in thousands of cases, both in private practice and in the wards of the Queen's Hospital; and its astonishing effects were witnessed and appreciated by practitioners and students alike, and led to the deservedly great reputation which Mr. Parker enjoyed, not only in this country but on the Continent, and even in America, whence patients frequently came to place themselves under his care. Ninety-one fully reported cases are to be found in his book on *Syphilitic Diseases*. Many of these I had the pleasure of reporting for Mr. Parker; and I can most fearlessly affirm that they are a trustworthy record of the marvellous efficacy of this treatment, which was always open to the scrutiny of the profession.

As to what is thought of it in America, I would refer Mr. Lane to Gross's *System of Surgery*, vol. i, page 505, where he will find the following: "Another method of employing mercury is by a combination of fumigation with steam, constituting what Mr. L. Parker of Birmingham terms the mercurial vapour-bath. I can testify from considerable experience to the beneficial effect of this method of mercurialisation, having effected some very extraordinary cures with it after all other modes of treatment had failed." And, again, "My opinion is that this method of treatment is not sufficiently appreciated; it certainly deserves the highest encomiums." Such is the opinion of this distinguished American surgeon, in contradistinction to that of Mr. Lane.

I will reply to Mr. Lane's allegations, by a short account of a case which has lately been under my care in the Queen's Hospital, and which is of such recent date that it will be in the recollection of many of our Birmingham readers.

E. O., aged 23, contracted a chancre about four years ago, for which he was treated by mercury, in the form of pills. Secondary symptoms soon appeared, taking the form of eruptions on the skin, and very severe sore throat. In due course, he suffered from an attack of rupia, the scars of which are plainly to be seen. He had also had syphilitic orchitis, which assumed such a form that his surgeon removed the affected testicle. He had taken mercury by the mouth in various forms, iodide of potassium, iron, and sarsaparilla. His medical adviser—one of the most able surgeons in this town—had given his case more than ordinary attention, as he took a deep interest in the young man. The treatment adopted appeared to relieve the symptoms for the time, with the exception of the ulcerations of the throat, which were never completely cured; but relapses took place as soon as the treatment was omitted. On coming under my care, he was in a most emaciated condition, and so weak that he ascended the hospital stairs with great difficulty. The uvula was completely destroyed, and there were deep excavated ulcers in the remnants of the tonsils; the pharynx was in a sloughing ulcerated condition, some of the ulcers being very deep. He could only swallow liquids with great difficulty; solids he had not been able to take for some time. The cervical glands were affected. His own impression was that he could not possibly recover. Up to the time of his admission into the Queen's Hospital, he had been taking mercury by the mouth in various forms, iodide of potassium, and opium; and he had had good and sufficient food as long as he could take it. I, at once, ordered him a nightly moist mercurial vapour-bath, containing hydrargyri bisulph., ʒij; hydrargyri oxidi cinerei ʒi; and a spray of black wash to the throat. He was directed to inhale the moist vapour while in the bath. A grain of opium was administered every night, to ease pain and procure sleep. The gums were touched after nine successive baths, and were kept spongy for nearly two months, the baths being given at varying intervals. The result of the treatment was, that the ulcers rapidly healed, and the patient gained twenty-eight pounds in weight in three months, notwithstanding "the depressing influence of the baths". He left the hospital looking fat and well, and feeling stronger and more vigorous than he had done since he had contracted the disease. The patient, who was a highly intelligent young man, watched the treatment with much interest, and I had some difficulty in restraining him from having too many baths, as he said they made him feel so comfortable and did him so much good. He has since remained quite free from a relapse, and has been doing twenty miles a day on the Devonshire moors.

This is no solitary case, but only one out of many which I hope, at no distant date, to lay before the profession in a more extended form.

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## CLINICAL RECORD OF CASES ILLUSTRATING THE TREATMENT OF ACUTE RHEUMATISM BY THE PACKING PROCESS.*

By THOMAS STRETCH DOWSE, M.D., F.R.C.P.Edin., Medical Superintendent Central London Sick Asylum.

CASE I. *Acute Rheumatism, with Pericarditis.*—S. G., aged 33, was seized, on February 27th, with general malaise, shivering, and headache. On February 28th, the symptoms and signs of acute rheumatism were well marked; every joint was swollen and painful. The breathing was oppressed and hurried. There was also pericarditis. Temperature, 101.4 deg. On March 1st, the patient was packed for six hours, and sweated profusely. She was allowed to drink freely of warm milk and water. The temperature during the pack rose to 103.6 deg. Pulse, 132; respirations, 30. The urine was acid, of specific gravity 1028. After being packed, she was quite free from pain. On March 2nd, she was packed for four hours. The pain in the joints had returned, but in a much milder form. The sweat still had the rheumatic odour. Frictional pericardial sounds were less marked. The temperature during the pack was 102.4 deg.; pulse, 126; respirations, 24. The urine was acid, 1028. After the pack, she was quite free from pain. On March 3rd, the patient was absolutely free from pain. She complained of stiffness in the limbs, but could move them in any direction. The pericardial murmur had quite disappeared as well as the acid odour of the sweat. Temperature, 100.4 deg.; pulse, 118; respirations, 24. On March 4th, she sat up in bed, and moved the limbs freely in any direction; she was quite free from pain. Temperature, 99.6 deg.; pulse, 109; respirations, 20. Urine acid, 1020. On March 6th, she was convalescent. The heart-sounds were quite normal. No medicine or stimulant was given in this case from first to last.

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* See BRITISH MEDICAL JOURNAL for January 9th, page 39.

CASE II. *Acute Rheumatism associated with Old-standing Mitral Disease.*—R. C., aged 35, came under treatment on the fourth day of the attack with signs and symptoms well marked. On March 10th, packing was applied for six hours. The patient drank freely of warm milk and water with six ounces of brandy. The temperature before packing was 102 deg; during packing, 104.4 deg.; pulse, 120; respirations, 28. On March 11th, the patient was almost completely free from pain, and complained mostly of stiffness in all the limbs. The dyspnœa, which on the previous day was at times urgent, had become less. The patient was packed for four hours. Four ounces of brandy were given, and warm milk and water. Temperature before packing, 101.2 deg.; during the pack, 102.8 deg.; pulse, 122; respirations, 28. On March 12th, the patient was much better in every way. All the joints were free from pain, except the right elbow and wrist. The pack was applied for two hours. Temperature before packing, 100.6 deg.; during the pack, 101.6 deg.; pulse, 112; respirations, 24. On March 13th, the patient could sit up in bed, and move the limbs freely in any direction. There was scarcely a trace of dyspnœa. The acid odour of the sweat had disappeared. The urine was acid and loaded with lithates. Tongue furred; temperature, 100.4 deg.; pulse, 98; respirations, 20. From this date, the pain did not return. Bark with ammonia was ordered; and the patient was convalescent in a week.

CASE III. *Acute Rheumatism, with Endocarditis.*—Nurse C., a young woman of dark complexion, not of typical rheumatic diathesis, was seized on April 24th with rigors, and, on the following day, presented all the signs and symptoms of acute rheumatism. The tongue was thickly furred, and, in the median dorsal line, was dry and of a mahogany colour. The joints of the lower limbs were acutely painful, and distended with fluid. On April 25th, she was packed for six hours. She drank freely of warm milk and water, with six ounces of brandy. Temperature before the packing, 101.4 deg.; during the pack, 105.2 deg.; pulse, 110; respirations, 20. Thirty-six ounces of urine were voided in the twenty-four hours; it was acid, of specific gravity 1018. On April 26th, after the packing, the pain had subsided; but to-day there was a tendency to its return. She was packed for four hours. Four ounces of brandy were given. In the evening, the breathing was hurried, and the heart's first sound at the apex was obscured. Temperature before packing, 101.8 deg.; during the pack, 105.2 deg.; pulse, 110; respirations, 20. The urine voided in twenty-four hours was thirty-five ounces, of specific gravity 1017, acid. On April 27th, the patient was quite free from pain and from acid sweating. She was ordered to take five grains of blue-pill at bedtime, and a saline purge the following morning. She was packed for two hours. Two ounces of brandy were taken. Temperature before packing, 101.6 deg.; during the pack, 102.6 deg.; pulse, 122; respirations, 20. The urine voided in twenty-four hours amounted to fifty ounces, of specific gravity 1017, and acid. On April 28th, there was complete absence of pain. The heart-sounds were normal. She could move her limbs freely. Temperature, 100.2 deg.; pulse, 100; respirations, 30. Fifty-seven ounces of urine were passed in the twenty-four hours; it was of specific gravity 1026, and acid. On May 1st, she was convalescent. Temperature, 99.2 deg.; pulse, 70; respirations, 15. The urine passed in the twenty-four hours was sixty ounces, of specific gravity 1012, and acid. From May 1874 to the present date, the patient has been under constant observation. There has been no return of the rheumatism, and no cardiac mischief.

CASE IV. *Acute Rheumatism complicated with Old-standing Valvular Murmurs and Recent Pericarditis.*—E. R. was admitted with a fourth attack. The countenance was livid, and the breathing hurried. There was marked pericarditis, and a systolic murmur both at base and at apex. Almost every joint was swollen and painful. There was no orthopnœa. On June 11th, the patient was packed for six hours. She drank freely of warm milk and water, with six ounces of brandy. Temperature before the packing, 101.8 deg.; during the pack, 103.2 deg.; pulse, 120; respirations, 36. On June 12th, the patient was quite free from pain, except in the finger-joints and muscles of the back. The pericardial murmur was less marked, and the profuse sweating had completely subsided. She was packed for four hours. Four ounces of brandy were given. Temperature before the pack, 100.6 deg.; during the pack, 101.4 deg. On June 13th, she was markedly improved. The pericardial friction-sound had quite disappeared. There was no effusion. She was packed for two hours. Three ounces of brandy were given. Temperature before the pack, 99.8 deg.; during the pack, 100.4 deg.; pulse, 96; respirations, 32. On June 14th, she was quite free from pain, and could sit up in bed and move the limbs freely in any direction. There was considerable hypertrophy, with dilatation of the heart. The apex reached the seventh rib. There was a systolic murmur heard over both the aortic and the mitral valves. The livid appearance of countenance and the dyspnœa had both disappeared. Temperature, 99.2 deg.; pulse, 84; respirations, 32. On June 15th, she was comparatively convalescent. It will be seen that the ratio of respiration to pulse was in excess of what it ought to be; but the breathing was not urgent or laboured. She was ordered a mixture of quinine, digitalis, and steel. Pulse, 76; respirations, 32. On June 16th, she was quite convalescent from the rheumatic attack. She was, however, weak, and moving hurriedly increased the action of the heart, and gave rise to dyspnœa.

CASE V. *Acute Rheumatism complicated with Endocarditis, Mitral Systolic Murmur, and Basic Pneumonia.*—W. C., aged 16, was seized with rigors on May 16th, and came under my care on May 22nd. There was acute pain in every joint, with general myalgia. Pneumonic crepitation was heard at the bases of both lungs posteriorly. The breathing was dry and harsh, with coarse crepitant rhonchus. There was distinct pleuritic rubbing over the left lung anteriorly (lower lobe). There was a confused intraventricular murmur, as well as a fine systolic whiff, at the heart's apex. On May 22nd, the patient was packed for six hours. He drank freely of warm milk and water, with three ounces of brandy. Temperature before the pack, 102.2 deg.; during the pack, 104.2 deg. Pulse, 140; respirations, 40. On May 23rd, he was quite free from pain. The dyspnœa continued urgent. He complained of feeling stiff all over. Sour sweating still continued. He was packed for four hours, and drank three ounces of brandy, with warm milk and water. Temperature before packing, 101.8 deg.; during the pack, 103.6 deg. Pulse, 132; respirations, 40. On May 24th, he had markedly improved. The anxious expression of countenance was quite gone; and there was much less dyspnœa. A clear mitral systolic murmur was heard at the apex of the heart. He could move his limbs freely in any direction. He was packed for the third time for two hours. Two ounces of brandy were given with warm milk and water. Temperature before packing, 100.6 deg.; during the pack, 102.4 deg. Pulse, 120; respirations, 32. May 25th.—Pulse, 100; respirations, 32. On May 26th, the rheumatic poison was quite eliminated. Temperature, 100; pulse, 94; respirations, 28. On May 27th, he was nearly convalescent. He was ordered to have three ounces of brandy daily, in order to lessen the formation of urea. Temperature, 99.2 deg.; pulse, 100; respirations, 22. On May 28th, he was convalescent. The temperature, respirations, and pulse were normal. This patient has been constantly under my observation until the present time. The mitral systolic murmur is still persistent.

CASE VI.—*Acute Rheumatism: no Complications.*—J. R. was admitted with all the signs and symptoms of acute rheumatism. Every joint was acutely painful, and on this account she was unable to move a limb. There was an endocardial murmur, not confined to any especial set of valves. Respiration was dry, harsh, and hurried. On May 18th, she was packed for six hours, and drank freely of warm milk and water. No stimulant was given. Temperature before packing, 101.6 deg.; during the pack, 103.4 deg. Pulse, 118. On May 19th, she passed a comfortable night; but had flying pains about the joints. The sour rheumatic smell was very marked. She was packed for four hours. No stimulant was given. Temperature before the pack, 100.8 deg.; during the pack, 102.2 deg. Pulse, 120. On May 20th, she was improving. Although the freedom from pain was absolute, yet the other symptoms of the rheumatic state were well marked. The tongue was furred; the urine scanty, high-coloured, and loaded with lithate. She was packed for two hours. Four ounces of brandy were given. Temperature, 100.4 deg.; pulse, 116. On May 21st, the brandy, with the packing of the previous day, had had a good effect. The patient was cheerful; could sit up in bed, and move her limbs with freedom. The urine was more copious. There was no profuse sweating or sour smell. Temperature, 99.4 deg.; pulse, 100. On May 23rd, the rheumatic poison had been completely eliminated. The respirations and heart-sounds were normal. No other medicine was given in this case than a saline purge. Temperature, 98.2 deg.; pulse, 78.

These are six fair average cases from among many (at least thirty) which I have submitted to the packing method; and, with the exception of one case, none failed of success. I hope the treatment may be tried at the various hospitals, as I feel sure that the statements contained in my paper will thus be verified. I can well remember the time when acute rheumatism was said to be of six weeks' duration under any treatment. And it comes to be a question whether the type of this disease has not altered within the last twenty years. Of this I am certain: that the constitution or age of the patient does not so much influence the duration of the disease, as the season of the year and state of the atmosphere. I have repeatedly observed that, if a patient with acute rheumatism in one ward have a relapse, it invariably follows that patients in other wards are similarly influenced.

To carry out the treatment without failure, the prescribed regulations must be strictly adhered to. For instance, to pack a patient at first for two or three hours has been found, in my experience, to be worse than useless. Revulsion must be started; the skin must be made to act freely, and the temperature must be raised. When this is done, the inhibition of the vaso-motor centres will be relieved, the impeded action of the secretory glands will be removed, malassimilation will be remedied, and morbid material will be eliminated. My treatment is, in fact, a mode of assisting nature.

## REMARKS ON TROPICAL FEVERS.

By W. T. BLACK, F.R.C.S.Ed., Surgeon-Major, Edinburgh.

When stationed at Hong-Kong, a few years ago, I witnessed an epidemic of tropical fever, accompanied with cholera, dysentery, and hepatitis; there was a great sickness and mortality amongst the troops there in consequence.

Enlarged spleens were found common in nearly all fatal cases of intermittent fever, sunstroke, and other diseases; and enlargement of the liver was nearly as frequent, especially in remittent fevers and dysentery. These two organs seemed, therefore, to act as banks in the body, in which were stored up deposits of malaria and miasmata, which increased till the accumulation seemed, as it were, to reach an explosive tension. Then some exciting cause permitted the stored up poison to inundate the system, producing fever probably from the efflux from the spleen, and dysentery from that of the liver.

The remains left in the organs, after a recovery from an attack of fever, may probably make another attempt to break forth into the system, when a relapse of fever would be likely to be the result. Hence it might be conjectured that relapses would be liable to recur, till the spleen and liver had finally got rid of all their malarial and miasmatic contents.

It may be considered very likely that the infection of tropical fevers may be conveyed into the system, as much by the stomach imbibing bad water, as by the lungs inhaling bad air. This may be inferred from the much greater frequency of affections of the liver and spleen, than of the lungs and heart, and their consequent reactionary effect on the large and small intestines.

Regarding the medical treatment at the time of invasion, quinine seemed to be of more value in intermittent fevers than in remittent, where calomel and arsenic proved of better use.

In the after constitutional treatment, at home, of invalids from tropical countries, I am inclined to recommend a course of the warm mineral baths of Bath, where there is first-class accommodation and appliances, both for the wealthy as well as for the lower classes. I am much surprised that the excellent Mineral Water Hospital there has not been utilised more for the benefit of soldiers, marines, and sailors, who have suffered from the sequelæ of diseases contracted in tropical climates. These waters, from their containing iron, do not debilitate, but rather strengthen, the skin, when used for warm bathing; and the gases which they contain in combination render them, with their warmth, light and exhilarating to drink.

The German Government have established at Wiesbaden a fine mineral-water-hospital for the use of the invalids of the Imperial Army, free for private soldiers, and officers paying their messing, which I have had the privilege of visiting; and it appeared to be furnished in the best of modern comfort, and to be fitted up with the newest appliances for treatment.

The physical causes of tropical fevers continue to exist as effective as formerly at Hong-Kong; for, if the marshes be drained, the mud still remains to evolve malaria when called upon, and, in addition, there is an immense increase in the deposit of sewage on the hill-sides from the increase of the Chinese population, to generate miasmata.

The debatable question concerning the origin of morbific vapours from the *laterite*, exposed in excavating for the foundations of new houses, admits of explanation, from its being so porous that it is something like a mineral bog, which exhales, under exposure to a tropical sun, all the mephitic moisture it had already absorbed.

In regard to the chilly doctrine of Drs. Oldham and Inman, it may be remarked, that the daily range of temperature is far greater at the Cape of Good Hope, where fevers are absent, and cold nights are common, than at Hong Kong, where fevers are endemic, and sleep is nearly impossible from the heated air, in the summer months. The contrast of the climates of these two places, at that season, is remarkable; the ozoniferous south-east winds, in the summer, at the Cape, blow from the circumpolar latitudes dry and cool, whereas the south-west monsoons at Hong-Kong breathe hot and moist from the simmering China seas, laden with the distilled vapours from the coast lagoons.

## A CASE OF PAROXYSMAL FEVER CAUSED BY DISTURBANCE OF THE SOIL:

### WITH SOME OBSERVATIONS IN REPLY TO DR. INMAN.

By P. DIVORTY, M.B., L.R.C.P.Edin., Inverurie, Aberdeenshire,
Late 11th Regiment, and Honorary Physician to the Carlisle Dispensary, etc.

In submitting the following case, I do not propose to "stand forward"—to use an expression of Dr. Inman's—in behalf of Dr. Maclean, as that gentleman has already shown that he is quite able to defend himself; but simply to furnish a case of malarious fever of which the soil, and nothing but the soil, could have been the cause.

I may state at once that, in this case, I was not only an observer, but a sufferer; and that, unlike Dr. Inman, I have had considerable experience of malarious fevers in Hong Kong and elsewhere, although, fortunately for myself, I had escaped an attack of it until the autumn of 1872. In October of that year, I took on lease a newly-built house in Portland Square, Carlisle, where the soil had recently been disturbed, not only for building purposes, but also for making a new street along the front of the house, as well as a road and small garden at the back. I accordingly sent a maid to keep fires constantly burning in every apartment till the house was thoroughly dried; and, inasmuch as the house was one of the best in Carlisle—having been constructed under the personal supervision of an architect of at least local eminence, with all the sanitary arrangements complete—I could not have anticipated an untoward result on my taking possession in November. On the first night of my sleeping in the house, I was struck down by a severe attack of paroxysmal fever; though, properly speaking, I was not living in a malarious district, had in no way been overheated by violent exercise or otherwise, nor had been in any way chilled. The fever, which lasted nine weeks, was marked by the shortness of the cold stage, the length of the hot, and the number of paroxysms occurring in one day, as well as by the singular circumstance of the strict limitation of the malarial influence to the house and so many yards around it. So well defined was the limit of its operation, that I could at any time stop a paroxysm by going a certain distance from the house; and invariably did I feel its influence on returning within the tainted area, as a paroxysm supervened the instant I entered the house, which appeared to be the very focus of the malarial atmosphere around, from the air outside being sucked into the warm house.

My prolonged suffering was no doubt owing, in part at least, to the failure of quinine from irritability of the stomach and vomiting; but the disease yielded eventually to the administration of liquor potassæ arsenitis combined with morphia.

Such, then, having been the circumstances under which I suffered so intensely, it is incomprehensible to me how either the "chill theory" of Dr. Oldham, the "electrical conditions" of Dr. Munro, or the "hot days and cold nights" of the Indian colonel, or any combination of them, could, by any amount of straining, be made to grasp the train of symptoms I have enumerated; and therefore I ask a second time the question which caused so much merriment to Dr. Inman—the question, namely, If the soil in the above case did not cause the disease, what did?

The first thing that will naturally strike anyone who looks carefully over Dr. Inman's communication to the British Medical Journal of January 2nd, will be the meagre amount of proof, if any, which he brings forward in support of the "chill theory" of Dr. Oldham; for it will be seen that his contention is: 1. That, because Dr. Oldham tested the malarious theory by sleeping on a bed placed in a marsh, and did not get the fever in that way, but by getting chilled in a room cooled by a punkah; 2. That, because only those suffer from disturbance of the soil who work hard at digging it up under a hot sun, and who get chilled by the cold at night; 3. That, because an Indian colonel told Dr. Oldham that hot days and cold nights were certain to produce fevers: therefore there is no such poison as malaria. Now, I hold that these are merely assertions without proof; because, in the first place, I deny that Dr. Oldham did test the malarious theory in any legitimate sense of the word by sleeping so many nights on a bed placed in a marsh; for I maintain that his escape from an attack of fever under the circumstances is no more a proof of the non-existence of malaria, than the escape of an individual from an attack of sea-sickness, who may have slept on board a ship in the Bay of Biscay for two months during a storm, is a proof that the motion of a vessel is not the cause of such sickness. In the second place, I deny that only those who work hard in turning up the soil under a hot sun suffer; because, as has been seen, my own case is a notorious instance to the contrary. In the third place, I deny the assertion that "hot days and cold nights" are *per se* the cause of malarious fevers, because my own case entirely disproves it. When Dr. Inman, who, at the commencement of his paper, postulates the non-existence of malaria, makes use of such expressions as "in *malarious districts* the temperature of those working in the sun", and "every *notoriously malarious district* is marshy", it is not only a case of confusion, but it is a contradiction in terms.

## CHILL AND MALARIA.

By W. J. EAMES, L.K.Q.C.P., Staff-Surgeon R.N.,
Royal Hospital, Haslar.

THE question at issue between Drs. Maclean and Inman cannot but create feelings of surprise in the mind of anyone who has had to deal practically with paludal fevers; surprise, not only that the existence of a specific factor—call it by what name you will—has been called in question, but that the gentleman to deny its existence should be a teacher of medicine, who, it may be assumed, has been in the habit of inculcating such doctrines amongst his pupils. However, after the views that have been expressed by one or two members of the profession with reference to the non-existence of a specific virus in such diseases as syphilis and gonorrhœa, we may well cease to feel surprise at anything. As regards the two latter diseases, any individual who is sceptical on the point can probably demonstrate the fallacy for himself; but he cannot expect commiseration, should he have the misfortune to find out that he has been labouring under a mistake.

The case, however, is far different when the belief in, or denial of, the existence of such a poison as malaria is the question to be determined. The health of a ship's company or a regiment is placed in the hands of one man, and the lives of hundreds may be sacrificed to a theory. It is for this reason that I think it incumbent on those who can speak from experience to cast the weight of that experience into the balance of truth, and, in the interest of humanity, to state what facts bearing on the question have come under their own observation.

In the first place, Dr. Inman, although he professes to despise the opinion of those who see for themselves, would, if his ideas were based on personal observation, never have fallen into the mistake he makes in his communication, namely, that "the folks attacked are not those who sleep between decks, but those who sleep in the open air". The history of the outbreaks of fever on board H.M.S. *Eclair*, *Archer*, *Icarus*, and *Bloodhound*, sufficiently refute such a statement. Moreover, he would have learned that there is not a ship in Her Majesty's service where, in tropical climates, awnings are not spread, and the greatest precautions taken to prevent men from exposing themselves at night without a covering. I would, therefore, ask him to account for the following outbreak of disease, according to his theory. In 1861, a cruiser on the West Coast of Africa, whose crew of white men numbered fifty-five, was taken from her cruising ground in the bight of Benin and ordered up the Niger. At this time, the ship's company were in perfect health, having never approached closer to the and than from three to seven miles for a period of three months. The ship remained three months in the river, and while beyond the Mangrove belt was comparatively healthy; unfortunately, on her return voyage, he was detained for a week amongst the swamps in the delta. Ten days had not elapsed after her return to the open sea before thirty-five out of the fifty-five were attacked with a severe form of what is popuarly known as "coast fever"; and, out of the whole ship's company, only two entirely escaped. This, I may observe, was not a solitary intance; during three consecutive years, the same duty was performed y this ship with similar results, though in the last two trips the disase did not assume such extensive proportions. I will give another proof of the fallacy of attributing the deadly diseases of Africa to such auses as exposure to the open air at night, *minus* malaria. In all the African rivers where the palm-oil trade is carried on, it was the fashion some years ago for a ship on her arrival to send down everything from aloft, and *house-in* by building a shed of palm leaves over the upper-deck. Here she remained till her cargo was completed, which generally required from three to four months; the men were not exposed, as the custom is to employ Kroomen for all work requiring exposure to the sun. It was found, however, that, by the time the ship was ready to start, the men were nearly all dead; consequently, she could not leave till a fresh crew could be got out. I do not mean to say that this was invariably the case; but it occurred so frequently that a different course of proceeding was adopted; and a ship now, on her arrival, transfers her crew to the one prepared to start. By this means, the loss of life is diminished 90 per cent. As to the prevalence of fevers of the paroxysmal type in the vicinity of masses of disintegrating granite, explain it how we may, it is a well known and admitted fact, not confined to Hong-Kong alone, but present wherever the necessary conditions of heat and moisture are found; in the tropics, Dr. Inman may depend that the means to be taken to insure immunity from these diseases has occupied the attention of men well qualified by previous training to avail themselves not only of the researches of others, but of what has come under their own observation. I cannot see that a "physician in his study" is, therefore, better constituted in any way to form an opinion on these matters than the "surgeon of a regiment", but, in my opinion, rather the reverse.

# CLINICAL MEMORANDA.

## NEW FORM OF CATHETER.

IN cases where it is necessary to tie in an ordinary gum-elastic catheter, I have frequently found that it has collapsed from pressure, after having become softened by the heat of the body, and has thus frustrated the object for which it was used; viz., the institution of a free outlet for the urine. To obviate this difficulty, I have devised the following. A spiral of fine wire is made, of similar construction to that used for lining flexible gas-tubing. Over the spiral a gum-elastic coating is put, with the ordinary perforations at the extremity. I find this instrument most useful, and much more durable than the ordinary form, the cost being but very little extra. Messrs. Lynch and Co., of Aldersgate Street, are the makers.

S. W. MOORE, L.R.C.P.Ed.

## POISONOUS FUNGI.

IN reply to Dr. Hutchinson's interesting case of supposed poisoning by the edible mushroom, I can scarcely realise that the facts stated warrant the conclusion which he draws. His case had none of the usual and early gastric, or even narcotic, symptoms of fungoid poisoning, such as were shown in Mr. Sedgwick's and Dr. Drummond's cases (JOURNAL, pages 464 and 524, October 10th and 24th), due allowance of course being made for the symptoms varying in different individuals. There were also no tetanic spasms, although there certainly was cerebral excitement after several days had elapsed; but this could not have been caused by muscarine, because the action of the latter on the heart is speedy, which has been clearly proved by Dr. Lauder Brunton (page 617). The patient was in a condition of exhaustion previously, and his system was consequently ready at any time to receive any morbid impression; he partook, as is admitted, of a large quantity of fungi late at night. Surely a heavy meal under such circumstances may have produced cutaneous rash and meningeal irritation, from sympathy with the stomach. Does not the prudent huntsman, when greatly exhausted, first partake of some light stimulating food before he ventures on a rump-steak, and give his horse gruel before a heavy feed of beans? The sister appears not to have been affected, she being more prudent and taking less. If the fungi were of the esculent variety, this would rather tend to show that the effects were due more to a state of idiosyncrasy of constitution rather than to muscarine poisoning. Since the patient survived between two and three weeks, muscarine poisoning could scarcely have been the cause, as in that time the poisonous alkaloid muscarine, if present, would have exhausted itself. Again: if atropia be the true antidote to muscarine, why the increased excitement and the consequent abandonment of the remedy? Dr. Lauder Brunton has shown that "dyspnœa, as well as the other symptoms of muscarine poisoning, disappear in animals almost immediately after the injection of atropia"; and he quotes an instance where this "antidote during the death-struggle completely restored a dog which had been so poisoned". Under the circumstances, I cannot admit that the true mushroom—*Agaricus campestris*—in a healthy condition, and properly cooked, could have acted as a poison in the ordinary acceptation of the word; but, from idiosyncrasy, it might have acted as an irritant, as I stated in my article on Fungoid Poisoning (JOURNAL, November 21st, page 645). This question is not only important to the profession, but to the public generally, and should be freely ventilated, in order to show whether, under circumstances unfavourable, the mushroom can act as a specific poison, or simply as an irritant.

ROBERT CUFFE, M.R.C.S.Eng., Woodhall Spa Villa.

### MALARIA *v.* CHILL.

THE importance of the verdict the profession will give in the above cause must be my apology for proffering some suggestions and evidence. The first is, that Dr. Maclean has overlooked the point that might be deduced in favour of his argument in the result of fen drainage, referring especially to Norfolk and Lincolnshire. Thirty or forty years ago, the surface of these fens was covered with stagnant water and rank vegetation; the residents in their vicinity suffered from intermittent fever, whole families at a time were stricken with it, and most of the labourers employed on them suffered an annual attack. Drainage removed water, and cultivation rank and decaying vegetation. There is no evidence to show that the temperature of the air of the locality was changed by either process, or that the residents became less liable to chill; but the statement that, since then, they have not been subject to fever is incontrovertible. The counsel for "chill" adduces Aden as evidence of fever infesting a place where malaria must be absent—absent because its factors, moisture and vegetation, are; and he implies that fever, not being produced by malaria, must be by chill. The evidence by which he supports this theory can be much shaken, inasmuch as the factor of chill is as conspicuous by its absence as those of its opponents are. Aden is very hot (this sentence is so inadequate to convey my meaning, that I might almost as well write, it is very cold). The climate is extraordinarily equable, and the night is hotter than the day, because the sea-breeze fails at sun-set—in no part of the world would one be less liable to chill. Supposing malaria to exist, there is no reason for supposing it to be strictly localised, that it cannot be conveyed by the atmosphere. Within twenty-five miles of Aden, at a place called Zaida, in Arabia, intermittent fever is a plague that has depopulated the country; no one but the African Seedi can live in it. In 1872, the Aden troop was sent there (natives of Scind and Bombay), and scarcely a man escaped fever. In 1873, a portion of the 105th Light Infantry went, remained there for some three or four days, and returned to Aden. On their return, there was little or no sickness amongst them, but within sixteen days there was scarcely a man who had not intermittent fever. I say scarcely one; one did escape, an officer, who took quinine as a prophylactic; the others continued to suffer at intervals until their arrival in England months afterwards. In all these cases, one symptom was ever present, that pointing to congestion of the liver, and there was always functional derangement of it. The malady could, of course, be produced by chill, but then the effect would at once follow the cause; in the cases referred to, there was a distinct period of incubation, varying from four to sixteen days.

Instinct seems to teach the natives of India self-preservation; at night-time, in Bengal, camp-followers may be seen, even in the rainy season, laid out in rows to sleep on the sodden ground, with no clothing but a cloth of cotton, and that tightly drawn over the head and face. How they breathe is a marvel to white men; that this cloth can save them from chill is improbable; but it is possible that the air, in filtering through it, is robbed of its poisonous element, as is that filtered through carbolised muslin.

That malaria in the unit or aggregate has not been demonstrated, is not wonderful, when we consider that seven years ago bacteria were unknown, we now know how potent for evil they are, and that their length is only 1-9000th of an inch.

W. HAWARD, Surgeon-Major late 105th Regt., Bury, Lancashire.

## OBSTETRIC MEMORANDA.

### RETROVERSION OF THE GRAVID UTERUS: RETENTION OF URINE: RECOVERY.

IN response to the request of Dr. Edis for a record of these cases, I send the following.

H. R., married, mother of six children, rather small in stature, thin, but active and wiry, had had difficulty in passing her urine, and had been gradually becoming worse for a week, until, at the time when I was sent for, she could not pass any, or only a few drops at a time. She stated that she was about three months pregnant, and could not explain the difficulty in passing urine by any special cause. When seen, her countenance was dusky and haggard; the cheeks flushed; the tongue dry, striped, feverish; pulse quick, small, thready. She complained of much pain in the lower abdomen, which latter was distended and dull on percussion. The catheter passed with some difficulty perpendicularly upwards and forwards behind the pubes, and an immense quantity of turbid, high-coloured, strong-smelling urine was drawn off. The uterus was retroflexed; the os was high up behind the pubes, and could not be found. On examining *per rectum*, the fundus uteri was detected filling up the hollow of the sacrum. The prone position was enjoined; but the inability to pass urine returned, and the catheter was again employed the following day, when the whole hand was passed into the vagina, and efforts made to replace the uterus, but ineffectually. After trying catheterism and the prone position for a day or two without success, the patient was placed in the knee-shoulder position, Dr. Davis assisting; and, with the fingers of one hand in the rectum and of the other in the vagina, the fundus was pressed forwards and replaced with a distinct "flop". The prone position was enjoined, and no further use of the catheter was required. The urine recovered its healthy character, and the patient went her full time.

In a midwifery experience of over three thousand cases, this is the only confirmed case of the kind I have ever had, though I have met with other cases necessitating the use of the catheter, where the calls to empty the bladder have not been attended to. Partial retroversion may have been present, but did not require manual interference for reposition.

WILLIAM BROWN, M.R.C.S.Eng., Callington.

## REPORTS AND ANALYSES
AND
## DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

### A NEW BELT.

MESSRS. SALMON, ODY AND CO. have submitted for inspection a lady's and a gentleman's belt, which they are now making according to Dixon's patent. The novelty consists in the use of strips or layers of cork, instead of steel or whalebone. The cork is rendered unbreakable by being stitched between two substances. They are light, serviceable, and the substitution of cork for metal appears to be a decided advantage.

### POLYPUS-KNIFE-HOOK.

By W. LAIDLAW PURVES, M.D.

As the methods of extracting aural polypi, numerous though they be, do not always lead to satisfactorily speedy results, on account of the breaking of the polypus, the difficulty of adjustment of the snare, and the narrow room to work in with scissors, forceps, guillotine, or other like cutting instruments, I have proposed the use of a probe-pointed hook, with a sharp cutting edge on the concavity, for the purpose of removing soft growths from the external meatus. Mounted on a metal handle sufficiently small to pass through any ordinary speculum, with curves of different sizes to suit different meati, it is more easy of adjustment than a wire snare; and, being single-limbed, does not take up the room that a double-armed instrument does. It has the advantages that both snare and forceps possess, in that, like the former, it does not drag upon any parts with which the polypus may be connected, and, like the latter, it is easy of adjustment, and requires little or no practice to use it.

### MACKAY'S OMPHALIC MUSTARD PLASTERS.

WHATEVER opinion may be entertained in regard to the *modus operandi* of counterirritants, their usefulness is beyond question. Mustard is perhaps more commonly employed than any other. Not only is it usually at hand, but it is exceedingly efficacious. The common mustard poultice, however, is clumsy, and attended with much that is disagreeable. Specimens of counterirritant plasters ready-made in both mustard and cantharides on a new principle, have come under our notice.

Mackay's omphalic mustard plasters or leaflets consist of discs about the size of a sixpence, attached to small sheets of a light and transparent material. These are four and a half inches by three and a half, and have each twenty spots. They have merely to be dipped in water and applied. By leaving them on for a longer or shorter time, any required amount of effect may be attained, from a glow of redness to actual blistering. It appears to us that this kind of plaster will prove very valuable to the profession, as by means of it a slight or a powerful effect may be readily produced. The spot principle, too, seems quite in accordance with Nature's own efforts to relieve internal congestion and inflammation, as in the various rashes which from time to time appear on the body. It is well known that the appearance of such is attended with much relief from suffering. The same principle has been applied to fly-blisters. With phlebotomy and cupping, fly-blisters have of late years fallen very much into disuse. The old-fashioned fly-blister spread on leather is a most forbidding-looking and smelling thing. It is attended, too, with most painful and disagreeable effects. It is apt to slip and blister in a wrong place, and the flies often fall off and vesicate on other parts of the body. Mackay's omphalic fly-blisters are much superior to anything in this way which has yet appeared. The spots are of three sizes, but those most recommended are small—four-tenths of an inch—and eighty-five of them on a sheet six inches square. They occasion a crop of vesicles, which appear in regular order, having intervals of unblistered skin between. This rash of small blisters, as they appear to one for the first time, is something quite striking. What renders common blisters so painful, is the denudation of a large continuous surface of the sensitive skin. The spot plan entirely does away with this, leaving as it does sound intervals between the vesicles, and making it an easy matter to heal them up when this is wished for. By removing the cuticle and applying a drawing ointment, the counterirritant effect is kept up, and may be intensified as much as may be deemed desirable. We think it likely that omphalic fly-blisters will supersede not only the common cantharides blister, but blistering liquids and tissues of all kinds, and will be employed in cases in which the ordinary fly-blister would never be thought of.

## COLUMN FOR THE CURIOUS.

THE EARLY HISTORY OF SYPHILIS.—As the early history of syphilis has been a subject of great interest and research for some time past, it has occurred to me that possibly an allusion is made to this disease by King David in the 38th Psalm, about one thousand and twenty years before the Christian era. Whatever he may have suffered, from the description he gives (be it poetical, allegorical, or otherwise) of his trouble, it cannot but remind one of syphilis in an advanced stage in the present day; and more especially if this be read in conjunction with the account given by King Solomon, in the 7th chapter of Proverbs, of the then existing state of "the social evil", which is strictly applicable to the state of things in the nineteenth century.—F. D. Z.

LYCANTHROPIA.—Oribasius, who flourished about the year 380 at Constantinople, gives the following description of the disease called lycanthropia, evidently that under which the demoniacs laboured whose miraculous case is related by the first three Evangelists. "The persons affected go out of their houses in the night-time, and in everything imitate wolves, and wander among the sepulchres of the dead until daybreak. You may know them by these symptoms: their looks are pale; their eyes heavy, hollow, dry, without the least moisture of a tear; their tongue exceedingly parched and dry; no spittle in the mouth; extreme thirst; their legs, from the falls and bruises they receive, full of incurable sores and ulcers."

A LITERARY CURIOSITY.—An extraordinary example of the close alliance which formerly existed between ophthalmology and charlatanism, is to be found in a rare little pamphlet, entitled, *A Parallel between the late celebrated Mr. Pope and Dr. Taylor, Occulist to the King of Great Britain, etc.* By a Physician, 1748. The Dr. Taylor referred to was the famous Chevalier Taylor, and the parallel in reality only an impudent and extravagant puffing of this worthy. A diploma was granted to him by the University of Basle, and the following extract from it serves to contribute towards the parallel. It forms an astonishing contrast to the modest testimony offered on the bits of paper or parchment of the present day. It says, "In the knowledge of the nature and cure of the diseases of the eye, Doctor John Taylor has, in our judgement, greatly surpassed all others; and tho' yet very young (which seems almost incredible!) he has not only left very far behind him in his skill in this science, all who ever lived before him, but even all those of his own times. He has made known to the whole universe, to the great astonishment of everybody, not by vain ostentation (?) but by experiments daily made; that he has a genius form'd by nature for this sort of study, an industry surprising, an application inconceivable, and, above all, in the practice and address and delicacy nowhere to be equalled; so that we may justly say, that heaven, out of a particular favour to our age and posterity, has given birth to him only in these our days, to cultivate and bring to perfection this noble and useful study". For a contrast between the sham and the true chevalier, we must compare with the foregoing the following extracts from Horace Walpole's letters (Cunningham). In a letter to Sir Horace Mann, he says, "I need not desire you not to believe the stories of such a mountebank as Taylor. I only wonder that he should think the names of our family a recommendation to him at Rome; we are not conscious of such merit; *nor have any of our eyes ever wanted to be put out*". And in another letter to the same is the following witty epigram, written when the claims of the House of Stuart to the British throne were still urged.

> "Why Taylor the Quack calls himself *Chevalier*
> 'Tis not easy the reason to render,
> Unless blinding eyes that he thinks to make clear
> Demonstrates he's but a *Pretender*."

A son and grandson of the chevalier were successively oculists to royalty, and the grandson was a man of some literary merit, and the author of *Monsieur Tonson*.—LLOYD OWEN, Birmingham.

## SELECTIONS FROM JOURNALS.

### MIDWIFERY.

CÆSAREAN SECTION.—Dr. J. Cerf-Mayer, Surgeon in the French Navy (*Archives de Médecine Navale*, November 1874) details from his practice at Brest a successful case of Cæsarean operation. E. L., aged 30, a primipara, married fifteen months, had arrived at her full period. She was deformed from rickets. Spinal curvature was great. The pelvis measured 1¾ inches. She was bow-legged. A median incision 7 inches long was made from 1.2 inches below the umbilicus to 0.6 inch above the pubes. The uterus then presented, of violet hue. The amniotic fluid had been evacuated through the os previous to the first incision, and none escaped through the incision into the uterus. Every drop of blood was sponged away. The membranes being opened, a male child weighing seven pounds was extracted, and the placenta was removed by enucleation with the forefinger. A little effused blood was removed by means of sponges, and cold water was used as a styptic. A drainage-tube of a finger's breadth on a few loops was passed through the vagina and uterus, brought out at the incision, and fixed on the pubes, so as to facilitate the subsequent escape of pus or lochial discharges. No sutures were applied to the uterus itself, and six of silver wire were lightly drawn to close the external incision. The operation was performed under chloroform in a spacious apartment facing the south, and was completed in twenty-five minutes. The dressings were a fenestrated piece of cerated lint, covered with cold-water pledgets, and a lightly applied bandage. No hæmorrhage followed, and micturition was not affected. On the sixth day, the drainage-tube was removed, and injections of carbolic acid in aromatic decoctions were begun for the cleansing of the vagina and uterus, and ricinated collodion was applied frequently over the abdomen the next six or eight days, to diminish the intestinal inflation. No symptoms of metria, of metroperitonitis, or of hæmorrhage, supervened. From the twelfth to the fifteenth day, she was able to take a few steps across her room; and on the thirtieth day she went out with her infant. The complications were as follows. On the sixth day, a large protrusion of hæmorrhoids was treated by suppositories of belladonna in cocoa-butter. On the sixteenth day, diarrhœa appeared; and, during the following three days, there were symptoms of enteritis. Under the use of poppy fomentations, laudanum, and bismuth, diarrhœa had ceased on the twenty-first day, when phlegmasia dolens attacked the left leg. This was treated with emollients, cotton-wadding, mercurial unction, and belladonna. The general treatment was, after the operation, thirty grains of ergot; and at night, forty-five grains of chloral hydrate, which was rejected. On the third day, a lavement of castor-oil brought away much flatus and very black solid fæces, after which the abdomen became supple. From the first day up to the seventh day, sulphate of quinine was administered daily in doses of twelve grains, and, after the seventh day, in decreasing doses through the next fifteen days. The diet was at first of cold soups, with draughts of warm claret; and, in a later stage, nourishing and tonic food. Dr. Cerf-Mayer lays great stress on the advantage of spacious sanitary accommodation in all the capital operations, and on the steady administration of quinine. As to the mode of operating, he thinks that each case and every operator may require variations; but he doubts that the success will be much influenced by these, and believes that much more depends on the personal attentions of the operator during the operation and throughout the subsequent treatment of the patient.

## BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1875.

SUBSCRIPTIONS to the Association for 1875 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

# BRITISH MEDICAL JOURNAL.

SATURDAY, JANUARY 23RD, 1875.

## MR. STANSFELD'S SANITARY SYSTEM.

PERHAPS the most interesting portion of Mr. Stansfeld's address at Halifax, some of the more salient points in which were briefly discussed in this JOURNAL last week, was that in which he explained the principles that had guided the Local Government Board in initiating the Public Health Act, 1872. Our readers well remember how that imperfect piece of legislation was made needlessly futile as to its ultimate objects by the unskilful manner in which it was put in operation. We now learn that this presumed unskilfulness was the result of acute political insight and profound sanitary pedagogism. Ignorance as well as knowledge, according to the Local Government Board (so at least we gather from Mr. Stansfeld) has its claims in the commonwealth; and, in respect to sanitary administration and organisation, ignorance has the first claim to consideration. It is no part of our purpose to question the paradox. We propose simply to show how it has been acted upon as a State precept. If it suggest, as a parallel argument, Dean Swift's thesis on the uses of lunacy in a commonwealth, we must beg of our readers to discard such seeming resemblance; for the one was a keen satire, the other is an administrative fact.

Mr. Stansfeld states that the first great step of the Local Government Board on firm ground in sanitary work was to organise local authorities, and to impose positive sanitary obligations on them by law. This was effected. "The whole philosophy of the subject", he continues, "was contained in the answer to this question, What was, or ought to be, the next step? The next step, in the opinion of the Board, was to be an educational step. The sanitary law had to be administered by local representatives; it could only be efficiently administered by securing their intelligent co-operation by enlisting them, of their own free will, in the work." The Board, therefore, began its pedagogic duties by assuring local sanitary authorities (after the manner to new scholars of the old-fashioned dominies, the very remembrance of whom revives the smart of their fundamental encouragement of instruction) that "they had no design of putting force upon them". The cane was there, suspended in the legislative rack, but the Board announced its intentions of educating through the intelligence, not the breech. In reality, it proposed to leave sanitary authorities to their own unaided self-instructive devices, except in those cases where they received pecuniary aid for local services, when the Board "claimed the right to take common counsel with them, and in that common counsel to seek to persuade them towards its own views".

Now, the first matters in which the Board was called upon to educate local authorities were the appointments of inspectors of nuisances and of medical officers of health. It has been generally believed that the appointment of these officers was designed primarily for the execution of certain prescribed duties, and this belief has been fostered by sundry regulations issued by the Local Government Board on the subject. This, it would now appear, is an error, and to this error is owing much of the misapprehension of the action of the Local Government Board as to these appointments. Mr. Stansfeld tells us that the view of the Board was, that "inspectors of nuisances should be appointed for areas which would occupy the whole time of a competent man, and which would make it possible to pay him sufficiently well to secure a fair chance of honesty and independence in the performance of his duties; and, secondly, that precisely the same principle should be applied to what ought to be the *higher* (!) appointments of medical officers of health". In other words, that the question of salary should regulate the area of the district of an inspector of nuisances and of a medical officer of health, not the nature of the duties to be performed. Such satisfaction as Mr. Stansfeld expresses in some successes of this policy must be interpreted, therefore, merely with reference to the areas and salaries secured, not with reference to the practicability or not of the performance of the duties for which the salaries are given and the areas defined. "The first idea" of professed and scientific sanitarians is "health", Mr. Stansfeld tells us later in his address: "their second, local government." We now learn that this "first idea" is quite a subsidiary consideration to the latter, even when designed with specific reference to "health"; and that the scandalous failure of the appointments made, on the principles above stated, to secure such a performance of the duties attaching to them as the public had a right to look for, especially in the case of the "higher" appointments of medical officers of health, in no way detracts from their success as examples of local government.

It will be observed how this manner of regarding the question simplifies that "education" of local authorities to which the Local Government Board had addressed itself. It at once eliminates any necessity for knowledge on the part of the Local Government Board, as chief sanitary pedagogue, or on the part of the agents or assistant-pedagogues whom it employed in initiating the Act of 1872, of the subject matters to which the Act related. The ultimate design of the Act was in fact quite a casual and incidental matter, and the last thing to be considered in estimating its successful application. We are now, therefore, quite prepared to understand the charming simplicity of the preparation and selection of the agents empowered to carry out the Board's policy, and the exclusion of its trained and experienced technical staff in mere matters of health from all part in it, whether consultative or active. "Immediately on the passing of the Public Health Act, 1872, before leaving town for the long vacation", Mr. Stansfeld states, "he called together the general (former Poor-law) inspectors of the Board, and, having occupied a couple of days in discussing with them collectively the provisions of the Act, and the policy which he thought it most wise to pursue in initiating local administration, he dismissed them to their districts, there to act as interpreters and negotiators of the Board". The widely different interpretations of the Board's policy by these gentlemen has led to the Board being accused of vacillation and uncertainty. Mr. Stansfeld states that its policy was neither vacillating nor uncertain; and we are left to infer that the general inspectors (weak mortals probably, like ourselves) were unable to rise to the serene heights of political abstraction of the Board, and imported into their counsel with local authorities crude conceptions of the ultimate health aims of the legislation they were initiating, and so blurred the Board's wisdom.

It was really superfluous, after this explanation, that Mr. Stansfeld should take the trouble to further explain the errors of medical men, especially as represented by our Association, in estimating the action of the Local Government Board under his administration. We shall presently refer to the misrepresentation which he makes of the proposed scheme of the Joint Committee of the British Medical Association. That deserves to be treated separately. But, as to the particular point of the relations of the medical staff of the Local Government Board to local health-officers, as he understands it, we would have had medical inspectors entrusted with educating local authorities in their sanitary duties, under the supervision of the "principal medical officer of health"—Mr. Simon, we presume. We plead guilty of thinking, with the Royal Sanitary Commission, that Mr. Simon's "concentrated superintendence of all public sanitary arrangements, whether those of local boards of guardians or any other local authorities, would greatly add to his usefulness and power". Mr. Stansfeld tells us that to have acceded to such a view would have been to commit "a disastrous and fatal mistake". He adds, moreover, that "to maintain the authority of the scientific man, and to secure for him respect and even popularity, it was necessary to reserve him for occasions when there was a sense that his special knowledge and services were needed". The withholding of this special knowledge, although, in fact, it covered the whole field of public health administered by the Board, and had been matured in the case of the medical staff attached to the Board by an exceptional experience, was held necessary, Mr. Stansfeld tells us, to the success of the public health administration of the kingdom; and we even learn that this was an element in a policy of "respect and trust" towards local sanitary administrations, for Mr. Stansfeld says that it was "not only because local governing bodies of this country could not be driven, but possibly led, that this policy of respect and trust towards local administrations was deliberately adopted".

We learn, indeed, from Mr. Stansfeld, that the Local Government Board under his ministry saw no chance of a successful performance of public health duties, either by itself or by local authorities, except by avoiding knowledge of the subject matter. It was not needed by the former; it would have been an insult to proffer it to the latter. The proper function of skilled knowledge in public health administration, whether central or local, and in the sanitary educational system which the Local Government Board has established, is to rectify mischiefs accomplished, not to prevent them, and to teach from such rectifications. The rights of ignorance must be respected, as well as the rights of knowledge; and the Local Government Board, in the responsible exercise of its public health duties, has been careful to interfere between an assumed aggressive skilled knowledge and the necessary ignorance of sanitary matters of newly created sanitary authorities. It has a pleasing, respectful, and trusting confidence that local administrations will appreciate this consideration for their feelings, and will accept without remonstrance the position of tetchy children confided to unskilled nurses, with little chance of education except through their misfortunes.

## THE NAVAL MEDICAL SERVICE.

We considered it our duty, not long since, to state the actual progress that had been made by the Admiralty towards redressing the numerous grievances of the department that were brought under the notice of the First Lord by the deputation of the Parliamentary Bills Committee of the British Medical Association. We then stated that, in our opinion, it was undesirable that any response should be made by the schools at present, to the notice issued from head-quarters, of an intended examination of candidates to be held next month. We can now only repeat that advice. A semi-official intimation has been given that a warrant has been prepared by the Admiralty and placed before the Treasury, but not a word as to its provisions has been permitted to appear. Consequently, we are entirely in the dark as to its bearings on those already in the service, or what inducement it may offer those about to enter. On a past occasion, when a sufficient number of candidates presented themselves to fill up the present vacancies, the Government of the day, relieved from the pressure, relegated the work of reform to the waste-paper basket.

Young medical men, in their own interest, as well as that of the department into which they might think of entering, will no doubt, therefore, now suspend their action, and wait the course of events. We would also hope that, whatever regulations their lordships may see fit to issue for placing the department on a new basis, may, on this occasion, be carried out in their integrity. The difficulty that has been experienced in keeping young medical officers in the service shows how utterly futile it is to induce young men to enter by holding out hopes and promises that are not to be realised. It is in the public interest that we tender our present advice, not less than that of the profession and the service. We would take, for example, the circular of March 1st, 1874, published for the information of candidates, showing what it promises, and how it is carried out.

| PROMISES. | REALITY. |
|---|---|
| 1. Surgeons at home, after completing their time for examination for the rank of staff-surgeon, second class, may be granted two months' leave of absence on full-pay, on condition of their resuming their studies at a medical school or hospital. | 1. In not one instance has this been granted that we are aware of, although the regulation has been in existence for years. |
| 2. Promotion to the rank of staff-surgeon is open to officers for distinguished or special service, although twenty years on full-pay may not have been completed. Such staff-surgeons will have 16s. a day half-pay. | 2. This promise has been fairly carried out; but, during peace time, the opportunities for gaining this step are reduced to a minimum. |
| 3. Staff-surgeons rank with commanders according to date of commission. | 3. In what way this benefits the staff-surgeon, it is difficult to say. He does not enjoy a single advantage that the rank confers. He is not allowed to have even the choice of a servant, as commanders have. |
| 4. The whole time served on full-pay as surgeon to be allowed to staff-surgeons, second class, to qualify for the rank of staff-surgeon, provided the examination for staff-surgeon, second class, be passed before the officer completes ten years' service; otherwise, only ten years served as surgeon will be allowed to count. | 4. Considering that the average time lost on half-pay in completing twenty years' full-pay service is three years, this is no boon, and contrasts most unfavourably with the army, with its continuous service. |
| 5. Staff-surgeons are appointed to the flag-ships of commanders-in-chief on foreign stations, with an allowance of 5s. a day in addition to their established pay. | 5. This regulation has been carried out in the most meagre manner. The staff-surgeon of the first flying squadron was mulcted of the whole amount at the expiration of the ship's commission. At present, the staff-surgeons of the Channel flying squadron have this allowance. |
| 6. The hospital allowances for naval medical officers at home and abroad, in lieu of provisions for themselves and servants, and for fuel and light. | 6. This allowance at home is quite inadequate, and abroad contrasts most unfavourably with the allowances given to army medical officers. In some instances, the Admiralty, by designating the establishment "sick quarters", have disallowed the allowances altogether. This has happened at Trincomalee and Portland. |
| 7. The travelling allowances, extra pay, lodging-money, and compensation for losses, are fixed for naval medical officers according to their relative rank in the service. | 7. This affects naval officers in general so little as to be worthless, but the principle is systematically ignored. |
| 8. Medical officers have cabins according to their relative rank in the service, excepting always that the senior executive officer, of whatever rank, has the one most suitable for his duties. | 8. It is a downright misstatement of facts to say that the medical officer has choice of cabins according to his rank. He has not. A chaplain of two days' standing will take precedence of a medical officer of thirty years' service; so will a paymaster; and, latterly, the senior marine officer has been placed before him, though he can be only a captain, while the medical officer may have the relative rank of major, and possibly that of lieutenant-colonel. This is considered by the medical officers the greatest insult to which they have yet been subjected. |

Then follows the scale of full- and half-pay, with which those interested in the matter will have no difficulty in making themselves acquainted.

While such a state of affairs as this exists, we have little hope that the Admiralty can either get candidates, or retain them. And let our young medical brethren recollect that these are the regulations now in force in the service.

## WOODEN HOSPITALS.

We have received, through the courtesy of Dr. Day of Geelong, an interesting paper on the advantages of freshly constructed wooden sheds for hospital purposes. This paper was read at the Medical Society of Victoria, and elicited some discussion there; though, to judge from the account furnished to us, that discussion was by no means of a searching nature. Dr. Day's theory is that "certain kinds of wood, such as red or yellow deal, American pine, and white deal or spruce, possess the property of acting on atmospheric oxygen, and converting it into peroxide of hydrogen, a substance remarkable for its power of destroying the offensive products of decaying organic matter"; and he infers that the exhalations from the walls and roofs of sheds composed of such wood will, by their antiseptic properties, render the putrefying organic products generated by the suppuration or decomposition of wounds harmless. Dr. Day also attributes to the same substance—the peroxide of hydrogen—the property of destroying the contagium of scarlet fever; and states that he has used the etherial solution of peroxide of hydrogen, erroneously called "ozonic ether", with remarkable effect in staying the spread of that disease. His plan is to anoint the patient's body three times a day for a fortnight or three weeks with this ether mixed with lard in the proportion of one part to eight; and he points out that the greasy substances which are used to check the spread of scarlet fever, and whose action is believed commonly to be merely mechanical, themselves absorb oxygen from the atmosphere, and convert it into peroxide of hydrogen. The only facts which Dr. Day produces in support of the general assertion with which he begins his paper—that "certain diseases, such as pyæmia, erysipelas, and puerperal fever, which are so common and so fatal in ordinary hospitals, rarely, if ever, occur in hospitals constructed of wood"—consist of a statement by Dr. Shrimpton, taken from the *Lancet* (April 4th, 1874), that in some huts at Shorncliffe and at Colchester there had been at the former place "702 deliveries without any death from puerperal disease" and at the latter "202 deliveries had been registered, but no deaths"—a statement too vague, and admitting of too many explanations to be worth much to his argument; and, secondly, of an extract from the *Medical Times and Gazette* (December 13th, 1873), recording a visit which Dr. D'Espine made to the hospital at Leipzig, which seems recently to have been converted into a collection of fourteen wooden sheds enclosing a stone building, the old hospital, "which now is exclusively devoted to paying patients, who have each their separate room". In these wooden sheds, it is said that Professor Thiersch performed 266 serious operations during the twelve months from August 1872 to August 1873 without losing a single case from pyæmia; while, prior to the construction of the shed-hospitals, he lost from forty to fifty amputations from this cause annually. But we are not told how many beds the old hospital contained, nor in what space these beds were placed, nor what were the arrangements of the building. And the enormous number of amputations said to have been lost annually from pyæmia really renders a statement of these matters necessary. We presume Professor Thiersch did not lose every patient whom he amputated, and also that his patients sometimes died from other causes than pyæmia. If this were so, we can hardly estimate the number of amputations performed annually in this hospital (even allowing, as we suppose is the fact, that Professor Thiersch performs every amputation which is done in it) as less than one hundred—a number of amputations more than twice as great as those performed in one year at St. Bartholomew's Hospital. In fact, if we follow Mr. Bryant's calculation (see *Medico-Chirurgical Transactions*, vol. xlii), that pyæmia is the cause of death in 42 per cent. of fatal amputations only, we should estimate the fatal amputations by themselves at above 100. If Professor Thiersch was so unlucky as to lose every other amputation, this would raise his total to the startling number of 200. In the last volume of the *St. Bartholomew's Hospital Reports*, it seems that forty-four amputations were performed there in the previous year, reckoning only those of the limbs, which is what we suppose to be intended here. If this is about the usual average number of amputations in a metropolitan hospital of six hundred beds, it would certainly be desirable to have more definite information as to the size, circumstances, etc., of an institution at Leipzig in which from three to six times as many similar operations were performed. And until we do receive more precise data, we may as well infer that the improvement in the results of amputations (allowing it to be real) was a consequence of a better proportion between the space allotted to patients and the number of large wounds, or to any other hygienic improvement as to the change in the material of which the walls were composed.

We merely instance this as an example of the vague kind of evidence on which these general propositions in hospital construction are ordinarily supported. Otherwise, Dr. Day's suggestion is a reasonable one—that wooden sheds may *per se* have some advantage over stone walls in generating some substance analogous to turpentine, which may purify the atmosphere. Whether that advantage is enough to balance the disadvantages which must attend the treatment of disease in sheds, which can be only imperfectly warmed and ventilated, we require much more experience than has as yet been obtained before we can even guess. Writers on this subject are apt to speak of the treatment of patients in sheds "exposed to all the winds of heaven" as if that were really an advantage. The common sense of mankind is at one, however, with all medical experience in concluding that cold and draughts are fruitful sources of mischief both in health and in sickness. If Dr. Day be correct in saying that erysipelas is ever generated by washing the floors of hospitals—which our London experience decidedly negatives, in spite of the respectable authority which can be quoted for it—we would say that erysipelas is generated much more commonly by exposure to a cold blast of east wind; and, even if peroxide of hydrogen could be proved to have ever such active qualities in "destroying the offensive products of decaying animal matters", we must own to a preference for the old-fashioned oxide—pure water—to wash them away.

It is really impossible to form any opinion as to the relative goodness of various materials for hospital construction, till our reformers will condescend to be a little more particular in comparing cases whose circumstances are otherwise similar. We have seen no proof as yet that permanent buildings do become unhealthy when the well-known laws of hospital hygiene are observed. Brick or stone wards become, as we know, unhealthy when overcrowded, dirty, ill-ventilated, etc., whether those wards be in country or town, isolated or in a large building; and so, we believe, would wooden wards. At the same time, Dr. Day's paper is worthy of remembrance; and we hope to receive more conclusive and more valuable facts bearing on the subject, on some future occasion, from himself or some other observer.

A conference will be held shortly by the Joint Committee on State Medicine of the Social Science and British Medical Associations, for the purpose of issuing a reply to the recent misstatements by Mr. Stansfeld, as to the nature of the proposals made to him by the Joint Committee in reference to the Sanitary Acts.

Dr. Barnes has migrated from St. Thomas's Hospital to St. George's, Dr. Clarke having resigned his post of Obstetric Physician and Lecturer on Midwifery at the latter institution. Dr. R. J. Lee remains as Assistant Obstetric Physician. Dr. Gervis, we presume, will be promoted at St. Thomas's to the full appointment; and this will cause a vacancy for an Assistant Obstetric Physician.

Dr. Mary Pútnam Jacobi, says the *New York Medical Record*, during the recent meeting of the New York Pathological Society, temporarily occupied the chair during the presentation of a specimen by the President. The same lady read a valuable paper recently on the use of belladonna and nitrite of amyl in spasmodic dysmenorrhœa.

DR. A. E. SANSOM has been elected an Honorary Fellow of the Medical Society of the State of New York.

### PRINCE LEOPOLD.

WE would say nothing to add to the general anxiety which the condition of Prince Leopold must necessarily create. Hæmorrhage after typhoid fever is always one of the most serious complications. In this case, the attack of fever was slight; but the peculiar liability of the prince to severe hæmorrhage, from which he has always been a sufferer, give a special aspect of gravity to his condition. It is essentially a case for vigilant medical attendance and most careful nursing; and, as these have before now saved Prince Leopold from urgent conditions of peril, so we may now hope that they will triumph over the present difficulties. He is in the hands of those who have watched him from the cradle, and who are armed by the special experience of his constitution, as well as the most ample command of professional resources.

### THE OUTBREAK OF FEVER AT LEWES.

WE are glad to find that the severe outbreak of enteric fever in Lewes is now practically at an end. The provision of a constant supply of water, instead of the existing intermittent service, resulted, as we have before pointed out, in a rapid diminution in the number of fresh cases; and notwithstanding the fact that there were many centres of infection in the town, the efforts of the authorities, especially in the matter of disinfection, appear to have been eminently successful. The disease having been evidently due to defects connected with the system of water-closets, we are not surprised to hear that an effort is about to be made to induce the population to abandon this means of removal of excrement. A subcommittee of the Town Commissioners have placed themselves in communication with Mould's Earth-Closet Company, and it has been determined that a certain number of houses are, by way of experiment, to be provided with earth-closets, the various arrangements to be under the supervision of the Company; the Committee itself, however, undertaking to provide the dry earth and to remove the contents of the closets. It is stated that the Company have offered the Commissioners the most liberal terms, in order that the system might be fully tested by the inhabitants of the town; and, as the experiment is likely to be carried out under favourable circumstances, it will be interesting to note its results, for hitherto we have had but little experience of the working of this system elsewhere than in public institutions and in villages.

### THE CONTAGIOUS DISEASES ACTS.

WE publish in another column a further weighty letter from Professor Parkes, F.R.S., of Netley, proving the beneficial action of the Contagious Diseases Acts. Dr. Parkes is known as one of the calmest and most judicial intellects in the profession, as well as one of the most able, kindly, and clear-sighted advisers whom any department can possess. No man is more thoroughly qualified to settle a question of figures; no man can speak with such weight on a question of medical hygiene. His testimony must go far to settle any controversy in that territory. It was on that ground that Mr. Stansfeld and Dr. Nevins raised a contest: with the facts which have now, in our columns, been placed before them, they can, we imagine, hardly possess any further doubts. Outside the question of medical hygiene we do not here travel. There is one objection, however, not adverted to by our distinguished correspondent that, doubtless, will be brought up again to disparage the statistics of the Royal Engineers; namely, that the returns prove the amount of venereal disablement to have lessened steadily, on the whole, from 1860 to 1874; and that, as the proportion was falling before the Acts were introduced, the diminution can be fairly attributed to this natural decline, and not to the effect of the Acts. The answer to this objection, which *primâ facie* appears just, is this. If diminution be due to causes not connected with the Acts, these causes should operate at stations where the Acts are not in force and among corps not subjected to their influence. But the reverse of this is the fact. Corps habitually quartered in London are as severely disabled by venereal disease now as they were in the early years of the army statistical returns; and districts where the Acts are not yet in force maintain a mean ratio of disease as high as ever. According to official returns during the first three quarters of last year, 1874, the Foot Guards stationed in London, a strength of 3,158 men, sent 453 cases of primary venereal sore to hospital, besides 456 cases of gonorrhœa and constitutional syphilis. These make a total of 909 cases of venereal disease from a mean strength for the three quarters of 3,158 men, or 28 per cent. of the force, a loss probably equal to 35 per cent. *per annum*. Nor was the past year much worse than its predecessors; and it is well we should be aware that, while the Engineers and other corps, who have the good fortune to pass their time chiefly in protected districts, have been able to reduce their venereal entries to thirteen or fourteen per cent. of their strength, our crack battalions of Guards have, for the last fifteen years, sent, and continue to send, thirty to forty per cent. of their strength to hospital every year, because they are chiefly quartered in the metropolis, which is unprotected by the Contagious Diseases Acts.

### DR. RUMSEY, F.R.S.

DR. RUMSEY'S many friends, and indeed every member of the profession to which he has rendered such great services, and which he has so highly adorned, will grieve to learn that, after suffering from severe cerebral symptoms, he is now for some time incapacitated from work of any active professional kind. We fear that the great labour which Dr. Rumsey has undergone for public objects has not served to advance his private professional interests, which he has always subordinated to public ends.

### IS TORQUAY RELAXING?

IN a popular address delivered at a local institution, under this title, Dr. Radclyffe Hall says:

"For the pulmonary invalid, the question is not, Is a given climate bracing or relaxing? but, Is it cold, variable, and exciting, such as favours the oncome of inflammation? or, Is it soothing, mild, and anti-inflammatory? Were I to characterise the climate of Torquay in a phrase, I would say, if is soothing and safe: safe, because anti-inflammatory; anti-inflammatory, because mild and soothing. How often have I heard former visitors at Torquay say, 'Torquay is the best place for anything of inflammation'; again, from another, 'I never felt so strong anywhere as at Torquay'; again, 'I never feel up to the mark at Torquay; it is too relaxing for me'. Now, the last remark always proceeds from one who has no organic disease; the other two remarks, usually from those who have. Its soothing qualities are due to its mildness as to temperature; to its equability of temperature between night and day; to the absence of the marked coldness at sundown, so common in other places; and to the invisible moisture in the air. For damp or visible moisture I have nothing good to say, except that a sea-fog seldom does harm. People often inveigh against moisture in the air, as if an over-dry air were not much more hurtful. Ask a New Yorker in his polar winter wind, the north-west—'the razor' which answers to our east wind when our polar current comes down to the earth—what he would not give for a breath of the soft south wind, with the balm of sea-moisture laden! At Torquay, all the moisture in the air is sea-moisture; for we have no land-water, and our geology is limestone cropping up to the surface, which naturally drains away rainfall by the hilly, cliffy character of the rocks. So long as this sea-moisture is invisible, it makes the air soft and respirable; and it indicates a certain amount of heat in the air, to enable it to render the contained moisture invisible. It diffuses a gentle haze through the air, which gives a Claude Loraine softness of outline to the landscape, and acts in keeping in the heat like a fine thin cloud, radiating down again the heat which has been radiated up by the surface of the ground. Every one knows that a cloudy night is a warm one; a bright, clear, starlight night, a cold one. By way of a personal illustration that seldom occurs, some years ago I had occasion to go without delay to St. Leonard's. It was in the second week of February. A black quiet east wind was steadily on. I found it colder in London than at Torquay. I slept there, and next morning I found myself at the large hotel at St. Leonard's. Here the cold was bitter, much more trying than in the Strand in London. I slept in London, and returned home the third day, the weather having been unchanged all the time. Below

Bristol, the air became less cold. When I got out at Torquay, the cold was so much less unbearable, that I took in long breaths, and mentally exclaimed, 'Why, this is breathing made easy!' Now, consider what ease of breathing implies to a pulmonary invalid. It implies, in a word, that his lungs are doing well.

"There is one subject, not strictly pertinent to the matter in hand, on which I wish to make a remark, because it is not commonly known, and it ought to be both known and appreciated; and that is, that Torquay is peculiarly desirable as a residence for those who are prone to suffer from diseases of the kidneys, and from gout and goutishness—disease which are becoming not less rife in the land; not so much because the town-water is very soft and pure, being merely rain-water filtered through granite from the disintegrated felspar of which it may derive possibly some inappreciable alkalinity, as because of the climate acting beneficially on the skin and on the mucous membrane."

### CHARGES AGAINST THE DARWEN LOCAL BOARD.

AN inquiry into the alleged neglect of the Darwen Local Board in sanitary matters has commenced. The Commissioners appointed to investigate the cases are Colonel Cox and Mr. Basil Cane. The inquiry, which affected the general sanitary arrangements of the borough, has been adjourned till Monday.

### VOTING AT EPSOM.

THE Charity Voting Reform Association, of 30, Charing Cross, S.W., have issued a very valuable further series of correspondence relating to the monstrous abuse of charity implied in the "voting system" at charities. One letter is from the mother of a candidate for the Medical Benevolent College at Epsom, who writes:

"I most gladly sign the enclosed, having had experience in getting my little boy into the Medical College at Epsom; and had it not been for the goodness of Dr. Jonson of South Eaton Place, I could never have succeeded, though I spent more that sixty pounds in the canvass, and am still paying it off to friends who lent me the money."

### POLLUTION OF RIVERS.

SEVERAL members of Parliament, representing Yorkshire constituencies, and others, waited on the Home Secretary and the President of the Local Government Board, on Saturday, to point out the evils arising from the pollution of rivers in the manufacturing districts, and to urge the Government to bring in a Bill on the subject. The right hon. gentlemen expressed their satisfaction at the feeling of the millowners in the matter, and assured the deputation that the Government are sensible of the importance of the question.

### PUBLIC HEALTH EXAMINATIONS.

AT the meeting of Convocation of the University of London on Tuesday, a motion by Sir William Jenner was brought forward:—"That, in the opinion of Convocation, it is desirable that a special examination be instituted in this university in the subjects which relate to public health." Sir William, being in attendance on Prince Leopold, was unable personally to support the motion, which was, however, moved by Dr. F. T. Bond, seconded by Dr. Buchanan, and agreed to without a division. Dr. Storrar, the chairman, said the senate would meet to consider a report on the question, and, without attempting to forecast their decision, he might intimate his own opinion that very shortly the object aimed at in the resolution would be carried out. Messrs. A. P. Hensman and G. Serrell moved the following resolution: "That, in the opinion of Convocation, it is desirable that women should be permitted to take degrees in Arts in this University." Mr. Hensman remarked that Convocation, in May last, passed, by a large majority, a resolution in favour of admitting women to all the degrees of the University; but the Senate had since resolved, that, "while desirous of extending the scope of the educational advantage now afforded by the University to women, they did not feel justified in applying for a new charter for that purpose". "A great part of the education of the country was in the hands of women; why should they not, therefore, be permitted to take degrees, if capable of passing the necessary examinations? They would then at once take a proper position, and meet with the substantial reward which, by their labours, they had properly gained." Eventually, however, the proposition was withdrawn, as it was urged by several speakers, notably by Mr. Osler, who had had charge of the motion in the Senate, that Convocation would be compromising itself if now it sent up to the Senate a weaker resolution than it had passed in May last. Such a course would weaken the hands of those who had gone to the Senate with a decided policy in favour of granting all the degrees to women.

### DR. LOMBARD'S THERMO-ELECTRIC APPARATUS.

WE publish in another column a description of an instrument destined, we believe, to add much to the resources of the physician. Dr. Bastian, F.R.S., writes to us concerning it:—The instrument is very easy to work with after about an hour's practice, and it yields the most accurate and reliable results in less than a minute. Owing to the careful levelling which is necessary, and to the extreme sensitiveness of the apparatus, there is some trouble involved in taking it from patient to patient in the wards of a hospital. But, as a rule, it is only occasionally that the instrument would require to be used; and then no more time would be needed to bring it into play than is necessary for the proper adjustment of a sphygmograph. In the consulting-room, it may be used with the greatest ease, since, where it is allowed to stand on a particular table, the galvanometer may be levelled once for all, and the conducting wires and thermo-piles may remain attached to the rheostat. The apparatus, thus ready for use, may be protected from dust and injury by a bell-jar. I have already found it of much use in testing the relative temperature of paralysed limbs, and it is likely to prove very useful in railway cases. I have recommended the makers of the instrument to supply with the apparatus a scale by which the degrees of centigrade may be at once translated by medical men into the more familiar Fahrenheit notation. I have also had the lamp and stand cut away from the board, and a proportionately smaller box made for the instrument, with the view of still further increasing its portability. The lamp and stand are, in fact, intended for use in physiological much more frequently than in strictly medical investigations; so that, as they would be only rarely used by medical men, they may be more conveniently packed into a small separate box. The maker would, I think, do well to supply certain instruments without these accessories, which are not intended for ordinary clinical work. The cost as well as the size of the instrument may thus be lowered. It is an instrument of precision of great value, from whose use we shall, after a time, doubtless derive knowledge of much practical importance, and by which we may, in addition, hope to widen the boundaries of scientific medicine.

### LIVERPOOL ROYAL INFIRMARY.

AT the annual meeting of the governors and subscribers of the Royal Infirmary, on January 18th, Mr. J. G. Livingston moved a resolution to the effect that no physician or surgeon heretofore appointed or hereafter to be appointed to office in any part of the institution, should be re-eligible after completing the sixty-fifth year of his age, and also that physicians and surgeons should not be re-eligible after having held their appointments for twenty-one years. This was seconded by Mr. Guion, and was met by an amendment moved by Mr. Gibbon, and seconded by Mr. Rathbone, M.P., altering the age to sixty instead of sixty-five, as that was the average age of medical officers after twenty-one years' service. The amendment was carried by twenty-seven votes to six.

### THE SCARLET FEVER EPIDEMIC.

AT a recent meeting of the Metropolitan Asylums Board, Mr. Barringer presented the report of the Homerton Asylums, stating that, during the last three weeks, 53 cases had been admitted into the general fever side, 11 had died there, and 80 had been discharged recovered, leaving 177 under treatment, being a diminution of 38 as compared with the number in the hospital at the date of the last report. The Committee had also the gratification of reporting that the scarlet fever epidemic, which had existed during the last five months, had considerably abated during the last three weeks; for only 26 patients suffering from this disease had been admitted into the general fever hospital, and none had been taken into the side hitherto reserved for those cases, and from which 48 had been discharged recovered since the last report, leaving 45 still under treatment there. Having regard to these circumstances, the Committee considered that they might safely direct that the wards of the latter hospital should be closed as they become empty, and the services of the temporary staff dispensed with. When the hospital was empty, the Committee recommended that steps should be taken to disinfect it, so that it might revert to its original use (that of a small-pox hospital), or be ready to meet any emergency which might arise. The highest number of patients in the asylum from any one district came from Holborn; the lowest from Hampstead, two. The report was unanimously adopted, amid general congratulations that the disease had thus much abated.

### THE PATHOLOGICAL SOCIETY OF LONDON.

On Tuesday evening the Society met in Berners Street, at the altered hour of half-past eight o'clock. There was a very large muster of the Fellows. The new president, Mr. George D. Pollock, occupied the chair, supported by the new secretaries, Dr. Green and Mr. Wagstaffe. In taking his seat, the president thanked the Society for the honour done to him in electing him to follow Sir W. Jenner. It was an honour he thoroughly appreciated, as the Pathological Society was one of the most honourable in this or in any other country. Twenty-five years ago he had filled the office of honorary secretary to the Society, and since then it had increased much in numbers. Such, indeed, had been the increase in numbers, that he ventured to suggest that the term of office of president should no longer extend over two years. At first this plan was desirable enough, but now he thought that annual election was preferable, as the Society numbered many men who would worthily fill the office; but who, under the present arrangements, could never attain to the office till long past their prime. He brought the matter forward on the earliest opportunity, in order that it might be considered ere the next election.

### COMPULSORY VACCINATION IN JERSEY.

The Jersey States met last week, for the first time this session, and at once took into consideration the desirability of adopting stringent measures for grappling with the prevailing small-pox epidemic. Four years ago, when the subject of compulsory vaccination was before the States, it met with a strong opposition, and, after a protracted debate, the Bill was thrown out. Now, many, if not all the most ardent opponents, in the face of the present danger, agree as to the necessity for legislative action being taken. Mr. Deputy Le Cronier introduced a Bill on the subject similar to the English Compulsory Vaccination Act, and it was ordered to be laid on the table and discussed at the sitting on Wednesday, the usual delay being dispensed with in view of the urgency of the case. The Sanitary Regulations Act was brought up for renewal, it having been passed for three years only, and being on the point of lapsing. The House agreed to treat it *d'urgence*, and several important alterations were made in it to make it directly applicable to the existing state of the public health.

### SMALL-POX AND MEASLES.

The *Pall Mall Gazette* has a caustic comment on an unfortunate incident at King's Norton. At the meeting of the King's Norton Board of Guardians on Wednesday, attention was called to the case of a man named Cox, who was admitted into the Small-pox Infirmary by order of the relieving officer. Cox, it appears, was a "servant man", living at King's Heath; being very ill, he was visited by the relieving officer, who thought he "had every appearance of a person suffering from the small-pox". A surgeon also, who was called in to see him, pronounced him to be suffering from this disease, and he was accordingly carried off to the infirmary in the small-pox van. When he arrived at that institution, it was discovered that a slight error had been made. Cox was not suffering from small-pox, but was only afflicted with measles; he was therefore discharged, and having been in the ward some time, no doubt acted as an admirable channel for spreading contagion throughout the neighbourhood. As one of the guardians truly remarked, "it was a very serious matter"; and what makes it more serious is a fact stated by the master of the workhouse, that this was the third case of the kind which had occurred. Medical science, it is to be hoped, is yet in its infancy if it cannot distinguish between small-pox and measles.

### THE LATE DR. LAVAL.

The death of Dr. Laval, who fell a victim to his zeal in visiting the plague-stricken districts of Tripoli in June last, is announced, in earnest and well-merited terms, in the *Moniteur de l'Armée*, by the French minister of war, in the following order of the day.

"Dr. Laval, surgeon-major of hospitals of the division of Constantina, happened to be in the region of Tripoli on leave of absence, when he learned that a severe disease was raging in Merdj, about twenty hours from Bengazi. Without hesitation, he betook himself to that place, and in several cases ascertained the disease to be plague. The only European and the only physician among a terror-stricken population, Dr. Laval lavished his skilful attentions on the diseased with a zeal and devotion beyond praise; at the same time prescribing for the sick, and superintending all the measures which might in any way arrest the progress of the epidemic and circumscribe it within its foci. These measures contributed largely to preserve the neighbouring population from contagion. Unhappily, being himself seized after fifteen days of incessant work, he succumbed to the scourge, affording even in his last moments an example of the highest fortitude and self-denial. The Vice-President of the Council, Minister of War, points out to the army the noble conduct of this army surgeon, as a worthy continuation of the traditions of devotion which have brought to so high a pitch the true glory of the army medical staff."

### THE CONTAGIOUS DISEASES ACTS.

The following memorial has been in course of signature during the past two or three weeks. It has already been signed by upwards of one hundred and sixty medical practitioners in Liverpool. Additional names are still being added from day to day. The signatures include, with few exceptions, those of the leading physicians and surgeons of the town, the medical officers of the Royal Infirmary, the Northern and Southern Hospitals, the dispensaries and other medical charities, and nearly the entire staff of the Medical School.

"*To the Right Honourable R. A. Cross, Her Majesty's Secretary of State for the Home Department.*

"It having been publicly stated that, of the medical practitioners in Liverpool, not more than twenty-six could be induced to sign a memorial in favour of the Contagious Diseases Acts, and that at the present time it would be impossible to find twelve medical men in Liverpool who are favourable to the said Acts, we, the undersigned medical practitioners of Liverpool, beg to express our approval of the Acts as at present in operation in seventeen garrison towns and ports in the United Kingdom, and to state that we are not in favour of a repeal of those Acts."

### ACTION FOR LIBEL.

In the Queen's Bench, on Thursday, January 14th, an action for libel was tried before Mr. Justice Quain, sitting in the Bail Court, and a common jury. The plaintiff was Mr. P. J. Lavin, a medical practitioner at Cranbrook, and the defendant Dr. Joyce of the same place. The defendant pleaded not guilty, and that the alleged libel was true in substance and fact. Mr. Francis appeared for the plaintiff; Mr. Sergeant Parry was counsel for the defendant. Before the case was gone into, Mr. Justice Quain strongly recommended, but without success, a settlement out of court. Mr. Francis said that his client was a young surgeon, and now assistant to Dr. Wood of Cranbrook. Plaintiff and defendant were members of the Order of Foresters, and, in July last were invited by the secretary of their lodge to a supper. In reply to the invitation, the defendant, in a letter to the secretary, dated July 31st, 1874, stated that he would have much pleasure in meeting his brother Foresters at the supper with one exception, viz., Mr. Lavin, who, he said—if the facts that had come to his knowledge were true—had acted in a most unprofessional manner by making use of information he had derived in his professional capacity, to the great detriment of a respectable family, and grave discredit of a gentleman who had resided four years in the parish. He requested the secretary to read the letter to the Court of Foresters, but reminded him that whatever occurred in lodge was under a rule of the society to be regarded as secret. He (Mr. Francis) admitted, that if a medical man acted as the defendant charged the plaintiff with acting, he would be unfit for the honourable profession to which he belonged, and would be guilty of a flagrant offence. Of that offence, however, the plaintiff was not guilty, or of anything approaching to it. He (Mr. Francis) had made an offer that if the defendant withdrew the unfounded imputation he had made, and apologised for having made it, the action would be allowed to drop, and he would not be even asked to pay the costs. That offer had not been accepted.—Mr. Coakley deposed that he was secretary to the Cranbrook Lodge of Foresters, of which plaintiff and defendant were members. In July last, in reply to an invitation to a lodge supper, he received from the defendant the letter in question. The supper was held on August 6th, and was attended by between thirty and forty members. He read the letter at the Court meeting as requested by the defendant. It was attended by seven or eight members. In cross-examination by Mr. Sergeant Parry, he said that the society had a rule to keep secret the business of the lodges. The letter of the defendant did not come within that rule. He had not up to that time heard anything of the subject matter of the letter.—Re-examined by Mr. Francis, he said that Dr. Joyce had been surgeon to the lodge for six months. Dr. Wood was his predecessor, and now his successor.—The plaintiff was about to be examined, when Mr. Sergeant Parry expressed a wish to consult his client. After a consultation with the defendant, Mr. Sergeant Parry announced that his client regretted having written the letter, and that he was misled by the rumours which reached him, and which, at the time, he thought were traceable to plaintiff.—Mr. Francis said that, all imputation on the plaintiff being withdrawn, he (the plaintiff) would not ask a brother professional to pay costs.—A juror was then withdrawn.

### HARVEIAN SOCIETY OF LONDON.

THE annual meeting of this Society was held on Thursday, the 7th instant, when the Council's report gave a good account of the Society's work and prospects. The Treasurer had nearly £100 in hand, and there was a sum of £300 invested in consols belonging to the Society. The report dwelt at length upon the disturbed condition of the Society in the early part of last year, when a matter connected with medical advertising in the daily journals was under consideration, as was reported at the time in the BRITISH MEDICAL JOURNAL. The President's address was listened to with marked interest, and we were pleased to be able to give an abstract of its contents last week. The gentlemen nominated by the Council as officers for the year 1875 were unanimously elected. After the address of the President, a *conversazione* was held, to which microscopes and microscopic objects were contributed by Dr. Cheadle, Dr. Shepherd, Dr. Carter of Leamington, and Mr. H. Power; surgical instruments by different west-end makers; china by Messrs. Phillips, and various objects of interest by the terra-cotta company. A novel feature of the *conversazione* was an exhibition of pictures, drawings, and etchings executed by members of the medical profession; and, although two or three of our most distinguished doctor-artists were not represented, upwards of sixty works of art were shown on the walls, and several portfolios of drawings were also sent for inspection. Sir Henry Thompson contributed several of his pictures of still life, which have been from time to time seen at the Royal Academy, and one which had the honour of a good place in the Paris Salon of 1874; he also sent some powerful landscapes—one, especially beautiful, of a lock on the Thames by moonlight, and a portfolio of vigorous water-colour sketches. Mr. Pilleau, Deputy Inspector-General of Hospitals, lent a very fine oil picture of Venice, several water-colours, and two portfolios of lovely sketches from Venice and Egypt. Dr. Evershed showed some fine cabinet oil works, chiefly of Sussex interiors, with well-drawn and solidly painted figures; and he also lent three folios, one containing a complete set of his dry point etchings, another of etchings in the first state, and a third of sepia sketches for etchings. Our profession is singularly rich in etchers, and was, on this occasion, further represented by Mr. Seymour Haden, Mr. Propert, and Dr. Buzzard. The latter gentleman, also, contributed some very tenderly felt water-colour drawings. Mr. Lennox Browne, to whom the credit of suggesting the exhibition and its success is largely due, showed several water-colours. The most interesting to medical practitioners were those recently executed at Aix-les-Bains, which gave a good notion of the beautiful scenery and cloudless sky of this favoured inland watering-place. He also sent some views from the summit of Semnos—a verdure covered mountain of an altitude of nearly 6000 feet, which the physicians of Savoie are endeavouring to make the *Nach-kur* of Aix. From the hotel, which is already built, one has a view of the whole Mont-Blanc range of Alps, and of the lakes of Geneva, Annecy, and Bourget (Aix). The views shown were taken at dawn and sunrise, and were certainly calculated to give a favourable impression of the "Righi" of Savoie. Other drawings were lent by Mr. Walter Leaf. A valuable appendix to this art exposition was made in the shape of some excellent pathological drawings from the collections of Drs. Westmacott, Burdon Sanderson, and Hughlings Jackson; and Messrs. Jonathan Hutchinson and Fairlie Clarke. Messrs. Moira and Haigh exhibited some good photographs, and Messrs. Fradelle and Marshall showed a goodly quantity of their medical series of photo-mezzotints. Looking at the expressive portraits of Dr. Fuller, Dr. Anstie, Dr. Murray, and others recently passed away from us, one could not help regretting that comparatively so few members of our profession are to be found in Mr. Fradelle's gallery. Dr. Braxton Hicks most kindly lent his unsurpassed collection of Wedgwood, cut steel jewellery, etc.

### THE UNIVERSITY OF BERLIN.

ACCORDING to the recently issued official return, there were 1,609 matriculated students in the summer session of 1874, which number has become increased in the winter session 1874-75 to 1,824; viz., 134 students of Theology, 624 of Jurisprudence, 276 of Medicine, and 790 of Philosophy and Natural Science. Of the 1,824 students, 1,457 are Prussians, of whom 182 are medical students; 367 are non-Prussians, of whom 94 are medical. The remaining states of the German empire contribute 142, of whom 20 are medical students. German Austria sends 8, none being medical; the remainder of Austro-Hungary 24, two being medical. France furnishes one student of Theology and one of Philosophy. Russia sends 62 students, of whom 42 are medical; Roumania and Switzerland each 14 (3 medical). Great Britain and Greece each sends 8, the latter alone furnishing 2 medical students. America sends 58 students (9 medical), Asia 9 (4 medical), Africa 2 (both medical). The total number of students in the University shows a steady increase. In the summer of 1873, it was 1,590; in the winter 1873-74, 1,757; in the summer of 1874, 1,609; in the winter 1874-75, 1,824. The number in the Faculty of Medicine, however, has steadily diminished; the figures for the four periods above-mentioned being respectively 340, 333, 299, and 276. There are 48 students of Pharmacy and Dental Surgery; last winter, the number was 37, and in the summer only 36. It is rather curious that these subjects are taught in the Faculty of Philosophy and Natural Science, not in that of Medicine.

## IRELAND.

THE Council of the Royal College of Surgeons, at a meeting held on the 14th instant, appointed Dr. John Cronyn to the professorship of midwifery, vacant by the resignation of Dr. Sawyer.

THE deaths registered in Dublin, for the last quarter of the past year, amounted to 2,138, or in the proportion of twenty-seven to every 1,000 of the population; and, of these, scarlet fever caused 238, or one in every nine of the registered deaths.

### REPRESENTATION OF DUBLIN UNIVERSITY.

THE nomination of Mr. Miller, Mr. Gibson, and Dr. Traill, as candidates, took place last Saturday, when confusion and uproar were in the ascendant. The voting commenced on Monday last, and will terminate this week.

### PRESENTATION.

AN address and handsome timepiece, with a purse of sovereigns, has been presented to Dr. Stopford W. Halpin, dispensary medical officer, and physician to the Fever Hospital, Arklow, by a large number of the residents of that locality, "in testimony of his unwearied zeal during the cholera of 1866, and in recognition of his long and successful services, and as an expression of our sense at his rare talents as a painstaking successful physician".

### SANITARY MATTERS IN IRELAND.

THE Local Government Board and the local authorities are at war about sanitary administration. The Cork corporation are especially indignant with the Board, which has ordered that body to pay their medical officers better. We are afraid the Local Government Commission are partly responsible for the difficulties with which they of the Board now find themselves surrounded. Their weakness at the outset has given confidence to the local authorities. We are afraid that Sir Michael Hicks Beach has found himself in a similar position to that occupied by a predecessor in office, in *Punch's* famous cartoon of "Lord Morpeth throwing pearls before—aldermen". History repeats itself; and, if Lord Morpeth were transformed into Sir M. Beach, 1874 substituted for 1848, and the scene removed from England to Ireland, our contemporary's cartoon of "Sanitary measures" would exactly suit the present day.

### THE REGIUS PROFESSORSHIP OF SURGERY IN THE UNIVERSITY OF DUBLIN.

THE Regius Professorship of Surgery in the University of Dublin is now vacant in consequence of the death of Dr. Adams. Many candidates are spoken of, but we believe the contest will not extend beyond the following four—Mr. William Colles, Surgeon to Doctor Steevens' Hospital; Mr. Porter of the Meath Hospital, Surgeon in Ordinary to the Queen; Mr. Wharton of the Meath Hospital; and Mr. Butcher of Sir Patrick Dun's Hospital. We need scarcely say that all are well qualified for the office, and the new governing body of Dublin University will have a difficult duty in making a selection.

## THE SANITARY CONFERENCE AT BIRMINGHAM.

THE conference which was held at Birmingham on the 14th may be regarded as satisfactory in its results. A large attendance of sanitarians and representative men from all parts of the kingdom were assembled. We cannot say that any very novel solutions of the crying sanitary evils of the day were propounded. In all essential respects, the meeting resembled the gathering of the Health Section of the Social Science Congress. Although nothing very new or striking was brought forward, either in the way of facts or of arguments, the objects which the mayor had in view when he convened the gathering seem to have been materially forwarded. These objects were to arouse the country generally to a sense of the crying evils which exist in all parts of the kingdom, and, by opening up the questions fully, to lead the way to further and more important gatherings. Such meetings might do something to settle the disputed points of sanitary science by consolidating, organising, and directing public opinion, secure co-operation of the people, and form a firm foundation, which would serve as the basis of their future action. The mayor proposes to establish a National Sanitary Association for this purpose, which, by annual meetings and conferences, would no doubt effect great benefit by collecting and disseminating the knowledge of the most advanced scientific and practical men, and by securing the united action of all classes of the community in remedying the great evils which exist. The movement is well timed. The session of promised Sanitary Reform is fast approaching, and the Government need a strong reminder that the Premier's motto of *Sanitas sanitatum* must be strictly adhered to, if the Augean evils which now exist are to be remedied. Should the Government fail in their pledges on this point, the motto will have to be changed to the more familiar one of *Vanitas vanitatum.*

The proceedings on Thursday week were divided into two sections, the first part relating to the sanitary condition of large towns, and the second to the dwellings of the working classes.

The MAYOR, in opening the conference, said: When he first conceived the idea of summoning such a meeting, he limited his expectations to the hope of gathering together some hundred or so of practical sanitarians, who might be willing to confer with their fellow-workers in Birmingham as to their difficulties, and the means taken to overcome them. Now that between 800 and 900 had accepted the invitation to be present, and at least one hundred corporations and local boards were represented, the whole subject had engaged the attention of the press of the country. The time allotted was too short for the business to be gone through. At the same time, he hoped the result would be, that this meeting would be considered as preliminary and introductory; that it would open the question fully, and lead the way to further and still more important gatherings. There seemed to be a want of the proper sense of the importance of this question in the public mind. We are all, he said, startled by any exceptional calamity; but the evils we have to speak of carry off prematurely not units or tens, or hundreds of individuals, but tens and hundreds of thousands, and the negligence which people practise, because they are perpetually present, become commonplace, and are regarded in a fatalistic manner. It is true, when some exceptional pestilence occurs, like that of Over Darwen, attention is directed to the matter; but, as soon as the cause is removed, we fall back to our original apathy, and, excepting in the special district, nothing is done to prevent the recurrence of similar desolators. And yet, when they recall it in Over Darwen, the occurrence is alluded to as a mere accident. There are hundreds of districts in this country in which the same results may arise at any moment. The usual course in these cases is to throw blame upon local authorities; to say it is owing to their stupidity, or apathy, or selfishness, or indifference, that these results obtain. No argument can be more unfair or more foolish, because, if we are to do anything radical in the way of sanitary reform, it must be by means of those bodies; only through them we can act upon the population. It seems suicidal to bring into contempt and to depreciate the only machinery which can efficiently secure our needs; unfair, because local bodies cannot be much wiser than the constituencies which elect them; and we know that all legislation which is in advance of the sentiments of the people is nearly always a failure. It is fair to say that it is only recently that the legislature has vested anything like sufficient powers, and only very recently there has been anything like a concurrence of opinion and unanimity amongst scientific authorities upon the questions with which we have to deal in reference even to the alphabet of the science; and even now there is considerable divergence of opinion. In Birmingham, for instance, urged by the prevalence of an epidemic of small-pox, we endeavoured to make provision for the isolation of patients in a hospital of our own, but, when we came to select a site, go where we would, we found the most strenuous opposition. We were met by clamour of all kinds from property owners and from the inhabitants of the neighbourhood, who said we were unjustifiably bringing a pestilence into their midst. This opposition did not proceed merely from persons interested pecuniarily in the matter. A memorial was presented, signed by one-half of the medical staff of the town, protesting against the undertaking as being fraught with serious danger to the neighbouring population. Again, the Council had drawn up a series of by-laws for sanitary purposes in connection with the building of dwellings. One of these by-laws provided that houses should no longer be built in this town without thorough ventilation; and in Birmingham, which claims to be at least in the van of all reforms and improvements, there has been the utmost opposition to this particular by-law. He mentioned this to show the nature of the difficulties which local governing bodies have sometimes to undergo before they can successfully carry out schemes of reform. He did not believe that the ordinary public is at all aware of the enormous cost of life which is always going on, or of the frightful consequences sanitary, moral, pecuniary, and otherwise which result from it. It is difficult precisely to formulate this waste. The only bases are the statistics of mortality in large towns. He was well aware that these rates have to be considered with the several conditions of each particular city or place. At the same time, when these rates vary from sixteen per thousand to thirty-eight or forty per thousand, he could not, for a moment, believe that these enormous divergences arise from unpreventable causes. The higher rates must be abnormal, and might be considerably reduced by proper sanitary precautions. The same difference exists not merely in districts but in various parts of the same town. Differences in the death-rate exist in a more marked degree between different classes of the community. For instance, in the city of Manchester, the average age at death of the upper and middle classes is 38, the average age of the deaths of the working classes is 17. The proportion in Liverpool is as 35 years to 15 years. That is, the well-to-do classes have a lease of life more than double the value of that which falls to the lot of their less favoured fellow-citizens. When we come to consider the infant mortality, the variations are still more striking. In the case of infants under five years of age, of every 100,000 in favourable districts, 2,400 die; in Birmingham, the number is 9,500; in Manchester, 11,800; and in Liverpool, 13,300; that is, in great towns these infants prematurely die in proportion of five to one of the death-rate in exceptionally favoured districts. He could not believe that these discrepancies are a necessary consequence of the natural condition of their lives. The late coroner for Middlesex, Dr. Lankester, estimated that every year there perished from preventable diseases, in England and Wales alone, 100,000 persons, and that estimate was confirmed by others. If you put together all the exceptional calamities which from time to time stir and excite the public mind, by railway accidents, fires and explosions, and all deaths from shipwrecks along our coasts, you will not reach one tenth of this ghastly total of 100,000 persons annually done to death by stupidity and negligence; annually murdered by the neglect of proper sanitary regulations; annually driven out of existence by the ignorance and apathy of the people. These figures are not all. It has been calculated that for every person who dies, six persons might be assumed to suffer from illness, and that the loss to the country is not less than ten shillings per week for each of these sick persons; therefore the pecuniary loss to the country from this cause exceeds £2,000,000 sterling a year. The preventable deaths in Birmingham are something like 3,000 a year—that represents the difference between the actual death-rate and the healthy and normal condition. On the same system of calculation, the annual loss by Birmingham from this cause is £54,000 *per annum*. If we could only induce our population to make these calculations for themselves, we should have little to complain of as to ill-judged parsimony, which saves hundreds of pounds in sanitary precautions in order to lose tens of thousands in the death and ill health of our population. We have to consider also their happiness and their morality, and the circumstances alluded to are fruitful occasions of misery, pauperism, intemperance, and crime. All this disease and death are produced by filthy, ill-ventilated, uncomfortable homes, which, in their turn, drive people to the publichouses and worse places. This is the result of the conditions amid which the people live. What folly it is to talk about the moral and intellectual elevation of the masses, when the conditions are such as render elevation impossible. What can the schoolmaster or the minister of religion do, when the influences of home undo all he does? We have bad air, polluted water, crowded and filthy homes, and ill-ventilated courts everywhere, in the midst of our boasted wealth, luxury, and civilisation. Government provides for criminals in gaol 1,000 cubic feet of air as a minimum, and requires school-boards to provide their scholars 800 cubic feet of air. Those children and criminals, after their confinement or their schooling, go back to their homes in which 300, 200, or 100 cubic feet of air are the maxima. Even the air they have is contaminated by unmentionable impurities and filth, in the dark and dreary courts which exist in all large cities. The dead and living lie together in the same rooms for days; all reverence is blotted out from the minds of the people under such conditions, and common decency is an empty name. Then, when these people whom we have suffered to grow up like beasts behave like brutes, we rush to the Home Secretary, in a blind paroxysm of terror, and ask him to give us the humanising influence of "the lash", to repress the instincts which neglect and indifference had been allowed to develope. In the conference which he had convened, he hoped to learn the views of those practical men who have devoted their lives to the subject, as to the best way of securing the cordial co-operation of the people in our efforts for their advancement and welfare. He was astonished at the extent of the powers which are now placed in our hands; it is not an extension of this power that is required, so much as the will to apply it, and the assurance of the support of the constituents. The work of sanitary reform is a slow process; evils have been accumulating during half a century of ignorance and neglect, and it cannot be expected that we shall remove their results in a moment. We shall be fortunate if our exertions enable us to grapple with the ever-increasing difficulties which are arising in our way; but, as we proceed, we may see our way more clearly, and may advance more rapidly. Of one thing he was certain, that we cannot afford any longer to sit still or stand with folded arms in the presence of so great an evil and so disastrous a mischief. To do so would not only be a shameful dereliction of our duty, but a positive danger, to the state; for there is danger in the continuance of this ever-widening contrast between the wealth and luxury of a few individuals and the deepening squalor and the wretched misery of a large class of the population. Something must be done, and that quickly, to make life brighter and a little easier for those who now groan under its burden, and for our boasted prosperity to rest upon its only sure foundation—the happiness, the welfare, and the contentment of the whole community.

Dr. HILL, the Medical Officer of Health for Birmingham, read a paper on the Sanitary Condition of the Town, from which it appeared that, from having been regarded as the most healthy of the large manufacturing towns, its total mortality has not only become higher, but it has experienced an extraordinary development of zymotic diseases. From these causes the mortality is greater in proportion to other large towns, which have a higher death-rate. The deaths from zymotic causes last year amounted to nearly 24 per cent. of the total deaths. These grave facts have stirred up the sanitary authority into laudable activity, from which good results were hoped, especially as the chief sickness is caused by the unsanitary condition of the town, and hence by preventable causes Excluding zymotic diseases, the death-rate is only a fraction higher that that of London, and less than several of the large towns. It becomes, therefore, a matter of practical interest to inquire into the causes of this sanitary decline, and take steps to arrest it. The town enjoys great natural advantages, and might have been expected to be distinguished by pre-eminent healthiness. Yet ignorance, indifference, impatience of increased taxation, and false economy, have brought about a state of things which cannot fail to render it filthy, sodden, and unhealthy; in addition it has suffered from peculiar difficulties. Large numbers of houses have windows which do not open at all, and very many houses are of the back-to-back class, which render a thorough draught impossible; and the want of proper sewer-ventilation is greatly felt, and the sewers themselves are far from being complete, owing to a Chancery injunction; whilst the old-fashioned and abominable middens system, which largely prevails, allows frequently the percolation of the filthy liquid through the walls into the cellars, and frequently into the living-rooms of the adjoining houses. The town-wells, which supply 28 per cent. of the houses, are nearly all polluted by excremental and animal impurities. Finally, there is the want of special hospital accommodation, and the streets were badly kept. Dr. Hill discussed *seriatim* the respective remedies of each of the various evils from which the town suffers.

Mr. D. DAVIES, the Medical Officer of Health for the city of Bristol, read an elaborate paper on the Measures Necessary for the Preservation of Health, in which he dealt with the necessity for the removal of sewage and excretions; not that he considered human fæces and other ejecta, when derived from a healthy person, to be in themselves dangerous or liable to become so, but because these are the chief repository of the germs of several of the fatal zymotics, and too frequently, in the present condition of our towns, form a band of union between different communities, by which diseases are interchanged. An ample supply of good water should be derived from a distance, his own experience leading him to believe that all water derived from wells situated near to human dwellings, would become contaminated with human sewage, and become the most constant means of diffusing the seeds of typhoid. There should be thorough isolation in hospital accommodation for infectious diseases, as only by the suppression and extinction of these can we produce the greatest effect on the bills of mortality. When the *variola ovina* and the *rinderpest* threatened the cattle, many hypotheses were put forth regarding their origin and nature; but this being a matter which affected the lower animals, and only indirectly the health of man, an enlightened legislation soon brushed away the hypothetic cobwebs. The poleaxe, isolation, and disinfectants did the rest, and these plagues of sheep and cattle were stayed. One of the efficient factors in the arrest of these cattle-plagues—the poleaxe—is obviously inapplicable in our case, but the principle then observed can be fully carried out without it. It is humiliating to think that mankind, although waging war against these zymotic diseases for ages, have met with trifling success, whilst they have discovered how to "stamp out" analogous diseases when threatening the sources of their wealth. An ample supply of disinfectants, and proper house accommodation, were among Mr. Davies's preservative measures. He was strongly opposed to the Scotch system of flats, with common stairs, as he generally found that, whenever a case of small-pox occurred on the ground-floor of a house of this description, it soon affected every family in the house. Glasgow stands pre-eminently forward as a warning to all advocates of the Scotch system of houses without isolation. He considered that small-pox, typhus, typhoid fever, and Asiatic cholera, were under the control of measures at the command of the sanitary authorities, and that an inquest under a medical coroner ought to be held over every death from these diseases.

[*To be continued.*]

# THE PRESENT STATE OF THE ARMY MEDICAL SERVICE AS A LIFE CAREER FOR THE SURGEON.

THE pamphlet on this subject, recently published by Dr. Edward Hamilton, Vice-President of the Royal College of Surgeons of Ireland, (to which we have already briefly referred), is a sign of the times, which, we think, it will be well that those in authority should learn to read aright. For a considerable time past, the Army Medical Service has been chiefly recruited from Ireland, and, some ten years ago, it was a sudden influx from that country which encouraged the War Office to throw into the fire a proposed warrant, giving such advantages to medical officers as they can scarcely hope for even now. When, therefore, we find an unmistakable expression of discontent coming from that very country, it is a pretty sure sign that things are approaching a condition that will soon be unendurable.

The author holds an eminent position in the sister capital, being Vice-President of the Royal College of Surgeons of Ireland, and Lecturer on Surgery at Steevens's Hospital; and he tells us, in his preface, that he has undertaken his present task for the purpose of showing the real condition of the Service, and of dissuading young men from entering it until material changes have been made. Should he succeed in his purpose, the Secretary of State for War will have to deal with the difficulty immediately; for, once the supply from Ireland is stopped, the Army Medical Department will begin to perish from inanition. Dr. Hamilton has evidently taken up the question with the ardour of an enthusiast, and army surgeons owe him a debt of gratitude for the bold and effective manner in which he has stated their case. Not being himself in the Service, and having to trust a good deal to information supplied by others, it was not to be expected he should steer entirely clear of errors, some of which we shall point out presently.

The chief points dealt with are: the disadvantages of the unification system, the inadequacy of the pay, the slowness of promotion, the smallness of the retiring allowances, the absence of special rewards and lucrative posts, and the general sense of insecurity produced by the way in which warrants have been tampered with and privileges withdrawn. Such a list of grievances would be fatal to any system, if not rapidly and effectually redressed.

We will consider each of them in order; and first, the effects of the unification system. Here we think that the author has been led away by the advocates of the old regimental system, which, in its original form, can never be recalled now; and his strictures upon the new system savour more of the bitterness of regret than of anything like real argument. The objects of the unification system were to unite, if possible, the medical officers of the Service more as one body, so that they might look upon the Medical Department as their real corps, and thus increase their influence both for their own benefit and for the good of the Service; to make the system, in time of peace, assimilate as nearly as possible to that which obtains in war; to utilise more the time of medical officers; to equalise more fairly the chances of home service; to give officers larger opportunities of seeing disease and methods of treatment; and to provide for the hygiene and medical attendance of the army as economically as could be done for the advantage of the State. Unfortunately, the warrant of 1873 has secured none of these objects, or has done so only in a very partial and inefficient manner, so that the existing system created by it bears but a superficial resemblance to the real change contemplated by its promoters. Every one expected that vested interests would be respected, and that no man actually in a regiment would be removed from it, except with his own consent. It was also hoped that, as it was obviously the intention of Government to reduce the establishment, and to get more work out of its officers, a higher rate of pay and allowances, with some improvements in rank and prospects, would also be granted. Instead of this, however, the only change was the withdrawal of the rise in the surgeon's pay after fifteen years' service, and the practical abolition of the forage allowance in future. The former was, after a struggle, restored, but in the most ungracious manner, accompanied with threats of reprisals instead of an apology for attempting to deprive officers of their just rights. That much annoyance has been caused and great injustice done, must be admitted; but we cannot too often repeat, that this has not been due to the system of unification, but to the workng of the extraordinary document above mentioned, of which no man has been found bold enough to acknowledge the parentage. The obections based upon the difficulties in the way of the disposal of the sick have been plausibly stated by Dr. Hamilton; but they are based upon knowledge from secondhand, and do not by any means represent he true features of the case. There is no reason why a patient in a field-hospital should get "ill-cooked, unsuitable, and not easily assimilable barrack-rations", neither would there be the smallest necessity for removing a patient in heat-apoplexy to a distant hospital. Indeed, the whole of this part of the pamphlet is based upon a misunderstanding of the question, as may be seen particularly by the question on page 9. "But it is said the old hospitals are to be converted into married quarters. We again ask, Is it intended to increase the already excessive number of women and children that encumber every regiment in the service?" To this we may at once answer, No; but it is intended to give each family a room to itself, which surely Dr. Hamilton will admit is the least that can be given for the barest comfort and decency. As regards India, the changes would not cause so much difference there as at home, even if they were carried out to the full.

In referring to the question of the authority of the medical officers in hospitals, the author ridicules the idea of their being in actual command of their establishments and subordinates, on the plea of their having no training to fit them for it. Here he speaks entirely from the standpoint of a civilian, whose connection with a hospital is only an episode of life, whilst with the army surgeon it is his life. We would ask, What training had purveyors, storekeepers, and commissaries to fit them to command their Army Service Corps; and, above all, what training have apothecaries and dispensers had to fit them to command the Army Hospital Corps? Surely the medical officers are, to say the least, as well fitted for this latter post, and to them the full power ought to belong; the chief mistake having been in taking commissioned officers and making them captains and lieutenants of orderlies, instead of making the latter merely warrant officers, and taking them from the ranks.

Again: why should a medical officer of the rank of major-general be put under a lieutenant-colonel, who not only is of no practical use in a hospital, but actually proposes to step between the principal medical officer and the head of his own department? These things have been abolished in the navy; why should they linger in the sister service? It is quite true that the peculiarities of our army, our vast empire, and enormously scattered stations, render it impossible to have a staff system such as obtains in a great continental army in a high state of concentration, and even the most strenuous advocate for unification must admit that a modification is absolutely necessary for our wants. At the same time, the old regimental system was too expensive, too inelastic, and too impracticable for great emergencies, ever to hold its ground on its original footing. The system in peace ought to be as near as possible to what would obtain in war; and in war one of the first things done is to establish a condition of unification to a very large extent. As to the complaint of some officers about the loss of social status, and so on, we cannot but regard this as simply puerile, and as arguing but little for the self-respect of those who make it; indeed, such a feeling we take to be one of the evil results of the old system, and the sooner it is suppressed the better. A more real loss is the separation from a comfortable mess; but here the officer attached to a corps will be, of course, a member of its mess, whilst at each station messes might be established at the head-quarters for the staff medical officers, who would be no worse off than staff-men were under the old *régime*.

The inadequacy of pay is a very serious question, and is intimately connected with the question of allowances, the rate of promotion, and prospects of retirement. The increase in actual money granted at different times has been greater than among regimental combatant officers, and this has sometimes been used as an argument against further increase; but the cases are totally different; for, with the medical officer, his actual emoluments are all he has to look to, whilst the combatant has all manner of possibilities open to him. At the present time, young surgeons are attracted into the service by a rate of pay on which they can live at once, and it is only after a time that they begin to perceive how small and slow the advance is, and how much better they might have done in other lines of life, when often it is too late to change. There are several ways in which this might be rectified, but the chief are—a direct increase of pay, a consolidation of allowances, more rapid promotion. All three ought, if possible, to be obtained; but it is almost utopian to hope for them. A direct increase of pay, of, say, half-a-crown a-day all round, would require an additional £25,000 a year, which, in the present financial temper of the times, it would be hard to squeeze out of the treasury. A consolidation of allowances, such as is given to the Royal Engineers, would be a great boon, and would put an end to much of the annoyance and loss caused by the capricious and irresponsible proceedings of the Control Department. Acceleration of promotion can only be hoped for by inducing seniors to retire, or by making promotion at a fixed period: the former can only be done by giving bonuses on retirement, or by strictly limiting tenure to a certain period; the latter is being partially tried by promoting batches of men of over fifteen years' service. The service will, however, never be content until a twelve years' promotion is granted, as in the Indian service, and a limit of years put to tenure of office in the administrative ranks. If a surgeon were promoted to be surgeon-major at twelve years, and at twenty years allowed to rank as lieutenant-colonel, *according to date*, and not *junior* as at present, a considerable point would be gained. Then, as the surgeon-general and deputy surgeon-general do practically the same work, it is unnecessary to make promotion from one rank to the other depend upon vacancies. Let a deputy surgeon-general rank as a full colonel at once, and let him become a surgeon-general after five years' service as deputy, with the rank of major-general, and let him be obliged to retire after five years in the highest rank. By this means, a healthy flow of promotion would be established; all retired surgeons-general to be of course eligible for the post of director-general, if within the prescribed limits of age. At present, the retirement of a surgeon-general is £680; we think it would not be at all extravagant to give him £1,000, the pay of a general officer, colonel of a regiment. Similarly, the surgeon ought to be allowed to retire on £1 *per diem* at twenty years, and £1 5s. at twenty-five years; and Dr. Hamilton's suggestion of a retirement even at fifteen years (say, on 15s. a day) is a good one, as it is very difficult after that to get any employment in civil life. Dr. Hamilton discusses the question of promotion at fifteen years' service, as compared with twelve years, and gives two tables corresponding to each system. In each table are given the numbers that would be promoted in any current year (up to 1885), the survivors of those promoted in the previous year, and the survivors of those promoted in the second previous year. The sum of these is then taken as the number in each year drawing promotion, pay, and allowances due to the particular system. The additional pay is 2s. 6d., and the allowances he estimates at 5s. a day—too high a sum, as we shall presently show.* According to his calculation in Table C, the plan of promotion at twelve years' service would cause an increase in the estimates for the next five years (up to 1879, inclusive) of £20,438; but, for the succeeding six years up to 1885), a positive decrease of £11,042, or a net increase of only £9,306 for eleven years, or only £846 *per annum*. To this, he adds £1,692 for allowances, and makes the total £2,538—truly a small enough sum for so great a boon. But even this is unnecessarily large, for the difference of allowances is only 3s.; viz., 8d. lodging money, and 2s. 4d. horse and stable allowance; so that the total would be 5s. 6d., or just £100 per head *per annum*. The above sum ought, therefore, to be only £1873, instead of £2,538. Even this is too much; for about one-third would be paid by the Indian Exchequer, so that the Home Treasury would only be debited with about £1253. This is a result so extraordinary, that one feels at first sight that it must be wrong, as it is utterly impossible that we can give a number of men an additional £100 a year three years earlier, and yet save money. The error arises from a wrong understanding of the facts and of the real import of figures; for the influence does not cease with the years selected for comparison, but continues throughout the rest of the officer's service. The only correct way, therefore, to make the comparison is to carry out the table to the same number of years in the horizontal column as treated of in the perpendicular column, up to the thirty-fourth year of service, when the surgeon must either retire or be promoted, and then compare the results so obtained. It would be too long to do this here; but we have made the calculation, and the following are the real numbers, giving the sums merely for each year.

*Table showing the Results of the* 12 *Years' and* 15 *Years' System.*

| Year. | Number of Officers drawing Promotion, Pay, and Allowances. | | | Expense.* |
|---|---|---|---|---|
| | On the 15 Years' System. | On the 12 Years' System. | Excess due to the 12 Years' System. | |
| 1875.. | 25 | 94 | 69 | £6,900 |
| 1876.. | 51 | 147 | 96 | 9,600 |
| 1877.. | 59 | 212 | 153 | 15,300 |
| 1878.. | 85 | 237 | 152 | 15,200 |
| 1879.. | 133 | 261 | 128 | 12,800 |
| 1880.. | 191 | 313 | 122 | 12,200 |
| 1881.. | 213 | 316 | 103 | 10,300 |
| 1882.. | 235 | 307 | 72 | 7,200 |
| 1883.. | 280 | 320 | 40 | 4,000 |
| 1884.. | 283 | 336 | 47 | 4,700 |
| 1885.. | 274 | 319 | 45 | 4,500 |

* Average cost for eleven years, £9,300 *per annum*.

There is thus a continuous, though varying, excess due to the twelve years' system, the average annual cost being £9,300, which, according to Dr. Hamilton's estimate of 7s. 6d. *per diem*, would be £12,700, or about five times his calculated amount. The average would not vary much afterwards; but the amount would increase in individual years, so that the mean of the next thirty-four years (up to 1908) would be about £8,900. By that time, however, the service would have settled down to strict seniority, with a constant excess of a little over £8,000, the difference being simply the extra £100 *per annum* enjoyed by each officer in his thirteenth, fourteenth, or fifteenth years. Another way of getting at it is simply to consider that each candidate, on entering the service, is offered a prospective addition to his pay of £100 after twelve years' service, to last three years: this would be worth about £10 *per annum* throughout his service. Multiplying the number of officers in the Department (about 945) by this sum, we have £9,450, almost identical with the average £9,300 obtained above. Of course, as before mentioned, only two-thirds of this would fall to be paid by the Home Exchequer, or about £6,000—a sum not so great that it ought to stop so highly desirable a boon as the hastening of promotion three years. We have called special attention to this point, because we think it important to correct the mistake into which the author has accidentally fallen, and so prevent it, if possible, from discrediting the rest of his valuable paper. We must say, however, that he is scarcely so careful about figures as he might be; for instance, at page 37, he boldly says that the death-rate of the Medical Department is as *three to one* of combatants; the real fact being, that it is only as *four to three*—a very different ratio, although it is still high enough.

Dr. Hamilton has hit upon one most important point, and has taken care to develope it in a very effective manner; viz., the almost total absence of anything like prizes in the medical service, in the way of lucrative posts, special pensions, and the like. In the combatant ranks, on the other hand, there are large numbers of these, a rather copious list of which he details. We have not specially verified his figures; but there is no doubt that the statement is near the truth, and must have cost some trouble to get together. The general result is, that there are posts of extra emolument for combatants in the ratio of about *one to four*; for medical officers, *none*. As regards distinguished service pensions, these are for combatants as 1 to 39; for medical officers, as 1 to 193. As regards decorations, there are 850 combatants so distinguished on full and half-pay, and only 34 medical, although a similar ratio would raise the number of the latter to about 90, or nearly three times the existing number. No medical officer is ever raised to the peerage, or even to the grade of grand cross of an order; and all the great civil appointments, governorships, and the like, are utterly closed to him. The very military title he enjoys brings with it no social position, as with the combatant; every one knows the position of a captain or a colonel, but few understand a surgeon-major (often confounded with *sergeant*-major!) We do not advance this particular point as one of much importance, but simply to show that the military title adds nothing to the medical officer, who is simply plain Mr. or Dr. to the end of the chapter. We are thus brought face to face with one of the greatest drawbacks of the public service, and we can easily understand why the pay of the medical officer ought to be much greater than that of the combatant. For the latter, all sorts of possibilities are open, up to the highest posts in the realm; for the former—the medical officer—the pay he receives is his all; once he enters the service, he may rest assured that no amount of professional knowledge, or scientific attainments, or other form of excellence, will avail to hasten his promotion one hour, or add one penny to his purse. Is it a wonder, then, if men become apathetic and discontented? or that the best students will not come forward? The real wonder is, that so much has been done under such dire discouragement. The time, however, is assuredly approaching when some active steps must be taken on the part of the authorities, if the Medical Department of the army is to be worthy of the country. Either the pay and allowances must be largely increased, or, better still, a sufficient number of lucrative posts created, to which men should be appointed for merit only, regardless of mere service or successful longevity.

Another point of great importance is, that some guarantee shall be given that good faith will be kept for the future; that one warrant shall not suddenly take away what another has granted, and that the plain and open provisions of a Royal Warrant shall not be set aside and nullified by confidential letters to commanding officers, as was the case with the famous warrant of 1858. And we may here remark, that those medical officers who are most eager for the return of the regimental system are, perhaps, little aware how well they are playing the game of the military branches. The unification would add largely to the power of the Medical Department, and would proportionately diminish that of the purely military element; this the latter naturally do not like, and, by a return to the regimental system, medical officers might find that they had been made tools of to their own detriment.

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* In Table C, page 22, there is a misprint which makes a little confusion. In the fourth column, 113 ought to be 153: the same mistake occurs near the bottom of the page.

At the end of this pamphlet, Dr. Hamilton devotes several pages to an analysis of Dr. De Chaumont's paper in the November number of the *Edinburgh Medical Journal*, on the pay, etc., of medical officers. He has evidently quite misunderstood that officer's statements and figures, and he has also unfortunately allowed himself to be the medium of spreading certain ill-natured sayings of gentlemen who appear to have understood the matter in question as little as he himself. A full reply to all the erroneous statements has been published by Dr. De Chaumont in the *Irish Hospital Gazette* of January 1st, so that we need not take up time in discussing them. Apart from this, however, we cannot but say that Dr. Hamilton has done the army medical officers a signal service by his advocacy of their claims.

# SPECIAL CORRESPONDENCE.

## PARIS.

[FROM OUR OWN CORRESPONDENT.]

*Typhus Fever on Board Ship.—Quarantine at Bordeaux.—Population Statistics of France.—Insanity in France.—Pulmonary Phthisis.—Accidents from Frost.—Opening of the New Opera.*

ABOUT the middle of November last, Dr. Jaccoud read a paper before the Academy of Medicine on an epidemic of typhus which he observed on board the *Gironde*, a French mail-steamer, on his way to Bordeaux from Rio de Janeiro, whither he had gone on a visit during the last vacation. M. Jaccoud attributed the disease to badly cured hides, which formed the bulk of the cargo, and which were prepared at La Plata, where the cattle-plague had reigned for several months. The malady in question, according to M. Jaccoud, was perfectly infectious and communicable to man, and it partook of the character of typhoid and typhus fevers at the same time, approaching more, however, to the latter type. Another peculiarity of the disease was, that, although communicable from animal to man, it did not appear to be transmissible from man to man, as during the passage, which occupied twenty days, it nly attacked those individuals who were directly exposed to the mor-ific influence of the raw hides; the health of those of the crew vho had nothing to do with the skins, and that of the other passengers, vas in a most satisfactory state throughout the passage. The disease vas amenable to stimulants, quinine, and cold affusions to the body; he disinfecting measures that were taken to prevent the spread of the pidemic proved of signal service.

At a subsequent meeting of the Academy, Dr. Jaccoud described, in the nost eloquent and affecting terms, what he had seen on his arrival at Bor-eaux at the Paillac Lazaretto, where passengers of infected ships are landed submit to quarantine. The state of affairs at the lazaretto was most eplorable, and M. Jaccoud stated that the healthy subjects were not olated from those suffering from infectious diseases, and that there was o separation between the passengers arriving from countries where the ellow fever prevailed, and those that brought with them typhus or olera. Such a state of things, concluded Dr. Jaccoud, was a disgrace the country. This brought down the wrath of M. Fauvel, member the Sanitary Board of France, who, in spite of the corroboration of e facts by M. Chauffard, repudiated the charges brought forward by Jaccoud, and stigmatised the report as a perfect calumny. This is rtainly very strong language, and, to say the least, rather unacademi-l; but I must confess that in France the Academicians, like the De-ities at the National Assembly, are not particularly distinguished for fined language towards one another, though in private society they are e most polished of Frenchmen. Dr. Jaccoud's report was made er to a committee, composed of MM. Fauvel, Tardieu, and Le Roy Méricourt, three well known hygienists, who were directed to in-stigate the matter. The latter gentleman was appointed reporter, d, although he refuted in most energetic terms the allegations of M. ccoud, he was obliged to admit the justice of some of the charges. Jaccoud, however, was so far victorious, that his report was unani-usly adopted by the Academy, and steps are being taken to remedy evils therein pointed out.

If statistics are not always trustworthy, they are sometimes very elo-ent and instructive, as may be seen by the following statement fur-hed by the *Statistique de la France*, a work which has just appeared, l which treats particularly of the depopulation of this unfortunate ntry, its causes, its progress, and the moral to be drawn from it. In work, we find that the population of France—that is, the eighty-six artments that remain of it after the spoil by the Prussians—ounted in July 1872 to 36,102,921; whereas in July 1870, when the was declared, the population numbered 36,855,178. Setting aside number annexed by the Germans and the deaths during the war, other causes are constantly in operation, which have naturally awakened the anxious interest of political economists and of all right-thinking men in France. In 1869, the births exceeded the deaths by 84,206; in 1870, the deaths exceeded the births by 103,304; in 1871—the terrible year of the Commune, after the more terrible war—the proportion is still more marked and heart-rending, the number of deaths having amounted to 444,880! that is to say, instead of an increase at the rate of 0.23 per cent., as in 1869, there is a decrease of 1.22 per cent. of the whole population. It is, moreover, shown that, since 1827, the proportion of births to the amount of population has been steadily on the decline; thus, from 3.11 per cent., it has fallen to 2.66 in 1868, to 2.57 in 1869, to 2.55 in 1870, and to 2.66 in 1871.

Another melancholy fact brought out by the above work is the steady increase of insanity, or, as the French term it, *aliénation mentale.* In 1861, the period from which proper vouchers or authentic information could be obtained, there were 22 lunatics to every 10,000 inhabitants in France; in 1866, there were 23.8; and, in 1872, 24.37. Thus, in eleven years, the proportion of lunatics increased to about two per 10,000 inhabitants. Indeed, there were times during this period when the whole population of France might have been considered insane, if one may judge by their acts. In 1871, when so many insane acts were committed in France, 49,589 lunatics of both sexes were admitted into the different asylums; of this number, 33,448 were affected with simple insanity; 6,450 with insanity complicated with epilepsy and paralysis; 4,577 with dementia, whether senile or organic; 5,114 with idiocy and cretinism. It will be seen from the above that simple insanity forms the largest proportion—about two-thirds of the total number of admissions; the cures are reckoned in the proportion of 6.4 per cent. These figures speak for themselves; they express not only depopulation, but degradation.

While on the subject of statistics, I shall direct the attention of your readers to another picture, which is equally melancholy to contemplate. Among the diseases which affect humanity, there is one that may well be termed terrible, as it spares neither age nor sex, and is to be found in every condition of life, from the king in his palace to the denizens of the meanest hamlet. I allude to pulmonary phthisis, which, notwithstanding its chronic character, its slow progress, seems to defy the best resources of our art. In Paris alone, this affection carries off annually from 7,000 to 8,000 victims. Thus, in 1872, out of 39,650 deaths from all causes, there were 7,436 from phthisis, and, in 1873, out of 41,732 deaths, 7,919 were from this affection. This gives an average of twenty-two a day. But what is most remarkable is, that while, from the improved sanitary arrangements that are being daily carried out for the health of the inhabitants of this great city, the mortality from other causes has been considerably diminished, that from pulmonary phthisis is still in the ascendant.

As you will have learned from the daily papers, the accidents that occurred in Paris on New Year's night from the frost have been the great subject of gossip of the day. I find, by your annotations in the last number of the JOURNAL, that there were no fewer than 260 accidents that night in Paris alone. This, I beg to state, is far short of the actual number. I do not pretend to be able to furnish precise information on the subject; but anyone who has resided any time in Paris will agree with me in saying, that the number of accidents that occurred on the night in question would be more likely to be 2,000 than 260, and yet the former, I should say, would fall far short of the actual number: 260 is doubtless correct, according to the official or police report; but there must be some thousands that were not brought to notice, as it is well known on New Year's night all Paris is out, either visiting or in search of pleasure. No one was prepared for such a change, which was very sudden, as the weather, though cold, was fine during the day, and the sleet began to come down only late in the evening. There were a great many fractured limbs, and some deaths from falls; one report stated 1,400 of the former and ten of the latter. The only wonder is, there were not a great many more, as the streets were so slippery, that it was simply impossible for man and beast to make half a dozen steps without falling. Among the 1,400, I may mention the name of Dr. Loiseau, physician to, and member of, the Municipal Council of Paris, who had his leg broken whilst *en route* to see a patient. The same report states that there were fifty or sixty horses that had their legs broken, or had become otherwise disabled on that memorable night. I say memorable, as, from all accounts, such a phenomenon had never before been witnessed in France, not even in the memory of that mysterious individual known as the oldest inhabitant. The *verglas*, that is, glazed frost, is not uncommon in France; but it has never been known to prevail to the extent it did last New Year's night.

The great event of the day is the opening of the New Opera. I do not intend to inflict on your readers a description of this splendid monument, but simply to observe that, although the hygienic arrangements in it are superior to those of the less favoured buildings, yet they are far from being perfect. The great defect in most theatres here, as elsewhere, is the system of ventilation, by which there is either too great a draught, or the air is improperly distributed. This results principally from the great central lustre, which, when lighted, causes a constant draught through the opening above it in the ceiling, and this necessarily affects the acoustic arrangements of the building, as the sounds from the stage or orchestra are directed upwards towards the opening. This would explain why it is that those who have a good ear for music prefer going up to the boxes near the ceiling, as was Rossini's wont, as they can there hear much more distinctly than those below. This defect has been noticed in the New Opera, as the string instruments of the orchestra are scarcely audible. The seats, I am glad to say, are much more comfortable, or rather, one is more at ease than in the other theatres. Music certainly "hath its charms", and is no doubt an important element in the hygiene of man; but, if one be obliged to be pent up in a seat for four or five hours at a stretch, and that in a stifling atmosphere, he had much better stay at home, if he wish to avoid "colds", rheumatism, etc.

## EDINBURGH.

[FROM OUR OWN CORRESPONDENT.]

*New University Buildings.—Drainage of the New Infirmary.—Effects of the Cold Weather.—Proposed Chair of Theory and Practice of Education.—Opening of Museum of Science and Art.*

THE designs for the New University buildings, which were sent in by four architects on the first day of the year, have been examined by the building committee of the University, with a view to choosing the one best suited for its purpose; but they were found to be so elaborate and good, that it was impossible, as well as undesirable, to decide the matter in a hurry; and two subcommittees were accordingly appointed to draw up a report in writing on their respective merits, from two different points of view. One subcommittee is to consider the comparative merits of the ground plans and arrangements for the scientific requirements of the medical faculty, and to consult on the subject with such of the medical professors as are not on the committee. The other is to report upon the suitability of the various plans for a University Hall, and also on the general disposition of the buildings. The cost of the buildings is limited to £70,000, exclusive of fittings. The whole cost, inclusive of the purchase of the land (about £30,000) is expected to reach about £150,000.

The managers of the Infirmary have been for some time past in difficulties with the townspeople in relation to the drainage and sewer arrangements of the New Infirmary. In the original Bill, powers were taken to carry off the drainage westward into the Lochrin sewer, which is the one nearest to the building; but since then a new and large sewer has been erected to the south-east, in the St. Leonard's district, into which the managers now desire to carry their sewage. This is strongly opposed by the dwellers on that side of the town, who, if this course be persevered in, intend to oppose the Infirmary Bill in Parliament. A meeting of the contributors have requested the managers to come to terms with the town authorities, and obviate the expenses of opposition. Thus the matter stands at present, with no appearance of either party giving way.

A number of people in town and country are still suffering from the effects of cold and exposure for many hours in the blocked-up trains at Falahill and on the northern lines during the great storm and snowdrift of the 1st of January. The general complaint is of great prostration of strength, and of continuing weakness in the back and legs. Several deaths are reported of shepherds and others who were lost in the snow, and died of cold and fatigue.

Some time ago Dr. Bell's trustees offered to the University of Edinburgh the sum of £6,000 towards the endowment of a chair of the Theory and Practice of Education. Subsequently a joint memorial was presented to Government by the trustees and the senatus, praying for a grant of the rest of the money necessary to its adequate endowment. A communication has been received this week, intimating that the Government are willing to accede to this request. The sum the Government intend giving is £5,000, which will bring up the endowment of the chair to £11,000, equal to an annual stipend of £440. This is a far higher endowment than goes with most of the chairs in the University, particularly those of the medical faculty. The appointment of a professor will be made forthwith, so that he may begin his course next session.

Now that the effects of the very severe weather are passing off, there is a considerable decrease in the death-rate of the town; it was 136 last week against 175 the week before, equal to an annual mortality of 34 per 1000, against 44 last week. There is still a good deal of scarlet-fever and diphtheria, but the severity of the epidemic is passing off.

The principal event of the past week was the formal opening of the new wing of the great Museum of Science and Art by the Lord Provost, who celebrated the event by a *conversazione* held on the spot. About two thousand invited guests were present, and the affair passed off most brilliantly. The museum was begun in 1861, after a design by Captain Fowke, who struck out also the original idea of the Albert Hall in London. Part of the building was opened in 1866, and there the work stopped till 1871, when the part just opened was begun. There still remains a wing to be added, at the west end, to make the building symmetrical and finish the design. Estimates for this have already been obtained, and we may expect the building works, to be begun this spring. The principal hall, which was "inaugurated" last week, is 270 feet long, 70 wide, by 72 high, with two galleries, supported on light columns. The result of this addition will be the devotion of a much larger space than could be spared before to the natural history collection, which is one of the best in the United Kingdom, and is admirably arranged for the purposes of study. The rest of the building is used for the display of objects illustrating Art, ancient and modern, manufactures in all their stages, architecture, engineering, archæology, and the kindred sciences. The building will doubtless be a source of great attraction to the visitors whom we are expecting at the annual meeting in August.

At two recent meetings of the Obstetrical Society, there has been a long discussion on the use of perchloride of iron in *post partum* hæmorrhage. Most of the speakers were adverse to the use of the drug. A full report of the debate will appear in an early number of the *Edinburgh Medical Journal.*

# REPORTS OF SOCIETIES.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JANUARY 12TH, 1875.

C. J. B. WILLIAMS, M.D., F.R.S., President, in the Chair.

### ON THE PATHOLOGY OF LUPUS ERYTHEMATOSUS, WITH A DRAWING.

BY GEORGE THIN, M.D.

MICROSCOPICAL examinations of the skin in different stages of lupus erythematosus by Neumann, Giddings, and Kaposi have shown that in this disease there is great vascular congestion around the sebaceous and sweat-glands, more or less destruction of the glands themselves, and cell-infiltration of the surrounding corium. The author had an opportunity of examining the skin of a man who died of the disease in Vienna in 1873, and selected a portion from the inner surface of the second toe, beyond the area of the sebaceous glands, and in which the disease had begun to show itself only for a few weeks before death. He found the sweat-glands, fibrillary tissue, and rete Malpighi absolutely norma in appearance. There was enormous dilatation of the capillaries, most marked in the papillæ and around the sweat-glands, their contours bein indicated mostly by the red blood-corpuscles with which they wer filled, but the vessels themselves being visible in some of the sections The small veins were also distended by blood-corpuscles. The condition of the capillary blood-vessels being such as would, if persistent fo any length of time, account for all the changes described in the tissue of the skin by the abovenamed observers, and being found in the cas of this man to have occurred antecedent to any such changes, the accuracy of the view that lupus erythematosus primarily affects the gland of the skin was put in question. The author believed that in the preser state of our knowledge of the pathological anatomy of the diseas which, however, he considered to be very defective, the earliest morbi condition that has been detected is dilatation and distension of th capillaries, and consequently in life stasis of the circulation.

Mr. HUTCHINSON asked the author why he separated erythematos lupus from others of the common forms. He had not microscopical examined any of the specimens he had seen; but, from close inspectio he was inclined to think the author's account of the microscopic structure right. Mr. Startin had long ago recognised this form of ski disease as lupus sebaceus from the glands being so conspicuous. Lup presented many varieties, but this form was rare. Probably in lup all the structures of the skin were involved, though in different degre —Dr. DRYSDALE looked upon this as a variety of scrofula occurring rather young people of bad family history.—Dr. THIN, in reply, ma tained the difference of this from other forms of lupus in various wa he would not call it a scrofulide.

### NOTES ON AN EPIDEMIC OF MALARIOUS YELLOW FEVER OCCURRING ON BOARD H.M.S. "DORIS" SHORTLY AFTER LEAVING PORT ROYAL, JAMAICA, MAY 1873.

BY LEONARD H. J. HAYNE, M.D., STAFF-SURGEON R.N.

In this communication, Dr. **HAYNE** gave an account of an epidemic of malarious yellow fever that attacked H.M.S. *Doris* at Port Royal, Jamaica, in May 1873. The first case, the particulars of which were given, together with a temperature chart, was much like a case of typhoid fever. It occurred on the day of leaving port. Next day, two other men were attacked; and one of these cases, in which black vomit occurred, died on the fourth day. During the following thirty days, eight fresh cases occurred. The ship then sailed into a cooler latitude, and, as the air became cool, all the fever cases improved. Eleven fresh cases occurred, but of a milder type. The writer gave his reasons for regarding the epidemic as one of malarious yellow fever, and distinguished it from the milder "marsh remittent fever", concluding with some suggestions as to treatment.

Dr. **LAWSON** said it was not very easy to distinguish between malarial and specific yellow fever. In this record, there was only one case of pure yellow fever. It was constantly seen that yellow fever was both sporadic and epidemic; and from this arose the belief in the two forms. The other cases were cases of malarial remittent. The vomited matters were green—not black-brown, as in true yellow fever. It had been laid down as a distinction between specific and malarial fevers, that in the former there were albuminuria and suppression of urine, which did not exist in malarial fever; there were also casts in the urine.—Dr. **FAYRER** believed in no specific yellow fever apart from malarious fever; but some malarious fevers of a virulent kind were, he believed, contagious—or they were believed to be so in India. Remittent fevers also assumed the specific yellow type, even to yellowness and colouring.—Dr. **LEGG** pointed out that in this, as in other instances, no morbid anatomy of the fever had been given. To this point men's minds ought to be directed, with a view to future contingencies. He also drew some interesting analogies between yellow fever and acute atrophy of the liver.—Dr. **DICKER** had seen cases of malignant malarious fever, chiefly from the Terai, almost exactly like the yellow fever of the West Indies, with suppression of urine, etc. Jaundice and suppression of urine were, in fact, common to both.

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## OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JANUARY 6TH, 1875.

EDWARD J. TILT, M.D., President, in the Chair.

*Hydatidiform Mole.*—Dr. **JOHN WILLIAMS** exhibited a specimen. C. D., aged 30, married two years, never pregnant before, suffered from dysmenorrhœa previously to marriage. She had passed clots since, at the periods. The last catamenia occurred on June 28th, 1874. Morning sickness ensued, and occasional sickness after food. During August, she nursed an invalid, frequently exerting herself in lifting the patient, especially on the 17th, after which the sickness became worse, and the feet and ankles swelled, the œdema gradually extending upwards to the lower abdomen and labiæ, which were enormously swollen. There was no œdema of face or lower limbs. The abdomen was symmetrically enlarged; a tumour having the character of the distended uterus was felt, soft and elastic, but not fluctuating. No fœtal heart-sounds were audible, but a placental *bruit* was once heard a little below and to the left of the umbilicus. *Per vaginam*, the tumour could be felt filling the pelvis. The os uteri was high up and tilted forwards close to the pubes, not characteristic of pregnancy. The tumour was softish, as if it contained fluid, and a small triangular swelling filled the hollow of the sacrum. Taken together, they had the characters of a retroverted gravid uterus. The breasts were enlarged, and the areolæ darker than usual, but not characteristic of pregnancy. On the night of November 10th, she was taken in labour, and was delivered the following morning of a hydatid mole, which consisted of a ruptured bag, having the shape of the uterus, containing the vesicles forming the mole. The bag was evidently formed by the decidua, and was about a quarter of an inch in thickness. At one part, it was thick and fleshy, though a section of it presented many cysts; this thickened fibrin was doubtless the imperfectly formed placenta. Slight hæmorrhage occurred once some days before the onset of labour, and severe hæmorrhage at the time of labour, due to placenta prævia. The case was unusually interesting, as the decidua was expelled almost in its entirety, and thus the mode of attachment of the vesicles to that structure was shown. They were arranged like beads on a string, which string was attached to the inner surface of the decidua. This fact favoured the view that the hydatidiform moles were formed by degeneration of the chorion villi; and in this case the degeneration commenced probably soon after the formation of the placenta had begun.—Dr. **ROUTH** inquired if there had been any alternation of a watery and a sanguineous discharge.—Dr. **WILLIAMS** replied that there had been no discharge of blood at all till the patient came to the hospital.

*Ascitic Fœtus.*—Mr. **J. ASHBURTON THOMPSON** exhibited a specimen of this. The head presented; and, as the labour was tedious, the forceps were applied and the head delivered, but, as was subsequently found, at the expense of the tissues of the neck. The arms were brought down, but still delivery could not be completed. Whilst Mr. Thompson was absent, with the view to obtaining the assistance of his partner Dr. Brunton, two immoderately forcible pains served to eject the fœtus. There were two points of interest in the case: one was the frequency with which little expulsive power existed when the uterus was overdistended; and, secondly, that the pressure from above diminished the circumference of the abdomen by forcing a part of the fluid into the thorax; but the traction exerting pressure in the contrary direction increased the circumference by thoroughly extending the lower part of the abdomen, even preventing the whole of that cavity from being utilised in spreading out the fluid.—Dr. **BARNES** inquired whether the placenta was pale and friable.—Mr. **THOMPSON** replied that it was.—Dr. **JOHN WILLIAMS** suggested that the specimen should be examined, as it was not a common one, and was of much interest.—The **PRESIDENT** requested Dr. J. Williams and Dr. Hayes to examine it in conjunction with Mr. Thompson.

*On Prevention of Mammary Abscesses by the Application of the Principle of Rest.*—Dr. **W. BATHURST WOODMAN** read a paper on this subject. The author had been struck with the rarity of mammary abscess in animals, notwithstanding the forced abstinence from suckling which cats and dogs undergo from the drowning of their progeny, and in spite of the great distension of the udders of cows, mares, and other animals when driven to market, or for other reasons separated from their young. Acting upon this suggestion, he carefully abstained from those manipulations and questionable "gentle" frictions which have long been customary in such cases, and with the most satisfactory results. Where an abscess was threatening, in place of employing liniments, he enjoined perfect rest, the avoidance of all frictions and rough handling and of suckling for a time, if possible, from both breasts, but, at all events, from the one most implicated; the horizontal position, careful application of strips of isinglass, soap, or lead-plaster, or of an air-cushion with a hole in its centre, or of bandages taking their purchase from the opposite shoulder. In addition to these measures, he employed preparations of opium, belladonna, or chloroform applied in compresses, or ice, moist warmth, and leeches. The local congestion was also relieved by diaphoretics, diuretics, and aperients. Belladonna, iodide of potassium, and sedatives were given, if requisite. Illustrative cases of this method of treatment were given, exemplifying its advantages.—Dr. **BARNES** observed that the principle of rest had long been applied to the treatment of inflammation of the breast. He himself had learned the value of it from Trousseau, when a student in Paris thirty years ago. That admirable physician taught and illustrated it with great earnestness; he placed the breast at perfect rest by carrying strips of leather spread with *emplâtre de Vigo* all round it, so as to lift it well up and exert constant support on the vessels; thus œdema was prevented, and engorgement soon subsided. It must, however, be remembered that this form of pressure was ill-borne in the first inflammatory stage; it was chiefly serviceable when suppuration had taken place and the abscess had been opened; the sac was then rapidly closed. In the earlier stage, he had seen leeches do excellent service. The pressure then must be tighter.—Mr. **ASHBURTON THOMPSON** said there were two modes of treatment not referred to in the paper, the administration of tincture of aconite, and total abstention from fluids during the necessary number of days. By giving minim doses of aconite every hour, he had succeeded in cutting short inflammations of the breast which there was no doubt would otherwise have run into suppuration, very frequently indeed, in three cases out of four. In cases of stillbirth, he had hitherto found abstention from fluids sufficient in every case to avoid every kind of mammary disturbance. Ice was allowed in moderate quantity, and no other fluid from the time of delivery until the fourth or fifth day, when the breasts generally returned to their normal state of quiescence. He had had two cases recently, in which this method of treatment had been perfectly successful. The deprivation of fluid caused but little distress.—Dr. **BRAXTON HICKS** thought the principle of rest had been gradually coming upon us for years, friction only being resorted to among the poor and ill educated. Surgery at the present day was all tending to quietude; manipulation only led to suppuration, and often produced the extra amount of stimulation required to set it up.—Dr. **MURRAY** observed that the application of a belladonna plaster was of great service, the arm being kept at the same time fastened to the side. In some instances, a slight process of friction upwards was productive of good.—Dr. MATTHEWS, whilst heartily assenting to Dr. Woodman's views, thought that the public had largely endorsed his practice, since he had observed that it was a very common proceeding to apply a large lead plaster (spread upon leather) to the breast in cases where it became necessary to get rid of the milk; this, of course, rendered friction and all meddling impossible. He had found that two large and soft handkerchiefs suitably applied—one by way of sling around the neck under the breast; the other in exactly the reverse way, over the breast and tied around the body, so as to include the breast between them, interposing a large pad of cotton-wool to constitute a very efficient mode of applying pressure.—Dr. EDIS remarked that the chief thing to be remembered was to limit the supplies, to act on the bowels, and to ensure perfect rest to the mammæ. He was accustomed to order a belladonna plaster to be applied to the mammary region within twenty-four hours of delivery, thus exercising pressure as well as arresting the secretion of milk. Abstinence from fluids and great moderation in diet was enjoined for the first few days, an aperient mixture of sulphate of magnesia and iodide of potassium being given twice or thrice daily to relieve the bowels. The shoulders should be raised and the arms kept perfectly quiet; the upper part of the chest being only lightly covered, and any friction or drawing of the breasts being strictly prohibited. Where this method had been adopted, he had never seen a single instance of mammary abscess. An evaporating lotion continuously applied to the mammæ was in some instances sufficient to prevent the secretion of milk; but the pressure obtained from the plaster was of great service, and effectually prevented the employment of any friction.

*Labour complicated by Pelvic Tumour and by Convulsions.*—Dr. H. M. MADGE brought forward the particulars of a case of this nature, similar in some respects to two other cases he had brought forward, which were recorded in the Society's *Transactions* (vol. iv, p. 129, and vol. xiv, p. 227). The patient, aged 24, short and stout, primipara, when nearly advanced to full time, slipped and fell forward. Labour-pains commenced next day. On examination, the posterior wall of the vagina was pushed forward by a tumour about the size of a large orange, having apparently a smaller mass attached to it. It was hard, but yielding to the touch, and non-fluctuating. The fœtal head was arrested at the brim; several ineffectual attempts were made to push the tumour above the brim. Turning was rejected, as the liquor amnii had escaped. Labour went on slowly for four days, when convulsions occurred. Chloroform was administered by Mr. Bailey, and the long forceps applied by Dr. Wells, but without avail. Craniotomy was then performed; and, after considerable difficulty, delivery was accomplished. The tumour, during the passage of the child's head and body, had become forced up above the pelvic brim, and could no longer be felt. It was probably a fibroid attached to the posterior surface of the uterus by a pedicle sufficiently long to enable it to drop into the pelvic cavity. The chloroform acted admirably in arresting the convulsions and keeping the patient quiet. There was no albumen in the urine. The patient made a good recovery.

*The Annual Meeting* for the election of officers, etc., then commenced. (See JOURNAL for January 9th, page 53; and January 16th, page 87.)

# CORRESPONDENCE.

## EXPERIMENTS ON ANIMALS.

SIR,—In the discussions on vivisection, the most important practical point appears to me to have been overlooked. I apprehend that no one would contend that experiments on the lower animals are unlawful, however great the pain inflicted, if they be likely to result in the diminution of human suffering. But to inflict pain for the purpose of establishing an important truth, or testing an hypothesis, is one thing; to repeat such experiments over and over again, for the purpose of astonishing a class of students, is another, the truth or the hypothesis having been confirmed or destroyed, and can only tend to tantalise the performer and the spectators.

This opinion is held by members of our profession whose names would carry enormous weight with them; and I conceive that neither science nor humanity would suffer if the law stepped in and sternly forbad the endless repetition of ruthless acts of cruelty for the mere purpose of exhibiting truths already known and admitted.

Vivisections, like executions, should be private—only witnessed by the person who performs them and those whose duties compel their presence.

Your obedient Servant,

FREDERIC D. DYSTER, M.D.

Tenby, Jan. 18th, 1875.

## THE CONTAGIOUS DISEASES ACTS.

SIR,—It occurred to me that a good corps to test the operation of the Contagious Diseases Acts in the Army would be the Royal Engineers at Chatham. Although they are a small body, and there is some movement of men coming and going, a considerable number are stationary. The evidence derived from a stationary corps of this kind seemed likely to be particularly valuable. I therefore asked my friend Surgeon-Major Fox, R.E., to take out from his books the number of admissions from primary syphilis and gonorrhœa during the years 1860 to 1874; and this he has most kindly done. The Contagious Diseases Act of 1864 was ordered to be applied to Chatham in the middle of 1865; but I have given the ante-Act period the benefit of the latter months of 1865. Dr. Fox considers that, in 1866, '67, and '68, the Acts were only in partial operation.* The following table gives the mean strength, the total number of admissions, and the ratios per 1,000 of strength. I have also given the number of recruits joining the Royal Engineers in each year at Chatham.

*Admissions from Primary Syphilis and Gonorrhœa among the Royal Engineers at Chatham during* 15 *years. Before the Acts.*

| Years. | Mean Strength. | Total Admissions. | | Admissions per 1000. | | Number of recruits who joined in the year. |
|---|---|---|---|---|---|---|
| | | Primary Syphills. | Gonorrhœa. | Primary Syphilis. | Gonorrhœa. | |
| 1860.. | 896 | 97 | 144 | 108.3 | 160.7 | 299 |
| 1861.. | 1013 | 79 | 159 | 77.9 | 156.9 | 444 |
| 1862.. | 778 | 85 | 139 | 109.3 | 178.8 | 236 |
| 1863.. | 808 | 87 | 123 | 107.6 | 152.2 | 311 |
| 1864.. | 868 | 72 | 89 | 82.9 | 102.5 | 287 |
| 1865.. | 708 | 53 | 73 | 74.8 | 103.1 | 166 |
| Mean. | 805 | 78.8 | 121.1 | 93.2 | 143.3 | 290.5 |
| *Acts in Partial Operation.* | | | | | | |
| 1866.. | 835 | 69 | 88 | 82.6 | 105.1 | 431 |
| 1867.. | 1153 | 114 | 156 | 98.8 | 135.3 | 350 |
| 1868 . | 1156 | 73 | 128 | 63.2 | 110.7 | 369 |
| Mean. | 1048 | 85.3 | 124 | 81.4 | 118.3 | 383.3 |
| *Acts in Full Operation.* | | | | | | |
| 1869.. | 1107 | 49 | 90 | 44.3 | 81.3 | 314 |
| 1870.. | 1192 | 85 | 109 | 71.3 | 91.5 | 388 |
| 1871.. | 1328 | 101 | 128 | 76.0 | 96.4 | 430 |
| 1872.. | 1354 | 78 | 94 | 57.6 | 69.4 | 388 |
| 1873.. | 1209 | 54 | 84 | 44.6 | 69.5 | 344 |
| 1874.. | 1306 | 31 | 83 | 23.7 | 63.3 | 413 |
| Mean. | 1270 | 66.3 | 98 | 53.1 | 78 | 379.5 |

These figures speak for themselves. Whether the single years or the means of the two periods of six years before and during the Acts are looked at, the conclusion must be the same. Both primary syphilis and gonorrhœa have been reduced nearly one-half.

To what is this owing? To sanitary improvements? But these troops have been in the same barracks and under the same sanitary system since 1860. To lessened recruiting? The recruiting has been more active in the last period. In neither of these directions can a sufficient reason be found.

It may, indeed, be possible that some of the very great lessening of admissions from syphilis which occurred in 1874 was owing to an order brought into force in the last half of the previous year, which imposed penalties on men with venereal diseases. This may have led to concealment of disease, and to an apparent and not a real diminution. But this cannot account for the lessening in the other years, even if any effect is really to be traced to it—a point I have no means of judging.

Does anything remain except the operation of the Acts to account for the decline of these diseases?

Dr. Nevins has laid great stress on the statement that gonorrhœa has not been affected. It was not in the earlier periods, from obvious reasons; and perhaps it never will be so much influenced as syphilis. But that it has lessened in the Royal Engineers, is undoubted; and I believe the same effect can really be traced in the protected stations at large.

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* Complete registration and regular fortnightly examination of the whole prostitute population was not instituted till the commencement of 1869. See *Official Returns in Minutes of Evidence before Royal Commission*, p. 797.

Dr. Nevins is ready to change his opinions when the evidence is in his eyes sufficient to warrant his doing so. I would now ask him to look at all the Army statistics, and to say what more is wanted to prove to him that these Acts have conferred a most signal benefit both on the Army and on the country which employs and pays that Army.

I am, sir, yours, etc., E. A. Parkes.

Netley, January 14th, 1875.

### DR. CROMBIE AND HIS PAMPHLET.

Sir,—You will not, I trust, deny me the justice of a few words in your Journal, in reply to an article in the number for Jan. 9th, under the remarkably witty heading of "What Next?" There the reviewer of the pamphlet, *A Plea for the Poor suffering from Painful Incurable Disease*, in his haste to prejudice a most humane proposal, endeavours to cover it up from the sight of your readers under a small cloud of confusion, and runs on contradicting himself from beginning to end in the most pitiably silly manner. Thus: "The only part of the pamphlet in which we concur is the comment upon the inutility of the Cancer Hospital." And then: "Dr. Crombie implies that there are in London only two institutions capable of dealing with cases of malignant disease—the Cancer Hospital and the Middlesex Hospital." Think of the incongruous nonsense of concurring with me as to the inutility of an institution of which he says I imply that it is one of two alone capable of dealing with malignant disease! Again: "Dr. Crombie's proposal rests entirely on an absurd fallacy, because there are innumerable hospitals scattered over the country which already do all or more than he proposes." And next: "In dealing with the class of cases Dr. Crombie seems to have in view, the proper course is to call forth the kindly sympathy and assistance of neighbours and friends, and to allow the local medical man to direct their benevolence as he thinks best." This is "the wise proposal" which the reviewer, with the complacency of superior wisdom, recommends in place of my "unwise one"; for the noment forgetting "the absurd fallacy" and "the innumerable hospitals", which, according to his own account, do all or more than he would now have the local medical man to attempt.

Now, the truth is, the class of cases I have in view cannot, to any ntelligent reader of the pamphlet, be a matter of "seeming" at all; or, besides being indicated by the title, it is over and over again disinctly stated that it is persons suffering from painful incurable disease, uch as cancer, for whom the medicines are sought; and it is well-:nown, perhaps to everybody except the reviewer, that not only do the eneral hospitals not admit such cases, but that they discharge those who become incurable in their own wards.

Enough: those who misrepresent, in order to find fault with their wn misrepresentation, and contradict themselves with the utmost indifference, are doubtlessly best left to themselves; and the misrepresentations of this writer are as numerous as his contradictions; but, efore dropping the subject, I would just notice that the reference to ie Middlesex Hospital, which he thinks must be so offensive to the aff of that institution, is as follows: "The Middlesex Hospital was ie first to deal with cancer specially, and, since the days of Sir Charles ell, has been a nursery for the study of the disease and the advancement of its treatment." If this be not so, I will withdraw my statement, ut with regret. The Poor-law medical officers will find, in like anner, that my offence towards them is speaking of them in terms of ie highest respect. The reviewer, in fact, has set himself to show that hat is, is not; and what is not, is in the pamphlet. If any of your aders choose to read the pamphlet for themselves (which I shall be ppy to send them), I am sure they will find more than one point in hich to concur with me, where there is nothing advanced but what believe to be dictated by common sense and humanity.

Yours faithfully, John M. Crombie, M.B.

60, New Bond Street.

⁂ Dr. Crombie says that he will be happy to forward a copy of his mphlet on application, and begs that our readers will judge of its erits for themselves. By all means, let them do so. In the meanile, we must be allowed to retain the opinion which we expressed st week, that his proposal to send medicines from a central charitable ciety to cases of painful incurable disease scattered all over the United ngdom is not a wise one, and that it is not desirable that it should be ried out. It was not, of course, with the words of praise which he cidentally gives to the Middlesex Hospital that we had any fault to d. Far from it. But we demurred to its being classed with the ncer Hospital, and also to its being said, or implied, that these two institutions were the only ones in the metropolis where chronic cases of cancer received adequate attention. Dr. Crombie seems to think that we have overlooked the fact that it is *incurable* cases that he has in view; and he reminds us that the general hospitals are not very ready to admit such cases. This, no doubt, is true as a general rule; and yet, as a matter of fact, the metropolitan hospitals, and still more the provincial, do receive, and keep to the end, many cases of incurable disease; while the workhouse infirmaries and sick asylums afford a refuge to a still larger number. We must, therefore, maintain, as we did last week, that the best way of dealing with these cases is to call out the kindly sympathy and assistance of neighbours and friends, and to allow the local medical man to direct it as he thinks best. For one case he may deem the workhouse infirmary the most suitable place, for another the county hospital, for another some invalid home; while private friends and local charity would supply the necessities of the rest. In this way, any case of painful incurable disease can be much more advantageously treated—much more advantageously, both in a medical and in a social point of view—than in the manner which Dr. Crombie proposes.

### THE BRITISH MEDICAL BENEVOLENT FUND.

Sir,—We are requested to acquaint you that, at the annual meeting of the British Medical Benevolent Fund, on the 14th instant, Sir George Burrows, Bart., M.D., in the chair, a vote of special thanks was passed to the medical journals for their kind and valuable advocacy of the cause of the Fund during the past year, and amongst these especially to the editor of the British Medical Journal, to whom the good cause is already so deeply indebted.

In fulfilling so agreeable a duty, permit us to take the opportunity of adding our own very best wishes, and to remain,

Dear Sir, very faithfully yours,
For self and Geoffry Hett, M.D. (*Hon. Sec.*)
Charles S. Webber (*Hon. Financial Sec.*)
1, Upper Berkeley Street West, Hyde Park, W., Jan. 20, 1875.

# PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

The Board of Guardians of the Thurles Union have increased the salary of Dr. Quinlan, medical officer of the Borrisoleigh Dispensary District, from £100 to £120 *per annum*.

### DUTIES OF MEDICAL OFFICERS.

District Medical Oeficer.—In reply to query No. 1, we feel satisfied that the Board of Guardians can compel compliance with the requirement contained within brackets; and we would advise our correspondent to a cede to the same, however distasteful it may be.

2. Should the guardians direct that a medical officer shall periodically visit all persons on the permanent list, even though such persons do not require medicines, we feel that the medical officer has no alternative but to comply; but we would advise that, in any case where such visit has proved to be uncalled for, a representation that such needless visit had been paid should be made to the Board, and their fair estimate of the point be requested.

3. We would advise that immediate attention should be given to every order, however irregularly or unjustly such has been issued; but, if the medical officer feel aggrieved, we suggest that he should submit the facts to the guardians, and request them to direct such alteration as may be just.

4. As regards this query, we hold that it is competent for a medical officer to prescribe for a patient upon the statement supplied by the person who brings the order, provided such person is in a position to afford reliable information; but we would advise that such course should be adopted with extreme caution, and should not avail to excuse the medical officer from as prompt a subsequent visit as it may be in his power to make.

5. As regards the final query, we would suggest that our correspondent should quietly collect instances where the applicants for relief have been advised by the relieving officer to apply to the medical officer for assistance with the view to getting an order for mutton and wine. Very few such cases would, if established, go far to determine the tenure of office of such relieving officer.

# MEDICAL NEWS.

Royal College of Surgeons of England.—The following members of the College having been elected Fellows at previous meetings of the Council, were admitted as such on January 14th.

Messrs. Charles Derby Waite, M.B.Cantab. and M.R.C.P.Lond., of Old Burlington Street, diploma of membership dated October 2nd, 1829; and Thomas John Starling, L.S.A., of Higham Ferrers, Northamptonshire, July 19th, 1841.

At the same meeting of the Council—

Messrs. Benjamin Thomas, L.R.C.P.Edin. and L.S.A., Llanelly, Carmarthen; and Edward Lawford, M.D.Aberd. and L.S.A., of Leighton Buzzard, were elected Fellows of the College, their diplomas of membership bearing date respectively May 26th, 1836, and July 1st, 1842.

The following gentlemen passed their primary examinations in anatomy and physiology, at a meeting of the Court of Examiners on the 19th inst., and, when eligible, will be admitted to the pass-examination.

Messrs. William Alexander Molson, Edward Guy Anderson, John Leichtenstein Ritchie, and Robert Addison Stevenson, students of M'Gill College, Montreal; Constantine Cecil Claremont, Haward Bewley Carter, James Heelas, and Wm. Farewell Blake, of University College: John Ikin Sangster, Henry Charles Procter, and Robert Mercer, of the Leeds School; William John Heslop and Frederic John Livy, of the Manchester School; Ernest Henry Jacob, and Arthur Ernest Powell, of St. Thomas's Hospital; William Price Biden, of the Charing Cross Hospital; Charles Ferdinand Marks, of the Galway and Dublin Schools; Robert Frederick Godfrey, of the Montreal, St. Bartholomew's, and St. Thomas's Hospitals; John Robert Blaikie, B A. Cantab., of the Cambridge School; Robert Griffiths, of the Dublin School; and George Hugh Snowden, of St. Mary's Hospital.

The following gentlemen passed on the 20th instant.

Messrs. George Thomas Congreve, Sandford Arnott, Wm. Harding Crowther, Sidney Skerman, and Charles James, students of King's College; Richard Lingard Stokes, Paul Hookham, Robert George Edward Willows, and Wm. Ingram Cobbin, of University College; Charles Ross Hall, George Henry Cressey, Wm. Henry Webb, and Wm. Wood Cuthbert, of St. Bartholomew's Hospital. Clarence Richard Gillard, George Blundell Longstaff, B.A Oxon., and Kenneth Leander Fenwick, of St. Thomas's Hospital; William Bond Taylor, and William Semple Merriman, of the Manchester School; George Richmond Moore, and Frank Wilson, of the Newcastle School; George Amos Duke, of St. Mary's Hospital; Joseph Cary, of the London Hospital; and John Todd, of Guy's Hospital.

The following gentlemen passed on the 21st instant.

Messrs George Adolphus Boodle, Francis Arthur Hallsworth, George Rutland Howat, Hubert Martyn Floyer, Herbert Frederic Chapman, John Winkley Langdon, and Hamilton Lewis Walcott, of St. Bartholomew's Hospital; Edgar John Don Bavand, John Cooper Wilkinson, and Joseph Smith Clowes, of Guy's Hospital; Haward Griffiths Lowe, and George Harcourt Hornsley, of the Birmingham School; George Payne Best, and John Biale, of St George's Hospital; Henry Seymour Atkinson, of King's College; John Weller, of the London Hospital; Wm. Percival Blackley, of St. Thomas's Hospital; Morgan Henry Lawrence Allen, of St. Mary's Hospital; Joseph Lawes Alleyne, of University College; and Robert Owen, of Charing Cross Hospital.

Sixteen candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their anatomical and physiological studies for three months. The total number of rejections out of the 108 candidates examined, was 44—viz., 15 on the first day, 13 on the second, and 16 on the third day.

*Licentiates in Dental Surgery.*—The following gentlemen, having undergone the necessary examinations, were admitted Licentiates in Dental Surgery of the Royal College of Surgeons, at a meeting of the Board of Examiners on the 15th instant.

Messrs. Alexander Cartwright, Old Burlington Street, W., diploma of membership of the College dated May 19th, 1874; Jonathan Ottley Atkinson, Kendal; William Francklin Henry, Cornhill, E.C.; Simeon Talbot Silvester, Whitgift House, Croydon; Charles James Wallis, Pau, Basses Pyrénées, France; David Watson, Torquay, Devon; George Ratcliffe Kerling, Ormonde House, Epsom; Henry Bradnell Gill, Arnold Terrace, Bow Road; and Henry MacFord Bayliss, Oxford Road, Islington.

Six candidates, having failed to acquit themselves to the satisfaction of the Board, were referred to their professional studies.

## MEDICAL VACANCIES.

THE following vacancies are announced:—

ABBEYLEIX UNION—Apothecary.

ARMY MEDICAL DEPARTMENT—Surgeons. Applications to be made to the Director-General of the Army Medical Department.

ATHY UNION, co. Kildare—Medical Officer and Public Vaccinator. Salary, £120 and fees.

BARONY PAROCHIAL HOSPITAL, Barnhill, Glasgow—Dispenser.

BECKETT HOSPITAL AND DISPENSARY, Barnsley — House-Surgeon. Salary, £140 per annum, with furnished rooms, gas, and coals.

BIRMINGHAM and MIDLAND FREE HOSPITAL FOR SICK CHILDREN—Acting and extra-Acting Physicians. Applications not later than February 3rd.

BLACKBURN UNION—Medical Officer for the Harwood District. Salary, £25 per annum.

CASTLE WARD UNION—Medical Officer for the Ponteland District. Salary, £20 per annum. Also, the Workhouse. Salary, £30 per annum.

DERBYSHIRE GENERAL INFIRMARY—Assistant House-Surgeon. Board, lodging, and washing, but no salary. Applications to Secretary.

EMSWORTH—Certifying Factory Surgeon.

ESSEX LUNATIC ASYLUM—Second Assistant Medical Officer and Dispenser. Salary, £100 per annum, with board, lodging, and washing.

FIFE AND KINROSS DISTRICT ASYLUM—Assistant Physicianship. Salary, £80, with board, etc. Apply to Dr. Fraser, Medical Superintendent, Cupar-Fife.

FLUX MILLS FRIENDLY SOCIETY—Medical Officer. Salary, £110 per annum. Applications to A. M'Keeman, 7, Hunston Square, Johnstone, N.B.

HARDINGSTONE UNION—Medical Officer for the Brafield District. Salary, £45 per annum.

HARRIS, Parochial Board of—Surgeon. Salary, £66 per annum, including vaccination and medicine for the poor. The gentleman elected will get £90 per annum for attending the ratepayers and cottars within South Harris. Applications to be made to the Chairman of the Parochial Board of Harris.

HEADINGTON UNION—Medical Officer for the Wheatley District. Salary, £70 per annum.

HULL GENERAL INFIRMARY—Dispenser. Salary, £75 to £100 per annum. Election will take place on the 28th instant.

HOSPITAL FOR WOMEN, Soho Square—Surgeon and Assistant Physician.

INDIAN MEDICAL SERVICE—Twenty appointments as Surgeon. Examination in February 1875

KILCHRENNAN and DALAVICH, Parochial Board of—Medical Officer. Salary, £60 per annum. Applications, on or before the 30th instant, to W. J. B. Martin, Ri-criun, Lochgilphead.

KILKENNY UNION—Medical Officer for Kilkenny Dispensary District No. 2. Salary, £100 and fees. - Medical Officer for Watchhouse. Salary, £75 per annum. Applications to be sent in on or before the 26th instant.

LEEK UNION—Medical Officer for the Endon District. Salary, £20 per annum.

LICHFIELD UNION—Medical Officer for the Alrewas District. Salary, £35 per annum.

MIDDLESEX LUNATIC ASYLUM, Hanwell—Assistant Medical Officer.

MORVEN, Parish of, Argylshire—Medical Officer. Salary, £100 per annum. Applications to H. A. Fraser, Morven, N.B.

NORTH BRIERLEY UNION—Medical Officer for the Seventh District.

NORTH-EASTERN HOSPITAL FOR SICK CHILDREN, Hackney Road, E.—House-Surgeon. Salary, £100 per annum, with attendance, rooms, coals, and light.

NORTHERN COUNTIES HOSPITAL FOR INCURABLES, Manchester—Dispenser. Applications on or before the 31st instant.

NORTH WALES COUNTIES LUNATIC ASYLUM—Assistant Medical Officer. Salary, £100 per annum, with board, washing, and lodging. Applications to be made on or before February 17th.

PLYMOUTH UNION—Medical Officer for No. 3 District.

POPLAR AND STEPNEY SICK ASYLUM DISTRICT—Assistant Medical Officer to the Asylum.

REDDITCH and DISTRICT MEDICAL ASSOCIATION—Medical Officer. Salary, £150 per annum, with fees and unfurnished house.

ROYAL FREE HOSPITAL—Junior House-Surgeon.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road—Physician. Applications to be made on or before February 15th.

ROYAL INFIRMARY FOR WOMEN and CHILDREN, Waterloo Bridge Road—Physician.

ROYAL UNITED HOSPITAL, Bath—Resident Medical Officer. Salary, £100 per annum, with board and lodging.

RYDE DISPENSARY—Physician.

ST. BARTHOLOMEW'S HOSPITAL—Assistant Physician.

ST. GEORGE'S AND ST. JAMES'S DISPENSARY—Honorary Accoucheurs. Applications on the 28th instant.

ST. LUKE'S HOSPITAL FOR LUNATICS—Second Clinical Assistant. Board and furnished apartments.

ST. MARY'S HOSPITAL, Paddington—Resident Registrar. Salary, £100 per annum, with board and residence.

ST. MARY'S HOSPITAL—Resident Registrar. Salary, £100 per annum, with board and lodging.

ST. MARY's HOSPITAL MEDICAL SCHOOL—Medical Tutor. Applications to be made on or before February 1st.

SHEFFIELD PUBLIC HOSPITAL and DISPENSARY — House-Surgeon. Salary, £100 per annum, with board, lodging, gas, and washing.

SMALLBURGH UNION—Medical Officer for the Ludham District. Salary, £52 : 14 per annum.

STRATFORD-ON-AVON UNION—Medical Officer for the Welford District and Workhouse. Salary, £50 per annum.

TENDRING UNION — Medical Officer for the First and Second Districts. Salary, £97 per annum.

TORPHINS in the Parish of Kincardine O'Neil, Aberdeenshire—Parochial Medical Officer: £45 per annum. Applications to Chairman of Parochial Board.

TRINITY COLLEGE, Dublin—Professor of Chemistry: £500 per annum, and fees. Applications to the Rev. Dr. Haughton, Trinity College.

TYNEMOUTH UNION—Vaccination Officer.

ULVERSTONE UNION—Medical Officer and Public Vaccinator for the Coniston District. Salary, £20 and fees. Applications to be made on or before the 25th instant.

UNIVERSITY COLLEGE HOSPITAL—Resident Medical Officer. Applications not later than February 13th.

UNIVERSITY OF EDINBURGH—Additional Examiner in Medicine.

WEST WARD UNION—Medical Officer for the Patterdale District.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.*

### BIRTH.

SMITH.—On January 9th, at 2, Stanhope Terrace, Gloucester Gate, the wife o *Walter Smith, L.R.C.P., of a son.

### MARRIAGE.

ARBUCKLE—BASSETT.—At St. Andrew's Church, Nottingham, on January 19th by the Rev. Henry Fuller, M A., Hugh Wright Arbuckle, M.D., of Thorne Doncaster, to Martha Elizabeth (Lizzie) Bassett, eldest daughter of the lat Richard Bassett, of Mapperley Road, Nottingham.

### DEATH.

DUDLEY, Edward, M.R.C.S.Eng., at Yardley Hastings, Northamptonshire, age 40, on January 9th.

# UNIVERSITY INTELLIGENCE.

## UNIVERSITY OF CAMBRIDGE.

DR. BRADBURY'S LECTURES.—The Linacre Lecturer of Physi gives notice that he will resume his lectures on Pathological Anatom on Tuesday, January 26th, at 10 A.M., and continue them on ever succeeding Tuesday, at the same hour, throughout the term. Th subject of the lectures for the Lent Term will be the Pathology of th Blood-Vessels and of the Organs of Respiration.

## OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY ......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

## MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Mr. Richard Liebreich will show a new instrument for operating in Fistula Lacrymalis; Mr. Braine will give Notes of a Case of Hysterical Anæsthesia; Dr. L. S. Forbes Winslow, "On Religious Insanity".

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Dr. Theodore Williams, "On the Temperature of Phthisis Pulmonalis, and on the various conditions influencing it".

WEDNESDAY.— Hunterian Society, 8 P.M. Dr. Burton Brown, "On the Poisons of Northern India".

## NOTICES TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

### PUERPERAL INFECTION.

IR,—Would some of the readers of the BRITISH MEDICAL JOURNAL inform me what means they generally use to stop the spread of puerperal fever, and how long it is before it is safe for one to attend cases? I have used disinfectants of all kinds for washing purposes, etc., changing my entire clothing, and all of no use. An answer will oblige.

I am, etc., OBSTETRICUS.

SSOCIATE, KING'S COLLEGE, AND DR. R.—The portrait of Sir William Fergusson is in the hands of the engraver, and we believe that a copy of the engraving will be presented to each subscriber.

### MANAGEMENT OF THE DENTAL "NERVES".

IR,—I entirely endorse the opinions expressed by Mr. W. Donald Napier relative to the desirability of preserving the "nerves" of the teeth. After an experience like his of twenty years' careful observation, I hold that the destruction of the "nerve" is not attended by such success as would warrant an indiscriminate persistence in its practice, and I think that those who hold views opposed to that practice have reason on their side to support them.

Consider what it is that some so ruthlessly destroy; the so-called "nerve" is the remaining unossified portion of the tooth-germ, whose dentigerous functions are only in abeyance—only waiting favourable conditions to awake from its dormant state and form new tooth-bone, and this it is that many propose, though irrationally, to destroy. But what is the result in a vast percentage of cases? The tooth so treated becomes a dead member, and local irritation speedily calls for its removal. We will allow that, in a great many cases, this pulp comes before us decomposed and disintegrated, and then it becomes the duty of the dental surgeon to remove those putrescent remains, to restore the cavity to a healthy state, and to put the tooth into as favourable a condition for preservation as its wrecked circumstances will permit, and the chances are that it may be serviceable for a time; but the simple exposure of a pulp should never be followed by its unscientific destruction, for it is the centre of a tooth's vitality, and, by rational treatment, may be retained for years as a sound and useful organ.

I am, Sir, yours obediently, T. CHARTERS WHITE.

32, Belgrave Road, S.W., January 12th, 1875.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

CORRIGENDA.—In the report of the meeting of the Pathological Society on December 1st (see page 14), Mr. Hulke, in reference to his remarks on Mr. Butlin's case of Chondroma of the Lacrymal Gland, wishes to have his remarks put as follows. "After removal of the lacrymal gland, the surface of the eye remained moist, and he had observed the same in two cases of true lacrymal fistulæ, when the secretion of the lacrymal gland dribbled away through a fistula in the upper eyelid, the result of a wound." In his case of Popliteal Aneurism, in answer to a question put by Mr. Marsh, it is said that two tourniquets were used, one above the other below the aneurism. It should have been "one above, the other below, the groin." In the report of the meeting of the Clinical Society in the same JOURNAL, Mr. Hulke wishes his remarks, in reference to Mr. Teevan's case of Subcutaneous Urethrotomy, to stand thus: "That Sir W. Fergusson was in the habit of using a catheter-staff many years ago—some twenty, when he was at King's College Hospital; that he had very long ago had a set made for himself, after Sir W. Fergusson's model; that he frequently had used them in perineal section of the urethra in the theatre of the Middlesex Hospital; and that they had been frequently copied for other surgeons who had witnessed the advantages they offered". In the report on Mr. Holmes's case, Mr. Hulke writes also that he said that "Nélaton showed him three cases where, as a preliminary measure, he split the palate a few days before excising the polypus; and that in these cases the edges of the split palate were sloughy". As he did not watch these cases afterwards, he could not know that deformity was apt to follow this procedure.

### THE SHIP "FORFARSHIRE"

SIR,—In reading the JOURNAL of the 9th instant, I saw an article headed "A Terrible Situation". You were doubtful whether the ship carried a doctor. She did; and, in addition, she carried an apothecary, a native of Calcutta. I do not know whether there was a medical examination. Before the coolies came aboard at the wharf, the inspector had them all in a row, examining their mouths; but I am not surprised at cholera breaking out, when nearly a third of them had syphilis or gonorrhœa. I am sure there was no fault about the sanitary arrangements of the ship, for I have been sailing two years in her, and have taken over five hundred emigrants to Wellington, New Zealand, one voyage, and the same number last voyage to Adelaide, and I never had more than four or five deaths.—I remain, yours very truly,

HUGH LLOYD.

ARMY MEDICAL DEPARTMENT.—The late Mr. G. J. Guthrie was elected President of the College of Surgeons three times; viz., in 1833, in 1841, and again in 1854. He was elected a member of the Court of Examiners in 1828 with Mr. J. P. Vincent.

### MEDICAL DEGREES AND TITLES.

SIR,—As one who is not an adversary of L.K.Q.C.P.I., I beg to attempt to throw a ray of light on his arguments, as they have not been answered in last week's number of the BRITISH MEDICAL JOURNAL. He wished to elicit the views of some "energetic M.D." who should prove conclusively to him that he is not a "doctor" at all, but perhaps a baker or a tinker. Now, without attempting to establish the latter part of his expectations, I beg to attempt a refutation of his sophistry, as one of the "very few M.D. men" who do see why an "M.D. man is more a Dr. than a Licentiate of a College of Physicians". A doctor is the highest degree which an university can confer, implying ability to teach and profess the most perfect knowledge of medicine, law, or divinity. The degree in these faculties confers essentially the legal and moral right to display theoretical and practical knowledge in these sciences; and if those who never receive an university education, merely acquiring the minimum amount of knowledge sufficient to satisfy a Board of Examiners that they are not wholly ignorant of the uses of medicines, and the power to administer them, are to be considered doctors, learned in the highest degree, there would, I think, be no need of degrees at all. Your correspondent reasons in a syllogistic form apparently. He assumes that all physicians are doctors. L.K.Q.C.P.I. is a physician; therefore, he is a doctor. But his major premiss is manifestly false. Physicians are not doctors; they are merely licensed to practise medicine, having shown sufficient knowledge of the subjects pertaining to the science to warrant their being allowed to deal safely with the public. It will hardly be questioned that all "medical doctors" are physicians, a doctor's degree implying a thorough ability to teach, practise, and profess the science for which the said degree is conferred. But it would be manifestly illogical to infer the truth of the converse; viz., that all physicians are doctors, since affirmative propositions do not distribute the predicate. There are degrees in surgery as well as in medicine. A Master in Surgery is supposed to be a professor, thoroughly trained in the theory and practice of the art. Such an one is a surgeon; but one may be legally and morally entitled to the appellation of surgeon without obtaining the highest degree, just as one may be a physician without necessarily being a doctor. It is so with the Civil Engineer; his university education and the taking of a degree implying perfect knowledge, and the highest legal authority for the due exercise of the profession. Unfortunately, many assume the title who are permitted to do so with manifest injury to the community. A lieutenant is truly an officer, but every officer is plainly not a lieutenant. No one would affirm that, because a sergeant is an officer, he is therefore a lieutenant. Bakers and tinkers have sometimes assumed the office of itinerant physicians; but no one is justified in inferring from this that your learned correspondent is either a baker or a tinker. The physician should, therefore, be content with the title he has really won, and not assume that to which he is neither legally nor, in a strict sense, morally entitled. To be a doctor and to act as a doctor are two different things.

This longing after the degree of M.D. plainly indicates its high importance, and it is this craving to obtain it without due merit that has tempted unprincipled vendors of degrees to this country, and has made it necessary for you to expose the venal system in your excellent article on Medical Titles.

I am, Sir, yours etc., LEO, M.D.

Merthyr Tydfil, January 11th, 1875.

SIR,—L.K.Q.C.P.I., in the JOURNAL of the 2nd instant, says: "I will not only lay claim to the prefix of 'Dr.', but I assert that I am a doctor legally and morally." As this struck me as being strong language, I sought a very high authority, and I believe, legally and morally, L.K.Q.C.P.I. is right. Let us take a logical and common-sense view of the subject. A Licentiate of a College of Physicians is as certainly a physician as a Licentiate of a College of Surgeons is a surgeon. Dr.

Johnson says, under the word "Doctor", "a physician—one who undertakes the cure of diseases"; and the learned Doctor quotes examples of this use of the word from Shakespeare, Dryden, Collier, and Swift. If, then (and I presume the authority of such names is sufficient), doctor and physician are now, and always have been, synonymous in the English language, and they are convertible terms, every Licentiate of every College of Physicians is rightly and legally a Doctor; and if so, why should he not call himself so? There is no law in England more powerful than the law of custom. It makes a permanent highway through private property; it governs parliamentary discussions, and becomes *de facto* a law itself. No doubt the term "Doctor", in its strict etymological meaning, refers only to the degree of Doctor, as the holder of such degree formerly was only one qualified to teach the Faculty to which he belonged (*vide* Dr. Johnson, edition 1785). But the majority of the M.D.s of the present day are not qualified to teach, and none of them would like to be restricted to their strict position. Custom has made the doctor (M.D.) a physician, and custom has called the physician a doctor, so that I believe L.K.Q.C.I. is legally and morally right. In any case, I should expect that those who hold a different opinion can quote as high authority as I have done, for hitherto each writer has given only his own *ipse dixit*.

In conclusion, relying on the law of custom—Ἔθος—*Lex non scripta*—I shall continue to consider myself morally and legally a Doctor, the more so as the title is freely and gratuitously accorded to me. In fact, did I object to the name, I should be overruled by public opinion; and I must say I think it would be a wise and courteous proceeding on the part of the M.D.s if they would, as a very small minority, gracefully bow to the voice of custom and public opinion, and cease to endeavour to deprive their brethren without enriching themselves; bearing in mind that it was the same gradual change in the habits and customs of Great Britain that set them free from their purely doctrinal office to compete with those engaged in the practice of medicine, and that gave those practising the science of physic the title which once only belonged to the teacher of it—a change that afforded to the one a means of living by his profession, to the other a name to the profession by which he lives: an interchange, so to speak, of two properties, in which I think the M.D. has decidedly the best of the bargain.—Your obedient servant,

ANTIQUUS MOS.

SIR,—A great deal of correspondence has taken place respecting the propriety of L R.C.P.s assuming the prefix of "Dr." What would you recommend a L.R.C.P.Ed. & L., F.P. & S.G., L.S.A., to adopt in a town where a L.F.P. & S.G., and L.S.A., emblazons his name on plate as "Dr. ——, Surgeon", etc., where competition exists? Of course the public must think more of a person who adds "Dr." to his name.

In fairness, please advise, yours, etc.,

L.R.C.P.EDIN.

⁂ We advise our correspondent not to imitate his rival in assuming the title of Dr., but to show the public, if it be within his power, that professional skill is of greater value than assumed titles. Two wrongs never make one right.

SIR,—I doubt if any of your correspondents who seem to think it a reasonable demand that the English Universities should confer on them the degree of M.D. after a single examination, however severe, really apprehend the precise position of an M.D.Oxon. or Cantab. Your correspondents have doubtless some idea of the curriculum required for the B.A. degree of the elder Universities. They must know that several examinations have to be passed, and between three and four years of study under special teachers completed; also that, the B.A. degree obtained, the student becomes entitled to the degree of M.A. after the lapse of between three and four years: in other words, that it takes seven years to obtain the degree of M.A. This being so, I am sure your correspondents would never dream of asking to be be made "Masters of Arts" straight off after a single examination, waiving the matriculation examination, and "smalls", and "mods.", and "greats", and "second schools", and, above all, the seven long years of *status pupillaris*. But wait a little; I am writing now of Oxford. Above the degree of M.A. are the degrees of B.D. (Bachelor of Divinity), B.C.L. (Bachelor of Civil Law), and M.B. Imagine this higher grade arrived at by our student; but imagine further, that he desires the highest grade of all—desires to be one of the "Domini Doctores"—then he must still wait on average four years longer, not to mention other tests, before his studying will permit him to be raised to this highest University grade, before he can be a D.D., a D.C.L., or an M.D. Now, your correspondents would never dream of asking to be made M.A.s straight off; nevertheless, in their ignorance of University rank, they demand a degree resting two grades higher. Why do not they petition to be made D.D.s or D.C.L.s straight off, for the jump would be no greater? Your correspondents evidently think the M.D.Oxon. or Cantab to be much the same poor sort of thing as many foreign degrees which are granted after a single examination, and at best can rank no higher than an English B.A.; but I trust I have undeceived them. One of your correspondents has written of the Oxford and Cambridge medical degrees as somewhat obsolete. I will ask this gentleman to look at the lists of the Presidents of the Royal College of Physicians, and his respect for somewhat obsolete degrees, I can promise him, will gain notably from its perusal.

Lastly, I must refer to the injustice of your correspondents' demand, amounting as it does to this, that for the pains of one examination they should be hoisted two grades over the heads of those who, like the writer, have for many years been

M.A.OXON.

January 1875.

SIR,—If I remember rightly, about nine hundred men, with what is termed the double qualification, obtained the degree of M.D. at the Scottish Universities during the year of grace. In the town in which I live there are only three medical practitioners, including myself. Three years ago, one of these gentlemen, who has no professional appointment which is not also held by every surgeon in the locality, without any examination whatever, was admitted as Fellow of the Royal College of Surgeons of London. Two friends and myself entered the same day as medical students at Guy's Hospital. One friend and myself passed the Apothecaries' Hall examination the same night. Sixteen gentlemen were examined the same evening, but my friend and myself were the only two who received what was then termed the compliments of the Court. Afterwards, each of us became M.R.C.S.Lond.; but my two friends, who had had no professional advantages more than myself, immediately obtained the M.D. of St. Andrew's. I was the eldest son of six children, my father dying when I was in my fourteenth year; therefore, my mother's pecuniary resources were unable to supply me with £40, which my two friends told me the degree, with travelling expenses, etc., had cost them. Thus circumstanced, I began life with the double qualification only; but in 1860, I took the L.R.C.P.Edin. by examination, which, if it do not give some professional distinction, is wholly valueless to me. As Licentiates of the London College of Physicians had up to that time been addressed with the prefix of "Dr.", I assumed that I was entitled to do the same, and acted accordingly. The Edinburgh College now in its communications addresses me with the prefix of "Dr." I cannot suppose the St. Andrew's examination differed materially from the one at the Edinburgh College of Physicians, and conclude that the professional level of many M.D.s is no higher than my own, and therefore am tempted to ask why such a rancorous spirit exists against a L.R.C.P.Ed., while others, in no way superior, are sheltered from attack by only having another colour or form which is expressed by the letters M.D.

If gentlemen who feel aggrieved by the qualification and title of L.R.C.P.Ed. will obtain for them an honorary M.D. from the Edinburgh University, doubtless it would be accepted, and we should cease to hear these fretful cries; but it scarcely seems just to oblige a man of forty-nine years to present himself before an examining board when he has passed many years in the arduous duties of a country practice.—I am, sir, yours faithfully,

F. H. HARTSHORNE, L.R.C.P.Ed., M.R.C.S.L., L.S.A.

Broseley, January 1875.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Gazette; The Western Daily Press; The Manchester Guardian: The Ulster Advertiser; The Sussex Coast Mercury; The Broad Arrow; The Surrey Advertiser; The Bedale and Northallerton Times; The Hackney Express; The Liverpool Porcupine; The Scotsman; The Liverpool Mercury; The Glasgow Herald; The Stroud News and Gloucestershire Advertiser; The Bradford Observer; The Morpeth Herald; The Portsmouth Times; The Western Daily Press; The York Herald; The Sheffield Evening Star; The Brighton Guardian; The Sussex Daily News; The Wrexham Advertiser; The Newton Directory; The Sussex Coast News; The Berkshire Chronicle; The Hull News; The Southern Times; The Worthing Intelligence; The Hampshire Telegraph and Sussex Chronicle; The Sheffield Daily Telegraph; The Hereford Times; The High Peak News; etc.

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COMMUNICATIONS, LETTERS, ETC. have been received from:—

Dr. J. Hughes Bennett, Nice; Dr. H. Charlton Bastian, London; Dr. George Johnson, London; Dr. J. Burdon Sanderson, London; Dr. Bradbury, Cambridge; Dr. Tilt, London; Mr. Walker, Wakefield; Mr. Poole, London; Dr. Willett, Shrewsbury; Dr. Moore, Harlesden; Mr. Woodhouse, Putney; Dr. Diver, Southsea; Dr. Waseman, Prince's Town; Dr. Crombie, London; Mr. T. Annandale, Edinburgh; Dr. Buchanan, Glasgow; Mr. Greenway, Plymouth; Insurance; Dr. Armitage, London; X. G. B.; Dr. Balthazar W. Foster, Birmingham; Dr. James Sawyer, Birmingham; Mr. Walters, Reigate; Mr. Chubb, Torpoint; Dr. Collie, London; Mr. T. M. Stone, London; Dr. Farquharson, London; Dr. Edward Hamilton, Dublin; Surgeon-Major Porter, Netley; Dr. J. W. Allan, Fort William; Professor Sée, Paris; Mr. W. H. Michael, London; Dr. McKendrick, Edinburgh; Mr. T. Charters White, London; Dr. Styrap, Shrewsbury; Dr. Underhill, West Bromwich; Mr. Groves, Wigan; Mr. George Lyon, London; Dr. Rumsey, Cheltenham; Mr. R. W. Graves, Gloucester; The Secretary of the Obstetrical Society; Mr. T. Benson, Stanley; Mr. A. H. Collet, Worthing; Dr. F. W. Smartt, Ballymahon: Mr. E. Reardon, Cork; Mr. H. Morris, Howden; Dr. A. Dunlop, Holywood; Dr. C. Parsons, Dover; Mr. T. Vincent Jackson, Wolverhampton; Dr. R. Jolly, Birmingham; The Secretary of the Royal Medical and Chirurgical Society; Mr. W. M. Atkinson, Landport; Mr. R. Jalland, Horncastle; Mr. J. T. Reed, Ryhope; Mr. W. Cox, Winchcombe; Dr. Chevallier, Ipswich; Mr. G. M. Stansfeld, Bristol; Dr. D. Thorp, Cheltenham; Mr. S. A. Gill, Torquay; Dr. W. Ffolliott, Aldershot; Surgeon-Major A. Richardson, Dublin; Mr. J. Brown, Dorchester; Mr. J. Broadhurst, Lancaster; Dr. J. Dewar, Orkney; Mr. W. L. Muir, Glasgow; Dr. A. D. Davidson, Aberdeen; Mr. R. McCallum, Ullapool; Mr. J. Shackleton, Whitworth; Dr. Edis, London; Mr. T. H. Bartleet, Birmingham; Dr. T. Inman, Clifton; Mr. Wanklyn, London; Dr. Jones, Plymouth; Mr. Holmes, London; The Secretary of Apothecaries' Hall; The Registrar-General of England; The Registrar-General of Ireland; Mr. W. Fairlie Clarke, London; The Registrar of the Medical Society of London; Dr. G. Calderwood, Egremont; Mr. J. W. Hulke, London; Mr. R. H. Upton, London; Mr. J. Mackinlay, Twickenham; Dr. Fagan, Belfast; The Secretary of the Statistical Society; The Secretary of the Social Science Association; Mr. T. L. Gentles, Derby; Dr. J. M. Fothergill, London; Dr. James Ross, Waterfoot, Manchester; Dr. P. Divorty, Inverurie; Mr. H. A. Allbutt, Leeds; Dr. A. Carter, Liverpool; Mr. John St. S. Wilders, Birmingham; Dr. Tilbury Fox, London; Dr. L. S. Forbes Winslow, London; Mr. Burdett, Greenwich; Dr. J. Butler Hamilton, Chatham; Dr. James W. Anderson, Glasgow; Staff-Surgeon W. J. Eames, Haslar; Mr. R. Greene, Hayward's Heath; Dr. J. Finlayson, Glasgow; Dr. L. O. Fox, Broughton; A Correspondent; Dr. Dyster, Tenby; Messrs. Williams and Norgate, London; Mr. Hugh Lloyd, Towyn; Mr. L. A. Lucas, Chislehurst; Mr. W. Haward, Bury; Dr. Gibb, Newcastle-upon-Tyne; Mr. Christopher Jeaffreson, Newcastle-upon-Tyne; Dr. A. E. Sansom, London; Dr. H. Drummond, Ipswich; Our Edinburgh Correspondent; Dr. Gairdner, Glasgow; Dr. E. R. Tenison, London; The Secretary of the Manchester Medical Society; Mr. C. F. J. Lord, Hampstead; Dr. A. B. Steele, Liverpool; Dr. A. Harris, Manchester; The Secretary of the Hospital for Consumption; Dr. J. Parsons, Clifton; Mr. C. H. Parkinson, Wimborne; Mr. E. Matthews, Redditch; The Mayor of Birmingham; Dr. W. N. Thursfield, Shrewsbury; Mr. E. C. Board, Clifton; Mr. T. Eyton Jones, Wrexham; Dr. Joyce, Cranbrook; M.D., M.R.C.S.; Mr. Robert Cuffe, Woodhall; Mr. F. Gordon Brown, London; Dr. Parkes, Netley; Mr. G. Glenny, Barking; Dr. Lucas, London; Mr. Berkeley Hill, London; Mr. Armstrong, South Shields; Dr. Chalmers, Glasgow; Mr. Walter Smith, London; Dr. Crichton Browne, Wakefield; Dr. Dallas, London; Dr. Lamb, Southport; Dr. Clouston, Edinburgh; Our Dublin Correspondent; Dr. Macnaughton Jones, Cork; Dr. T. Cole, Bath; etc.

# REPORTS
ON THE
# CHEMISTRY OF THERAPEUTICS.

BY
JOHN G. McKENDRICK, M.D., F.R.C.P.E., F.R.S.E.,
Lecturer on the Institutes of Medicine, Edinburgh.

## I.—Preliminary.

It is the object of these papers to point out and illustrate the influence which a knowledge of the facts and laws of chemical science have, or ought to have, upon the practice of therapeutics.

At present, this department of medicine partakes more of the character of an art than of a science. It is wanting in precision, both as to facts and as to general principles. Many isolated facts have been observed, and even ascertained by special means and appliances to be true, but few generalisations have been made. The backward condition of therapeutics may be partially accounted for by the fact that, until recently, the actions of remedies have not been systematically investigated in the light of physiological research. The actions of supposed remedies have been often loosely observed and registered, much in the same manner as the early physicists investigated the phenomena of natural philosophy. But the recent remarkable development of physiological science, with the aid of chemistry and physics, and the introduction of new methods of observation and of instruments of precision, have rendered it necessary to reinvestigate the actions of all physiologically active substances. This work has been taken up, and is being assiduously prosecuted, by many scientific men both at home and abroad. Many additions to our knowledge have thus been made; and the ultimate result will probably be, not only the adoption of new remedial agents and the abandonment of old ones, but the discovery of general therapeutical laws. When these have been discovered and formulated, therapeutics may claim to be ranked as one of the sciences.

Therapeutics does not mean simply the physiological actions of drugs and of other remedial agents on the healthy body, but their actions in diseased conditions. This affirmation appears self-evident, yet it is often forgotten; and the assumption is made that the action observed by the practical therapeutist in the hospital-ward will be the same as that described by the physiological investigator in the laboratory. In many cases, it is well known not to be so; and illustrations of this will be given in subsequent papers. It is necessary, therefore, if we wish to establish a rational system of therapeutics, not only to observe and describe the physiological actions of drugs on healthy animals, but also to notice these on animals in a morbid condition. This opens up an extensive field of research—namely, experimental pathology, a department of scientific work now engaging the attention of eminent pathologists, chiefly in Germany. There can be no doubt that, just as anatomy became exact by the use of the scalpel and forceps, physiology and pathology will become exact by the employment of rigid experimental methods of research. The field of experimental pathology is almost entirely a new one. Up nearly to the present time, we have been accumulating facts regarding diseased organs seen in the pathological theatre after the disease had done its worst. These facts relate chiefly to the physical and chemical characteristics of the diseased organ after death. They are of great value; but, in obedience to the law of the human mind, which prompts to the investigation of the causes of phenomena, we must now go a step farther back. We wish to know the preliminary stages of those morbid actions which have produced histological changes, either complete or partial, of the organ, and consequent loss or perversion of function. This can only be gained by experimental inquiry on animals; as the general rule is, that the disease does not destroy life in the human subject during an early stage, and, consequently, there is no opportunity for *post mortem* examination at that stage. By the artificial production of diseased conditions, however, we may study the successive changes in the tissue or organ which lead to a permanently morbid condition. Thus, accurate knowledge will be obtained which will serve as a basis for a new series of experiments as to the actions of remedies. Given certain morbid conditions, artificially produced, how may these be modified by the physiological actions of active substances? Labour in this direction cannot fail in being well recompensed by the accurate knowledge obtained. Thus, pathology would become a help to therapeutics. The arrangement or classification of the functions of the body for physiological purposes is already recognised as the basis for pathological inquiry; in like manner, well established facts in pathology constitute a basis for scientific therapeutics.

I do not forget, in making these remarks, that before we can found a rational system of therapeutics, we should, as far as possible, become acquainted with what has been called the natural history of disease. As an element in the inquiry, this has been ably put forward by Dr. Rogers, in his work on *The Present State of Therapeutics.** Many diseases undoubtedly tend towards recovery. The patient would ultimately become well without medicine. The medicine given may have helped towards recovery, or the reverse. Supposing it has helped towards recovery, the effect has been produced by two causes—(1) the tendency towards recovery without the assistance of remedies; (2) the effect of the remedy. It is not easy to say how much is due to the one, and how much to the other. But the remedy may be beneficial in two ways, although it may not materially change sequence in the natural progress of the disease: (1) it may relieve the sensation of pain; (2) it may save time. Few will deny that it is in the power of the skilful therapeutist to relieve pain; but the question of time cannot be so easily settled. It can only be settled by taking a disease which naturally tends to recovery: the average duration of the disease in a given number of cases not affected by remedies must be noted; next, the average duration of the disease in a given number of cases influenced by remedies must be noted; and, lastly, the average durations of the two sets of cases are to be compared. It is not easy to make such observations as these, even in hospital practice. In private practice it is impossible, because social factors come into play. Hence, we must resort, for assistance, to experimental therapeutics. Many, if not all, of the ailments "flesh is heir to", may be induced in the lower animals. These may be placed in almost exactly the conditions we desiderate; and, consequently, we may be able to institute such comparative researches as will be of the highest benefit to the human race.

Before entering upon the question of the relation of chemistry to therapeutics, the preliminary questions of the relation of chemistry to physiology and pathology must be briefly discussed. Much of what is termed physiological or pathological chemistry is simply the chemistry of substances derived from the dead tissues. When a living tissue is subjected to certain chemical manipulations, it dies, and substances may then be found, such as albumin, globulin, glutin, etc., having specific chemical properties, and which are assumed to have existed in the tissue during life. Of the chemical composition and reactions of living matter, as was long ago pointed out by Fletcher, we know nothing positively; we are acquainted, however, to a limited extent, with the chemical properties of the plasma from which the living matter derives its nourishment, and of the fluids which contain the materials derived from the retrograde metamorphosis or degradation of the living matter after it has performed its functions. Of the exact chemical changes which occur when the living tissues take up nutrient matter from the plasma, we know comparatively little; nor have the successive steps by which living matter passes into dead matter been fully described. But while we may not know these processes with scientific accuracy, it is a great step to be able to analyse the nutrient plasma before it has been subjected to the selective action of the living tissues, and also to examine the chemical nature of those substances obtained from the disintegration of living tissues. By varying the chemical composition of the nutrient fluid, we can vary the amount and character of the retrograde substances. Thus, a large amount of nitrogenous material in the plasma is followed by a large amount of nitrogenous materials excreted. This has been shown by the experiments of Lehmann, Fick and Wislicenus, Parkes, Pavy, and Mahomed. Similarly, the chemical composition of the nutrient fluid affects the condition of the living tissue both statically and dynamically. Thus, a large amount of oxygen in the plasma circulating through a muscle causes it, according to Brown-Séquard and others, to perform more work and to increase in bulk. It is evident, therefore, that the chemical composition of the nutrient fluid affects both the activity and the growth of the tissue itself and the character of the excrementitious products. This fundamental and apparently self-evident truth will be better realised by viewing the living elements of body as proximately obtained from the internal medium or plasma. This plasma Claude Bernard calls the "physiological medium", because materials introduced as food must be converted into it before they can become a constituent of the tissues.

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* *On the Present State of Therapeutics, with some Suggestions for placing it on a more Scientific Basis.* By James Rogers, M.D., formerly Physician to the British Legation and to the Abouchoff Hospital at St. Petersburg. London: John Churchill and Sons. 1870.

Each tissue derives its nourishment from the plasma, molecule by molecule. Bathed in this fluid, the cellular elements of the tissues are, as Bernard says, "veritable aquatic organisms". The internal medium is incessantly fluctuating. Materials are constantly absorbed from without, and are there elaborated and made fit for assimilation. Materials are also constantly thrown into it as products of waste of tissue, and have to be excreted.

Modern scientific investigation has also shown that chemical changes not only occur in the living tissues which lead to their being split up into simpler chemical compounds, but also that certain elements of the food never become truly organised, or incorporated with the tissues, but undergo retrogressive chemical changes, which have an important part to play with reference to the production of heat and mechanical power. As examples of this kind of change, we may take the splitting up of albumin into a nitrogenous portion to be excreted, and into a non-nitrogenous residue, which, by oxidation of its constituents, carbon and hydrogen, produces energy; or the oxidation of fat, or of the carbohydrates (starch, sugar), or of alcohol. It is evident that the due performance of these chemical changes are essential to the health and capacity for work of the individual. It becomes a matter of inquiry how far these processes are affected by morbid conditions, and how far they may be influenced by the actions of remedies.

In this department of physiology, the question is ever present to the mind—how far the vital phenomena of nutrition may be explained by the laws of chemical combination? These phenomena may simply be the results of chemical combination occurring under special conditions of structure, etc.; but of this there is no proof. The phenomena of nutrition differ so widely from mere chemical phenomena, that they must be due to widely different conditions. "We may never know all these conditions; but that analysis will ever resolve them into simple chemical conditions, irrespective of the speciality of their theatre, may confidently be denied."—(*Problems of Life and Mind.* Lewis, vol. i, p. 113.)

The chemistry of nutrition is specially alluded too here, because it appears to me that, when we are better acquainted with it, we will be in a better position to understand the physiological actions of certain remedial agents.

Changes in physiological activity must be produced either by the direct action of substances on the tissue or tissues affected, or by action on the plasma, or elements of the plasma, which nourish the tissues. How are these tissues affected? If the nutritive plasma which supplies them, in normal circumstances, with the materials they require, be affected chemically by the introduction of a new substance (say a substance called a poison), it is evident that the relation between the plasma and the living tissues will be altered. We do not know, in the present state of science, what this alteration may be, or how it is effected. It is possible that, in some cases, the poison may become incorporated with the living matter before it is capable of affecting its vital action. In other cases, the so-called poison may not become part of the tissue, but may interfere chemically with the changes continually taking place between the tissue and the plasma surrounding it. At present much of this is mere conjecture. The field of histo-chemistry with reference to therapeutics requires to be further cultivated, and it appears to me, that the line in which this is to be done, is by observations on the reactions of minute quantities of chemical substances on living lower organisms, such as *Monera*, *Amœba*, *Paramecium*, and other infusoria; and also on the colourless cells of the blood and other masses of bioplasm found in the body. By pursuing this path of work, it is probable we will learn much regarding the actions of drugs on the ultimate living textures which are concerned in nutrition, innervation, and reproduction.

The conclusion at which we arrive is, that we know little regarding the chemical processes occurring in the living body, either in health or in disease, which can be of much service in the practice of therapeutics. But we know that chemical processes do occur which are closely connected with the manifestation of vital phenomena. If such chemical changes do occur, we may reasonably expect to be able to influence them by the introduction of chemically active substances. This opens up another line of inquiry; namely, how far can we produce changes in physiological action by changing the chemical composition of the substance introduced into the body? The answer to this question is not only likely to be of practical service to therapeutics, but it may reflect light on the true character of those chemical changes occurring in the living tissues, the investigation of which is so difficult.

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DONATIONS.—Mr. Daniel Thwaites, J.P., has forwarded a cheque for the sum of £424 to the secretary of the Blackburn and East Lancashire Infirmary, which clears off the debt upon the institution.

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# A SUGGESTIVE INCIDENT WHICH OCCURRED DURING ETHERISATION.

By FURNEAUX JORDAN, F.R.C.S.,
Surgeon to the Queen's Hospital, and Professor of Surgery at the Queen's College, etc.

EVERY surgeon, it may be presumed, desires to use the safest and most effectual anæsthetic. Those who prefer chloroform believe that, in expert hands, it is safe, and has fewer drawbacks than ether. Conceding much on this point, we must not forget that, while narcotisation is everywhere a daily, an almost hourly, need, its induction does not always fall into experienced hands. If, then, anæsthetics must be frequently administered, and administered with variable degrees of judgment and experience, a growing amount of evidence points to ether as the safer anæsthetic.

Recently, I was about to place a ligature on the femoral artery for popliteal aneurism. The patient having been etherised by my colleague Mr. Priestley Smith, who is very familiar with the use of ether, I made the usual incision in the integuments. The patient showed no sign of pain; but I had scarcely completed the incision, when the limb was seized with a marked tremor of the muscles. To clean a large artery with a sharp knife (and I believe, with the late Mr. Syme, that to dissect an artery with a sharp knife is less mischievous than to contuse it with blunt instruments) in a violently trembling limb is not a desirable proceeding. At my desire, more ether was given, but the tremor continued unabated. I again desired that more ether should be given. Mr. Priestley Smith's immediate and significant reply was this: "The man is as much under the influence of ether as it is possible to put him." With the assistance of firm pressure on the muscles of the thigh, I completed the operation; and I may add, that the man has (fourteenth day) done perfectly well.

From the incident just related, a few useful conclusions may be drawn. The most important is this: the profoundest anæsthesia of ether is not so deep as to prevent reflex muscular tremor from following an incision in the skin. It is probably much less profound than even ordinary degrees of chloroform-narcotism. In short, it would seem that, with common care, a patient cannot be put dangerously under the influence of ether. Nevertheless, the anæsthesia of ether is sufficient for the vast majority of operations. Ether, then, notwithstanding certain drawbacks, should claim our first attention.

The chief drawback of ether is, that it cannot be readily administered by timid persons. Anybody can pour a little chloroform on to a handkerchief, and hold it over a face. Not everybody can resolutely pour out a large quantity of ether, resolutely and closely bind a towel round the mouth and nose, and resolutely disregard the most violent muscular contortions. But these are difficulties which very attainable knowledge and experience will surmount.

In a few operations where the skin needs to be freely incised, and especially where such incisions precede delicate and anxious manipulations, the deeper influence of chloroform may be desirable. Quite recently, the practice of beginning with a little chloroform, and then giving ether, answered extremely well in the hands of my colleague Dr. Sawyer in the case of an old man, from whose tarsus I removed a carious patch by means of a large trephine, after a free crucial incision in an "Esmarchised" limb.

In this note, it is far from my intention to discuss the general question of anæsthesia; but a few words, and a few only, on chloroform. I entirely coincide in the opinion, that every kind of "apparatus"—everything containing "valves"—should be scrupulously avoided. Every effort should be made to prevent, what so readily occurs, a deeper anæsthesia than the particular operation, or stage of operation, requires. Timid chloroformisation is, especially in the early stages, equally mischievous. Timidity in the administration of chloroform means much more chloroform, longer time, and greater danger. Again: conjunctival insensibility is too rough a test; it may come too soon. Much worse, it may come too late. In children, the conjunctiva is often insensible in a few moments, especially if there be anything on the stomach. As regards food in the stomach, in hospital practice it is common for mothers, when they are instructed to bring children without breakfast (or other meal) to give them some outrageous compound—beer and fruit, apples and pears, being the commonest—under the impression that these are not a meal, and that the poor child must be "strengthened" for the operation. Occasionally, as in old imbibers, the skin is ready for the knife before the eye tolerates the finger. The deep pinch of an artery-forceps at the seat of the operation is a better test.

# DIPHTHERITIC PARALYSIS:

## ITS NATURAL COURSE, PATHOLOGY, TREATMENT, AND RELATION TO PARALYTIC AFFECTIONS FOLLOWING FEVERS.*

By SIR JOHN ROSE CORMACK,
Chevalier of the Legion of Honour; M.D.Edin. and Paris; F.R.S.E.; Fellow of the Royal Colleges of Physicians of London and Edinburgh; Physician to the Hertford British Hospital, Paris; etc.

[*Continued from page* 106.]

THE following case is one of the most interesting of those of the class to which it belongs, which I have been able to watch minutely throughout the whole of the primary and secondary symptoms. To be rightly appreciated, it must be studied in all its details, and viewed in conjunction with other cases apparently but not really different from it in their pathology.

CASE.—Alice B., an English girl, aged 21, nursery-maid in an English family residing at Passy, Paris, was admitted to the Hertford British Hospital on September 30th, 1874. She had then been only one month resident in France. For the three days immediately preceding her admission, she had been under treatment by a French physisian, who intimated that she was suffering from a *fièvre muqueuse*, likely to be of considerable duration and severity. Under these circumstances, I was requested to receive Alice B. into the hospital.

The following is a summary of the history of the case from its commencement up to the time of my reception of the patient. For ten days, she had felt weak and not up to her work; but till Saturday, September 26th, she did not state, or perhaps did not realise, that she was really ill. On that day, she complained of severe pain in the back, and repeatedly had trembling fits. Her mistress, who accompanied her to the hospital on the morning of Wednesday, September 30th, when I received her, informed me that the patient did her work on the 26th, making no complaint of being unwell. On that day, however, her manner was observed to be peculiar. On the evening of the following day (Sunday, September 27th), she became delirious. Against her inclination, she was sent early to bed on that evening, where she remained under medical treatment till her removal to the hospital on the morning of Wednesday, September 30th. When she arrived, I was engaged in making the ordinary visit. As soon as she was undressed and somewhat rested, I proceeded to examine her.

September 30th, 1874, on admission. Her face is slightly flushed. Her expression is vacant and bewildered. The pupils are equally and much dilated. The respiration is oppressed. "Breathing tires me," she says. The pulse is 100, feeble; the temperature is 40.1 C. (104.18 Fahr.) The tongue is moist, clean at the tip and edges; in its centre, there is a loose white fur. The bowels were much moved early this morning, soon after a dose of castor-oil. Some urine, passed an hour after admission, was found, on being tested by heat and nitric acid, to be slightly albuminous. The abdomen is moderately distended; it is nowhere tender on pressure. No gurgling can be detected in the right iliac fossa. There is no acute delirium, such as she is reported to have had on Sunday night. When first spoken to, her replies are hesi- ating, confused, and contradictory; when thoroughly roused, they be- ome coherent; but, if questioned too long, she relapsed into bewilder- nent. No medicines are prescribed. She is ordered to have the usual utritious liquid diet of our fever-patients, consisting chiefly of milk, eef-tea, and farinaceous substances, the former greatly predominating. he maximum allowance of stimulants, till further orders, is fixed at welve ounces of claret in the twenty-four hours. As a common drink o allay thirst, she is ordered barley-water acidulated with lemon-juice.

October 1st, 11 A.M. The countenance is more natural than it was esterday. Her mental state is very similar. She had no sleep from e time of her admission till six this morning, when she fell asleep, and ept quietly for nearly two hours. She now complains of insomnia, nd begs for medicine to induce sleep. The urine, still slightly lbuminous, is pale, and passed in large quantity. There is some diar- rœa, but no increase of abdominal distension or tenderness. The ulse is 100 and feeble. The temperature about eight this morning as 39.8 C. (103.6 Fahr.); the pupils are dilated as yesterday. There is eruption on any part of the body.—5 P.M. Seven very character- tic rosy lenticular spots are visible on the chest, which disappear on essure and reappear when the pressure is removed. She com- ains of being weary from want of sleep, but does not seem restless in bodily discomfort. She is ordered to have, at 10 P.M., a rch-enema containing twenty-five drops of the *British Pharmacopœia* solution of the hydrochlorate of morphia.—8 P.M. The temperature is 40.8 cent. (105.44 Fahr.)

October 2nd, 11 A.M. Her appearance is very much the same as it was yesterday; perhaps there is more hebetude. She had several short sleeps of from five to ten minutes several times during the night. Since admission, no active delirium has been observed. There is no tympanitic distension, and very little tenderness of the abdomen. Since 5 P.M. yesterday, a few more rosy lenticular spots have appeared; they are situated on the back and arms. When there is a long interval between the doses of wine, the breathing always becomes oppressed; she asks eagerly for wine. The full allowance of twelve ounces of the best claret in the twenty-four hours is being taken. She takes willingly a sufficient quantity of beef-tea and milk.—8 A.M. The pulse is 120, and the temperature is 39.8 C. (103.6 Fahr.) The diet and wine are to be continued as at present. She is to have a starch-enema containing twenty-five drops of laudanum every night at 10 P.M. till farther orders.—6 P.M. The pulse is 116, and the temperature 40.8. No more spots have appeared.

October 3rd, 11 A.M. Her general appearance is very similar to that which it presented yesterday. Though she has had very little sleep, she has remained tolerably quiet since having the morphiated starch-enema. Once only during the night—for about half an hour—she was restless and delirious. She then several times addressed by name the children of whom she had charge before admission, rising up in bed and screaming to them, to warn them of some impending danger. No more fever-spots have appeared. At 8 A.M., the temperature was 40.2 cent. (104.36 Fahr.), and the pulse 116. At present, the pulse is 120. —8 P.M. There has been low muttering delirium during the day. The temperature is now 40.3 C. (104.54 Fahr.), and the pulse 120.

October 4th, 11 A.M. The wine and diet have been continued as prescribed. The morphiated enema was not administered last night. She is at present free from delirium and is calm. During the night, however, she was very delirious, twice tried to get out of bed, struck the nurse several times, and made many complaints of being cruelly treated, particularly of being placed on a bed of rotten potatoes. In the early dawn, when she had been quiet for some time and was apparently emerging from a slumber, she was asked by the nurse if she felt better. Her reply was, "I am very weary; for, till I lay down here, I had been walking about the streets of Paris all night, seeking for, and unable to find, the hospital." She had a somewhat loose motion early this morning; but neither now nor since admission to the hospital has the looseness amounted to diarrhœa. About 8 A.M., the temperature was 39.7 cent. (106.43 Fahr.), and the pulse 116.—4 P.M. She is very excited, and has been so since she received a visit from her late mistress at 2 P.M. The respirations are 36; the pulse is 124; and the temperature 40 cent. (104 Fahr.). There is an icteric tint of the eyes and of the skin all over the body. The urine since yesterday has assumed a very dark colour, and to-day is quite like the urine of jaundice. She is reported to have had increased excitement immediately after the last two or three doses of wine. Orders are given to diminish the wine one-half, if it seem to induce excitement. An enema containing twenty-five drops of the *British Pharmacopœia* solution of the hydrochlorate of morphia has now been administered, and another similar enema is ordered to be given at midnight.

October 7th, 11 A.M. Since Sunday (the 4th), she has been restless, almost sleepless, and in a state of active delirium. She is at present delirious. She is now calling out to absent persons as if they were present, and manifesting a delirious loquacity very like that which is common in delirium tremens. The lower half of the left lung is dull on percussion, and in the same situation the breath-sound can scarcely be heard on auscultation. The respiration is short and shallow; and occasionally, for a few minutes at intervals, she has a paroxysm of very hurried breathing. From her extreme restlessness, jactitation, and subsultus tendinum, it is impossible to take the pulse, respiration, or temperature. There is slight abdominal tenderness on pressure, and a moderate amount of tympanitic distension. The urine and fæces are passed unconsciously. The urine—judging from the wetness of the napkins placed under her—is not scanty. The alvine evacuations are copious, black, and loose, but not watery. Her countenance has a wild and restless expression. Her pupils, which, since her admission, have been very dilated, are now more dilated than they have yet been, and are irresponsive to light. Her voice, like that of an inebriated person, is thick, and, at times, almost inarticulate. Since yesterday her wine has been increased to a *litre*, and to her hourly dose of wine two or three teaspoonfuls of brandy are occasionally added; the maximum quantity of brandy to be given in the twelve hours being three ounces. Immediately after taking a brandied dose of wine, she moved her tongue better, spoke much more clearly, and became less agitated. I asked her how she felt; when she at once replied:

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* Partly read before the Medical Section at the Annual Meeting of the British edical Association in Norwich, August 1874.

“Quite well—are the boxes packed?” Several times since this report was commenced, she has exclaimed: “Are the children all right?—Who are with the children?” Those questions are evidently suggested by the fretful cries of an infant in an adjoining ward. Her eyes are expressionless and never closed. She seems to see objects imperfectly, for she cannot tell me whether a chair near her bed is a chair or a table. She at times addresses the nurses as “nurse;” and at other times names them by the names of persons who are in England. At present, and occasionally at intervals, her delirium is characterised by loquacity and excitement. The lady-superintendent and nurses concur in stating that during the last three days there has been a well marked periodicity in the maximum of her excitement, and that this has occurred twice in the twenty-four hours, viz., between 4 and 5 A.M. and 4 and 5 P.M. She is ordered to have, at 3 P.M., an enema, consisting of twenty-five drops of the solution of the hydrochlorate of morphia of the *British Pharmacopœia*, four drachms of spirit of turpentine and one ounce of camphor water.—5 P.M. She is much quieter, a noteworthy fact, for lately the maximum excitement and jactitation have occurred very regularly at this hour. There is no increase in the abdominal tenderness. She is now in a profuse perspiration. Since the morning visit, she has passed unconsciously a consistent stool and some urine. She takes her wine with avidity, but now it is only almost by compulsion, that she swallows milk or beef-tea. The milk, beef-tea, arrow-root, wine, and brandy are to be continued as at present. Another enema similar to that given at 3 P.M. is to be administered at 10 P.M.

October 8th, 10 A.M. The instructions of yesterday have been carried out in every particular. She slept very little during the night. The countenance has improved. She is now lying on her back with her eyes closed, but not asleep. When asked to open her eyes, she makes a visible unsuccessful effort to obey. She is placed from time to time on her side, but at once reverts to the dorsal decubitus, unless so propped as to render this impossible. There is no jactitation. The subsultus tendinum in both arms is incessant. Elsewhere at present there is neither subsultus tendinum nor muscular twitchings. At eight this morning, her pulse was 120 and her temperature 39.5 C. (103.1 Fahr.)—10 A.M. The pulse is 120. The respiration is unequal in depth, and varies from 30 to 34 in the minute. When told to open her eyes and put out her tongue, she does both to the best of her ability, but very imperfectly. The eyelids separate slightly, and the tip of the tongue is shown at the half-open mouth. The pupils are still much dilated, but to a less extent than yesterday; they are sensible to light. The tongue and lips are parched and covered with black sordes. The speech is shaky, hesitating, slow, thick, and difficult to understand, much as it was yesterday. Since noon yesterday, she has had no stool. She continues to pass urine unconsciously; it does not appear to be scanty, but, being passed in napkins, it is impossible to estimate its quantity. From 11 o'clock last night till 7 this morning, she perspired profusely; the skin is still very moist. There is some loose cough, but no expectoration. The crepitant *râles* in the lower third of the left lung are much louder and coarser than they were yesterday; they are chiefly heard behind. Whilst this report was nearly finished, the patient, immediately after a brandied dose of claret, slowly opened her eyes, and said, “Am I better?” She had evidently been attending to the record which was being made of her symptoms. When I replied “Much better”, she smiled intelligently. This incident is specially noteworthy. Several physicians who have been present when I have interrogated this patient have supposed that, when I got no replies, she was in a state of imperfect consciousness; whereas her not putting out her tongue when told, and not replying, has arisen from want of muscular power. To-day, till she had her wine twice, she could neither speak nor show her tongue. Two tablespoonfuls of castor-oil are to be immediately administered. The brandy is stopped, and in its place four ounces of rum are to be given in the twenty-four hours in milk. The wine and aliment are to be continued as at present, and the morphiated enema is to be repeated at 3 P.M.

October 10th, 10 A.M. Her condition yesterday was very much the same as on the previous day. The bowels were relieved early yesterday morning by an enema of tepid water some hours after the administration of the castor-oil. The treatment ordered on the 8th has been continued till this time. Since last report, she has been gradually becoming less restless, and has several times given indications that she was interested in what was passing in the ward. She has been perspiring so profusely as to require several changes of linen in the twenty-four hours. The countenance is more intelligent, and her expression, when spoken to, shows that she understands what is being said to her. Superficial examination might lead to an opposite conclusion; for she does not reply when spoken to, and, when asked to put out her tongue, she makes no other sign of attempted compliance than a slight separation of the lips, accompanied by an earnest gaze which clearly declares, “I would if I could”. She lies on her back, moving neither upper nor lower extremities, as if she were paraplegic. There is some difficulty in swallowing. Fæces and urine are passed involuntarily. There is no jactitation. There is subsultus tendinum in both arms, which is always at its maximum before, and at its minimum soon after, she has had a dose of stimulants. The pulse is 124, and very feeble. The treatment is to be continued.—8 P.M. The pulse is 116, and still very feeble. In the morning, at 8, the temperature was 37.9 C. (100.22 Fahr.); it is now 38.8 C. (101.84 Fahr.)

October 11th, 10 A.M. She passed a good night. A great change for the better has taken place in her appearance. Her countenance has nearly lost the remains of vacancy which still existed yesterday. She can somewhat protrude the tongue in obedience to orders; and can answer with perfect intelligence—in one, two, or three cautiously enunciated words—the questions I put to her regarding her symptoms. The skin is very moist. At intervals, she has paroxysms of sweating so profuse as to drench her personal linen and soak the sheets of the bed. Yesterday, she seemed to have no voluntary power of movement in the limbs. To-day, she slightly moved her arms and legs when urged to do so; but, after having repeated this performance by my request, three or four times in quick succession, the motor power was gone. She does not seem to experience any difficulty in swallowing.—8 P.M. When raised for a minute or two, about an hour ago, to a semirecumbent position, she nearly fainted. Up to that time, she had seemed stronger, and had been able, when requested, to flex, to a certain extent, her arms and legs. At 8 this morning, the pulse was 126, and the temperature 37 C. (98.6 Fahr.); at present, the pulse is 100, and the temperature 37.4 C. (99.3 Fahr.) The pulse is exceedingly feeble. The instructions now in force in respect of treatment are renewed, with this addition—that, without being raised from the horizontal position, she is, from time to time, to be placed alternately on either side; and that, in the event of a threatening of faintness, she is at once to have one or two tablespoonfuls of port wine.

October 12th, 11 A.M. She had port wine several times during the night in consequence of her exceedingly exhausted state on awaking at intervals from sound sleep. She continues to perspire very freely, but the perspirations are not to-day of a drenching character. The tongue is cleaning. The state of the abdomen is normal. The urine and fæces are generally, but not always, passed involuntarily. The countenance is flushed. She takes large quantities of beef-tea thickened with tapioca or arrowroot, and at the rate of a *litre* of milk daily. Notwithstanding this alimentation, she is exceedingly dependent upon the free use of alcoholic stimulants. Were they not given in abundance, and at the exactly required time, she would certainly die from failure of the feeble heart. On the 8th, 9th, 10th, and 11th, she had, each day, thirty-six ounces of strong claret, four ounces of rum, and six ounces of port wine. The instructions now in force are renewed, with this reservation—that the quantity of stimulants is to be reduced should headache or flushing supervene.

October 13th, noon.—During the last twenty-four hours, she has had a large quantity of beef-tea and milk. During the same period she has had also thirty-six ounces of claret, but no other stimulant. She is weak, exceedingly drowsy, and remains in a state of considerable perspiration. Her pulse is 64, and her temperature 37.7 C. (99.86 Fahr.) Occasionally, she has a little loose cough. The respiration is slow and weak, but she does not seem to experience any discomfort in breathing. The tongu is moist: it is clean except towards the root, where it is slightly coate with a brownish fur. There is neither tenderness nor distension of th abdomen. She has had no stool since the evening of the 11th. Fo some days past she has shown so great an aversion to beef-tea, that sh has taken much less of it; but to compensate for this, her allowance o milk has been greatly increased. During the last twenty-four hours sh has drunk very nearly two *litres* of milk. Early every morning an afternoon she is to have an egg-flip, containing in each an ounce brandy. During the twenty-four hours, she is to have one or two sma custards. Add to the beef-tea, in addition to the tapioca or arrowroo two or three tablespoonfuls of a *purée* of mixed vegetables—viz., carro turnip, and Brussels sprouts. She is to have immediately a draught co taining three drachms of *(British Pharmacopœia)* compound tincture rhubarb, five grains of carbonate of ammonia, and an ounce-and-a-ha of camphor-water, to be followed in three or four hours by an enema tepid water, if the bowels have then not been moved.

October 14th, noon.—Yesterday the bowels were freely moved, aft the rhubarb draught and enema had been administered as directed. there be any change since yesterday in her condition, it is for the bett She takes her food well in accordance with yesterday's programm The treatment in respect to food and stimulants is to be continued.

October 15th, noon.—During the early part of the night she sl well, but towards morning became wakeful, very hot in the head, and flushed in the face. These symptoms were relieved by the diligent application of cold water to the head. She is certainly in a less favourable state than when reported at noon yesterday. The aphasia is nearly complete. During the night and early morning she complained, in thick and difficultly understood speech, of severe pains in the arms and legs. The bowels have not been moved since the enema. The treatment to be continued in respect to food and stimulants so long as they are taken willingly, and without causing increase of flushing or excitement.—4.30 P.M. The nurse reports that she has been yawning and sighing incessantly for the last three hours; she is doing so at present. There is cutaneous anæsthesia, and severe shooting muscular pains in the left leg, in which the motor power is less than in the right leg. In both lower extremities the power of voluntary movement is small, and is soon exhausted by being exerted. She feebly squeezed the hand with her right, and also with her left hand when told to squeeze; but on her repeating the squeezing several times in succession, it was found that the amount of pressure went on diminishing, till at last it was not appreciable. When asked to show her tongue, she partially protruded it; but, after protruding it several times, she lost the power to do so. That she did her best, was evident from her separating the lips and pushing the tip of her tongue against the teeth.

October 16th, 11 A.M. The night-nurse reports that during the greater part of the night there was considerable restlessness and stertorous breathing. Between 7 and 8 A.M., when seen by Mr. Baillie Cormack, the patient was not restless, but was breathing stertorously. Her pupils are exceedingly dilated—much more dilated than I have yet seen them. There is complete aphasia. When asked if she had headache, she put her right hand to her head, and looked at me, as if she meant thereby to answer in the affirmative. This she did three times, looking earnestly at me at the same time, as if she would fain explain herself in words if she could. Her expression was that of perfect but anxious intelligence. She continues to pass her urine and fæces in bed; both are voided involuntarily, but not always unconsciously. About seven o'clock this morning, the nurse, when removing the soiled napkins from under her, observed that there was complete paralysis of the left arm and leg. At that time, the nurse assures me that neither leg was swollen, but that, two hours later, the right leg began to swell. It is now quite cold, has a glistening appearance, is very much swollen as high up as the knee. It does not pit much on pressure. On examination, I find that the patient is hemiplegic. The left leg is absolutely palsied; the right leg, on the other hand, is more under the influence of volition than either has been for some days. On tickling the sole of the left foot, it is energetically drawn up; and, on the tickling being continued, the leg is almost convulsed. The right—the non-palsied leg—is very much less influenced by tickling the sole of the foot. Although the non-palsied lower extremity is responsive to the will of the patient, its motor power is very soon diminished, and is at last exhausted by continued use. In both lower extremities, there is increased cutaneous and deep-seated sensibility, as is proved by a cry indicative of pain and a wincing of the features immediately following slight or firm pressure. The pulse is 128, and the temperature is 38 C. (100.4 Fahr.) The bowels are confined; the tongue is foul and dry. She is to have a saline purgative enema. The lower extremities are to be swathed in several folds of cotton wadding, and then packed up in warm flannels. India-rubber bags filled with warm water are to be kept close to the limbs, so as to maintain a warm equal temperature. Cold water is to be kept diligently applied to the head so long as its use continues to be, as it now is, soothing and agreeable to the patient. The wine is to be given very moderately so long as the heat of head and flushing of the face continue. She is to have milk and water as an ordinary drink; and milk-diet and beef-tea as hitherto, except that the quantity of beef-tea is to be diminished so long as the heat of head and present high temperature exist. A cradle is to be placed over the legs, to bear the weight of the bedding.

October 17th, 11 A.M. The night-nurse reports that during the night the patient, on awaking from sleep and having a dose of wine, made several great efforts to speak, and succeeded to some extent, with thick voice and active eye, to express that she was suffering great pain in both legs. At 8 A.M., the pulse was 120, and the temperature 38.1 C. (100.6 Fahr.). At present, the pulse is 110. The head is cool, and the countenance tranquil. The tongue is rather moist. The skin is dry, but not hot. The right—the non-palsied leg—has no longer a glistening appearance, and is now hardly at all swollen. The left—the palsied leg—has become very much swollen, as much swollen as was the right leg yesterday. There is no increase in the sensibility of its general cutaneous surface; but slight pressure, made in the course of both the internal and external saphena veins, causes the patient to move the limb with almost spasmodic energy, and to give evidence by the wincing of her features that great pain is being caused. The veins are invisible, from their deep-seated adipose position and the swollen state of the limb. Manipulation gives so much pain, that their state cannot be determined satisfactorily by tactile examination; but the touch nevertheless gives an impression that cord-like bodies exist in the course of the veins. By the exercise of voluntary power, the patient cannot move in the smallest degree the left upper or lower extremities. The mouth is drawn to the right side; but this is only slightly apparent when the countenance is in a state of repose, though strikingly visible when she smiles, which she has done repeatedly since this report was commenced. When asked to show her tongue, she protrudes it very slowly, very carefully, and with an air of deliberation, just as if she were performing an operation requiring adroitness and nicety of calculation. The tongue, however, is fully protruded. After she had exercised some minutes in protruding the tongue, its protrusion became increasingly difficult, and was at last temporarily extinguished. There is less aphasia. She has to-day a peculiarity of speech which I have not before observed. Her voice is still so thick that it is very difficult to recognise the words she employs; but she has a new peculiarity—the words are as it were thrown out of her mouth by a concentrated effort or jerk. Her intelligence is perfect. She asked and answered questions regarding her paralysed state and her general condition in a correct discriminating manner, though much distressed by the physical impediment to speech. Her three principal complaints are, that she can hardly speak; that she has pain in a situation she indicates—viz., in the course of the left internal and external saphena veins; and that she is now stinted in her wine, without which she cannot utter words. She has some difficulty of breathing, but it is neither an urgent nor a constant symptom. The breath-sound is feeble posteriorly in both lungs, but is feebler in the lower third of the left lung than in any other situation. The alvine and renal evacuations are natural. The dingy yellow hue of the skin is disappearing. Let a large blister be applied to the front of the chest, and treated with poultice, cotton-wadding, and linimentum calcis.—8 P.M. Visiting another patient, I casually asked her how she felt. I am struck by the improved voice in which she has replied "Much better". Her countenance is cheerful and natural. She had just taken a tumbler of milk containing an ounce of rum. On telling her to flex the forearm on the arm of the palsied extremity, I saw the biceps feebly but distinctly contract, the result of which was a corresponding slight flexion of the forearm. On a second trial, a similar result was obtained. A third and a fourth trial proved complete failures.

October 18th, 2 P.M. She passed an excellent night. The countenance is very cheerful. The oppression in breathing seems nearly gone. The blister rose well, and has discharged an abundant serosity. The blistered surface is now covered with layers of wadding in the usual way. She remarked that she liked the blister, and hoped that she would soon have another. There is no swelling of the right leg. The left—the paralysed leg—is much less swollen than yesterday; it is still painful on pressure in the course of the saphena veins. No indurated cords can be made out, but nevertheless it is possible that they exist. The pupils, though still very much dilated, are less dilated than I have observed them since the hemiplegic attack. The skin is very moist, but for some days there have been no profuse perspirations. The dingy yellowness lately so apparent on the face, neck, and arms, is less to-day than it has been for a week. There is no longer any yellowness of the conjunctivæ. She can converse fairly well for two or three minutes, after which her speech becomes thick and embarrassed, and at last fails.

October 31st, 11 A.M. Since the 18th, there has been a steady daily improvement. To-day, she is sitting up for the first time. She can speak for a few minutes without being fatigued. The face, however, betrays the paralytic affection. She can, by leaning on a chair and pushing it before her, move about a little, dragging the left leg. She has regained very little squeezing power in the left hand, but in this respect for some days past there has been decided amendment. Since the 25th, she has taken with her principal meal—ordinary hospital fare of soup, meat, and vegetables—a pill containing one grain of the extract of nux vomica, one grain of the saccharine carbonate of iron, and two grains of the compound rhubarb pill. She has likewise had every morning an enema of tepid water, by which means a satisfactory state of the bowels has generally been maintained. There is now a greater tendency to constipation. Her allowance of stimulants has for the last few days been one *litre* of claret in the twenty-four hours, and one ounce of rum. The latter is taken in a tumbler of milk when the morning movement of cleaning begins in the ward about seven o'clock. She is not now fed during the night, as she sleeps soundly without awaking.

November 1st. She is progressing favourably. She is allowed to sit up some hours daily. She is to take one of the pills prescribed on the 25th after each of the two principal meals; and, when necessary, she is to have a tumbler of Pullna water as an aperient.

November 5th, 11 A.M. Since November 1st till yesterday, her condition in respect of the hemiplegia has remained stationary. Her general state has been less satisfactory; but till yesterday, except occasional complaints of frontal headache, there has been nothing in her symptoms to attract particular notice. She awoke yesterday morning with severe headache, flushed face, and dry tongue; and has not since been able to sit up for a short time, as she had been doing daily. Her relapse is probably the result of over-eating and having had more than enough wine. Prior to the 1st, she had for some days been quite ravenous for food. For wine, her craving was also inordinate. To satisfy these desires, she had been supplementing her own very abundant alimentation by using secretly wine and meat which other patients gave her from their superabundance. Her pulse is 120, and her temperature 39.0 cent. The urine is rather scanty. The bowels are confined. She has no appetite. She is to return to a liquid diet, to discontinue the pills, and to have forthwith a tumbler of Pullna water. Till the headache and heat of head cease, cold water is to be diligently applied to the head.

November 9th, 11 A.M. Both symptoms and treatment have continued very much as reported on the 5th instant till this morning, when some amendment in her state is observed. There is a slightly increased power both in the arm and leg. The headache continues, but is rendered bearable by the diligent application of cold water to the entire head. She still sleeps badly, but she slept better last night than for some previous nights. The bowels are moved once or twice daily—sometimes without, and sometimes with, the aid of Pullna water and an enema. The tongue is cleaning. The respiration is natural. The skin is soft, but not moist. The pulse is 104, very compressible; the temperature is 37 C. (98. 6Fahr.) She refuses her food, but takes wine greedily. A very careful examination of her state has now been made. The veins are rendered invisible by the swollen state of the limb and their deep-seated subadipose position. Digital examination occasions so much pain, that it cannot be satisfactorily employed to determine their condition; but it is nevertheless correct to state that the touch gives to a certain extent the impression of cord-like bodies existing in the course of the veins. There is not the slightest voluntary motor power in either the upper or the lower left extremity. The mouth is considerably drawn to the right side; this is much less apparent when the countenance is in a state of repose; it is very striking when she smiles, as she has often done during the preparation of this report. When asked to show her tongue, she protrudes it very slowly and with an air of thoughtfulness, as if she were performing an operation demanding the exercise of the greatest skill. The protruded tongue deviates to the right.

November 16th, 11 A.M. Since the 9th instant, there has been a distinct daily amendment in all the symptoms. To-day, she is ordered to have ordinary diet. The only addition to the ordinary allowance of food and wine is a continuance of the morning ounce of rum in a tumbler of milk. She sits up daily for an hour.

November 17th, 11 A.M. She is up and dressed. She looks well. The pupils are now very moderately dilated. The tongue is clean; the pulse is 70. She speaks without hesitation, and her articulation is distinct and perfect. She cannot, unless supported, take more than three or four steps; even when supported, her gait is very unsteady, and the left leg is slightly dragged. She says that she has not quite as much power in the left arm and hand as in the right; but she uses both arms apparently as well as other people, and the grasp with the left hand is not weaker in proportion to the grasp with the right hand than is usual.

December 1st. She is now quite well. Except a very slight weakness in the left leg, no trace of any paralytic symptoms remains. The rum and milk to be discontinued.

December 8th. No trace of the paralytic symptoms remains. She can walk up and down stairs. The catamenial discharge has returned in a normal manner after missing three periods.

December 16th. She has remained since the 8th free from any paralytic symptoms or local weakness of any kind. She leaves the hospital to-day, plump, and in excellent health.

On every occasion in which the temperature was taken in this case, the thermometer was introduced into the axilla. The cold affusion was frequently used in a modified form throughout the treatment, and generally with the result of abating restlessness, and sometimes of inducing sleep.

[*To be continued.*]

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# THE USE OF SULPHURIC ETHER AS AN ANÆSTHETIC.

By THOMAS KEITH, M.D., Surgeon for Ovarian Disease to the Royal Infirmary, Edinburgh.

I OUGHT ere now to have communicated to the JOURNAL my experience of sulphuric ether. I have given it in ovariotomy and other prolonged operations, or whenever it was necessary in feeble patients to give an anæsthetic, ever since the beginning of 1867, when I doubt if anyone used it in this country except myself.

In giving an account in the *Lancet*, August 1870, of my second series of fifty cases of ovariotomy, the following remarks were made.

"In Case LII, the excessive chloroform vomiting during the operation, and for some time after it, so prostrated the patient, that her chance of recovery was lost. In the early cases, I have frequently had to deplore the injurious effects of chloroform vomiting in ovariotomy, and so evident was the mischief occasioned by it in this unfortunate case, that I have since then entirely abandoned the use of this agent in ovariotomy and other severe and tedious operations, and now use instead anhydrous sulphuric ether, made from methylated alcohol, administered through Dr. Richardson's apparatus. The oftener ether has been given, the more I like it. How chloroform so quickly superseded it is a marvel. The anæsthesia of ether, though at first slower, is extremely steady and quiet. There is infinitely less vomiting than with chloroform, and, instead of the pallid face and feeble pulse of chloroform, the patient, after a long operation, is put to bed with a flushed face and a great surface-circulation. In cases of non-adherent tumour, vomiting is, I fancy, of little consequence; but, where there has been extensive adhesion, and when oozing may be set up by it after the wound is closed, vomiting can be no trifle, and may turn the scale. Sulphuric ether has now been used—at first with a small proportion of chloroform—in 53 cases of ovariotomy (of which 46 recovered), and something has been gained from the use of it. I would put in a word for the old anæsthetic. Chloroform certainly saves the surgeon five or ten minutes of time, and a little trouble. Had it never been heard of, I doubt if humanity would have suffered from the want of it."

This opinion was looked upon here as heretical, and, being adverse to chloroform, was attributed to personal motives; yet, after four years, I have little more to add than simply to endorse it.

The case above referred to was at the time published in the *Edinburgh Medical Journal*, and I felt so certain that chloroform vomiting killed the patient, that in the case which came next I took to sulphuric ether in a sort of despair. It was not new to me, for in 1847-48 we all looked upon ether as a good practical anæsthetic. When I began again to use it, a small proportion of chloroform was added; for the best English ethers were found to be very impure, and it was rare to get one with a specific gravity under .750. At length, Dr. Arthur Gamgee put into my hands a perfectly dry ether made from methylated spirit. It is manufactured by those conscientious chemists Messrs. Macfarlane. Its specific gravity is .715 to .717. It costs me three shillings a pound of twenty-four fluid ounces, and it answers admirably for local anæsthesia. For the last six or seven years, nothing but this ether has been used, except twice, when bichloride of methylene was given, and once, a few months ago, when operating at Newcastle, when chloroform was used. The apparatus employed has been the mask of Dr. Richardson's apparatus, with a sponge fixed in the bottom. It might easily be improved; but it answers its purpose well enough, though there is great waste with it. For many years, the ether was administered by my brother Dr. Keith; of late, it has been given by Dr. Foulis, who will at an early day give his observations upon it. There has been no difficulty in bringing patients under its influence. It is given freely, and plenty of air gets in with it. We have not observed the excitement which is said to accompany the inhalation of ether. It is always taken by the patient in bed, and no one is allowed to be in the room but the administrator and nurse.

But the great advantage of ether over chloroform in such operations as ovariotomy lies in the almost complete absence of after-vomiting. Vomiting with an open wound is of no consequence. With chloroform, after-vomiting was the rule, and, in the afternoon and first night of an operation, the nurse required to be always at hand with a basin for the vomiting. With ether, after-vomiting is quite the exception, and it is never severe or continued; while some patients sleep on, and often remain two or three hours without moving after being placed in bed.

My confidence in sulphuric ether as the best practical anæsthetic we yet have does not thus diminish. Its low specific gravity must make it less dangerous than the others. It is not perfect, but it answers my purpose better than any other. It saves my patients from the misery of after-vomiting, and, in ovariotomy, from the chance of losing their lives in certain cases of bad adhesion from bleeding being set up by the sickness after the abdomen is closed. Whether of itself it diminishes the risk of operations, I cannot tell; but I am inclined to think that it does often save the feeble ones. This much I can say, that ether has now been given in one hundred and thirty-five cases of ovariotomy, and in two cases of successful removal of the uterus for fibro-cystic tumour. In every case, the anæsthesia was profound, many of the operations were very tedious, and, of the last sixty-six operated on, sixty have recovered.

In the beginning of 1848, Sir James Simpson wrote in the *Edinburgh Medical Journal* an elaborate statistical paper, showing that the mortality after amputations of the limbs, especially of the thigh, performed in hospitals under ether was much less than before ether was known. The results of upwards of three hundred amputations were obtained by circulars sent out in the usual way. This paper is worthy the attention of those interested in the statistics of the more recent results of operations in hospitals. Either chloroform has increased the mortality of hospital operations, or, in the early days of anæsthesia from ether, the results were better than at a later period. It may be also well to note that, when this paper was reprinted some years afterwards, the words ether, etherised, and etherisation were in almost every instance displaced by the words anæsthetic, anæsthetised, and anæsthesia. Perhaps the results of operations were then considered too good for ether, which latterly came to be given the merit of being only an improvement on the mandragora and other rubbish of the middle ages.

## THE TREATMENT OF SYPHILIS BY MOIST MERCURIAL FUMIGATION.

By JAMES R. LANE, F.R.C.S.,
Surgeon to St. Mary's and the Lock Hospitals.

I REGRET that in some recent remarks on the modern treatment of syphilis, lately published in the BRITISH MEDICAL JOURNAL, I should have said anything displeasing to Mr. John St. S. Wilders of Birmingham, who writes in the JOURNAL of January 23rd in the character of an old pupil and friend of the late Mr. Langston Parker, and who thinks I have not shown sufficient appreciation of the system of moist mercurial fumigation, which that gentleman was the first to introduce.

In referring to the different modes of administering mercury, I said I believed it to be comparatively unimportant whether it were by the mouth, by inunction, or by fumigation. I said also, as quoted by Mr. Wilders, that "inunction is perhaps, on the whole, to be preferred, especially for hospital patients; but it is troublesome and dirty, and, therefore, it is often undesirable to resort to it in private practice. The same objection applies to fumigation, with the addition that it is, as a rule, more debilitating, for the nightly vapour-bath has a decidedly depressing influence." For these reasons, I prefer, in all ordinary cases, to administer the remedy by the mouth.

Mr. Wilders, on the other hand, "affirms with the utmost confidence that the treatment of syphilis by moist mercurial fumigation is neither troublesome nor dirty, nor has it a decidedly depressing influence on the patient; but that it is, on the contrary, a cleanly, rapid, and most manageable method, and the most powerful therapeutic agent in the removal of disease, and the least hurtful to the constitution of the patient". He then refers to Mr. Parker's large practice, and also to his book, in which ninety-one cases are to be found, many of them reported by Mr. Wilders himself, who "most fearlessly affirms that they are a trustworthy record of the marvellous efficacy of the treatment".

Mr. Wilders's zeal for the reputation of his late teacher (of whom I wish to speak with all respect) is greatly to be admired; but I cannot say as much for his logic. I would venture to suggest to this very affirmative gentleman that Mr. Parker's ninety-one cases, even with the addition of one of his own, which he gives in detail as a "reply to my allegations", have no bearing whatever on the question as to which plan of treatment should be preferred. They merely show that syphilis may be successfully treated by mercurial fumigation—a fact which is not denied; but they are worthless to show that fumigation is a better method than that by the mouth or by inunction. This point cannot be settled by assertions, however positive, but only by a careful trial of all three on a sufficient scale, and an impartial comparison of the results.

In forming the opinion which I expressed, I was not guided by what I had read in books, or what I had been taught by others, but by what I had observed for myself. Having no predilection for any particular method, and being desirous of learning whether any one of these three plans deserved to be preferred before the others, I was in the habit for years at the Lock Hospital of employing each in turn for a period of months together in every case requiring mercurial treatment, and I failed to find any material difference in the results. In fact, I might easily have published a very large number of cases of each plan of treatment, showing equally "marvellous efficacy".

I know no reliable proof that fumigation is less hurtful to the constitution than the other methods, though nothing of course is easier than to make the assertion. Mercury, when given improperly, or in excess, will, I believe, be equally hurtful, by whatever channel it may be introduced into the system.

## THE TREATMENT OF SCABIES.

By ROBERT LIVEING, M.D., F.R.C.P.,
Physician to the Middlesex Hospital, in charge of the Department for Skin-Diseases.

THERE are three principal methods of treating scabies: 1. By sulphuret of potassium baths; 2. By sulphur vapour-baths; 3. By sulphur ointment. It may be a satisfaction to those who cannot conveniently use the sulphur-baths, to know that the treatment by inunction of sulphur ointment is the most efficacious of the three methods.

There are three mistakes commonly made in treating scabies, especially in private practice: 1. In not applying the remedy over the skin of the whole body, except the head; 2. In using the ointment of the *British Pharmacopœia*, which contains one part in five of sublimed sulphur, and is too strong, especially for children; 3. In using the ointment for too long a time, and thus producing an irritable state of the skin. This often happens when people attempt to *treat themselves* for what they believe to be the itch. On the two latter points, most experienced observers agree; but on the former some difference of opinion exists. In a lecture recently published, my friend Dr. Tilbury Fox remarks: "It is a rule of prime importance in treating itch, to accurately determine at the outset how far the acari have disseminated themselves about the body. The reason is obvious. There is no need to apply parasiticides to parts in which the acari do not exist, because the irritation and eruption elsewhere are due to sympathetic action; and these irritated parts will get well, if the acari be destroyed, and they do not require the use of irritant remedies, such as parasiticides are, but soothing remedies. The practice is to apply the remedy to every part of the body where eruption exists in cases of itch. Clearly this is wrong, from what I have just said. My rule is this: if the disease be recent, if it be only slightly marked, if it began about the hands, and there be no cuniculi about the penis, I order the parasiticide to be rubbed into the interdigits, the palm of the hand, and the wrists, and I apply a soothing lotion to all other irritable parts of the body. . . . I repeat, then, by way of summary, in private practice, if the disease be slight and recent, use the parasiticide to the hands only, and soothe the other parts with some emollient or astringent lotion or ointment."

In the first place, I would remark, that in private practice it is in many cases next to impossible, and quite unnecessary, especially in women and girls, to examine the abdomen, thighs, and every part of the body, to ascertain how much of the eruption is due to scabies, and how much to sympathetic action.

The best plan of proceeding is, in my opinion, as follows. Having once ascertained that scabies exists, order one thorough application at night of mild sulphur ointment to the whole of the body, except the head, and direct the patient to sleep in the drawers, jersey, and socks that he has used the day before; this will secure the death of any stray acari about the body or in his underclothes; in the morning, he should use a warm-bath. The after-treatment should consist of the local inunction of the ointment, into those parts only which are especially affected, for two or three nights. In all mild cases, the cure by this plan is quite certain, and is attended with very little inconvenience. The objections to sulphur-ointment are its irritating qualities and its smell. The first is avoided by using an ointment made with half a drachm to two scruples of the precipitated sulphur to one ounce of lard. The precipitated is in finer powder, and less gritty than the sublimed sulphur, and more efficacious. A great part of the inconvenience arising from the smell of the sulphur may be avoided by using it only during the night. A drop or two of sandal-wood oil will quite disguise the smell. In cases of long standing, it is necessary to have the clothes baked; but a temperature of 190 deg. to 200 deg. Fahr. is quite sufficient, and the bed may be easily fumigated by using a little sulphur sprinkled on the cinders (not too hot) of a warming-pan.

It often happens that the irritation of skin remains after the scabies is cured, and thus induces people to go on with the sulphur treatment too long. Instead of doing so, a mild stavesacre ointment should be used, made with the oil of stavesacre and lard; this relieves the itching, and at the same time will kill any stray acari that may have escaped death from the sulphur.

# MALARIA.

By J. BUTLER HAMILTON, M.D.T.C.D., Surgeon, Army Medical Department, Fort Pitt, Chatham.

FOR some weeks, the pages of the BRITISH MEDICAL JOURNAL have contained a most interesting discussion on the above subject, provoked in the first instance by a *critique* on Dr. Munro's paper in the last Army Medical Blue Book written by Surgeon-General Maclean, and followed up by rejoinders from Dr. Inman and Dr. Tilt.

On first reading Dr. Munro's paper, I was struck by the apparent subtlety of his arguments, and was almost persuaded against my own experience and conviction; but, on reading Dr. Maclean's rejoinder, I quite saw all the weak points in Dr. Munro's argument, and I think we all owe a debt of gratitude to Mr. Maclean for putting matters so clearly before us. Dr. Inman seems to me to take up a most untenable position; and, while having the honesty to acknowledge he has no practical knowledge of malaria, he attempts, from the rostrum of his study-table, to dictate to those who have not only spent the best part of their lives in treating the diseases caused by malaria, but who have also in too many cases suffered in the flesh from the same cause.

I will briefly review Dr. Inman's last arguments. He states that on board ship "the folks attacked are not those who sleep between decks, but those who sleep in the open air". Now, I have had as large an experience at sea as most medical men not actually belonging to the navy, and have myself slept night after night on deck in the tropics for weeks, and never once was attacked by ague in consequence. I have sailed the West Indies from one end to the other, also in that most pestiferous region tropical America; and though, as a rule, I slept on deck, often under no awning, and merely lying down in my clothes on a bench or on a grating, yet I never once got an attack of intermittent fever in consequence. It is a well known fact that, in these malarious regions, the custom is to anchor at night as far from land as possible, in order to avoid the pernicious effects of the land-breeze; in other words, of malaria.

Dr. Inman says bilge-water is "a nearly constant quantity in ships". This I deny. I have sailed in ships so dry and free from bilge-water, that the captains used to pump water into them and pump it out again merely as a matter of precaution, and to keep them "sweet". Dr. Inman accuses Dr. Maclean of talking "vaguely about rotten granite, fungi, water below the surface, old wells, etc.", and then immediately goes off himself and talks in the vaguest manner about there not being "a spot on the earth's surface where water cannot be found by those who dig for it". Now it is this very point that is the all-important one in furnishing one of the chief factors of malaria. I look on the depth at which subsoil-water is found as one of the most likely indications of any given place being malarious, or the reverse; and, *cæteris paribus*, it will be found that the nearer the surface the subsoil-water lies, the more malarious the locality.

At Belize, in British Honduras, the barracks are built on the alluvial delta of a large river which, flowing for miles through and draining in its course an enormous tract of swamp, empties itself into the sea by two mouths on each side of the site of the barracks. The ground on which the barracks are situated is below the level of the sea at high tide, so that the subsoil-water lies quite close to the surface—so close, in fact, that I made a well by merely sinking an old packing case, with a few holes bored in the bottom, about eighteen inches below the level of the ground, and used the water for my bath. To the rear of the barracks lies a foul swamp, extending back for miles, and, as might be expected, the cause of malarious diseases to a fearful extent: to prove this further, when the sea-breeze blew, the place was fairly healthy; but, when the land-wind set in, bringing with it its load of malaria, agues became fearfully prevalent.

I will also give an example from India. Allahabad is situated on a loop of land almost surrounded by the Ganges, and about five miles in length. The old cantonments were situate at the extreme end of the loop, which was fairly elevated about fifty feet above the level of the river, the subsoil-water averaging a depth of forty feet; the new cantonments are built near the railway, chiefly for strategical reasons, I believe, and the barracks are placed on a low swampy piece of ground, in which the subsoil-water is found about twelve feet from the surface. The new barracks have all the advantages of the latest construction in elevation from the ground, the men sleeping on the upper storeys, while in the old cantonment the barrack-buildings were little better than sheds; yet in the former malarious fevers prevailed in an enormously larger proportion than in the older, but better situated, buildings. The climate was the same, and the men were not more exposed to "chill" in one than in the other; but the malarial factors existed in a much more marked degree in the new than in the old cantonments.

Dr. Inman next attacks the theory concerning the causation of malaria by the turning over and exposure of earth, and wants to know why ague is not equally prevalent at Chatham and Portsmouth as at Hong Kong. He might as well ask why, if one man contract small-pox from turning over the rags in a rag-dealer's store, every man who sifts rags in other stores does not equally take small-pox? The answer is obvious: in one the factors of the disease are present in the shape of clothes or bedding used by small-pox cases; in the others, not so. It is the same with malaria. Surely it cannot be thought by Dr. Inman, or anyone else, that Dr. Maclean ever meant to be understood that the mere act of turning over the soil would produce malaria. No; the factors must be present, *i.e.*, decomposing vegetable or other substances acted on by moisture and a certain temperature.

One of the worst outbreaks of malarious fever I ever remember took place at Jubbulpore, in the Central Provinces, in the autumn of 1866; and the 23rd (Royal Welsh) Fusiliers, then quartered there, suffered to a fearful extent. I forget the actual number of deaths, but there were about 20 out of a strength of 500, nearly every man present having been attacked, and at one time there were nearly 300 men under treatment; oddly enough, the battery of Royal Artillery of which I was in charge not only escaped all mortality, but had hardly a case in hospital, though occupying the same range of barracks. Now, there were three causes in my mind that led to this result. The buildings occupied by the Fusiliers ran along the edge of a plateau, below which was a large extent of swamp, and they shut out our barracks almost entirely from the influence of the malaria. The next cause in my mind was in the fact, that the large surface-drains running through the lines of the 23rd had been just opened and cleaned out, while those in our portion of the cantonment were not interfered with. The third reason was, I gave every man in the battery three grains of quinine every morning as a prophylactic, while the surgeon of the "Royal Welsh" was compelled to abstain from doing so, in consequence of an order received from the Deputy Inspector-General of the circle (Indian Medical Service), who had the issue of medicines in his power. I disobeyed the order on my own responsibility with the happiest results; and, when the mischief was done, the issue was carried out with the 23rd. I well remember the packets of quinine arriving daily by post, the old adage of "locking the door when the horse is stolen" being peculiarly applicable.

Regarding the effects of sleeping under cover, I quite agree with Dr. Inman in his advice on that head; and there is no doubt that, when in a malarious place, it is advisable not to expose the body to chill; not that I think chill produces malarious diseases in a healthy person, but anything that tends to lower the tone and reduce the general health assists the enemy in his work, and lets in the fatal malaria by a loop-hole.

When the blood is saturated with the malarious poison, a very small cause will suffice to induce a paroxysm of ague. It is now just fourteen years since I got my first attack, and it was in this wise. Returning from Carosal to Belize in a small open schooner, we grounded on an alluvial island at night, and for two days we stuck there, in consequence of a change in the wind, which lowered the height of the water within the reef that runs all along that coast. Expecting to make Belize the evening of the day we started, I took no provisions with me, so had to land on the island and shoot pigeons for food. For several hours, I wandered about in the rotten mud of this swampy spot, preferring the coolness of the shade to the heat of the open boat; in addition to which, we had to drink the semi-putrid water we found there. I got no "chill", as at night I had on abundance of clothes and blankets; nevertheless, on my arrival at Belize, I was attacked by malarious fever, which all but proved fatal, and which I never entirely succeeded in shaking off for over a year, some of the worst attacks I ever had being in Dublin, after my return home on sick leave. Certainly I will allow chills and exposures often induced paroxysms of the ague, but I deny that they ever caused the disease originally. Affections of the mind, it is well known, often induce ague attacks in the victims of malaria, and the worst attack I ever had came on the day I was to go before a Board which was to decide on my fitness or otherwise to return to the West Indies. Even at this period of time, if I catch cold, it always assumes a periodic form, and quinine is my sheet-anchor.

Dr. Inman speaks confidently about chills producing ague. I will open a fine field for his investigation. Let him inquire whether gardeners, who work much in greenhouses kept at a high temperature, and who must often be chilled by sudden exposure to the outer air, are more liable to get ague than others residing in the same locality. Again: firemen on board steamers, after being for a couple of hours in the fearful heat of the stokeholes, constantly expose themselves to chills by coming on deck to get cool; and, though acute inflammation of the lungs is by no means uncommon, yet I think he will find it hard to prove they are more liable to ague than the other seamen on board. The most deadly spot in the world probably, exceeding even the coast of Africa in the intensity of its malaria, is the "Terai"—that belt of jungle running along the foot of the Himalayas; for an European to enter it at certain seasons of the year, is almost certain death. Here is a true example of malaria produced by the well known factors, vegetable decomposition, moisture to saturation, subsoil-water almost at the surface, and a high temperature. Here it is not necessary to be chilled, and no number of blankets will keep off the deadly malaria; but, twenty miles off, one may sleep in the open with almost perfect safety, excepting, perhaps, at the end of the rains, when, all the factors of malaria being present in a greater or less degree, every part of the continent of Hindostan is more or less malarious.

I fear I have been not only prolix, but egotistic, in the above remarks; but experience in one's own person is more valuable than the parlour arguments of a man who tries to upset the conclusions arrived at by such men as Dr. Maclean, who have spent their lives not only in seeing, but in suffering from, the effects of malaria.

## AN OPERATION FOR THE DESTRUCTION OF VARICOSE VEINS.

By CHARLES STEELE, F.R.C.S.,
Surgeon to the Bristol Royal Infirmary.

It is but waste of time to heal varicose ulcers without destroying the varicose veins on which they depend, as they are sure soon to break down again. Varicose ulcers whose veins have been destroyed immediately assume a healthy aspect, and heal much more rapidly from being relieved of chronic congestion. If the continuity of a vein be destroyed at any point, the entire vein beyond that point withers up to the nearest branch.

Until rather more than a year ago, I always performed the operation of ligation with pins and wire, and subcutaneous division. But at that time a young man came under my care in the Bristol Infirmary with bad varicose ulcers, and varicose veins standing out prominently above them. I told him it would be necessary to destroy the veins; but he replied, "No, thank you, sir; I had them pinned a year ago, and they have come again as bad as ever, and in consequence I will not have them operated on again". I had often remarked, when operating, how easy it would be for a vein to be only partly cut through, the blood to escape, and the surgeon to presume that the vein was severed; in fact, that it is difficult to prevent a narrow band of tough vein from slipping over the point of the bistoury. Besides this, presuming even that the vein is entirely cut through, the ends lie in apposition still, the vein is held open by its adhesion to contiguous parts, and many varicose veins are as thick walled and rigid as India-rubber tubing; it is easy then, when the clots have become absorbed, for the circulation to be re-established. It struck me that the most satisfactory plan would be to cut down on the vein, and remove a portion at a suitable point.

A fit case soon presented itself, in the person of W. H., who was admitted into Ward 11 of the Bristol Infirmary, on December 29th, 1873, with an indolent ulcer on the right leg, from which the varicose internal saphena ran straight up to the inner side of the knee. On January 2nd, 1874, I made an incision along the vein three-quarters of an inch in length over the inner tuberosity of the tibia, passed a blunt hook under the vein, dragged out as much as I could, and cut off a piece half an inch long, applied a pad of lint saturated with compound tincture of benzoin to the wound, simple dressing to the ulcer, and bandaged the leg. Very little blood was lost. When examined two days afterwards, the ulcer was changed to a healthy granulating surface, and the wound looked well. Ten days afterwards, a slight attack of erysipelas (which was prevalent at the time) attacked the leg, but passed off soon, doing no harm beyond delaying the healing process. The wound healed by second intention, and the vein became reduced to a small, hard, solid cord.

I was satisfied with my first, and soon tried the same plan on another and worse case. Ann B. had suffered for years from very bad varicose veins of both legs, especially the right, on the middle of which the internal saphena expanded into a bag or coil, forming a swelling two and a half inches long and one inch wide, in the whole of which fluctuation was easily felt, and impulse on coughing was as distinct as in any hernia. The antero-internal surface of both legs was of a deep brown, almost black colour, scattered with numbers of blue elevations, which consisted of varicose bulges covered with skin as thin as paper, all ready to burst; and on each ankle was an indolent ulcer. I removed portions from the leading veins at the inner side of each knee, with the effect of improving the ulcers, and stopping absolutely the impulse on coughing. But, after three weeks, finding that the swelling contained some blood, and that the veins had communications with deep veins, so that they filled with blood in the lower part on the legs being hung down, I cut on to the large swelling, and removed transversely its central portion, which consisted of several tubes matted together. I also lanced each prominent bulge, and stuffed lint into the cavity. The result was good: all healed by granulation, the veins were totally destroyed, the ulcers healed, and the patient was freed from the intolerable pain, weight, and weariness which, endured for years, had rendered her thin, weak, nervous, and timid. Having heard that it was with great difficulty she was persuaded to seek any advice, I felt it essential to make an absolute cure of her at once, and have since seen her walking very comfortably.

I have operated in a similar manner on several other patients without any bad results, but with uniform success. Two other cases deserve particular mention.

A farmer, living at a distance, consulted me last autumn, on account of a small troublesome ulcer of several years' standing on his right leg, resulting, he considered, from having broken his leg ten years ago. He was very lame, required a stick, and, if he walked more than a very short distance, endured much pain and swelling. I found an irregular ulcer, deep discoloration, great chronic congestion, and œdema. No leading varicose vein could be discovered; but he had fifteen blue prominent bulges on the front of the upper part of the leg. He took lodgings in Bristol, and I laid open each of these bulges (they were too small to excise); ascertained with a probe that each vein had a free opening into it, and inserted a stick of chloride of zinc into each. The result was a series of small sloughs, followed as they separated by granulation, and ultimately cicatrisation of the original ulcer and of each wound, subsidence of œdema, congestion, and lividity, and recovery of power to walk easily without a stick for a long distance.

Mrs. F., a hard-working woman, the mother of several children, came under my care, on account of a large, painful, excoriated surface on her left ankle, which was quite misshapen by great œdema. I found that the veins of both legs were very varicose, while the left saphena in the middle of the thigh became so tortuous and dilated, that it developed into a tumour three inches long by one inch broad, prominent and blue. After subduing irritation by rest, etc., I cut out portions on each leg below the knee of the internal saphena, and of a leading anterior branch which fell into it. I found that the varicose mass in the left thigh, when emptied, filled again, owing to some deep communication, and accordingly treated it as I should a fatty or other tumour: made an incision in its long diameter, dissected it freely loose, and tore away each end with a pair of forceps. A little irritation followed, but soon passed off; the wounds on the right leg healed by first intention, those on the left by granulation, the excoriation healed, and the œdema subsided. The day before she went out, she was up, and I asked her to walk the length of the ward, which she did very briskly. A gentleman present asked, "Do you walk better than you did two months ago?" She replied, "I have not walked so well, sir, for five years." After she had been at home at her duties for some weeks, she made the same statement.

The method I adopt now in an ordinary case is to isolate the main vein or veins below the knee, compress above to define the vessel, make an incision at right angles to its axis, dissect out the vein without pricking it, seize firmly with torsion-forceps, and drag out as much as possible, which seldom amounts to an inch, and cut off the piece as close to the skin as possible at both ends. I pass a probe through the removed piece, to be sure that the entire calibre is secured. The vein in the leg is emptied of blood by pressure; if it do not refill, I am satisfied; if it do, I remove portions which are prominent below. A horsehair suture in the wound, a compress of cotton-wool and firm bandage complete the operation. After trying several dressings, I prefer the simple cotton-wool, as it soaks up blood and forms a good protection, which drops off like a scab, if healing by the first intention occur, and comes off easily, from becoming moist, if suppuration take place.

## SURGICAL MEMORANDA.

### MR. MARSHALL'S METHOD OF TREATING VARICOSE VEINS.

I am sure it will interest Mr. Marshall to know that, on November 7th last, I operated with complete success on a young gentlemen suffering from very aggravated varicocele, in the following manner. The principal enlarged and tortuous spermatic vein was exposed for about three inches by an incision made through the scrotal and inguinal textures. A ligature of prepared catgut was then applied round the upper and lower portion of this exposed vein, and the part of the vessel included between the two ligatures was cut completely away. The portion of vein thus removed was fully two inches in length. A piece of lax scrotal skin was also cut away, and, the edges of the wound being brought together, carbolised oil dressing was applied. The result has been perfect, and I am thus glad to be able to confirm Mr. Marshall's experience of this method of treating varicose veins.

THOMAS ANNANDALE, Edinburgh.

# CLINICAL MEMORANDA.

## MUSHROOM POISONING.

IN the JOURNAL for January 9th, Dr. Hutchinson published, under the above heading, a case which terminated fatally. The mushrooms were eaten on a Monday night. Although the patient had previously been rather unwell, no vomiting or diarrhœa followed, but, on the subsequent Friday, febrile symptoms gradually came on, accompanied by cerebral excitement, and a rash, which is vaguely described as "similar to that seen in some people after having eaten shell-fish". Death took place in about a fortnight. Now, as setting aside all other considerations, no poison, (excepting, of course, those of the septic class) has any period of incubation whatever. I fail to understand how Dr. Hutchinson can, for a moment, have attributed to mushrooms the symptoms of what was probably an ordinary attack of typhoid fever (or scarlatina?); and I fully agree with Mr. Cuffe in believing, that the true mushroom "never acts as a poison, in the ordinary acceptation of the word".

HERBERT L. SNOW, M.D.

## DR. LAIDLAW PURVES'S NEW OPTOMETER.

I HAVE read with interest Dr. Purves's remarks upon the determination of the refraction of the eye, and also the description of an instrument which he has devised for determining its various conditions. Dr. Purves, like many other inventors of *new* instruments, must not feel disappointed if it be subsequently pointed out that they are in reality *old*. Two years ago, I had constructed the exact instrument which Dr. Purves describes, and have given a full account of it in a small book published by me last year, entitled *Aids to Ophthalmic Diagnosis*. The only difference between my instrument and that of Dr. Purves is, that mine is smaller, and so can be held in the hand; also an ophthalmoscopic mirror can be adjusted to the front, so that it is, in fact, an ophthalmoscope and optometer combined. The powers which I employed in the discs which revolve in front of each other were, + and — 4, 5, 6, 9, 15, and 29; and the subjoined table will allow any one to see at a glance the reaction which any one glass will have upon another.

| | — 4 | — 5 | — 6 | — 9 | — 15 | — 25 |
|---|---|---|---|---|---|---|
| + 4 | neut | + 20 | + 12 | + $7\frac{1}{5}$ | + $5\frac{5}{11}$ | + $4\frac{16}{21}$ |
| + 5 | — 20 | neut | + 30 | + $11\frac{1}{4}$ | + $7\frac{1}{2}$ | + $6\frac{1}{4}$ |
| + 6 | — 12 | — 30 | neut | + 18 | + 10 | + $7\frac{17}{19}$ |
| + 9 | — $7\frac{1}{5}$ | — $11\frac{1}{4}$ | — 18 | neut | + $22\frac{1}{2}$ | + $14\frac{14}{16}$ |
| + 15 | — $5\frac{5}{11}$ | — $7\frac{1}{2}$ | — 10 | — $22\frac{1}{2}$ | neut | + $37\frac{1}{2}$ |
| + 25 | — $4\frac{16}{21}$ | — $6\frac{1}{4}$ | — $7\frac{17}{19}$ | — $14\frac{1}{16}$ | — $37\frac{1}{2}$ | neut |

The column at the top is that of the *minus* disc; the column at the left is that of the *plus* disc; and the power which will result from the combination of any two glasses will be found at the angle of a line drawn from each. The numbers, both positive and negative, which we are able to produce by the various combinations of the two discs, are as follows: 4, $4\frac{3}{4}$*, 5, $5\frac{1}{2}$*, 6, $6\frac{1}{4}$, $7\frac{1}{5}$, $7\frac{1}{2}$, 8*, 9, 10, $11\frac{1}{4}$,*12, 14*, 15, 18. 20, $22\frac{1}{2}$, 30, $37\frac{1}{2}$. The numbers marked with an asterisk are not quite the correct numbers, but differ from them only by fractional quantities: thus, $4\frac{3}{4}$ is really $4\frac{3}{4} + \frac{1}{85}$, etc.

Personally, I have not been well satisfied with the working of this instrument as an optometer; partly because it was small; and partly because, in using it, one had to have frequent recourse to the table of calculations. Dust was continually insinuating itself between the glasses, and there was some difficulty in cleansing them. Mr. Robson, the optician, of Newcastle, has just finished, under my supervision, a new optometer for the Eye Infirmary of this town, which I think will obviate all difficulties, and an account of which I shall publish shortly.

CHRISTOPHER JEAFFRESON, F.R.C.S.E., Newcastle-on-Tyne.

## CHILL AND MALARIA.

HAVING read the controversial letters in the BRITISH MEDICAL JOURNAL on chill and malaria as causes of paroxysmal fever, I beg to cite one case that occurred in my own family, in which the cause, beyond all doubt, arose from disturbance of the soil. A lady, whose customary sitting-room looked out on a wide gravel walk, enjoyed her usual health until the gravel, which had not been disturbed for years, and was in consequence moss-grown and very damp, was turned up by the gardener. She became directly afterwards affected with an attack of ague, a disease she had never suffered previously, and which was not prevalent in the neighbourhood. I believe it was found, in the Peninsular War, that the troops who were encamped on ground which had been some time previously partly under water, and subsequently dried by the sun, suffered more from intermittent fever than others. I cannot suppose any one would consider Dr. Oldham's test any proof, unless that "the exception proves the rule"; and, after reading Dr. Divorty's letter, I should say that "a physician in his *bedroom*, if not in his study", is very well calculated to bear witness in the matter under inquiry. When in Central America, some years ago, I was informed that the railway from Colon to Panama, across the Isthmus of Darien, cost a life for every "sleeper" laid down; the mortality being partly due to the disturbance of the humid soil.

J. HAWKES, M.D., Alton, Hants.

# THERAPEUTIC MEMORANDA.

## TREATMENT OF ASCARIS LUMBRICOIDES.

THERE are few children who do not suffer more or less from intestinal worms. Although such cases occur almost daily to the medical profession, and although we have remedies which are known to act beneficially, there are few cases in which we are less successful in making a permanent cure; and all because enough care is not given to the manner in which those remedies are administered, and to dietetics during their administration. The following case is mentioned, not by way of offering anything new as a remedy, but simply to impress on the profession the desirability of giving it in the way I shall record. J. D., a little girl two years and a half old, came under my care some time since. I was told by the mother that she had been for some time back occasionally passing a few worms, and that she had lately on two different occasions vomited one. I happened to see the last one vomited, and found it to be the ascaris lumbricoides. The child was thin, weak, pale, and fretful. For the expulsion of those worms, I have the greatest confidence in santonin. It has, besides, the advantage of being easily given to children when compounded with a little sugar. I accordingly gave her three powders, each containing four grains of santonin, with orders to take one each night at bedtime. Before giving the first one, the bowels were opened by a gentle aperient; and, during the administration of the santonin, the child was kept on soups and broths. On the morning of the fourth day, I administered a brisk purgative composed of calomel and jalap. During the course of the day, the child passed fifty large worms. Their average length was about nine inches. A tonic course of treatment was afterwards adopted, and the child has improved rapidly, and now presents no trace of her former illness. The santonin should always be given for three or four days before the purgative. To give it with, or only once before, a cathartic is not sufficient. It acts toxically, and must have time to do its work. The worms are passed like other fæcal matter when dead; but, so long as they are alive, no amount of purging will bring them all away. I have every confidence in the power of this drug to remove completely the lumbricoides worm, and can recommend it as a specific in such cases, when used in the manner I have described.

GEORGE CALDERWOOD, M.D., Egremont.

## OBSTETRIC MEMORANDA.

### DOUBLE ARM-PRESENTATION.

In reference to the case of double arm-presentation which appeared in the BRITISH MEDICAL JOURNAL of December 19th, I beg to state that I was called to one exactly similar, by the late Mr. Watson of Drumlithin, on April 20th, 1857. Mrs. C. had been in labour all the previous day. Chloroform was administered. I returned both arms, and then brought down the feet. Mrs. C. had a good recovery, and I attended her again thirteen months afterwards.

JOS. HENDERSON, L.R.C.S.Ed., Auchinblaë.

# REPORTS

OF

## MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

### ST. BARTHOLOMEW'S HOSPITAL.

### CASE OF EXTRA-UTERINE FŒTATION.

(Under the care of Dr. GREENHALGH.)

[Reported by Dr. HOPE.]

E. R., AGED 39, was admitted on September 10th, 1874, when the following facts were elicited. She stated that she had been married twenty-two years, and was the mother of one child, now twenty-one years of age. She had never miscarried. The catamenia, which commenced when she was fifteen years of age, occurred every month, and usually lasted three days, and were somewhat scanty and painful. She was last "unwell" six weeks ago. Her general health, which had never been good, had been worse since her confinement. She stated that four months ago she took cold just before a catamenial period, since which she had not menstruated regularly. At that time, she suffered much from shooting pains "between the front and back passage", followed in a fortnight by pains in the hypogastrium, like those of labour, and accompanied with fainting-fits, when the abdomen became much distended with flatus, which, however, passed off after taking an aperient. She experienced another attack a month afterwards, similar attacks having occurred regularly for the three last successive fortnights.

On admission, she complained of a dull heavy pain above the pubes, and a feeling of great abdominal distension. On examination, the abdomen was greatly distended and tympanitic. In the right iliac region was an oblong dense tumour, somewhat tender on pressure. The vagina was moist. The os uteri was patulous, and the cervix, which was somewhat elongated, was œdematous to the touch, much raised, and was pushed against the pubes. The posterior *cul-de-sac* of the vagina was occupied by a hard, uniform, immovable swelling, not tender on pressure. The breasts were quite flaccid, and there was no trace of areolæ. No fœtal heart-sounds could be heard. The uterine sound was not introduced.

On the 13th, there was a discharge of blood from the vagina, accompanied with great pain and forcing, which lasted for one night only. On the 17th, there was another loss, "like a poorly time", rather free and clotted, with great pain, which continued more or less for four days. She was ordered bromide of potassium, with bark.

For two days her condition was somewhat improved, but on October 19th she was seized with pain in the epigastrium, flatulence, and bilious vomiting, quick pulse, and much constitutional disturbance, which continued for three days, when, upon examination *per vaginam*, the swelling posterior to the uterus was found to have become more or less boggy. She was ordered opium, etc.

On October 29th, a fine trocar was passed into the most depending part of the swelling, posterior to the uterus, which was followed by the escape of some grumous-like fluid.

On November 1st, there was a large escape of a muco-purulent discharge *per rectum*, which gave great relief to her sufferings.

On November 2nd, about a pint of thin sanious fluid came from the vagina. The abdominal pain still persisted. Tongue clean; pulse quick. She was ordered a saline draught, and a vaginal *douche* with Condy's fluid.

On Nov. 5th, there were pain and feverishness; the abdomen was much distended and tympanitic. The swelling posterior to the uterus had now become much reduced in size, and the os uteri could be more easily reached.

On the 9th, she was much relieved. The vaginal discharge had ceased, but the bowels were much relaxed. An opiate enema was ordered.

On the 12th, the uterus had assumed a more normal position, apparently due to the decrease in the size of the swelling. The diarrhœa still persisted, and the evacuations were very offensive.

On the 16th, she had great abdominal pain, and almost incessant vomiting; the pulse was excessively weak; the countenance anxious and shrunken; the extremities were cold, notwithstanding that the bowels had been less relaxed; and every endeavour, by opium and other means, were had recourse to, in order to support her flagging powers. Still the symptoms of collapse rapidly increased, and she sank in the morning of November 17th, nearly two months after her admission.

POST-MORTEM EXAMINATION, thirty-four hours after death. Throughout the abdomen were well-marked evidences of recent peritonitis. About three feet above the ileo-cæcal valve, was a band of omentum crossing the small intestine, and constricting it so tightly that no air nor fluid could be passed through the constriction. Above the obstruction, the intestine was much dilated and distended by fæces; below, it was empty and collapsed. Rising out of the pelvis, and occupying chiefly the left iliac fossa, was a large tumour filled with blood, which was found to contain the remains of a fœtus of about six months, the placenta and cord being in a most decomposed condition, and emitting a horribly fœtid odour. The walls of the uterus were much hypertrophied, and the uterus was nearly four times its normal size. The os uteri was soft and spongy, and the cervix was occluded by a thick and dark gelatinous mass. No decidua could be detected. The vagina was of a purplish colour.

On examining the cyst more closely, it was found to be firmly adherent to the anterior wall of the rectum; and, about six inches from the anus, was a round opening about the size of a shilling, having perfectly smooth edges, which communicated with the interior of the cyst. The mass of the cyst lay low down in Douglas's pouch, and in front and to its left side was a ragged opening about four inches in extent, at which point the cyst had ruptured. Much of the Fallopian tube on that side had been cut away, so that it was difficult to trace its connection with the cyst; the probability, however, being that the case was one of tubo-ovarian fœtation.

REMARKS BY DR. HOPE.—The diagnosis of extra-uterine fœtation is not always easy; nor are the evidences of pregnancy always sufficiently well marked, though usually there are very presumptive proofs of its existence. In the above case, the clinical history and the local conditions pointed rather to the presence of a retrouterine hæmatocele, as not only were there many prominent symptoms of that affection (such as periodic pains low down in the pelvis, faintings, and aberrations in the menstrual function), but, at the same time, there were the negative signs of pregnancy as indicated by the breasts, and the external abdominal tumour. The character of the swelling was also significant. It was low down in Douglas's pouch, and occupied the greater part of the pelvic cavity posteriorly, the uterus being pushed forwards against the symphysis pubis. At first, it was hard and uniform to the touch, but ere long became soft and boggy, as though suppuration were imminent; and this, accompanied by much constitutional disturbance, and a general aggravation of the local symptoms. The practical question now at issue lay as to the expediency of surgical interference. Nor was it of small importance under the doubtful nature of the case; or, on the other hand, had the diagnosis of hæmatocele been quite conclusive, for even an exploratory puncture is not always free from risk. Opinion on this point has differed widely, and perhaps the dangers of puncture are less considerable than have been supposed. I think, however, that in this case the duration of the swelling, and the sudden supervention of acute symptoms, was a sufficient indication for such a procedure. What influence this exploratory puncture had upon the ultimate issue of the case, it would be difficult to determine.

Probably about this time the rupture of the fœtal cyst, and its communication with the bowel, was imminent. Very soon a profuse muco-purulent discharge *per rectum* occurred, followed by persistent diarrhœa of a most offensive character, which for a time relieved her sufferings, and might even have ended in the ultimate recovery of the patient, had not extensive peritonitis, rupture of the cyst, and a sudden effusion of blood into the peritoneal cavity, speedily proved fatal. It is worthy of note that the deciduous membrane could not be detected, but that a gelatinous substance—a kind of thick ropy mucus—was found in the neck of the uterus.

## ROYAL HANTS COUNTY HOSPITAL.

### CASE OF TUBERCULAR MENINGITIS.

(Under the care of Dr. BUTLER.)

[For the report of this case, we are indebted to Mr. WM. ROBERT SMITH, Resident Surgeon.]

H. B., AGED 13, was admitted into the Hospital, under the care of Dr. Butler, on September 24th, complaining of stiffness and swelling of the right knee. He had always enjoyed good health up to four months before this, when he thought he strained his knee, since which time he had had occasional pain and difficulty in walking.

He was a stout healthy-looking boy, feeling quite well in his general health. The tongue was clean, the bowels regular, the appetite good; he had no cough, the urine was normal. The chest was well formed; the percussion-sound and respiratory murmur were good; the breathing sounds, however, were somewhat harsh at the left apex; the knee was rather swollen, but there was no tenderness or pain; there was slight effusion into the joint. The leg was placed on a back splint, and swung, a linseed-meal poultice applied, and the ordinary full diet ordered.

October 20th. The effusion of fluid had increased, but he did not complain of pain. A blister was ordered to be applied.

From this date, the fluid gradually diminished in quantity until it entirely disappeared, and the patient continued in good health until November 17th, when he complained of headache and giddiness. He vomited once after taking his medicine; the tongue was furred; the bowels confined; pulse full, 100; the knee was red, hot, and painful. Simple effervescing saline medicine was given, and evaporating lotion was applied to the knee.

November 18th. He was much better. The head was less painful; the bowels had been well moved.

The boy continued in much better health until Christmas Day, when he became very drowsy and indifferent. He did not complain of pain in the head. The tongue was furred; the bowels regular; appetite very bad; pulse 100, full. He cried out with pain in the knee when it was moved or touched.

December 26th. He slept badly during the night, muttering and crying out occasionally, but always lying with his head buried in the bedclothes. The patient looked bewildered, was dull, heavy, and stupid, and quite speechless, but apparently understood questions put to him. There was no tenderness about the head or spine, but a general rigidity and tonic spasm of the whole of the body, especially the arms and abdomen. He swallowed with difficulty. The face was flushed; the pupils widely dilated; the tongue furred but moist; the bowels confined; temperature 102; pulse 120.

December 27th. He was in much the same condition, but rigidity was increased. The eyes were injected; he passed urine and fæces involuntarily. Temperature 101; pulse 135, full.

December 28th. He remained in much the same state.

December 30th. On the whole, he seemed rather better; the rigidity was less. He made an effort, when requested, to put out his tongue, which was seen to be furred and moist. The pupils were contracted. Temperature 100; pulse 126. He still took nourishment badly.

December 31th. He was more dull and stupid; his rigidity was quite gone. Temperature 99; pulse 120.

January 1st. He was sinking fast; the pupils were dilated and insensible to light; the extremities cold. At 12 P.M., he died quite quietly.

NECROPSY twenty-four hours after death.—Rigor mortis was present. The dura mater was much congested. On the under surface of the brain, immediately in front of the pons Varolii, and around the optic nerve, was effusion of lymph. The pia mater in the Sylvian fissures was thickly studded with tubercles, more especially in the right. The brain was firm; the lateral ventricles contained about four ounces of clear serum. The left pleura was slightly adherent; the right lung contained a few tubercles at its apex. The left lung was thickly studded with miliary tubercles throughout its entire substance. The heart was normal. The liver was of normal size, but contained several tubercles. One or two tubercles were found in the capsule of the spleen. The kidneys were normal; the intestines were normal; the ileum was slightly congested. The inner semilunar cartilage of the right knee was much ulcerated; the inner condyle of the femur was disintegrated and softened. There was no fluid in the joint.

REMARKS BY MR. SMITH.—This case appears to me to possess some interest, from the absence of several of those symptoms which generally indicate the advent of tubercular mischief in the brain, as also from the difficulty which was experienced in the earlier stages, of diagnosing it to be a case of tubercular, instead of simple meningitis; more especially as it occurred in a boy of apparently good health, with no history of phthisis, and no symptoms of tubercular deposit in the lungs. The points which mainly assisted in the arrival at a correct diagnosis were—the absence of acute pain, of intense fever, and intolerance of light and sound. The patient from the very first was quiet and motionless, rarely crying out, and then never as if in pain. The rigidity of the abdominal muscles, with stiffness of the lower jaw and difficulty of swallowing, were most marked, and closely resembled tetanus; but the speechless condition of the patient, with the bewildered look and heavy expressionless countenance, pointed to the true source of the disease. I think it, however, worthy of note that there were never fixed pain or tenderness in the forehead or any other part of the head, no convulsions or twitchings, and no vomiting.

The treatment adopted was throughout more particularly directed to the support of the vital powers—milk, eggs, beef-tea, and brandy being given by the mouth, and, when this became impossible, by the rectum.

# SELECTIONS FROM JOURNALS.

## THERAPEUTICS.

A NEW SIALOGOGUE AND SUDORIFIC.—Mr. Martindale, a well-known pharmaceutical chemist of London, has pursued some further experiments with jaborandi, employing himself as the subject. He gives an account of them in the *Pharmaceutical Journal*, from which we extract the following. Having heard doubts expressed about the activity of the jaborandi last received, as compared with the results obtained in the first trials I witnessed at University College Hospital, I became somewhat sceptical about its efficacy, and, therefore, expecting to get little results, tried it upon myself. To me the effect seemed simply marvellous. I made an infusion of sixty grains of the bruised leaf in five ounces of boiling water, let it stand fifteen minutes and strained it. On pouring the water upon the drug, I noticed the characteristic odour almost entirely disappeared. The infusion was of a pale sherry colour, had a mawkish bitter taste, but did not excite the glowing heat upon the tongue that the leaf itself did; this I thought strange, and, on tasting the dregs, I found they still retained their pungent taste when chewed. It was evident to me that, if its diaphoretic properties depended on the principle having this pungent taste, boiling water does not extract it. At 11.30 P.M., on retiring to rest, I swallowed as much of the dregs as I could, probably fifty out of the sixty grains used, and washed them down with the infusion. In five minutes, I felt a glow, an increased circulation, an uneasiness in the head, became restless, and the secretion of saliva began to increase. At 11.45, a quarter of an hour after taking the dose, I was perspiring freely. The salivation and perspiration continued to be profuse until my sight became blurred. At a distance of four feet, I could see my wife, but could not distinguish her eyes. On this occurring, I became a little anxious, as I thought I must have taken an overdose. I requested that Dr. Ringer might be sent for; he came about 12.15 A.M. The impaired vision still continued, but I was glad to find that it was only at a distance—near objects I could see distinctly enough. The pupils of the eyes were slightly dilated, I was informed. The pulse when first noted was 96, and got up to 104. The temperature was not taken. The depression was never very great; but a little before Dr. Ringer came, I began to shiver, more clothes were put on the bed, and some spirit and water given to me. The excessive perspiration still continued from all parts of the body. A Turkish bath, which I have frequently had, and seen others have, was nothing to it—the saliva for a time required almost constant ejection; the secretion of this from the glands in the cheeks caused a kind of collapsed feeling in them. This so affected my speech, that articulation was both difficult and indistinct. Eventually, about 1 A.M., I was sick, and vomited at first a quantity of saliva which I had swallowed. Putting my finger in my mouth, vomiting was further excited, until a portion of the jaborandi returned. The effects were now subsiding; more spirit and water were given to me, my night-shirt, soaked with perspiration, was changed. I was put into a warm blanket, and, about 1.40 A.M., I fell asleep, and slept a quiet sleep till 6 A.M. The pulse on awakening was 88—normally with me it is 80. I got up about 7.30 A.M., and although I felt squeamish all next day, I was able to attend to business as usual. When the action was at its height, on uncovering my arm, I am informed, the perspiration passed off in steam from my hand and night-shirt sleeve. The saliva collected, which was distinctly alkaline, measured sixteen ounces, in addition to which a quantity had flowed on to the pillow while I slept, as it was quite wet in the morning. I came to the conclusion, that I should not like to pass through the ordeal again. My thanks are due to Dr. Ringer, whose presence and kindness greatly relieved my anxiety. We have undoubtedly in jaborandi a drug which produces a marked physiological action; how far it will prove useful therapeutically in cases of fever, diabetes, and other diseases, remains to be seen. A drachm dose of the last received is no doubt excessive, that is, if the whole be swallowed. The strained infusion, from what I hear, produces but little effect. M. Robin (see *London Medical Record*, December 16th) gives an account of the results of his researches in M. Gubler's wards in Paris, but no mention is made of its peculiar action upon the vision, which, so far as I am aware, has not been previously noted.

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THERAPEUTIC USE OF NITRITE OF AMYL.—Dr. Fuckel recommends the use of nitrite of amyl in cardialgia, in an article in the *Deutsches Archiv für Klinische Medicin*, 1874. In all cases not complicated with gastric ulcer, the inhalation of a few drops was followed by the disappearance of the pain in a few minutes. The pain, it is true, sometimes returned in half an hour or later; but it was less severe, and always ceased on another application of the remedy. The author also met with nearly equally satisfactory results in the neuralgic disorders accompanying menstruation. He also relates a case of so-called rheumatic tetanus, in which the attacks ceased after the inhalation, three times daily, of two drops of the nitrite of amyl.—*Centralblatt zur die Med. Wissensch.*, No. 57, 1874.

SUBCUTANEOUS INJECTION OF STRYCHNIA IN DIPHTHERITIC PARALYSIS.—In the *Deutsches Archiv für Klinische Medicine* for 1874, Dr. Acker relates some cases of diphtheritic paralysis. In one of them, the patient, a man aged 38, had complete paralysis of both the external and internal branches of the superior laryngeal nerve. Not only was there complete loss of sensation in the upper cavity of the larynx and paralysis of the external branch supplying the crico-thyroid muscle, but also of the fibres of the internal branch which supply the thyro- and the arytæno-epiglottic and arytenoideus transversus muscles. The author believes that this peculiar affection of the superior laryngeal nerve is to be explained by the course which it takes along the middle constrictor of the pharynx, whereby the morbid process affected it by local influence, just as it produces paralysis of the nerves of the palate and œsophagus. In the case referred to, there was disturbance of coordination of the muscles in walking, and the paralysis of sensation and motion was most marked on the right side. The patient had also impairment of the sense of touch. The application of galvanism along the spine, along with hypodermic injection of strychnia, produced so much improvement, that Dr. Acker was led to specially examine the action of strychnia in such cases. It was used in the form of a solution containing 2 per cent.; and within four weeks 0.4 *gramme* (three-fifths of a grain) was injected into a man. Of the beneficial action of this treatment, Dr. Acker specially convinced himself in the case of a woman, aged 36, with complete paraplegia.—*Centralblatt für die Med. Wissensch.*, p. 57, 1874.

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THE ACTIVE PRINCIPLE OF SENNA.—From several theses on senna, laid before the University of Dorpat, it appears that frequently repeated experiments show that, when an infusion of senna is evaporated in an open vessel to the consistence of an extract, that extract has very little power. If this extract be redissolved in a large quantity of water and re-evaporated, an inert extract is obtained. Alkalies alter the purgative principle very rapidly at boiling point. An infusion of senna in lime-water at boiling point, afterwards deprived of its lime by carbonic acid, gives an inert liquid. An infusion of senna, with caustic potash added at the boiling point, subsequently neutralised by an acid, is also inert. The mineral acids are less energetic in their action, and the vegetable acids seem to exercise a very feeble influence. Experiments also demonstrate that the active principle of senna is insoluble in concentrated alcohol, for the alcoholic extract has no purgative action; it dissolves very readily in cold water. Senna, treated with alcohol, loses its taste and smell, but retains its action. This senna, exhausted by alcohol, ought to be in general use, for an infusion of it can be readily administered to children, who take it without repugnance.—*Journal de Chimie et de Pharmacie*, 1874.

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## MIDWIFERY.

ON PULSELESSNESS IN THE CHILD DURING EXTRACTION OF THE EET.—In two cases related by Dohrn in the *Archiv für Gynäkologie*, vol. vi, 1874, of breech-presentation in a narrow pelvis, the heart's action ceased suddenly as soon as the head entered the pelvis. After delivery, however, the children revived; the respiratory movements first appearing, then the heart's action. Dohrn believes that this arrest of the action of the heart is not due to asphyxia, but to pressure on the brain and irritation of the vagus nerve; and he considers that its occurrence is an indication for hastening the process of delivery.

CO-DEVELOPMENT OF INTRA- AND EXTRA-UTERINE PREGNANCY.—Dr. John T. Hodgson reports (*St. Louis Medical and Surgical Journal*, August 1874) the case of a healthy female, æt. 27, in whom the early symptoms of pregnancy were attended by the development of a sensitive tumour within the pelvis, and to the left of the uterus; the tumour enlarged at the same time with the latter. For two months she had great pain in the pelvic region, with nausea and vomiting, and grew very weak. At the end of that time both the uterus and tumour had risen out of the pelvis, and the outline of the right enlargement could be distinctly traced as continuous with the neck of the uterus, while the tumour to the left, though closely pressed against the other, was distinct. It then ceased to enlarge, and gradually diminished in size, but remained tender to pressure, and in a month or two presented some irregularities in form, that had not before been observed. At the proper period, the woman was delivered of a healthy living child, the tumour having decreased until it was no larger than a lemon. A year later, it was about the same size, somewhat irregular, a little sensitive to touch, moving freely with the uterus, lying higher in the pelvis than that organ, and pushing it to the right. The case was believed to be one of tubal pregnancy, in which the sac burst about the fifth month without much hæmorrhage; the fœtus died, and a limited peritonitis occurred.

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# REPORTS OF SOCIETIES.

## PATHOLOGICAL SOCIETY OF LONDON.

### TUESDAY, JANUARY 19TH, 1875.

GEORGE D. POLLOCK, F.R.C.S., President, in the Chair.

*President's Address.*—In taking the chair for the first time, the new PRESIDENT made a brief address to the Fellows, of whom there was a good muster. He commenced by thanking all for the honour done to him in electing him to follow his old friend Sir William Jenner. It would be vanity upon his part to say that the honour was not highly appreciated, for the Pathological Society of London was one of the most honourable in this or any other country. Its growth was extraordinary, and its work most useful. Its *Transactions* formed a storehouse for the most distant lands. Twenty-five years ago, he had been a Honorary Secretary of the Society, and some years of office had made him appreciate the amount of instruction afforded thereby. An old President (Dr. Latham) once declared that he little knew how much he had to learn, and how pathology had advanced, till he took office. If the Presidentship of this Society carried with it so much honour and so much instruction, it might not be out of place to ask the Society to listen to him upon one point. It was in reference to the tenure of office by the President. By referring to it now, ample time would be allowed for consideration before the next election. The rules of the Royal Medical and Chirurgical Society had been adopted in 1846, when London contained but two millions of inhabitants, and but 4,560 medical men; now, the population exceeded three and a-half millions, and the medical men were 5,974. There was not only a large increase of practitioners, but also of students. With the increase of all things medical, some new regulations might be rendered desirable; and, as the members of the Pathological Society had increased greatly in number since the Society was first established, at which time the President need not be frequently changed, there were more seniors eligible for election, and a President might be oftener elected with advantage. Of the original members, but eight had served the office of President; and of those elected since, but a very small proportion had served that office, while there was a large number most eligible. The Society had become very popular, and many of those who once held aloof had subsequently joined; of these, some would fill the office well; but by the present arrangements they could not become eligible till past the prime of their energies. The advance of knowledge in many departments pointed to the value of this Society, as might be seen in the difference betwixt the knowledge of cancer in John Hunter's day and that displayed in the recent discussion. Still, we were in the dark as to the cure and prevention of that terrible malady. If annual election were adopted, many might be found who would serve the office well, and good would come of it. In suggesting, at the earliest opportunity, the annual election of President, he had no object in view but the interests of the Society.

*Papilloma of the Tongue.*—Mr. WAGSTAFFE exhibited two specimens.

The first occurred in a child, three years of age. At six months old, the growth on the tongue was seen. It grew, and interfered with respiration and deglutition. It was about an inch long when removed. The object of pathological interest in this case was the fact that an old nævus was at the bottom of the papillomatous growth, and blood-spaces were found underneath the growth upon the surface. The second case was of greater pathological interest, due chiefly to the doubtful nature of the case. It might be questioned how far it was a papillomatous or an epitheliomatous growth. The patient was fifty years of age, and nearly the whole tongue was involved. Twenty-three years had elapsed since its first appearance. There was a suspicion of syphilis. The patient was first seen by Mr. Hutchinson six years ago. Now, the growth presented a cauliflower appearance, with a number of warts consisting of hypertrophy of the epithelium. The growth was removed by the galvano-cautery. Section showed hypertrophy of the epithelium, with a large number of "birds' nests"; underneath there was hypertrophy of the connective tissue. From the slow progress it made, he preferred to call it papilloma. There had been no recurrence.—Mr. HULKE thought that birds' nests went for little.—Mr. WAGSTAFFE replied that he thought the birds' nests of little importance, but he regarded central cells as of different omen.—Mr. FAIRLIE CLARKE doubted if the second case could be regarded as papilloma; it had gone beyond that, and become epitheliomatous. Papilloma was an innocent growth. The clinical history indicated a large operation, different from that for mere warts. Whatever the early history might have been, the growth was epitheliomatous.—Mr. H. MORRIS thought two growths might possibly be present. He asked if the dorsum had long ago possessed a white harsh growth.—Mr. WAGSTAFFE answered that the surface was much fissured. At the commencement, there was a covering of thickened epithelium. The glands were enlarged at one time; but, after the operation, they had subsided.

*Congenital Dislocation of Femur.*—Mr. SYDNEY JONES brought forward a case of congenital dislocation of both hips, in a girl, aged 17, who had been treated for spinal disease. The history was, that the mother had a fall during the intrauterine existence of the child, but at what period was not exactly known. There was no damage done to the child in labour. The trochanters were carried up to the ilium. The thighs were inverted; the person was knock-kneed, and the feet were thrown out, or, in other words, splay-footed. The heads of the thigh-bones could be pulled down for a short time only. There was no pain and but little inconvenience, the rolling gait being the most marked matter.—Mr. HOWARD MARSH said that several different pathological conditions were classed under the heading of congenital dislocation of the hips. No satisfactory explanation of the phenomenon had yet been given. He had seen a case lately where this affection was apparently hereditary. The person could dislocate her hips at will. Her daughter had the same lesion.—Mr. MORRANT BAKER had a case lately at the Evelina Hospital, in a boy aged 3. The case would be published.—Mr. NUNN alluded to Charcot's cases, where there was coexisting nervous disease.—Mr. H. MARSH doubted if cases ever occurred from nervous disease.—A desultory discussion followed, in which Mr. S. JONES remarked that a projection of the sacrum backwards was found.

*Lymphangeioma secreting Chyle.*—Mr. S. JONES exhibited a living specimen of this morbid condition. The patient was thirty-one years of age. There was no history of syphilis, and the man had never been out of England. There had been no injury to the limb. Seven years ago, the right limb had begun to swell. The swellings resembled varicose veins. They were of a pink colour, were emptied by pressure, but filled again. There was a discharge of milky fluid. Only recently had the discharge become copious. It had some smell. The skin was tuberculated, and there was a prominence on the shin. When there was no discharge, lumps were to be felt. The limb was enlarged. It was worst when hanging down. The man had lost flesh. He had had curious inflammations of the thigh and leg. Swellings appeared like distended lymphatics, with a pink network following, merging into general redness, and passing ultimately into desquamation. At one time, the temperature was 102 deg. Fahr. In these attacks, the vessels in the back of the thigh were like varicose veins. They then burst, and a chylous fluid flowed, with great relief to the symptoms. Great hunger accompanied this process. The treatment consisted of elastic pressure, with complete rest, and ergot internally. This had done him much good. The fluid soon coagulated and formed a firm clot. The microscopical characters were those of milk, with some corpuscles. A rich cream formed upon the fluid, and the ash was alkaline.—Dr. DAY related a similar case in a boy, which he had recorded in the *Clinical Transactions.* When first seen in 1863, this boy was two and a-half years old, and the enlargement was below the knee. Gradually, it spread upwards, and the knee-joint of the affected limb was larger than that of the sound one. The swelling was increased by exercise, and then the limb felt brawny. A surgeon who then saw the boy thought there was obstruction of nearly the whole of the femoral vein. In time, the prepuce became involved, and ultimately a small vesicle formed upon it, which burst one night in bed, and a copious discharge followed. The ruptured vesicle was supposed to be a varicose lymphatic. The presence of chyle-corpuscles in the fluid suggested the idea that the thoracic duct was involved. The affected limb was both stronger and longer than the unaffected limb. Rest always lessened the size of the limb, while action led to swelling of the lymphatics. Crutches did much good.—Mr. MORRANT BAKER said the case had once been in St. Bartholomew's Hospital, but had been lost sight of. He inquired into the characters of the fluid, remarking that, if there were obstruction in the thoracic duct, there would probably be other symptoms.—Dr. FAYRER said that these cases were common in India, much more so once than now. The disease was not necessarily elephantiasis, but was often so. Mr. Lewis had recently found the urine to be chylous, and that a peculiar filaria existed in the blood. A distended condition of the lymphatics was common with elephantiasis. In one case, it occurred from cutting the femoral vein.—Mr. WAGSTAFFE had also a case of elephantiasis, where there was hypertrophy of the skin, with enlargement of the lymphatic vessels. There was much fluid lost. In this case, syphilis was probably present. The other limb was also affected. The cause was probably an abscess in the groin, where there had been a large hydatid, and two pints of fluid came away. The fluid was albuminous. The urine was albuminous, but not chylous.—Mr. S. JONES said the urine was not chylous in his case.—Mr. MARCUS BECK said the patient had been in University College Hospital. The diagnosis was enlargement of the lymphatics as far as the thoracic duct. Rest, etc., were enjoined, but little good came of the treatment.—The case was referred to a special committee, consisting of Mr. S. Jones, Drs. Fayrer, George Harley, and Burdon Sanderson.

*Hypertrophy of the Knee.*—Mr. S. JONES related a case of hypertrophy of the knee-joint, following disease and suppuration of five years' standing. There was a certain amount of lameness. The limb was one inch and a half longer than its fellow, from growth in the femur and tibia. After resection of the knee, the limb is often of fair length from such hypertrophic growth.

## CLINICAL SOCIETY OF LONDON.

### FRIDAY, JANUARY 22ND, 1875.

GEORGE W. CALLENDER, F.R.C.S., F.R.S., Vice-President, in the Chair.

*Periostitis relieved by Incision.*—Mr. PRESCOTT HEWETT exhibited a man who had been under his care with periostitis of the humerus. The patient was a railway porter, aged 46, who had always enjoyed good health. As a young man, he had contracted a chancre, but this was not followed by secondary symptoms. He had never had any accident. For some time previous to his coming under observation, he had suffered from pain in the right arm, which he had attributed to rheumatism; but he had had no symptoms of rheumatism in any other part of the body. Six years ago, he began to suffer from intense pain in the right arm, especially at night, and this was followed by the appearance of a swelling on the outer side of the middle of the arm. This had continued for two years, when he came under the care of Mr. Hewett. There was then found to be a mass as large as the fist, and as hard as ivory, spreading along the bone from the point of insertion of the deltoid muscle, firmly connected with the bone, from which it could not be moved. The diagnosis was made that the case was one of periostitis, with effusion of lymph spreading into the sheath of the deltoid muscle. He was ordered iodide of potassium—thirty grains three times a-day—but without any effect, beyond the fact that the pain appeared to be somewhat lessened occasionally, and then returned with renewed vigour. After a few months of this treatment, as no relief was afforded, he was admitted into St. George's Hospital; and, under the influence of chloroform, a free incision was made through the whole thickness of the tumour down to the bone. The mass was excessively hard, so that the knife was quite blunted by the operation; in fact, the tissue cut through resembled a piece of dense fibro-cartilage. From this time, the pain entirely disappeared, and the swelling gradually decreased. There was now only a little lateral thickening about the bone; the movements of the shoulder-joint were, however, impaired, and there was a certain amount of fibrous ankylosis of the elbow-joint. Some mobility which was apparently left at the shoulder was due to the motion of the scapula upon the trunk. The patient was able to follow his occupation as porter, and could lift as much as a hundredweight. He had remained entirely free from pain, and had gained flesh.

Mr. CALLENDER remarked, that the Society was much indebted t the late President for bringing forward this case. It had been laid down as a principle by the late Mr. Stanley, that in similar cases of chronic enlargement of bone, accompanied by severe pain, much relief was given by cutting down upon and dividing the periosteum; the effect of that operation would lead one to suppose that the pain was simply due to tension of the periosteum. As regarded a second point, the growth of exostoses, Mr. Callender had found that a very great number grew from the ridges into which the muscles were inserted, and he had thought they might have their beginnings in some irritation of the muscle, an overstrain for example. Had Mr. Hewett in his mind any fixed idea of the cause of the fixture of the joints? Would he think any forcible manipulation of the joints under chloroform likely to benefit the patient?—Mr. T. Holmes had been very much struck with this case, before Mr. Hewett's successful operation, as a problem in diagnosis. A very eminent surgeon of London had previously seen the case, and thought it one of malignant disease, and advised amputation at the shoulder. Mr. Holmes had seen three cases of the same disease in the femur in children, in which the question of amputation at the hip-joint had been discussed. And a case was recorded in the *Transactions of the Pathological Society*, in which a bone similarly affected was excised. A good lesson should be learnt, therefore, with regard to these wide-spreading periosteal tumours, not to be in too great a hurry to amputate, but to wait, and to be ready to do so only as a last resource.—Dr. Buzzard asked, what was considered a large dose of iodide of potassium; because he had found that, whereas doses of five and ten grains often did no good, with doses of twenty, thirty, or forty grains every four hours, syphilitic patients had been benefited directly, and those who had not slept for months often enjoyed a good night's rest at once.—Mr. Barwell remarked, that the tumour was developed at the insertion of the deltoid, and had seemed to extend into that muscle, so that it probably began in a wrench-injury to the muscle. He had seen a young gentleman who had strained his knee in the hunting-field, and had ruptured the ligamentum patellæ, not far from the tibia, and who recovered sufficiently to go about and follow his avocation. Fifteen months afterwards, he had a commencing large exostosis from the same place, which had continued to grow until he was lost sight of on going to India fifteen months ago. In Mr. Hewett's case, the tumour had spread so far that Mr. Barwell thought it was not altogether due to merely local influence; and it must be recollected that the man had had primary, if not secondary, symptoms years ago.—Mr. Callender had lately seen a young gentleman who had, eighteen months previously, sprained his arm; the whole arm was swollen, œdematous, and was evidently the seat of diffused cellulitis. In Mr. Hewett's case, perhaps, the same kind of chronic inflammation had extended to the joints, and produced the partial ankylosis. Mr. Callender would have thought seriously of his case, but the gentleman had had the same trouble previously, and had recovered. Iodide of potassium was ordered for him, and in a few weeks he was well.—Mr. Prescott Hewett had broken down several ankylosed elbow-joints, but had never known one to succeed; such was his experience as far as the elbow-joint was concerned. All such cases became stiff again; why, he could not say. Such was the fact. He had not had the same experience with the shoulder-joint. A young officer, who had had thickening of the shoulder, which had been broken down and then became stiff again, could fairly wield his sword and go through the other exercises, simply from the mobility acquired by the scapula. The patient exhibited to the meeting had taken thirty grains of iodide of potassium three times a day, and that was a fair dose. Mr. Hewett had seen the greatest benefit arise from such a dose. A patient at St. George's Hospital, who had had secondaries, had violent delirium. Mr. Hewett supposed it to be due to syphilitic periostitis of the skull, and gave thirty grains of the iodide thrice daily, with the effect that, in two or three days, the man was quite well.

*Subperiosteal Excision of the Os Calcis.*—Mr. Holmes brought forward a case, which had been performed as nearly as possible after the method prescribed by M. Ollier. The patient was a boy, aged 14, and the operation was performed on January 31st, 1873, by a curved incision carried down the external inferior border of the calcaneum and along the external margin of the os calcis. The only tendon which was divided was the tendo Achillis, which was turned away from the bone along with the periosteum. The bone was removed, perfectly free from soft structures, except on the inner side, where some of the periosteum was necessarily taken away with the bone. The case was a very favourable one for the operation; but a good deal of difficulty was experienced in performing the excision, and the operation was followed by great inflammatory reaction. Ultimately, though the boy recovered well, the ankle-joint and the transverse tarsal joint, as far as could be ascertained, were found to be ankylosed; and the use of the foot was not so good as in other cases which had been under the care of the author, in which no care had been taken to preserve the periosteum. The patient had been exhibited to the Society at the last meeting. Mr. Holmes remarked that in a former case, in which he had followed M. Ollier's rules in the subperiosteal excision of the elbow, he had found the result inferior to that obtained by the ordinary method in the most successful cases.

Mr. Barwell recalled to mind the fact that a paper had been read before the Society last year by Mr. Croft on a very successful case of subperiosteal excision of the hip-joint, done according to the plan of Dr. Sayre of New York. Dr. Sayre, having cut down to the bone, separated the periosteum with a kind of oyster-knife, and then excised the head of the bone. Mr. Barwell had had a case in hospital in which Dr. Sayre, who was present, had by request finished the operation. In another case of excision of the knee, done according to the same method, there was ankylosis before the external wounds were healed, which was, perhaps, attributable to the subperiosteal method. In taking out sequestra of bone, it was best to cut straight down to the bone through all the tissues, and peel off the periosteum with the soft parts attached to it; not to denude the periosteum from both sides, which was likely to produce failure from death of the membrane. Mr. Holmes would probably have had greater success in his case without the subperiosteal method; for, in excision of the os calcis according to the usual method, the tendo Achillis and other muscles subsequently regained their action. When bone was removed from a large cavity, one could not expect that bone should be reformed there at once. Pus was first poured out, and filled the cavity. He (the speaker) considered that the removal of large pieces of bone by the subperiosteal method was sure to be unsuccessful: the patient ran in danger from the collection of pus in the large cavity; and, although it might be plugged with lint, yet, as had been shown, the daily disturbance of the surface of granulations in a wound, as by the removal of the lint, was rife with dangers to the patient.—Mr. Haward had had under his care in 1871 a girl whose elbow he had excised subperiosteally. The disease ran a long way up the humerus, so that a large piece of the bone had to be removed. It was a tedious case for operation, but he had managed to leave a large portion of the periosteum upon the removal of the bone from beneath it. There was no great subsequent inflammation, considering the injury done in the operation. At present, the child could use the arm well, and had good motion of the elbow. The period of recovery had, however, been a protracted one, much longer than would have been required had the operation been done by the ordinary method. In some of these cases, excess of bone had been thrown out, and loss of mobility had resulted therefrom. The bloodless method was of great advantage to the operator, as he could then hit the joint at once.—Mr. Callender would have two objections to the subperiosteal method for operation in such cases. Firstly, the disease was due to caries, and therefore the periosteum had undergone grave changes. Secondly, there was a very small piece of periosteum which could be removed with the articular end of the bone, except when the shaft was diseased. In removal of sequestra, he always lifted up together the skin, tendons, periosteum, etc., from the bone. As regards the bloodless method, which was a great advance in surgery, it had been said that it had not been adopted before Esmarch introduced his plan; but such was not the case. Mr. Hilton, at Guy's, had been accustomed to use a similar procedure; he used to bandage and elevate the limbs of bloodless patients for an hour or so before their amputation.—Mr. Holmes would think the great objection to Dr. Sayre's method at the hip-joint was the fact that the operation had to be begun low down—below the insertion of the gluteus minimus. At the elbow, there was a good deal of periosteum on the olecranon; and the bone formed by that periosteum interfered considerably with the proper straightening of the elbow after the operation. In Ollier's operation, the incision was carried down to the bone at once; and the periosteum was reflected from the bone, together with all the other tissues covering it.

*Optic Neuritis, with complete Loss of Vision: Recovery under Treatment.*—Dr. Thorowgood read notes of the case. Kate G., aged 12, was admitted into the West London Hospital October 23rd, 1873. The history, taken by Mr. Blackman, the clinical clerk, was as follows. The patient had had, five weeks previously, a pain at the lower part of the back from a blow against a desk. Liniment was used; and in a short time this pain left her. Shortly afterwards, a pain came at the back of her neck, with tenderness, swelling, and stiffness on movement. For this, she saw Dr. Thorowgood, who gave her a belladonna and mercury liniment, which she used, and the pain and stiffness went away. A week after this, she noticed a fog before her eyes, which gradually increased, till in a week vision was perfectly lost in both eyes. She was now admitted to the hospital. No sign of disease or injury of spine could be detected. She could just discern between light and shade. On October 24th, Mr. Bowater Vernon examined her eyes with the ophthalmoscope. The optic discs were swollen, with irregular outline; the veins engorged, and obscured in places; whole fundus oculi paler, and more yellow than normal. No hæmorrhage. The same description applied to both eyes. She was not feverish; the organs of the chest were healthy; there was no albumen in the urine. Two leeches were applied to the temples, and three grains of hydrargyrum cum cretâ given every three hours. October 28th, she was much the same; to have thirty minims of liquor hydrargyri perchloridi three times daily in decoction of bark. Leeches were again applied to the temples. On November 1st, Mr. Vernon examined the eyes again. The right optic disc was much swollen; its outline was completely obscured. The fundus was ash-grey in colour. The left eye had the surface of the disc marked by apparently numerous small vessels. Under treatment with iodide of potassium, and then liquor strychniæ with iron, this patient improved; and on December 23rd, 1873, was seen as out-patient, and able to read well. On January 22nd, 1875, she was seen again, and her vision, tested by Mr. Vernon with Snellen's type-board, was declared normal. The left eye was rather better than the right, which was, perhaps, not quite up to the normal range. The optic discs looked pale and anæmic. In commenting on the case, Dr. Thorowgood said that Mr. Vernon considered the case one of true optic neuritis, not a mere congestion from impeded return of blood to the sinuses. The question was, had the spinal pain any connection with the neuritis? In cases of loss of vision due to spinal disease, atrophy of the disc might be expected from the great sympathetic being involved. The present case seemed one of basic meningitis extending to and involving the optic nerves. Meningitis might be very insidious in its progress, and might do much mischief, if not controlled by treatment. The present case showed the value of the ophthalmoscope in detecting meningitis, and so guiding to a plan of treatment by local depletion and mercurial medicines, which proved very successful.

## PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, DECEMBER 5TH, 1874.

ROBERT MCDONNELL, M.D., President, in the Chair.

*Bright's Disease.*—Dr. QUINLAN showed the heart and kidneys of a woman who died of Bright's disease. When admitted to hospital, she was suffering from extreme anasarca of the lower limbs, and her urine was highly albuminous, numerous tube-casts being visible under the microscope. She died two days after admission. The heart was hypertrophied, and the kidneys were extensively diseased, presenting signs of recent congestion superadded to pathological changes of older date.

*Extrapericardial Creak caused by a Tongue of Lung-Substance.*—Dr. NIXON presented the thoracic viscera of a man, aged 64, who had suffered from renal dropsy. The urine contained blood, much albumen, and granular tube-casts. He was admitted to hospital with general bronchitic *râles*, increased precordial dulness, and a soft post-systolic murmur at the seat of cardiac impulse. This murmur altered in intensity from time to time, and was not audible in the axilla or posteriorly. It disappeared after exercise. Subsequently, a dry creaking sound, most audible at the end of expiration, was observed. It ceased after coughing. The necropsy revealed excessive fatty degeneration of the kidneys. But the most interesting pathological condition was the existence of a tongue of lung-tissue on the left side, which overlapped the pericardium, and clearly gave rise to the dry creaking sound by the tilting against it when filled with viscid mucus of the pericardium, with every impulse of the heart. Dr. Nixon reminded his hearers that a similar sound had been described in the same situation as being due—(1) to the stretching of bands of lymph in pleuritis from the lung to the pericardium (Addison); (2) to the pressure of a consolidated lung in tuberculosis; and (3) to the existence of cavities with thick walls (Austin Flint).

*Cerebro-Spinal Meningitis.*—Dr. BENNETT exhibited the brain and base of the skull of a seaman, a Russian Finn, who died after a very short illness in Sir P. Dun's Hospital. It appeared, that fifteen months ago, he had fallen from a height on the deck of a vessel, and had afterwards suffered from pain in his right ear. He was insensible, very delirious, with contracted pupils, pulse 72, respirations 38, and marked pulsation of the external jugular veins. There was no cardiac disease; the skin was free from eruption. After death, the brain was found congested, yellow bands of lymph lay along the superficial vessels of both cerebral hemispheres. A deposit of green lymph lay in the circle of Willis, and on the surface of the cerebellum, and there was softening of the spinal cord. The lungs showed signs of recent and extensive congestion. Both ears were minutely examined, but the parts were perfectly healthy, and in no sense could the pathological changes be traced to traumatic causes. The case was evidently one of idiopathic or epidemic cerebro-spinal meningitis.

*Aneurism of Thoracic Aorta.*—Dr. GORDON brought forward a remarkable specimen from the body of a man, aged 36. He had been admitted to hospital with cough, dyspnœa, high fever, and pneumonia of the upper portion of the right lung. This had been set up by irritation from the pressure of an immense aneurismal tumour, which bulged forwards beneath the right clavicle, and presented the usual signs of aneurism. There was extreme venous congestion of the upper part of the body, and a network of varicose veins covered the chest. The right radial pulse was stronger than the left. In time, the subclavicular pulsation disappeared, constant dyspnœa set in from pressure of the right bronchus, and the ringing cough of irritation of the recurrent laryngeal nerves was heard. After death, a tumour of large size was found to spring close to the aorta. When the sac was opened, that portion of it which lay under the clavicle in front, proved to be filled with firm coagula. The right cardiac auricle was very small. The superior cava was almost occluded at one point, above which this vessel was widely dilated. The inner surface of the sternum was considerably eroded. Both pneumogastrics were flattened and compressed.

## SURGICAL SOCIETY OF IRELAND.

FRIDAY, DECEMBER 4, 1874.

JOLIFFE TUFNELL, Esq., President, in the Chair.

*President's Address.*—The President delivered an address which was eminently practical in its scope. He gave an account of the origin of the Society forty-three years ago, and described at some length the duties of its various officers, and the principles on which it was worked. The concluding portion of the address contained a fitting allusion to the recent deaths of Drs. Arthur Jacob and W. Hargrave, two prominent members of the Society.

*Elephantiasis Arabum.*—Dr. WHEELER exhibited the right leg of a woman, aged 30, which he had amputated for this disease. The morbid process began eighteen years previously, with a pain referred to the dorsum of the foot. Elephantoid fever ensued. A line of ulceration occurred at the ankle-joint, and again below the knee, after which the disease affected the leg without extending into the thigh.

*Cancer of Male Breast.*—Dr. MAPOTHER showed a scirrhus tumour which he had removed from the breast of a man, aged 35.

*Chronic Synovitis of Knee-joint: Amputation.*—Dr. WHEELER showed a well-marked specimen, with a history of five years. The patient was an adult male.

*Acute Tetanus.*—Mr. H. G. CROLY, detailed a case of very acute traumatic (?) tetanus, which terminated fatally within thirty-eight hours. A woman, aged 30, suffered from a small painful ulcer on the inner malleolus of the right ankle; this was the only evidence of trauma. Tetanus, trismus, opisthotonos, rapidly followed each other, having been ushered in by yawning and stretching of the limbs. Ether failed to alleviate her sufferings, and she sank rapidly. Mr. Croly enumerated fourteen cases of tetanus which had come under his own observation. From a consideration of these, he held that all cases of acute tetanus are fatal. He alluded to the prophylactic treatment of tetanus, and gave the formula of Mr. Peile's "Antitetanic Pills", as follows: Hepatic aloes, twelve parts; antimonial powder, twelve parts; opium, three parts; syrup, to make twelve pills. He concluded by speaking of the pathology of the affection.—Dr. MCDONNELL, as a pupil of Mr. Peile, believed that each of his pills contained a quarter of a grain of calomel. Mr. Peile used to say that tetanus never followed a lacerated wound if the antitetanic pills were administered.—Mr. STAPLETON could not endorse Mr. Peile's opinion. He spoke of the prominent part played by the irritation of a nerve in the etiology of tetanus.—Dr. MACNAMARA laid stress on the influence of atmospheric conditions in causing the disease. As regarded treatment, he relied especially on ice. Chloroform seemed to do harm in one case.—Dr. CORLEY mentioned a fatal case after amputation through the thigh, and referred to the anticipations often indulged in by patients as to the approach of tetanus.—Dr. BARTON alluded to the occurrence of yawning in a patient of his, twenty-four hours before trismus set in. He thought highly of chloral and hypodermic injections of morphia as remedies.—Mr. O'LEARY narrated a case of trismus after a burn, in which the initial symptom was yawning; spasm of the larynx killed the patient in forty hours.—Dr. H. KENNEDY dwelt on the pathology of tetanus, and quoted Dr. Lockhart Clarke's views as to its arising from a spinal lesion.—Mr. E. HAMILTON spoke of atmospheric influences, and the cure for tetanus practised by the Tonga islanders, namely, counterirritation by passing a hook through the penis.

## BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1875.

SUBSCRIPTIONS to the Association for 1875 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, JANUARY 30TH, 1875.

## VIVISECTION.

WE have already intimated that, owing to recent circumstances, notably the prosecution of Dr. Magnan at Norwich, we thought it desirable to collect the opinions of eminent members of the profession on the subject of vivisection, and its utility as a means of ascertaining facts likely to be of service in advancing the healing art. We would call the attention of our readers to the two communications we have already published (the JOURNAL of January 9th, page 56, and January 16th, page 90) as specimens of numerous replies of a similar nature which have been sent us. In these it will be seen that it is claimed for experiments on living animals, that they have been the means of discovering many of the fundamental facts of physiology, and that the practical application of these facts has greatly advanced our knowledge of the nature and treatment of disease. We believe that the opponents of vivisection do not deny that great scientific truths have been arrived at in this way, but they question very decidedly whether the ends justify the means. As it is eminently desirable that this subject should be discussed apart from mere sentiment or prejudice, we will endeavour to state the points at issue, and weigh the arguments advanced by either side.

There can be no doubt that the very term "vivisection" is of itself sufficient to excite in sensitive minds feelings of repulsion. The sight of operations on living beings for what purpose soever is, to those unaccustomed to them, anything but agreeable. Few, if any, of our medical readers witnessed the first surgical operation at which they attended without experiencing a distressing sickening sensation; and, had they consulted their feelings only, would much rather have retired from the spectacle. This feeling arises naturally in all, even when they are aware that the patient is quite unconscious of pain. If to the sight of the operation itself there be added the knowledge that the patient is suffering excruciating agony, when the necessities of the case forbid the administration of an anæsthetic, the feelings of a sensitive spectator can be better imagined than described. It is not until the emotional has been conquered by the intellectual, that we can look on calmly, or assist at the work of the operating theatre; and there are many who never acquire this ascendancy over their emotional nature. In general, the contemplation of the end aimed at absorbs the mind, and what before were horrible and distressing sights, come to be regarded as skilful and kind means of relieving a patient from suffering of a more grievous character. In the surgeon who performs vivisection experiments on human beings, we have an example of one who performs acts, viewed in themselves, of a repulsive nature, and who, nevertheless, is not in general regarded as guilty of cruelty, or devoid of regard for the feelings of others or sympathy with human suffering. If we contrast with this the picture of a carman inflicting heavy blows and kicks on the legs and sides of a groaning horse, perspiring at every pore, and straining every muscle in its ineffectual attempts to move a heavy load for which it is utterly unfit, the sickening sensations give place in the mind of the spectator to feelings of indignation against the cruel brute who can so unmercifully treat a dumb creature unable to protect itself or declare its wrongs. We rejoice in the existence of a Society with vigilant eyes to bring to judgment all who commit acts so unnatural and inhuman. In the two pictures we have drawn, it is easy to recognise an important distinction—the distinction between cruelty and the infliction of pain. The infliction of pain, with a benevolent motive, is not cruelty; the infliction of pain, for its own sake, or without necessity, is cruelty, and of this there may be various grades. To which of these two classes does vivisection belong, is the question at issue.

In order to clear away any misconceptions that may exist as to the nature of vivisection and its objects, it will be well to enumerate what things are included under this term. Experiments on living animals have been and are performed under such circumstances as the following. A surgeon, conceiving that a certain operation may enable him to cure certain diseases which have baffled other treatment, performs the operation on a living animal, in order to ascertain whether he may with safety perform it on a patient rather than run the risk of sacrificing the patient's life in the first instance. The physiologist performs experiments on living animals in order to ascertain the functions of certain structures, and the laws regulating vital action not otherwise capable of being ascertained with certainty. The pathologist, wishing to ascertain the exact cause and nature of some disease, establishes the disease in some of the lower animals, and studies its progress with a care and exactitude which it is utterly impossible for him to employ in the case of a human being. The pharmacologist and the toxicologist endeavour, by experiments on the lower animals, to ascertain the action of drugs and poisons on the animal economy, with a view to the treatment of disease and the detection of crime. Experiments are further made on living animals for the purpose of demonstrating some great fact to those whose acquaintance with such facts is a matter of public consequence. These, or similar, comprise all the occasions on which experiments are made on living animals by scientific men and members of our profession. Those who so experiment urge that there are great numbers of problems the solution of which would, in the end, confer benefits on mankind; and that, as the questions that have to be answered relate to life in health and disease, and can only be determined by experiments on living beings, it is better to experiment on animals, than to allow human beings to go on enduring suffering and misery which a more extended knowledge may succeed in averting or relieving. It is the old principle, *fiat experimentum.* But the question arises, Are rabbits and dogs to be regarded, in this relation, as *corpora vilia?* Have we any right to take dumb creatures which confide in us, and, without their consent, make use of them for our own benefit and for advancing our knowledge? We will not here stay to discuss the abstract right of man over the lower animals, but will content ourselves with asking whether the use of animals for scientific experiments is consistent or not with the use to which mankind in general consider themselves justified in putting the lower animals. None but vegetarians question our right to sacrifice thousands of animals every day to supply ourselves with what we consider necessary elements of our food. If we could only, with justice, use for our own needs such animals as would consent to be so treated, we should, if there were any means of ascertaining this fact, find ourselves entirely deprived of animal food, for the principle of conservation of life is as strong among the lower animals as among human beings. We consider our consciences satisfied if we put these animals to death without inflicting unnecessary pain on them. That we do not entirely succeed in this is a fact which the sights to be seen at the shambles prove to a demonstration. We, therefore, as these facts show, exercise an authority and a right over the lives of the lower animals for our own benefit.

Next, we may inquire whether we ever feel justified in inflicting pain on them. That we do on many occasions is likewise easily proved, and we give one or two instances. The process of training animals from their natural habits for our own needs, frequently entails an immense amount of suffering on them. We perform various painful vivisection experiments on them—witness castration. We lop off sheep's tails, and otherwise train animals to suit our own convenience and tastes, and not for the sake of any benefit to the animals themselves. We are not accustomed to hear charges of cruelty brought against those who do these things. Then, on the other hand, things are done every day by sportsmen, some of whom are sensitive, which, as far as the infliction of pain on the lower animals is concerned, cast into the shade the doings of all vivisectors put together for a whole year. The sensitive sportsmen who object to vivisection on the ground of cruelty, are open to an *argumentum ad hominem*. Ladies, likewise, who oppose vivisection, would do well to inquire whether they are justified in wearing the skins of animals, almost every one of which might tell a harrowing tale of its former owner, trapped and bruised, and dying miserably after long hours of suffering, cold, and starvation. The uses for which the skins are required cause the animals to suffer in this manner. We apprehend, if a charge of cruelty is to be preferred, the wearers of furs are in some degree chargeable as art and part. We have now brought forward several instances—and we have not by any means exhausted them—in which we take the lives of animals, or inflict pain on them, for our own purposes.

Let us now take the cases of generally accepted justifiable treatment of the lower animals as a standard by which to try the justifiableness of experiments on the lower animals for scientific purposes.

We will take the case of the surgeon who, before the treatment of aneurism by ligature was known, having a patient suffering from an aneurism threatening every day to burst and end fatally, is anxious to know whether he may place a ligature on the artery without endangering the vitality of the part beyond. To determine this, he has recourse to experiments on the lower animals rather than on his patient. Is he justified in doing so?

In the next place, let us suppose a physiologist or physician who, plainly perceiving that a knowledge of the exact cause of the sounds of the heart is the key to the determination of the nature of diseases of the heart and their treatment, proceeds to experiment on living animals in order to acquire the necessary knowledge. Is he justified in doing so?

Further, let us take the case of an experimental pathologist, who, desirous of ascertaining the exact nature of the morbid poison of some infectious disease which baffles medical skill and slays its thousands every year, endeavours to establish the disease in the lower animals, and, by the study of their sufferings, perhaps succeed in benefiting the whole human race. Is he justified in doing so?

We will put another case. A pharmacologist or toxicologist, thinking over the thousands who perish by the bites of venomous snakes every year in our colonies, is of opinion that, if the real nature and exact action of the poison were known, possibly an antidote might be discovered. He therefore poisons numbers of rabbits and cats and dogs, and carefully studies the symptoms manifested, and makes experiments on them with remedies. Is he justified in thus endeavouring to benefit man by the sufferings of animals?

Lastly, we instance the case of a physician who thinks that, by his observations and experiments, he has discovered in some article of food or luxury largely consumed a fertile source of special forms of nervous disease, and, anxious that his researches should be widely known, and his facts be freely criticised, demonstrates the basis of his assertions by an experiment on a living animal in the presence of a body of professional men to whom the knowledge so acquired might be extremely valuable. Is he justified in doing so, or is he guilty of cruelty to animals?

These are examples, not altogether hypothetical, of the occasions and purposes for which experiments are performed on living animals. Judged by the standard we have set up, we apprehend that the use of the lower animals by scientific men for the purposes of advancing human knowledge and mitigating human suffering, will stand favourable comparison with the employment of them to satisfy our appetites, or minister to our bodily comfort and convenience. It may, however, be said, that we have put the strongest cases, and that the samples we have given of vivisection experiments are far superior to the bulk. What we have done is to put cases, the practical bearings of which can be readily appreciated by all. If the principle be once conceded that, in the instances brought forward, those who perform such experiments are justified in doing so, the discussion of the justifiableness of this and that experiment is a matter of secondary importance. The direct practical good which the solution of any one vital problem by vivisection is to effect, is not capable of being made equally clear to all. Great discoveries are not made every day; the building of the edifice of knowledge is a process of evolution, and the materials are only slowly accumulated by the labours of thousands of individual workers. In themselves, many scientific facts may, to the uninitiated, appear trifling; but it is well known that many of our greatest triumphs in physical and biological science have sprung from such so-called trifles. From what we know of the motives which actuate the experimenters on animals, both at home and abroad, we are sure that it is the desire to solve some important question in physiology and medicine that leads to this, the only kind of research which is capable of determining the questions. By their united efforts, medicine has been steadily advancing, and the general good has been promoted. We think it may be safely left to a body of educated men to decide for themselves on what occasions experiments on living animals are necessary.

We have purposely avoided introducing the question of anæsthetics into the discussion, but have stated the points at issue as if the subject were being argued fifty years ago. Chloroform disposes of a number of difficulties. Vivisection of an animal rendered unconscious by chloroform need excite no scruples, if we admit the right to take the lives of animals for our own needs. There is no question of pain, and it comes practically to dissecting a dead animal. Chloroform, or some anæsthetic, ought to be given to every animal used for experiment, if it can be administered without frustrating the objects for which the experiment is made. We think that every experimenter is morally bound to abolish suffering in the subject of his experiment when he can do so without prejudice to his inquiry; otherwise, by the infliction of unnecessary pain, he is guilty of cruelty. This, we believe, vivisectors themselves are quite ready to admit, and endeavour to carry out. The use of anæsthetics has an important bearing on the question of how far teachers are justified in experimenting on living animals, for the purpose of demonstrating to a class of students facts already sufficiently well established. It is eminently desirable in teaching a science largely founded on experiment, to illustrate lectures by practical experiments so far as possible, otherwise the real instruction given is of extremely small value. To teach chemistry or physics without experiments, would be to talk in an unknown tongue. Physiology, in many respects, stands in the same position, and the importance of physiology to medical men can hardly be overestimated. Chemistry and physics differ from physiology in this respect, that their experiments do not involve the life or feelings of the lower animals. But, with the aid of chloroform, a physiological experiment may be brought, as far as suffering is concerned, into the condition of an experiment on lifeless matter.

Under such circumstances, there can be no real grounds of objection to physiological experiments. It is only when the experiments involve suffering that a difference of opinion may be entertained as to their justifiableness. We think they ought not to be performed, unless it can be distinctly shown that instruction cannot otherwise be communicated in matters of fundamental importance. We think that, if the objects for which experiments on animals are undertaken are fairly considered, there is no more reason for accusing the operators of cruelty, than there is for accusing of inhumanity a surgeon who inflicts pain for a benevolent motive.

## THE KING AND QUEEN'S COLLEGE OF PHYSICIANS: THE NEW CHARTER QUESTION.

In the Journal for December 12th, we called attention to the discussion which had arisen in consequence of the publication of a dissent from the provisions of the proposed supplemental charter for the Irish College of Physicians. We had, on July 11th, called attention to the memorial which the College had presented to Her Majesty's Government, praying for the new powers sought by the College. We have thus kept our readers (and among them are many—probably a large proportion of the—licentiates of the College) fully informed of the nature of the proposed changes; and we cannot see how these changes would in any way injuriously affect the licentiates or the public. We may repeat that the proposed changes sought for by the College are—

1. Power to vote by ballot at all College meetings.
2. A recognition by name of all the present existing fellows, as there seems to be a doubt of the legality of the election of some of them.
3. Power to institute an order of members.
4. Power to appoint additional examiners to the censors, only four in number, who at present constitute the sole board of examiners for the College license.
5. Power to persons to resign their fellowship.

There can be no possible reason why an election at a College of Physicians should not be carried on by ballot, the system which is now recognised by the State for parliamentary and municipal elections. We had thought that vote by ballot would not have been necessary to secure independence of voting in a body of highly educated gentlemen like a College of Physicians; but, unfortunately, it has been otherwise demonstrated by the attacks of a body calling itself the Irish Catholic Union upon Dr. Hayden, an independent Roman Catholic fellow of his College, who has been held up to the public odium of his co-religionists on a charge of trying to prevent them, by means of the ballot, from gaining admission to the College. Such a charge against Dr. Hayden is as unfounded as it is unjust, and at once proves the nature of the reasons urged by the objectors against the use of the ballot at the College elections, which are as follows.

> "The only attempted justification we have ever heard of this present demand for the ballot is that, by it, fellows would be free to vote for or reject candidates as they pleased, without fear of detection; but this is, in our opinion, a most unworthy motive, and it overlooks the important contrast that, while the fellow would protect himself under the shield of secret voting, the candidate, however worthy, is exposed to have his reputation stabbed in the dark by personal pique, professional jealousy, or religious animosity. The risk and injustice would be more likely to occur in a constituency so small as that of the College, than in a numerous body of electors."

We are surprised that five members of the profession could be found to make such a charge of foul play against a body of gentlemen as that contained in the above quotation. The way in which this charge has been used for the purpose of a personal attack on Dr. Hayden, proves the injudiciousness of its authors.

We cannot see how the use of the ballot at elections can injure the licentiates who may hereafter become candidates for the fellowship. It is proved by the attacks on Dr. Hayden, that the ballot is a necessary protection for the independence of voters even at a College of Physicians. It is with great regret that we have to refer to this question, especially as we hoped that the politico-religious element of discord, which has proved fatal to so many Irish institutions, had at least been excluded from the discussion of medical questions.

The only other question which could affect the licentiates is that of the introduction of a grade of members into the College constitution. We pointed out in July last the necessity of such a grade, in order to give the licentiates of the Irish College the power of raising themselves into a position similar to that enjoyed by their English and Scotch brethren. The want of this opportunity has prevented Irish licentiates from obtaining appointments open to English and Scotch physicians.

The following very remarkable paragraph occurs in the document put forward by the dissentients.

> "To the institution of the proposed new grade, that of membership of the College, we object, on behalf of 1,200 licentiates of the College, whose fees constitute the chief income of the corporation, and who are not represented upon it. A question so deeply involving the interests of the licentiates should not be dealt with behind their backs by a small body, and one in which they have no voice."

We have not yet heard that the 1,200 licentiates of the College have chosen these five dissentients to represent their views in preference to the forty-five other fellows of the College. One of the dissentients, Dr. Lyons, proposes to the College that a meeting of licentiates should be summoned by the College to consider this proposed charter. Dr. Lyons seems to forget that summoning a meeting of persons, the very large majority of whom are unable to attend, would have the appearance of paying a very empty compliment to the College licentiates. The College has, in our opinion, taken the proper course, namely, has ordered the documents connected with the proposed charter to be printed, and copies to be supplied to any licentiates who may require them. We advise licentiates, who are anxious about the matter, to write to Dr. Finny, the very courteous registrar of the College, who, no doubt, will furnish all the information which may be required, without the solemn farce of summoning a meeting of gentlemen who cannot attend.

## RAILWAY SURGEONS' REPORTS.

A point of some moment to railway companies was decided on Monday last by the Court of Queen's Bench sitting *in banco;* or rather a previous decision was reaffirmed, and must now be taken to be settled, *quoad* the practice of that court. One Farquhar was sueing the Great Northern Railway Company for damages consequent on personal injury. Mr. Carr Jackson had seen and examined him on the part of the company, and the plaintiff demanded to see his report to the company. On this, counsel contended that, as it was a confidential report, the plaintiff had no right to see it. Whereupon, the Lord Chief Justice Cockburn, with some warmth (to quote the *Times'* report), said, "Then, all I can say is that, in such a case, I should advise the patient not to admit the company's surgeon to see him. Why should he be allowed to see the patient, if the patient is not to be allowed to see the report he makes? If there were no negligence on the part of the company or their servants, they cannot want to see the man; and, if they have been guilty of negligence, then they have no right to intrude upon him, unless for the purpose of the discovery and the disclosure of truth for the purposes of justice. This court has upheld such an order as the present, and I think it was a sound decision. It is most desirable that a medical man, on behalf of the company, should have an opportunity of seeing the patient, in order to ascertain the nature and extent of the injury; but then, on the other hand, the party should have the corresponding advantage of knowing what report has been made to the company about him. The decision of this court was sound and wholesome, and I, for one, am prepared to adhere to it." This view was affirmed by Justices Mellor, Lush, and Archibald; and the company was, therefore, ordered to furnish the plaintiff with a copy of Mr. Carr Jackson's report.

We do not quarrel with the decision. But can it stop here? How about the company seeing the full statement of a plaintiff's own surgeon's opinions? The Lord Chief Justice incidentally observed, "It is most important that the contradictory views of the medical men in such cases should be known to each side as soon as possible before the trial. This course is best for the interests of both parties." The Chief Justice evidently assumes that the plaintiff's application for compensation discloses to the company the whole of his case. To our own knowledge, this assumption is unfounded. Facts which tell in his favour are disclosed, but those which tend to invalidate the conclusions thus arrived at are held back. Again, there are often facts which, had they been investigated, would have told one tale; but, revealed for the first time in court, they may be incapable of true valuation. The company's surgeon may be sharp enough to detect these facts for himself; but it is not consistent with the reasons upon which the court founded its decision, that it should be left to this hazard. Further, a medical report must contain not merely facts observed, or supposed to be observed, but also inferences, arguments, and deductions drawn from these facts; in short, the scheme of the attack or of the defence. It cannot be conducive to "the purposes of justice" that the strength or weakness of the defence should be known to the attackers, when the strength or weakness of the attack is concealed from the defenders. No doubt, a frequent recurrence to the expedient of obtaining beforehand the enemy's secrets by one side only will lead to such a modification in the form of reports as to render the privilege practically nugatory.

We must now respectfully ask the Court of Queen's Bench why this rule should be made to apply to medical opinions only. A plaintiff may be entitled to compensation for injuries received; but the money-value of his injuries depends not only on their severity, but—and this is often the real question at issue—on the pecuniary loss sustained in consequence of them. This can only be gauged by the claimant's previous income and earnings. Why should not a statement of these, and the proofs of its accuracy, be submitted to the company as early "as possible before the trial"? Can any one who has listened to such cases say that this would be inconsistent with "the purposes of truth and justice"? We should be glad to see this question raised in the Court of Queen's Bench; and we hope that, when it is, the distinguished Chief Justice of that Court may be present.

As the Bench and Bar are prone to contemptuous comments on the diversity of opinion amongst doctors, we may mention that, in the course of the argument on Monday, it was stated that the Court of Exchequer has ruled that plaintiffs have no right to see the reports of the railway company's surgeons. Two wrongs do not make a right; but, while such eminent legal authorities differ as to their treatment of a simple case, doctors may feel less humiliation at differing in their diagnosis of a difficult one.

## THE NAVAL MEDICAL SERVICE.

LAST week we noticed how far the performances of the Admiralty towards its medical officers have fallen short of its promises, and that therein lies a very fertile source of discontent, of which young medical men will do well to be mindful until many grievances are rectified; and matters are set on a firmer basis. In deciding on a career, they must look forward to the end of it, and not be blindly captivated by first appearances. They are not to forget that guidance is derivable from returning as well as from advancing footsteps; and, as of old the wary fox replied to the invitation of the sick lion in his lair, so they may well say:

> "Quia me vestigia terrent;
> Omnia te adversùm spectantia, nulla retrorsum."

We say this advisedly, as we know that several who have requested permission to resign the service have been refused it: that many are devising new measures to force the Admiralty to accept their resignation from a service with which they are disgusted; while some have "run" from it, or have trusted to the cruel chances of a court-martial to set them free.

This policy of forced detention of educated men must fail in the end, as, at the best, it but keeps unzealous servants; besides which, it leads administrators into false positions, as in a recent case, where an able officer on the half-pay list, importunate in offering his resignation, was *dismissed on the plea of declining to serve*, and found himself thereby disqualified on offering as a candidate for another branch of Her Majesty's service which he preferred. With such instances before him, each man should carefully examine; and, while free to act, should prize greatly that ability, and not fetter himself under such harsh restrictions, but trust to his profession and to his liberty.

We do not know what the long expected but secreted warrant may offer as inducements to join the Navy; but, as it is reported to be held back at the Treasury, we may infer that some improvements of pay and retirement are the main points in it. Unquestionably, these are prominent enough in the suggestions laid before Mr. Ward Hunt by the deputation from our Parliamentary Bills Committee, which had considered the whole matter; but there are several others as essential to making up a career adequate to the present day in the position of medical officers while serving afloat or ashore, the principles of which have been admitted as just, but have not been carried into action, or have faltered in their fulfilment, as shown by us last week. The Admiralty will find that the time has come to act *bonâ fide* towards our profession, if it have determined to eradicate discontent from its members in the Royal Navy, and to render its inducements in any degree equivalent to those of the Indian service and the Queen's Army.

The spectacle before them in the results of Mr. Childers's notable scheme, "drawn up", as his late colleague Sir Spencer Robinson informs a contemporary, "by a clever Admiralty clerk", should convince Mr. Ward Hunt of the fallacy of cutting short the service-careers of officers in the executive branch by pecuniary premiums alone, for nothing can compensate to active minds for a too early privation of employment in a service to which they have heartily devoted themselves. These deplorable results will, we need not doubt, guard that able administrator of the Navy from any curtailment of the compulsory age for retirement of those whose services have raised them to the inspectorial grades. His safest policy will, we opine, be found in enhancing the value of those prizes that will allure medical officers onward while activity remains, and in at the same time establishing a fair and just similarity to what obtains in the Army, as portrayed in the eighteenth, nineteenth, twentieth, and twenty-first of the suggestions alluded to; together with the recruitment of seamen, marines, and boys; for who can be so competent as they to select the best *personnel* for manning ships? In these employments combined, there will be found an ample field for providing a trustworthy naval medical reserve, in time of war, of surgeons accustomed to life in ships, even after all have been eliminated who desire to quit the Navy as a life-career after twenty years of active employment in it.

We write with confidence, satisfied that no half-measures will suffice to fill up the great and increasing falling off in the numbers of candidates for this once popular service, to which the mind of the country reverts as to its most natural and most essential defence in the next great war. Let those principles and modes of dealing be adhered to *bonâ fide*, and there need be no fear, we believe, of the future content in the medical staff; but, without them, we feel no confidence whatever in what will be found to be only palliative measures.

DR. HANDSEL GRIFFITHS has been elected a Corresponding Member of the Therapeutical Society of Paris.

DR. EDWARD YOUNG, being about to leave Salisbury, has resigned the coronership of the city and borough; and Mr. George Smith has been elected his successor.

MR. JOHN MILES MOSS has offered £1,000 to the Mayor of Liverpool as the foundation of a fund for improving the streets in the worst parts of the town.

THE City Sanitary Committee have agreed to offer the parish of Clerkenwell the City mortuary for six months, on the payment of 5s. per body.

THE annual dinner in aid of the funds of the French Hospital in Leicester Square, will take place to-day (Saturday), under the presidency of the French Ambassador, His Excellency the Comte de Jarnac. The Lord Mayor and Sheriffs have accepted the invitation to be present.

**We** learn with pleasure that Dr. T. Lauder Brunton, F.R.S., was on Wednesday elected Assistant-Physician to St. Bartholomew's Hospital.

**At** a public meeting held at Denbigh on Saturday last, it was decided to erect a fever infirmary; and a subscription was commenced, which was headed by the mayor, Mr. J. Parry Jones, with £100.

**There** is, we hope, some reason to expect that that most ridiculous institution which calls itself the "Hospital for Diseases of the Heart" will cease to be carried on. Apart from the purposes of "the founder", few of these hospitals have any public or professional *raison d'être*. This most needless institution has long been a caricature of charity; and, as recent circumstances have probably sufficiently disgusted the supporters of it, they will possibly take advice from men of high professional standing, on whose judgment they can rely, and wipe off the overburdened list of institutions this most needless and deformed excrescence of unthinking and misdirected charity.

### THE BRITISH MEDICAL BENEVOLENT FUND.

**The** annual meeting was held as usual on the 14th instant, Sir George Burrows, Bart., M.D., President, in the chair. The report was read by the Treasurer, Dr. Broadbent, and adopted by the Committee, with an additional clause expressive of their grateful appreciation of his kindness in accepting the office in succession to Dr. Hare, who had held it for seven years. The receipts from donations and subscriptions during the year 1874 amounted to £1620, and the number of grants of immediate relief to cases of distress was 115, including, directly and indirectly, about 250 individuals. The number of annuitants has been raised to 42, receiving from £10 to £20 *per annum* each. A movement has been commenced with the view of raising these, if possible, to an average of ten shillings weekly. Votes of thanks were passed to the retiring Treasurer; to the staff of the Fund; the Auditors (Mr. Hyde Hills and Mr. Parker Young); and the medical journals; also to the Messrs. Churchill, for the use of the committee-room so liberally given; and last, but not least, to the Chairman, Sir G. Burrows, who, in acknowledging the compliment, took occasion, in brief and eloquent terms, to express the pleasure it gave him to be associated with an institution which, in addition to its other claims on the support of the profession, possessed the distinguishing characteristic of affording prompt aid to the distressed and deserving, and, in this way especially, had done so large an amount of good in cases of real misfortune in, as it were, the very hour of need.

### MEDICAL MICROSCOPICAL SOCIETY.

**At** the annual general meeting, held on January 15th, the following officers were elected for the ensuing year. *President:* Dr. J. F. Payne. *Vice-Presidents:* Mr. Jabez Hogg; Mr. H. Power; Dr. U. Pritchard; Mr. Kesteven. *Treasurer:* Mr. T. C. White. *Honorary Secretaries:* Mr. C. H. Golding Bird; Mr. J. W. Groves. *Committee:* Mr. J. A. Ormerod; Dr. M. Bruce; Mr. E. C. Baber; Mr. F. Durham; Mr. H. S. Atkinson; Mr. J. Needham; Mr. G. Giles; Dr. S. Coupland; Dr. W. S. Greenfield; Mr. E. A. Schäfer; Dr. W. H. Allchin; Dr. Foulerton.

### ATCHISON SCHOLARSHIPS IN UNIVERSITY COLLEGE.

**In** the Court of Probate and Divorce, on January 26th, before Sir J. Hannen, the case of Sandys *v.* Atchison was decided. Dr. Spinks, Q.C., and Mr. Pritchard appeared for the plaintiff; Mr. Bayford for the defendant. It was an inquiry into the validity of the will and codicil of Mr. Thomas Atchison, a retired surgeon-major in the Indian army, who died in May last, having, by the papers in question, left the bulk of his property, amounting to something over £5000, for the purpose of founding certain scholarships, to be called the "Atchison Scholarships", in connection with University College, London. The case was heard last week, when the Court pronounced for the papers, but took time to consider whether a certain memorandum which was referred to in them, and which was executed as a testamentary paper, should be included in the probate. His Lordship intimated that he had come to the conclusion that the memorandum should be included in the probate, and decreed accordingly.

### ENTERIC FEVER IN SHREWSBURY GRAMMAR SCHOOL.

**Dr. W. N. Thursfield**, Medical Officer of Health for Shrewsbury, has presented a report to the governors of the Shrewsbury Grammar School, on an outbreak of enteric fever which took place in that institution last month. He traces the disease to the escape of sewer-gas from ill-ventilated water-closets and drains; the escape being favoured by the circumstance that the water in the river at the time was high and the discharge from the sewer consequently obstructed. He also calls attention to the existence of a privy with a large cess-pit in close proximity to the larder, from which a direct communication had been made by the burrowing of rats, allowing the escape of foul air. The drinking water used in the school has been the Severn water, artificially filtered; and he advises that, instead of this, which is subject to previous excremental pollution, the water of the town conduit should be used for drinking purposes. He points out that, in such an atmosphere as was found, the standard of vitality in the boys must have been lowered; and that, in fact, it has within the last few years been necessary several times to disperse the school on account of the outbreak of infectious disease. He recommends that a detached building should be provided for the isolation of infectious cases, such as the school possessed two hundred years ago, but which has within the last few years been sold.

### THE DEFINITION OF ADULTERATION.

**The** Society of Public Analysts at a recent meeting adopted the following as their definition of an adulterated article. An article shall be deemed to be adulterated: A. In the case of food or drink: 1. If it contain any ingredient which may render such article injurious to the health of a consumer. 2. If it contain any substance that sensibly increases its weight, bulk, or strength, or gives it a fictitious value, unless the amount of such substance present be due to circumstances necessarily appertaining to its collection or manufacture, or be necessary for its preservation, or unless the presence thereof be acknowledged at the time of sale. 3. If any important constituent have been wholly or in part abstracted or omitted, unless acknowledgment of such abstraction or omission be made at the time of sale. 4. If it be an imitation of, or be sold under the name of, another article. B. In the case of drugs: 1. If, when retailed for medicinal purposes under a name recognised in the *British Pharmacopœia*, any drug be not equal in strength and purity to the standard laid down in that work. 2. If, when sold under a name not recognised in the *British Pharmacopœia*, it differ materially from the standard laid down in approved works on materia medica, or from the standard under which it is sold. It was also resolved that the following should be deemed limits for the articles referred to under A. *Milk* shall contain not less than 9.0 per cent., by weight, of milk-solids not fat, and not less than 2.5 per cent. butter-fat. *Skimmed Milk* shall contain not less than 9.0 per cent. milk-solids not fat. *Butter* shall contain not less than 80.0 per cent. of butter-fat. *Tea* shall not contain more than 8.0 per cent. of mineral matter, calculated on the tea dried at 100 deg. Cent., of which at least 3.0 per cent. shall be soluble in water, and the tea sold shall yield at least 30.0 per cent. of extract. *Cocoa* shall contain at least 20 per cent. of cocoa-butter. *Vinegar* shall contain not less than 3.0 per cent of acetic acid.

### THE REDDITCH MEDICAL AID ASSOCIATION.

**We** have received a handbill purporting to be issued by the "Medical Aid Association for Redditch and District", the object of which is to induce persons to become members. It holds out the strange inducement, that "all parties who enrol themselves previous to December 31st, 1874, will be exempt from medical examination". When a club starts with such a promise, it raises our misgivings, for it looks as if, in its anxiety to obtain members, it were sacrificing one of the chief securities of a safe and well regulated society. To receive persons suffering from present illness without an extra charge cannot fail to prove a dead weight on the Association. But, on looking more closely at the handbill, there are other features which we like still less. No names whatever are given either of president, treasurer, or committee, to vouch for the character of the Association; nor are the names of the medical officers mentioned. The public of Redditch are, however, assured by Mr. Aston, the secretary, that "the Medical Aid Association offers you a doctor of your own, who will consider it his duty to attend well upon all members, and to give, when necessary, the best and most expensive medicines, including cod-liver oil, quinine, leeches, etc." All these advantages are to be obtained on the following terms: "Male and female members, married, 4s. yearly; male members under eighteen years of age, 2s. yearly; female members under twenty-one years of age, 2s. yearly." The handbill further states: "We take it for granted you are aware of the objections to the system of medical aid which is now in use, and also of the necessity of introducing a better system. After a careful inquiry, we have satisfied ourselves that the association would be a great blessing to its members, and much of the inconvenience felt under the present system would be remedied." That there are drawbacks to the present system of medical aid we have often pointed out; but we should have liked to see a detailed explanation of the "better system" upon which the Redditch Association is to be founded. If the benefit clubs of the town do not adequately supply the medical wants of its working classes, such a scheme as the one before us does not appear likely to remedy the defect. If it be an effort of the artisan population to provide for itself, we fully appreciate the motive; but we fear that the scale of charges is so low, that first-rate medical attendance will not be secured, to say nothing of "the best and most expensive medicines". We should indeed be sorry to hear of any well qualified medical man entering upon a field which seems already fully occupied, by accepting an appointment which, while standing upon an unsatisfactory financial basis, would at the same time make him dependent upon an association which, as far as can be seen, has no high-class or responsible managers.

### SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

THE quarterly court of the directors of the Society was held on January 13th; the President, Sir George Burrows, Bart., in the chair. The acting Treasurer stated that the grants to be made amounted to £1236 : 10, to be distributed among fifty-eight widows and seventeen children; and three children were to be relieved from the Copeland Fund. The expenses of the quarter were £55 : 12 : 5. Three new members were proposed and elected. The Christmas donation to the widows and orphans, voted at the last court, had been given a few days before Christmas to fifty-six widows and twenty children; £5 to each widow, £2 to each child, and £3 to each of the three children on the Copeland Fund, amounting in all to £329. The deaths of two widows receiving grants were announced, and two fresh applications from widows were admitted. It was resolved that a Committee, consisting of the President, Treasurer, and Secretary, should be formed, to draw up a circular stating the advantages to be derived from joining the Society, to be sent to all members of the profession residing within the limits of the London district post and the county of Middlesex. As no anniversary festival will be held this year, the benevolent friends of the charity are invited to send their donations to the Treasurer or Secretary.

### THE ABUSE OF HOSPITALS.

SINCE we last referred to this subject, three weeks ago, the following additional names have been added to the list of signatures to the memorial to the Committee of Council of the British Medical Association: Dr. J. G. Davey (Bristol), Dr. Pearson Irvine, Mr. George Lawson, Dr. T. Henry Green, Dr. Tilbury Fox, Dr. Douglas Powell, Mr. T. M. Evans, Dr. Matthew Baines, Dr. Morris (Nottingham), Mr. H. Behrend, Dr. A. R. Graham (Weybridge), Dr. E. West Symes (Skipton-in-Craven), Dr. George Weller (Wanstead), Dr. W. Bodkin (Chelmsford), Dr. A. Samelson (Manchester), Dr. Alfred Shewen, Mr. J. Higham Hill, Dr. W. A. Guy, F.R.S., Dr. Andrew Fyfe, Dr. John Baber, Dr. Hugh Mackintosh, Mr. G. H. Pedler, Dr. R. B. Painter, Dr. Charles Carter, Dr. Arthur Edis, Dr. John Easton, Mr. Royes Bell, Dr. Spencer Cobbold, F.R.S., Dr. Hunter Mackenzie (Gateshead), Dr. J. L. Gaussen (Antrim), Mr. Francis B. Lee (Heckmondwike), Mr. R. M. Gover, Mr. W. Lattey (Southam), Dr. Boyd, Mr. Allingham, Mr. T. Holmes, Mr. John Scott, Mr. Colin Henderson, Dr. Alex. Henry, Mr. Charles Moss, Dr. Ferrier, Mr. E. J. Nix, Dr. Nankivell (Torquay), Dr. James Hardie (Manchester), Mr. Samuel Wood (Shrewsbury), Dr. Edward Burd, Dr. R. W. O. Withers, Dr. Bindley Talbot, Dr. Alfred Eddowes, Dr. F. V. Davison, Mr. A. G. Brookes, Dr. W. N. Thursfield, Mr. Reginald Hartley, Mr. W. Eddowes, Sen., Mr. W. Grant Farley. The memorial itself we printed at length in our impression of the 2nd instant; and we then mentioned that Dr. Meadows and Mr. Fairlie Clarke would be happy to receive the names of gentlemen who approved of it, and wished to append their signatures.

### ST. GEORGE'S HOSPITAL.

MR. PRESCOTT HEWETT, after twenty-seven years' service as Assistant-Surgeon and Surgeon to St. George's Hospital, has resigned. He will be appointed Consulting-Surgeon. Mr. Rouse will succeed him as Surgeon. Mr. Warrington Haward will be one of the candidates for the post of Assistant-Surgeon in the place of Mr. Rouse.—We are requested by Dr. R. J. Lee, with reference to an announcement of last week, to state, that he does not intend to continue as Assistant-Obstetric Physician at St. George's Hospital, and that he is only doing duty till Dr. Barnes can relieve him, when it is his intention to retire from the hospital, and to relinquish the special department of obstetric practice.

### THE LATE MR. KIERNAN.

AT the last meeting of the Council of the Royal College of Surgeons, when the death of Mr. Kiernan was officially announced, it was resolved unanimously—"That the President be requested to communicate to the family of the late Mr. Francis Kiernan, F.R.S., the sincere regret with which the Council have received the intelligence of his decease, and to express the warm regard they entertained for him personally, and their appreciation of the eminent service rendered to science by Mr. Kiernan as an anatomist and physiologist." Mr. Kiernan was a member of the Council, and of the Court of Examiners of the College.

### THE LATE DR. CHARLTON.

AT a public meeting of the friends of the late Dr. Charlton, held in the Wood Memorial Hall, Newcastle, on December 23rd, 1874—the Mayor of Newcastle, Addison Potter, Esq., in the chair—the following resolutions were passed. "1. That, with a view of perpetuating the remembrance of the late Edward Charlton, M.D., D.C.L., it is desirable to found a scholarship in Medicine at the University of Durham College of Medicine, Newcastle-upon-Tyne, of which body he was President and Joint Lecturer in Medicine; and also to place a bust in marble, or a portrait in oil, in the library of the Infirmary, of which institution he was Senior Physician and Chairman of the Medical Board. 2. That a subscription be forthwith commenced for the purpose of procuring the funds necessary for such an undertaking. 3. That Ralph Brown, Esq., of Messrs. Lambton and Co., be appointed Treasurer to the fund; that Edward Leadbitter, Esq., and Byrom Bramwell, Esq., M.B., be appointed Secretaries." A Committee, with power to add to their number, was also appointed to carry out the project. The list of subscriptions already promised includes: George Y. Heath, M.D., £105; Sir W. G. Armstrong, C.B., £50; C. J. Gibb, M.D., £52 : 10; the Mayor of Newcastle (Addison Potter, Esq.), £25; R. Carr Ellison, Esq., £25; John Williamson, Esq., £25; R. Lightfoot, L.R.C.S., £21; G. H. Philipson, M.D., £10 : 10; L. Armstrong, M.D., £5 : 5;

C. Arnison, M.D., £5 : 5; B. Bramwell, M.B., £5 : 5; C. Gibson, M.D., £5 : 5; R. C. Clapham, Esq., £5; D. Embleton, M.D., £5; the Gateshead Medical Society, £5; G. H. Philipson, Esq., £3 : 3; John Philipson, Esq., £2 : 2; H. O. Ward, M.D., Blyth, £2 : 2; J. W. Blandford, M.R.C.S., Coxhoe, £1 : 1.

### DR. RUMSEY, F.R.S.

We hear with great pleasure that Dr. Rumsey is steadily progressing towards convalescence. Happily, his late illness has not in any way involved any depreciation of his great mental power, but is confined to loss of physical power in the right hand and foot. It is, we learn, very widely felt, as we had every reason to anticipate it would be, that Dr. Rumsey's great services to the public and to the cause of public health, which have been highly valuable to the profession, as to the nation, call, under present circumstances, for effective recognition; and it is probable that suitable measures will be taken, in which the most influential members of the profession may be expected to take part.

### NEW LUNATIC ASYLUM FOR MIDDLESEX.

At the last meeting of the Middlesex magistrates, a report was brought up from the Committee as to the erection of the third county lunatic asylum at Banstead, stating that the works were being pushed on to completion. The supply of water in the dry season had been tested, and was found to yield 168,000 gallons every twenty-four hours. The report was adopted.

### THE SOHO HOSPITAL FOR WOMEN.

We very much regret to see that two gentlemen have been found to fill two of the long vacant posts at the Soho Hospital. These vacancies were made by the resignation almost *en masse* of the staff. The principal alterations which were needed in the economy of the hospital, and the want of which led to this resignation, have since been effected; but no reparation has been made to the medical staff. The gentlemen who have now come forward are Mr. Reeves (London Hospital) and Dr. Æneas Munro. The former gentleman is well known in London as an industrious, able, and rising young surgeon. Dr. Munro is a newcomer, we fancy, in London. It required a great deal of a not very desirable sort of courage to take these appointments. Mr. Reeves's resolution will, we imagine, very much surprise and very much grieve his professional friends. A want of professional *esprit de corps* is a very grave defect; and we cannot help thinking that the step which Mr. Reeves has taken is one which is singularly ill-advised, and will create a painful sensation. Any advantages which such an appointment may offer must, we imagine, be more than counterbalanced by its obvious disadvantages. Dr. Munro, in assuming the medical appointment, has chosen to begin his professional career in London under seriously unfavourable conditions. He must not complain if it prove in some respects disappointing. Loyalty to the profession should, we think, be a guiding star for young aspirants to hospital positions; and here we consider that sentiment should have counselled abstinence from office until the *amende honorable* had been made to the late staff. We had expressed this opinion in advance, and see no reason to change it.

## SCOTLAND.

### ENORMOUSLY HIGH DEATH-RATE IN GLASGOW.

During the week ending Saturday the 2nd instant, the death-rate in Glasgow was the highest on record. For the last two days of the week the returns were not obtained in 9 out of the 14 districts, and yet without these the mortality was already 59, and when these are added it will no doubt reach 64 or 65 per thousand. We take the following from the *Glasgow Herald*.

"Taking the death-rate reported for last week, we find that it shows, in the case of pulmonary ailments, an increase of upwards of 100 per cent. over the ordinary average. Obviously this increase is traceable directly to the severity of the weather. As regards general diseases, the increase of deaths is no less than 150 per cent. This state of matters is very alarming; and as the humbler classes, with few home comforts and fewer friends, are chiefly the sufferers, the prevailing misery cannot at this season be too strongly impressed upon those who are surrounded by all that makes life enjoyable. It is easy to prove, if any proof were needed, that death is knocking loudest at the doors of the poor. In the western districts of the city, where people are well housed, well clothed, and well fed, and sanitary laws are as far as possible observed, the ordinary death-rate is only on an average about 19 per 1,000, being very little above the mean rate of the Registrar-General. The severe weather has brought it up to something like 24 per 1,000, or an increase of 26 per 1,000, this extra mortality taking place principally amongst aged and very young persons. In the poorer districts, again, comprising Calton, Cowcaddens, Anderston, Gorbals, and the Central, the ordinary average death-rate is 34 per 1,000, whereas during last week, still excluding for two days the nine registration districts, the mortality is 68 per 1,000, exactly *double the ordinary rate*, and *representing the extinction of the entire population in 15 years*."

Those who lived in Glasgow during the last three weeks of 1874, will hardly be surprised at the enormous death-rate. There was a fog, of no ordinary character. A fog is bad enough, but this was one which could not only be seen, but tasted and smelt. The moisture was evidently impregnated with soot and chemical fumes in the highest degree. Dr. Gairdner, writing to one of the local papers, endeavours to draw a lesson from the fearful rate of mortality experienced. In this letter, he says:

"When dealing with this subject in 1869, under the pressure of what was then considered an extremely high death-rate—though very far short of that which has been lately announced to us—I came to the conclusion, after an elaborate investigation, that manufacturing vapours had probably some considerable influence in increasing the local death-rate from pulmonary causes during northerly and easterly winds; and in particular I pointed out that the purely climatic influences to which the Scottish Registrar-General had attributed the excess of mortality in 1869, had been almost inappreciable in their results in Aberdeen and Perth, and but slight in Edinburgh, as compared with Glasgow and Greenock, although the first three cities are notoriously much more exposed to the merely chilling effects of those winds than the two last. I further remarked that 'among the *constant* sources of high mortality in Glasgow, diseases of the lungs are always prominent......and that both in Edinburgh and Aberdeen we have examples of cities far more exposed to the influence of northerly and easterly winds in their *pure* state than Glasgow, and in which, nevertheless, the pulmonary death-rate is not only lower at present, but is persistently lower, than with us.' These conclusions were expressed with all the care and scrupulous reserve imposed by the responsibilities of an official position; but is it not rather a striking commentary upon them that now, in the midst of choking fogs such as every Glasgow citizen has personally experienced of late, we find the death-rate running up to over sixty in the thousand, far in advance of previous seasons in Glasgow itself, and far in advance, also, of every other city in the empire."

And, further on, he sums up in these words:

"Now, if it be a fact that Glasgow and Greenock have habitually, or, indeed, all but constantly, the highest *pulmonary* death-rate in Scotland, is it not extremely probable that the vapours which, when condensed into a fog, bring about such death-rates as we have had lately, have something also to do with the *constant* excess of mortality from pulmonary causes in these cities?"

We feel sure that there will be few to differ from Dr. Gairdner in this view, and we hope that something will be done to check the pollution of the atmosphere of the town in the future. It is well known that when the wind blows from the east, it is almost impossible to keep the handles of doors, door-bells, or any polished metal, from becoming rapidly oxidised. And during the late fog it needed only an hour or two to darken the most brilliantly polished door-plate. The air was evidently impregnated with active chemical gases, and these, no doubt, acted on delicate bronchial tubes as well as the more enduring brass.

## IRELAND.

Small-pox has broken out at Castlebar, co. Mayo, and is spreading throughout several of the districts in that union. Twenty fresh cases have been reported, and five additional are under treatment in the workhouse hospital.

Dr. Cameron's report for last month shows that 21,000 pounds of unsound meat were condemned as being unfit for food during that period in Dublin.

A testimonial is about to be presented to Professor Apjohn on his resigning the Chair of Chemistry in the School of Physic, in Trinity College, Dublin.

In the Registrar-General's Report for last week, the death of an officer's widow is returned as having occurred at the advanced age of 105.

Dr. Rawdon Macnamara has been re-appointed the representative of the Royal College of Surgeons for the ensuing year in the General Council of Medical Education and Registration.

### HOSPITAL SUNDAY IN BELFAST.

The last Sunday in December was the day appointed for the collections in the various churches in Belfast for this charitable object. The returns from sixty-three churches which took part in the work, show that £607 : 16 : 3 was obtained, an extremely small sum, considering the wealth and population of the town.

### ROYAL COLLEGE OF SURGEONS.

We notified last week that Dr. Cronyn had been appointed as Professor of Midwifery in this institution, in the room of Dr. Sawyer, resigned; but we learn that, since then, he has also resigned, and that the vacancy will be filled up on the 4th proximo. At the late contest for this chair, Drs. Roe, Halahan, A. H. Ringland, J. R. Kirkpatrick, Madden, and Isdell, were among the competitors; and, as it is most probable that the same gentlemen will again compete, we think it likely that Dr. Kirkpatrick will be selected. On the same day, the Fellows will elect a member of Council in the room of the late Dr. Adams. At present, but two candidates have intimated their intention of contesting the post, Messrs. Croly and Corley. The first named gentleman was formerly in the Council, but was obliged to resign from ill health. Little interest is attached to the matter, as the successful candidate will only hold office for a few months, a fresh election taking place in June.

### HEALTH OF DUBLIN: QUARTERLY REPORT.

The returns for the quarter ending the 2nd inst., show that the number of births during that period amounted to 2088, being equal to an annual ratio of 1 in 38, or 27 in every 1000 of the population; and the deaths to 2138, affording an annual ratio of 1 in 37, the death-rate exceeding the birth-rate by 50. The deaths from zymotic diseases numbered 501; scarlet fever causing 238 deaths; fever, 78; measles, 21; croup, 31; diarrhœa, 45; convulsions, 135; bronchitis, 338; pneumonia, 60; heart disease, 95; paralysis, 44; whilst 205 deaths were attributed to phthisis. The average temperature for the quarter was 43.2 degs., and the rainfall measures 9.065 inches.

### DUBLIN HOSPITAL SUNDAY.

The Executive Council of the Dublin Hospital Sunday Fund, held a meeting on the 14th instant, to receive the report of the Committee of Distribution, and to make arrangements for the annual meeting of the friends and supporters of the fund. The total sum realised was £3317 : 10 : 3, including interest allowed by the bankers; the expenses amounted to £148 : 11 : 9, or 4.4 per cent. on the sum realised, leaving a balance, after distribution of £3000, of £168 : 18 : 6. The Committee of Distribution reported that it had distributed the sum of £3000 upon the following principles, contained in instructions given by the public meeting at which the movement was inaugurated, and further instructions given by the Council. The system of distribution was based on the amount of the subscriptions received by each hospital, and the work done during the previous year. In estimating the work done, the following cases only were taken into account: intern patients, extern midwifery cases, and extern accidents; and the Committee were requested to take evidence as to the approximate relative cost to the hospitals of these cases. With a view of carrying out these instructions, the Committee distributed the fund according to the following plan: 1. That two-thirds of the £3000 to be distributed be divided according to the amount of voluntary contributions received by each hospital during the preceding year: 2. That the remaining third be divided according to the work done (by each hospital) for the voluntary subscriptions received during the preceding year: 3. That 500 extern maternity cases be considered equivalent to one bed maintained throughout the year: 4. That 1000 extern accidents be considered equivalent to one bed maintained for one year: 5. That an allowance of 20 per cent. additional shall be allowed on account of lying-in cases. Applications from ten institutions were received and considered. Three institutions were refused on the following grounds. "The Provident Infirmary is an institution professedly admitting none but paying patients. The Cripples' Home not yet having been established, the application from that institution could not be entertained. The Dublin Infirmary for Diseases of the Eye and Ear (Ely Place), appearing to be conducted without a committee or trustees, such as is usually the case in public hospitals, was, in the opinion of the Committee, more of a private than a public institution, and therefore not entitled to a share in the funds at its disposal." The awards made by the Committee were as follows: Sir Patrick Dun's, £335 : 17 : 5; City of Dublin, £1160 : 17 : 2; Steevens', £312 : 0 : 4; Cork Street, £121 : 3 : 3; Mercer's, £387 : 18 : 10; Rotunda, £407 : 1 : 10; Coombe, £215 : 2 : 7; St. Mark's (Ophthalmic), £59 : 18 : 7; total, £3000. The Committee made the following remarks with regard to two of the institutions which opposed the movement. In reporting to the Council the result of the first year's distribution of the Hospital Sunday Fund, the Committee think it right to remark that, in consequence of the refusal of some of the institutions to participate in the funds, the sums awarded to the various participating hospitals have necessarily been proportionately larger than they would have been had the others been willing to unite. Of these, there can be no doubt, the Meath and Adelaide Hospitals were entitled to claim a share of the general fund, had the authorities of these institutions considered it to be to their interests to do so. With a view to show how the fund would have been divided had these two hospitals been included, the Committee has thought it right to estimate, as nearly as possible, the amounts to which they would have been entitled if participating, and the consequent result to the other institutions now obtaining share of the fund. The amount calculated, from the information furnished by the published reports of these institutions, would appear to be about as follows: Not participating in 1874—Meath, £435 : 7 : 11; Adelaide, £668 : 3 : 4: Participating in 1874—Sir Patrick Dun's, £200; City of Dublin, £739 : 1 : 6; Steevens', £195 : 4; Cork Street, £75 : 19; Mercer's, £255 : 18; Rotunda, £225 : 11 : 6; Coombe, £135 : 18 : 9; St. Mark's, £48 : 16; Total, £3000. The Distribution Committee also recommend the adoption of a definition of an hospital, such as will include all institutions, either of a semi-private character, or of the nature of asylums for the incurable. The inauguration of Hospital Sunday in Dublin has been clearly a success, in spite of all the opposition with which its promoters had to contend.

### REPRESENTATION OF DUBLIN UNIVERSITY.

The contest was brought to a termination on Friday, the 22nd inst., and resulted in an easy victory for Mr. Gibson, who secured nearly as many votes as both his opponents together, the numbers being, Mr. Gibson, 1210; Mr. Miller, 759; Dr. Traill, 538. Dr. Traill did not canvass, nor, to the best of our belief, did he issue any address, so that rumours were prevalent that he had withdrawn from the contest. We hope that on the next occasion Dr. Traill may be successful, as we believe that medical representatives are much wanted in Parliament.

## THE SANITARY CONFERENCE AT BIRMINGHAM.

[*Continued from page* 120 *of last number.*]

*Dr. Goldie on the Condition of Leeds.—Dr. Trench on Overcrowding in Liverpool.—Mr. J. Leigh on Removal of Accumulated Matters liable to Putrefaction.—Dr. Foster on the Comparative Mortality of Birmingham.—Discussion.*

THE CONDITION OF LEEDS was the subject of a paper by Dr. GEORGE GOLDIE, in which he dealt with the population, trades and sanitary statistics, and river-pollution of the town. The water supply of the town was formerly taken from the river Aire; this, however, had become so polluted that it was necessary to change the source of supply, and an ample and good supply was now obtained from the river Wharfe, and the future source would be still better, for the Wharfe was not free from organic impurities. A close supervision was especially kept on all cottage property that there should be an ample supply of water; and, under such close supervision, thirty-nine impure wells had been detected and closed. In many cases, these wells contained all the impurities of the sewers. The ventilation of the sewers was carried on in as many points as possible through the gullies in the open streets. The dipstone by the side of the gullies had been perforated, and thereby allowed, at one time an upward, and at another a downward, current. Dr. Goldie was informed that this plan was held in high estimation by the sanitary authorities, but he would be glad to hear the opinions of his colleagues on the matter. In large manufactories, boiler-flues might be made to serve as ventilators, by consuming the dangerous gases. The structural character of the town was very deficient, and health and morality had both suffered in consequence; but under the power vested in the corporation, by the Artisans' Dwellings Act, he was led to hope for better things. The authorities had not been idle. Courts and yards had been opened up, and 674 houses condemned as unfit for human habitation, and demolished. Dr. Goldie thought that the Public Health Act, 1866, sec. 19, subsec. 1, gives powers to deal with overcrowding as a nuisance, and he intended to test its powers. The Adulteration Act had been put in force with great benefit to the inhabitants. The system of public slaughter-houses was severely condemned, and the establishment of public abattoirs recommended.

Dr. TRENCH, the Medical Officer of Health for Liverpool, had prepared a valuable paper on the Overcrowding which there prevails. It was read in his absence by Mr. Deacon, borough engineer of the town. Overcrowding had its origin in Liverpool and other Lancashire towns as early as the latter half of the eighteenth century. The population of Liverpool had increased sixfold between the years 1801 and 1871, *i.e.* from about 81,6000 to 493,346; and the housing of this rapidly increasing population was neither regulated by building laws nor cared for by municipal responsibility, but was left to the private and uncontrolled enterprise of small capitalists, whose sole object was gain, and who were without care for the health of the people or the welfare of the future community. Of the many evils springing from this state of things, the erection of courts and the construction of cellar-dwellings, were the chief physical causes of the sickness and mortality of the town. In 1864, the Town Council obtained legal powers to deal with and improve the courts at the public expense. The principle and machinery of the provisions of the Act were as follow. The medical officer of health reported on premises in or adjoining the courts which, by reason of their condition or situation, required improvement. That report was laid before the Town Council and the Grand Jury of the Borough Quarter Sessions. The town-clerk served every owner of premises affected by the report with notices, stating the nature of the alterations required by the medical officer, and the time when the grand jury would inquire into the matter. The grand jury, by deputation, inspected the premises, received evidence, and then reported. A presentment was framed by the grand jury on the report. The borough engineer then prepared plans and specifications of the works required to carry out the presentment. Notices were again served on the owners of premises, telling them when and where they might inspect these plans and specifications. If any owner objected to the works, he might go before the justices and discuss the propriety thereof, and the justices might make such order as they thought fit. The corporation and the owner of the premises might come to some mutual agreement as to the amount of compensation to be paid for the alteration or demolition of the premises; and if their valuation were not accepted, then the decision was left to a jury under the Lands Clauses Act. On tender of amount of compensation, the corporation might execute the work. Under this Act, five presentments had been made by the grand jury, requiring the demolition of 542, and the alteration or partial demolition of 115 houses, and the erection of trough water-closets in lieu of privies for the courts. The whole of this had been effected at a cost of £87,663, including parliamentary and legal expenses. The Council had also required that all the privies in courts not affected by presentment should be removed and converted into trough water-closets at the cost of the owners. Dr. Trench illustrated the effects of the structural alterations in improvement, by comparing the fever-maps of 1865 and 1868. With regard to objections which might be made against the policy and principle of the Local Act, it might be said that it was contrary to justice and to the doctrines of true political economy to improve private property at the public expense; and that no portion of the ratepayers' money should be expended without the direct control of their representatives. The structural alterations, required, however, were in the form rather of the provisions of a town's improvement than of a nuisance removal act. The houses or premises ordered to be demolished, were not themselves necessarily injurious to health. They might be well built, airy, and habitable, and with a street frontage; yet their demolition was required because, by reason of position or situation, they blocked up the entrance of courts, and impeded the circulation of air to blocks of buildings. The Artisans' and Labourers' Dwellings Act enabled the local authority to have the obnoxious premises altered or demolished instead of closed. In Liverpool, the closing of houses unfit for human habitation led to their speedy improvement. The real impediment, however, to the beneficial working of the Liverpool Act would be found in the imperfect provisions of the Local Government Act, 1858. The thirty-fourth section of that Act empowered local boards to make bye-laws with respect to the sufficiency of space around buildings; but it had been held that such bye-laws could not apply to additions to, or extensions of, buildings erected before the passing of the Act, or before its adoption by a local board or a council of a borough. It was thus that, even in new districts of the town, buildings, having no separate area belonging to them, might be so placed as to injure the healthiness of blocks of houses, while, in old districts, owners were permitted to place stables, shippons, sheds, and workshops on every open space in existing yards. What was wanted, before local authorities attempted to improve the sanitary condition of the houses of the labouring class, was the compulsory passing of bye-laws for space around all newly erected buildings, without reference to whether such buildings were to be used for habitations or not. Of course a discretion must be left to the local authority to relax in special instances, if necessary, the stringency of these bye-laws, so as not to interfere with trade, or not to prevent the transition of a residential to a trading or manufacturing district. In all cases the medical officer of health, and the engineer, should be required to report on the effect on health of all relaxations of bye-laws before being sanctioned by the Council.

Mr. J. LEIGH, Medical Officer of Health for Manchester, read a paper on the Removal of Accumulated Matters liable to Putrefaction. This subject early engaged the attention of the Health Committee. The committee had been led to the adoption of the dry system, and the objects aimed at were:—Frequent removal of the excreta, so that time should not be allowed for putrefactive fermentation to take place; small closets to necessitate frequent removal; the partial deodorisation of the excreta; exclusion from the receptacles of all such matters as should diminish, to a serious extent, the manurial value of the excreta; the conveyance of any emanations from the closets to such an altitude by flues as should bring them into the general currents of the atmosphere; the exclusion of all excreta, solid and liquid, from the sewers; the collection of all household rubbish in a receptacle separate from that used for collection. The system in use in Rochdale was adopted. About 13,000 of these closets had been constructed in Manchester, replacing, to this extent, a number of reeking cesspools. The larger number were emptied twice a week, clean and dry ones being put in their places, and some were removed almost daily, and a few at intervals of once a week. On removal, they were covered with tightly fitting lids, and were conveyed away in closely covered vans. The almost entire absence of odour from these closets was remarkable. The readiness with which disinfectants could be supplied was also an advantage, whilst the ease and frequency of removal, in a time of epidemics, were great recommendations. The infectious dejections were not allowed to remain long, and the poisons were not carried to other houses or closets. The drains of the courts and passages of the city were ventilated. An examination of a large number of the drains and sewers, three years ago, showed that the interior of them was nearly blocked up with a black and fœtid composition of fine ashes, coal and cinders, and excreta. As the altered privies were entirely disconnected with the drains, such an accumulation could not now take place. Manchester, however, was emphatically a privy or midden town; for, although there was a moderate number of water-closets, yet these constituted but about a sixth. The sewage of the densely populated districts would probably be so diluted by the enormous volume of water with which it would be intermixed under the condition of things which they would bring about, that the simplest filtration or precipitation, should either be required, would be sufficient to purify it for its passage into rivers. The nuisance-inspectors (nineteen in number) had to report immediately the existence of any infectious disease. The rivers Irk, Medlock, and Irwell received the sewage of the city, and were in a very black and somewhat odorous condition. By the reconstruction of closets, the fouling of the rivers might not be of a very injurious character in a few years. Manchester had a good supply of pure water, and the streets were well paved and sewered.

Dr. BALTHAZAR FOSTER, Physician to the General Hospital, Birmingham, read a paper on the Comparative Mortality of Birmingham. In a tabular form, he gave the rate of mortality from all causes, and certain special causes, for twenty-years (1851 to 1870), in Birmingham, and six other large towns, as compared with the rate of mortality in the country generally (England and Wales) and in twelve healthy rural districts. It appeared that the death-rate of the Birmingham district, from all causes, placed that town higher in the health scale than Liverpool, Manchester, Leeds, and Sheffield, while the death-rate was greater than that of London, and exceeded that of the whole country by about 4 per 1,000. The reduction of this excess was the work before the sanitary authorities of these districts. The two great blots in the sanitary records of Birmingham were the diarrhœa and diphtheria death-rate. The diarrhœa death-rate was twice as bad as the average of the whole country, much worse than that of London and Bristol, about equal to that of Sheffield and Leeds, and was only exceeded by the death-rate in Manchester and Liverpool. It had to be remarked, however that, during these twenty years, Liverpool had suffered from several cholera epidemics, while Birmingham had enjoyed a wonderful immunity from this. The town had improved during the last ten years, but not sufficiently to justify any complacent indifference to the deplorably high death-rate from diarrhœa. As to diphtheria, Birmingham was the worst great town in England, and this unenviable character had been acquired during the last ten years. The death-rate from this disease had gone up from .07 to .34 per 1000; 750 deaths had occurred from diphtheria during the latter decade, against 147 in the former. As to zymotic diseases, Birmingham was but little better off in this last decade than in that ending 1860. Dr. Foster specially referred to this, for these diseases were what was fairly called preventable. Their propagation depended on neglect of sanitary laws. The simple statement that the death-rate in Birmingham from preventable disease had been for twenty years past about 7 per 1000, or that more than one-fourth of the total deaths had been from this cause, hardly conveyed the magnitude of the evil. Every year there were now 2,000 deaths from this class of preventable disease, and during the twenty years considerably over 30,000 persons had died in Birmingham from a class of disorders largely reducible by strict sanitary measures. Diphtheria and diarrhœa came under this category. Both were eminently preventable; from both had the town suffered heavily. The question naturally arose: Were the special conditions in Birmingham favourable to the development of these diseases, and, if so, what were they? In 1870, there were 70,000 houses connected with privies and middens in the town. These houses contained a population of 325,000. In the words of the report of the Sewage Committee: "The middens cover an area of thirteen and a half acres, and practically all of them, containing fæcal matter and solid and liquid refuse, are open to the air." The sewers were consequently fouled by drainage from the middens, and the surface-wells become the receptacles of sewage-matter with which the earth was absolutely saturated. The water of these surface-wells was at present used by at least one-third of the population. Some 140,000 people in this town drank this death-giving fluid, and especially the children under five years of age, on whom the mortality from diarrhœa and diphtheria fell most heavily. The remedy for this state of things were (1) the abolition of the midden system, and the substitution of a system of weekly removal of refuse of all kinds from every house; (2) the abolition of all surface-wells, and the substitution of a constant supply of the purest water that could be got. If, by any means, said Dr. Foster, a constant stream of pure water is poured into our courts and yards, in place of the tainted well-water which is now used, our health conditions in Birmingham will be greatly improved, and our mortality from preventable diseases largely diminished.

The foregoing papers were read during the morning sitting. In the discussion which followed,

The MAYOR of CARLISLE asked Mr. Goldie what arrangements were made for the inhabitants of the houses which had been demolished, and the cellars that had been closed. He generally found that, if the poor were removed from the cellars, they went into garrets.

The MAYOR of PORTSMOUTH was quite sure that it would be interesting if he stated the cause why, in his opinion, the town he represented had the lowest death-rate of any of the eighteen large towns. It arose from the fact that the four towns, which constituted the municipality, had a large acreage of ground surrounding them; and, also, that the authorities rigidly enforced the bye-law, which required ample ventilation and open spaces be provided for all buildings.

The MAYOR of DUDLEY said that the local authorities had ample powers granted to them to deal with the evils which had been alluded to; but, unfortunately, they did not know how to apply them. If (he said) you wish to deal with the water supply, the isolation of fever cases, drainage, uninhabitable houses, wretched privies and ash-pits; in fact, upon any subject that is reported upon by the medical officers of the local governing bodies, you have power given by some Act or another to deal with it.

Dr. HUMPHRY SANDWITH, C.B., said that he represented no town, city, or community. In London, millions, not accidentally, but systematically, had provided for them more or less diluted sewage-water as their daily drink. This might appear a sensational assertion, but he would appeal to the result of a chemical analysis of the water furnished to the metropolis during the month of December. "In the water of the Grand Junction Company, living and moving organisms were found, and in the Chelsea Water Company's water were contained particles of linen and woollen fabrics, with fibres of partially digested and decomposed meat." Dr. Frankland added that the water thus charged with fæcal and other refuse matters was unfit for dietetic purposes, and could not be used without serious injury to the health. He (Dr. Sandwith) saw upon the platform one of our legislators, and he begged to inform him that the water furnished to the eating-room of the House of Commons was thus composed. He ascribed all this to a boasted and comparatively modern invention, the water-closet. In doing away with the cesspools, millions of cesspools were made, all connected together, never properly cleansed, and communicating with the interior of dwelling-houses. Dr. A. Carpenter and other authorities, in maintaining the good of water-closets, told us how easily sewage farms might be arranged; how the water might go through certain processes by the operation of filtration beds, and then how the effluent water might result pure and free. But the organisms, these marvellous seeds of disease, were not discoverable by the microscope or by any chemical agency. Moreover, even admitting, as one of the previous speakers had done, that healthy excrement was not deleterious, all must agree that it was very nasty. The water containing the excrements, in all inland towns, must go into the river. Consequently, it must necessarily poison the source of supply of all towns below. He thought almost anything better—most assuredly the pail system; and, in his opinion, the best system of all was that of Captain Liernur.

Mr. Alderman TATHAM of Leeds spoke on the subject of sewer-ventilation, in which he said that the trap system of ventilation had proved a failure, and, in consequence, they had had their gullies untrapped, on the principle that it was better to have sewer-gas outside rather than inside the houses, and the town had benefitted greatly in consequence.

Mr. CHALLINOR of Leek said the grand thing was to obtain the co operation of the people. That had been done in Leek; and, during the last twenty years, from having been one of the worst sanitary towns in the kingdom, it had now become one of the best.

Dr. HIME of Sheffield said that one result of the Conference would, no doubt, be the removal of the opprobrium cast on the medical profession. He said that ventilation and cleanliness were only secondary agents at the best, and something else must be done to solve the question of the origin of disease, and diminish the death-rate. In the same part or district the rate of mortality was found to rise from twenty to thirty or thirty-five per 1,000 in a few weeks. Was it to be supposed that, in this town, the people become more cleanly or more uncleanly, or that their manner of life was more moral, or that they had better ventilation? The water-supply was also looked upon in the same aspect. It seemed to him that, before undertaking to knock down houses and turn people out, although, doubtless, in some cases this might be necessary, it would be more wise and useful to strike at the root of the matter, and find the causes of the disease—the primary moving agents favouring the development and growth of zymotic disease. He was opposed to the idea that any amount of dirt would produce a case of typhoid fever, or that the most stringent cleanliness would preserve a neighbourhood from an attack of the disease. Allusion had been made to the merits of water-closets, and to the relative methods of dealing with the sewage question. With reference to that, his advice was—first catch the sewage and then utilise it.

Dr. FERGUS of Glasgow exhibited sections of Lead Pipes which had been decomposed by the action of sewer-gas, and gave, as his experience, that the term of existence of a sewer-pipe was but fourteen years.

Dr. YELD, the Medical Officer of Health for Sunderland, stated the steps which had been taken to improve the sanitary condition of that town, and strongly urged the use of sea-water for flushing sewers, ventilating streets, and other sanitary purposes, on the ground that it was more suitable for those purposes than fresh water.

A few remarks were made, and the proceedings of the first section were brought to a close.

The afternoon was occupied in considering the question of working men's dwellings, the evils of every kind which arose from insufficient and unsuitable habitations were fully recognised, and various suggestions made for their remedy. Papers were read by Sir Sydney Waterlow, the vice-president of the Shaftesbury estate, and Mr. Martin of Birmingham; and a long discussion followed, in which Sir Charles Reed took part, and earnestly urged the claims of the lower-class poor, who were verging on pauperism, to consideration.

## THE HAMPSTEAD HOSPITAL SITE.

In a letter to the President of the Local Government Board, the chairmen of the various committees appointed for the purpose of opposing the erection of the Hampstead Hospital have made one more attempt to make out a grievance. They have urged nothing new or valuable in support of their case; they have not produced a single authenticated case of small-pox communicated from the hospital; they have not brought forward any medical man of special experience in the question under discussion to say that they have any cause for complaint; and, as if to do the best they could to destroy their own cause, they admit, what they have hitherto most strenuously denied, and indeed do in this present letter deny, not only that they may have failed to detect isolated cases of small-pox occurring before the hospital was opened, but that five cases did actually occur seven or eight months previously to its opening. In order that there may be no doubt about this, we will quote their own words. In page 4, they say :—"The Committee can state that a careful inquiry made at the time of the epidemic, and since repeated, has failed to discover that there was a single case of small-pox in Hampstead at the time of the epidemic, until patients suffering from the disease were introduced into the parish by the Metropolitan Asylums Board." But in a foot-note on the same page, they say : "The only cases of small-pox in Hampstead prior to the opening of the hospital which the Committee have been able to discover are four or five cases that the health-officer has brought to their knowledge, and which, he states, occurred in March or April 1870; *i.e.*, seven or eight months before the hospital was open for small-pox patients." How does this statement harmonise with the frequently repeated assertion, that there was not a single case of small-pox in the parish of Hampstead until after the opening of the hospital? Five cases are actually admitted to have occurred by the Hampstead Committees themselves months before the hospital was opened, and we may fairly conclude that this does not exhaust the number. It is just possible that an attempt will be made to escape from the conclusion which necessarily follows from the last mentioned admission, by means of the words, "at the time of the epidemic". It may be contended that small-pox was not really epidemic in London until the latter part of the year, and that there was therefore no connection between the cases which occurred in Hampstead after the opening of the hospital and those which occurred in the early part of the year. This is a line of argument which can neither be proved nor disproved, and as such it is of no value to us in the present discussion. Taken in connection, however, with the mode in which epidemics arise, the fact that there was small-pox in Hampstead and in Kentish Town in the early part of 1870 is of the utmost importance. Epidemics do not commence by an explosion; they arise as isolated cases scattered about here and there, attracting little or no attention; these gradually increase, the rapidity of increase depending upon a variety of considerations, such as susceptibility of population, nature of disease, water-supply, habits of life, and general sanitary conditions. To enter into a discussion as to when any epidemic began would be a fruitless proceeding; but, as regards the small-pox epidemic of 1870-71, this much is clear in reference to the north-west district of London, that, in the month of March or April, there were five known cases of the disease, and that in the week ending July 23rd there was one death, representing from ten to twenty cases, in Kentish Town. In the week ending October 1st, a second small-pox death is registered in the same district, and in the month of November two deaths from small-pox were registered there. We have thus the important facts, that small-pox had been hanging about Hampstead and Kentish Town from an early period of the year 1870, and that in the latter district, in the month of November—the month immediately preceding the opening of the hospital—there were, judging from the two deaths, probably thirty or forty small-pox cases in the said district—a district which is only distinct from Hampstead in name—before a single case entered the Hampstead Asylum; and notwithstanding, it has been asserted that small-pox in Kentish Town and Hampstead was due to the existence of the Small-pox Hospital.

The most foolish, perhaps, of the representations of the Joint Committee is that which represents Hampstead as a district perfectly distinct and separate from London. They constantly speak of it as if it were a small village or town having little or no communication with the great city, as if it were a place where the existence and extent of disease could be easily known and defined, and where, from the limited nature of the communications between other places and itself, the origin of disease could be readily traced. On the contrary, Hampstead is an integral part of London, joined to it in the closest manner by continuous lines of building and numerous streets, and through these the freest communication takes place daily between it and the more central parts of the metropolis. If it be admitted that Hampstead forms an integral part of London, and that there exist innumerable channels by which infection might be conveyed to it from various quarters of the city; that it is bounded by a district in which small-pox actually existed long before a single small-pox patient entered the Hampstead Asylum; that stray cases existed in the district itself; and, lastly, that the Hampstead Committees have not yet, though often called upon, traced one single case to the hospital,—it may, we think, be fairly said of the proposition which we are contesting, that it is not proven and highly improbable. All this is confirmed by the emphatic statement of Dr. Stevenson, the health-officer for St. Pancras, and by the silence of Mr. Lord, the health-officer for Hampstead. That the existence of the Hampstead Hospital contributed nothing to the spread of small-pox may be inferred from the fact, that districts without such a hospital as Hampstead suffered in greater proportion, as the following figures extracted from the Registrar-General's returns will show.

| | Population in 1871. | Deaths from week ending July 9, 1870, to week ending Aug. 3, 1872. | Ratio per 1,000 |
|---|---|---|---|
| Hampstead... ... ... | 32,271 ... ... | 1,358<br>1,332* | |
| St. Pancras Division: | | *26 ... | ... 0.8 |
| Regent's Park ... | 38,192 ... ... | 48 ... | ... 1.27 |
| Tottenham Court Road ... ... ... | 39,360 ... ... | 48 ... | ... 1.22 |
| Gray's Inn Road ... | 29,216 ... ... | 50 ... | ... 1.71 |
| Somers Town ... | 38,562 ... ... | 137 ... | ... 3.56 |
| Camden Town ... | 18,066 ... ... | 41 ... | ... 2.26 |
| Kentish Town ... | 68,198 ... ... | 188 ... | ... 2.76 |

* (Deducted, being deaths in Hampstead Hospital of patients sent from other districts.)

This requires correction for cases removed to any hospital, but probably the sequence of prevalence in the several subdistricts would not be altered.

The Joint Committees, whom, without disrespect, we may regard as without special knowledge on the subject, call in question the general policy of the Metropolitan Asylum Board in erecting large hospitals for the treatment of infectious diseases, on the ground that certain eminent, but unnamed, members of the medical profession are opposed to such hospitals; and they quote statistics from Dr. Gibbon, who, in a report to the Holborn Board of Works, showed that the mortality from small-pox treated in large hospitals was twice as great as that of patients treated in their own homes. Conclusions drawn from such insufficient data as those produced by Dr. Gibbon must be of little value; and, even if we were to admit the data furnished us as sufficient to justify in making deductions, the only conclusion to be drawn would be that all small-pox patients should be treated at their own homes, a conclusion from which even the Joint Committees would probably recoil. Moreover, in the Highgate Small-pox Hospital, which is a small hospital, the mortality of 2,654 cases, treated during the period from 1836 to 1851 inclusive, was 37 per cent., *i.e.*, just 17 per cent. greater than the Hampstead Hospital mortality, which was only 20 per cent. The treatment of epidemic infectious diseases in small hospitals, if practicable, would be excessively expensive, would necessitate the employment of a larger number of medical officers, nurses, cooks, and servants, all of whom would be liable to contract the disease. New appointments would require to be made as the original holders fell sick, and so on *ad infinitum*. In this way, the hospitals would become, to a not inconsiderable extent, places for the dissemination, not the repression, of disease. If, too, hospitals were too near the dwellings of the patients, it would be more difficult to restrict visiting; and the long walk which many poor people have to take after leaving a hospital situated at some distance from their homes, exposes them to the influence of one of the best and surest of disinfectants, to wit, fresh air. It appears, too, to be forgotten that it is not the bulk of a hospital which renders it unhealthy, but the overcrowding of it; and this may clearly occur in a hospital constructed for ten patients as in a hospital constructed for a thousand.

In reference to the alternative site which the Joint Committees have offered to the Asylum Board, they quote, and justly, Dr. Murchison as a high medical authority. We commend to their attention the following extract from his work on *Continued Fevers*, on the subject of fever hospitals.

"On the one hand, it is believed that 'it would be better to have no hospitals at all than to mix cases of typhus, small-pox, and scarlet fever with patients suffering from other diseases'; while, on the other, certain non-professional sanitary reformers, endowed with more zeal than knowledge, have proclaimed to the world that all cases of infectious disease ought to be distributed through the wards of general hospitals, and that fever-hospitals and fever-wards are at all times 'a crime against humanity and a disgrace to the age in which we live'.

"The objections which are usually urged against fever-hospitals and fever-wards are two, viz.: first, that the concentration of the poison increases the mortality amnog the patients themselves; and, secondly, that the concentration of the poison increases the danger to the attendants.

"But these objections, which are too often made, without reflection on what would be the alternative if all cases of fever were admitted into general hospitals, apply only to fever-hospitals which are overcrowded or badly ventilated.

"If 2,000 cubic feet of space be allowed to each patient, and if there be thorough ventilation, there need be no more concentration of the poison in a fever hospital than in a general hospital with a sprinkling of fever cases.

"Take, for example, the London Fever Hospital. It has already been shown that the rate of mortality for each individual fever has not been greater than what has been observed in most general hospitals (see pages 217, 366, and 520), while, during fourteen years (1848-61), 3,680 cases of true typhus fever were treated within its walls; but the disease was only communicated to 53 persons, of whom 14 died. In other words, only one person caught the fever for every 70 under treatment.

"What would have been the consequences if these 3,680 typhus patients had been distributed among the general hospitals of the metropolis, may be imagined from the comparison about to be made.

"During the first six months of 1862, 1,107 cases of true typhus were under treatment in the London Fever Hospital, of which 232 died, or the mortality was 20.95 per cent. In the same period, 343 cases of typhus were under treatment in six of the general hospitals of the metropolis mentioned below, of which number 80 died, or 23.32 per cent.

"The 1,080 (1,107—27) cases admitted into the Fever Hospital communicated the disease to 27 persons, of whom 8 died. In other words, only 1 person took the fever for every 40 admitted, and only 1 died for every 135. But the 272 cases admitted into the six general hospitals communicated the disease to 71 persons, of whom 21 died; or 1 person caught the fever for every 38 cases admitted, and 1 life was lost for every 12.9 cases admitted. What would have been the result if there had been no Fever Hospital, and if the 1,080 cases admitted into it had been distributed among the general hospitals in addition to the few hundreds which were actually treated in them? Yet, in the midst of this epidemic, the abolition of the Fever Hospital has been advocated!"

As specimens of the careless haphazard sort of way in which this report has been got up, we proceed to give some instances.

Having disposed of the question of the evils arising from the existence of large hospitals, the Committee proceed to enumerate the reasons, to prove the ineligibility of the site selected for the erection of the present one; and first among the number comes that of "want of proper isolation". One, of course, expects to find something on the subject of isolation—something to show what proper isolation is and what it is not. Instead of any information on these points, the committee proceed to express their astonishment that the asylum managers should have stated that only two cases of small-pox occurred in the houses in the immediate neighbourhood of the hospital, instead of seven as they assert, a circumstance which throws no light on the question of isolation, unless it were shown that the said cases could be traced to the hospital influence, which the joint committee do not attempt to do. They simply make an assertion.

Again, speaking of the number of cases which occurred in Fleet Road, and Upper Park Terrace, they say, "if the above lamentable results followed when the hospital was employed for patients suffering from small-pox, a disease against which the great majority of people were doubtless protected by vaccination, what may not be expected if it be used for diseases so contagious as typhus or scarlet fever, against which there is no protection"? Now, what the recent small-pox epidemic *proved* was, that the great majority of people were *not* protected by vaccination. The majority had been *somehow* vaccinated, but a very few indeed had been efficiently vaccinated. Had they been so vaccinated, they would not have had small-pox. Criticising the asylum managers' statement, that the houses immediately surrounding the existing hospitals are free from fever, they forget that Dr. Aveling states that, in the City of London Union, which contains eight hundred inmates, and is within a few feet of the hospital, *no cases of fever have occurred;* and we feel justified in saying, from personal knowledge, that in the other houses surrounding the hospital, not only have no cases been known to be traced to its proximity, but that none have occurred.

Professor Owen is quoted with evident satisfaction, as if his letter supported their cause. If it did, it would be of scant value, inasmuch as the distinguished professor has no special experience on the subject. But it does not. The substance of Professor Owen's letter is summed up in the following words, viz.: that the responsibility of erecting infectious hospitals is a grave one; that the obligation to make an exhaustive search for an unobjectionable site is imperative, and that events may make the neglect of such search culpable; to all which we cordially agree, and we imagine the asylum managers agree too.

We have not space to devote to Dr. Murchison's report the full consideration which the opinion of one so well qualified to speak merits. We shall limit ourselves to the question of how far the noises from the trains would be injurious to the patients, if the hospital were to be built on the site offered by the Hampstead committees. Dr. Murchison says that with him the objection has little weight, inasmuch as the patients are very "often deaf and rarely suffer from noise; while the noises inside a ward containing delirious patients are far more serious than any noises from without". It is quite true that deafness exists in some cases of fever, but it does not exist in all, nor in any during the whole period of the fever. As regards typhus fever, Dr. Murchison only asserts its existence in one half of his cases (epidemic of 1862). Of enteric fever he says: "Deafness of one or both ears is a common symptom. I noted it in 20 out of 46 cases; Lewis observed it in 58 of 99 cases; Barth in 36, of 129 cases; and Jenner in 6, of 23 fatal cases. It is rarely observed before the end of the second week". Thus out of 297 cases, the symptom occurred in only 120 cases, and, in the majority of these, the patient had passed through two of the three stages into which, in the majority of cases of enteric, the fever may be divided; and by the end of the third week the deafness would in most cases have disappeared, and the patient, with a nervous system rendered more sensitive by disease, would be more than ordinarily liable to feel the effects of noise. Of relapsing fever, Dr. Murchison, says "that deafness is not a common symptom. In 220 cases, Douglas met with it only twelve times; and in eight cases it was very slight, and only lasted a day or two. Of the four cases where it was decided, it occurred early in the attack in one, and, in the remaining three, it only came on in convalesence." On Dr. Murchison's own showing, then, deafness in the majority of cases of continued fever is absent, and even when it occurs, it exists for but a short period. It ought to be remembered, too, that in some cases of fever, extreme intolerance of sound exists, and the loud noises, whistling of engines, shouting of porters, and the shunting of waggons, which would be going on day and night at a main shunt, could scarcely fail to drive such patients frantic. In regard to noises made in wards from delirious patients, it appears to us a defect in hospital management if patients so noisy as to disturb their neighbours be not isolated.

No one knows better than Dr. Murchison the importance of sleep in fever. On this subject he says: "The practitioner cannot be too forcibly impressed with the fact, that loss of sleep, at any stage of typhus, if it continue for two or three nights, is of itself sufficient to kill. and that even the shortest sleep is an advantage to the patient." The effect of trains in preventing people, fresh to their neighbourhood, from sleep, is too well known to require evidence. The effect is greatly exaggerated when to the noise of a simple train is added the much greater noise of a junction where trucks are being shunted day and night. We were informed, on our visit to the site, that people in the neighbourhood, when sick, feel the annoyance which the junction causes; and that persons fresh to the place do not sleep for the first week or two. These reasons are, we think, absolutely fatal to the Mill Lane site.

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VOTE OF THANKS.—At a special meeting of Court No. 545 of the Ancient Order of Foresters, Leek, to appoint a medical officer, the following resolution was passed. "That this meeting regrets the resignation of Charles Heaton, Esq., M.D., as their medical officer, and unanimously tender to him their gratitude and thanks for the services he has rendered as an eminent and skilful surgeon, for the judgment he has ever displayed in the interest of the court (the present prosperity of which is the best proof), and also for the considerate kindness he has invariably shown to the members."

## EXPERIMENTS ON ANIMALS.

An influential deputation from the Society for the Prevention of Cruelty to Animals presented, on Monday last, a memorial to the Council, asking that the Society would vigorously pursue the course commenced by the prosecutions at Norwich. Sir William Fergusson and Mr. Tufnell are referred to as "two eminent surgeons who pronounced the experiments of M. Magnan needless and cruel". The memorialists state that vivisection is now "the daily exercise of hundreds of physiologists and young students"; and that the "ambition for scientific notoriety may be deemed a not insignificant motive for the performance of many of these experiments". They recommend that these objects may be carried out—1. By the appointment of a subcommittee expressly to deal with the subject, to be called the "Subcommittee for the Restriction of Vivisection"; 2. By instructing Mr. Colam to undertake as many prosecutions of cases of vivisection involving severe animal suffering as may prove to come within the scope of the existing law, and so to bring the matter prominently before the public eye; 3. Should it be found that grounds for such prosecutions are rarely to be obtained, owing to the secrecy with which vivisections are usually performed, or that, when undertaken, the state of the law renders them ineffectual, it may then be considered whether a Bill should not be introduced into Parliament making the publication of any cruel experiment in a scientific journal or other work a legal ground for the prosecution of the publisher, and thus throw upon the operator the onus of justifying the act. In view of the ambition for scientific notoriety, which may be deemed a not insignificant motive for the performance of many of these experiments, it is believed that this provision would be eminently effective; 4. If a Bill on the subject were found advisable, it might properly contain other provisions, such as, 1, the prohibition of all painful experiments on animals, except in authorised laboratories and by registered persons, whose experiments should be also registered as to number, nature, and purpose; 2, the absolute prohibition of painful experiments as illustrations of lectures; and, 3, the extension to three months of the interval of a single month now allowed by law for the prosecution of cruelty to animals after the commission of the offence.

The memorial, which was issued, we believe, in blank from the offices of the Society, now returns to it adorned by several hundreds of signatures of very distinguished persons. Statements so reckless and sensational naturally excite the ordinary feelings of humanity. It is improbable that the facts can now be adequately ascertained, except by parliamentary inquiry. We have already discussed the subject at some length, and refer to it in another column to-day. But the cloud of misrepresentation and calumny which has now gathered round it can only be dispelled by impartial inquiry. We are quite inclined to believe, with the *Times*, that, for the purpose of enlightening the mind and easing the conscience of those who have lightly accepted as facts the statements to which their signatures have been obtained, it is desirable that a Select Committee of the House of Commons should take evidence. We have no fear whatever of the results. Science and humanity must always benefit by impartial investigation. It must be remembered that "vivisections" form a very small part of physiological investigation and experimentation on animals, and that a majority of all operations are conducted under the influence of anæsthetics.

# SPECIAL CORRESPONDENCE.

## EDINBURGH.

[FROM OUR OWN CORRESPONDENT.]

*Lead in Aërated Waters.—Jaborandi.—Bequests to the Royal Infirmary.—Gas Explosion.—Royal Medical Society.—Hospital for Incurables.—Summer Lectures.*

At a meeting of the North British Branch of the Pharmaceutical Society, recently held in the society's rooms here, Dr. Stevenson Macadam read an important paper in connexion with the much debated question of the presence of lead in aërated waters. After mentioning that, in 1871, when he first took up the subject, he had made out that hard waters had a greater power of action over lead than soft waters, he gave a general description of the apparatus used in the manufacture of the aërated waters. He thought it of the greatest importance that the gas-holders should not be made of any material containing even a trace of lead in its composition, as he had found that the mere pouring of water from a bottle into a lead pipe, and back again, caused a contamination, varying from one-twentieth of a grain per gallon in soda-water, to one-half per grain per gallon in lemonade; while if the waters were allowed to remain in the lead pipes for an hour, the amount of lead found would rise to two grains per gallon in soda-water, and ten grains in lemonade. The lead which contaminates, as the manufacture is at present carried on, is generally in the solder, as pipes of pure tin are easily obtainable. In samples sent him, he had discovered one grain per gallon in lemonade, and less in the other waters. At the same time, he had ascertained the further curious fact that the oil of lemons used for the lemonade generally contained quantities of lead, owing to the fact that the vessels in which the oil was stored were not free from that metal.

The new drug jaborandi, which is exciting much interest in Paris and London, has only been obtainable in very small quantities here. However, Dr. Craig was fortunate enough to get a small supply, and made some experiments upon himself, which fully established the value and power of this agent as a sialagogue and sudorific. He is still engaged in investigating the matter, but there appears to be much difficulty in getting hold of the drug in any quantity.

At an adjourned meeting of the contributors of the Royal Infirmary, held last week, an important alteration was made in the bye-laws regulating the use of bequests for the general purposes of the institution. Hitherto it has been the rule to treat all legacies of more than £100 in value as capital, and to invest them as such; but, in consequence of the ordinary income having been for some years past insufficient to meet the ordinary expenditure, it has been determined that henceforth all legacies under £500 shall be used as ordinary income. With regard to the subject which created so much unpleasant discussion, and even threats of an appeal to the law, at the original meeting, namely, the method of voting for the election of managers, it was decided to summon a special meeting to deal with it, as it was held to be incompetent to make an alteration of that kind at an adjourned meeting.

A somewhat serious gas-explosion took place a few days ago in a poor district of Edinburgh, the cause of which was unusual and unsatisfactory. For some days the family of the sufferers by the accident had been complaining of an escape of gas; but the place of leakage had not been discovered, when, while they were at dinner, the explosion took place in the room in which they were sitting, and one man had a leg broken. It was found that the gas escaped from a large pipe into the drain, which runs side by side with it, from the sink of the kitchen into the main road; and that the gas had travelled up the sink and been ignited by the fire. This looks very much as if other gases could travel up the same way, and shows a serious want of proper trapping or other protection against sewer-poisoning.

The Royal Medical Society is in a very flourishing condition this winter, and has had an accession to its strength of nearly forty new members. This is a very satisfactory state of things to those who believe, as every one who has taken much part in its proceedings does believe, that it is one of the most valuable agents in the curriculum of medical education which we possess.

The great bazaar in aid of the intended Hospital for Incurables was held last week, and was a great success. It was the largest affair of the kind which has been got up in Edinburgh for many years, and had the support and personal assistance of most of the nobility and leading families in the neighbourhood. The sum realised is a little over £5,000. When all expenses have been deducted—and they were unusually heavy, from the extent to which the advertising was carried—there will be a surplus to go to the fund of about £4,200.

Our courses of lectures next summer promise to be unusually interesting, as, in addition to having Professor Huxley to discourse upon Natural History, a course of Medical Physics is announced by Professor Tait, in which those points and subjects in natural philosophy which have a special bearing on the practice of medicine will be thoroughly expounded. The course supplies a long felt want, and, in the hands of so thoroughly competent a teacher and so excellent a lecturer as Professor Tait, will be of the highest value.

Memorial Window.—The well-proportioned wheel window in the front of the Chapel-in-the-Field, Norwich, has just been filled with Munich painted glass. As is recorded in an inscription, it is "In loving memory of Charles Mends Gibson". January 12th, 1874, the date of Mr. Gibson's death, is added to the inscription. The window is placed in the chapel by his daughter, Miss Gibson. The design is floral, lilies and passion-flowers alternating in the wheel, and clusters of grapes in the outer portions of the light. The colours are very rich, and the workmanship most artistic. The work was executed by Messrs. Mayers and Co. of Munich.

# ASSOCIATION INTELLIGENCE.

## NORTH WALES BRANCH.

The intermediate meeting of this Branch will be held at the Castle Hotel, Conway, on Tuesday, February 16th, at 12.30 P.M.; Thos. E. Jones, Esq., President, in the Chair.

Dinner at 3.30 P.M.

T. Eyton Jones, *Honorary Secretary, pro tem.*

Wrexham, January 19th, 1875.

## PROCEEDINGS OF THE COMMITTEE OF COUNCIL.

At a meeting of the Committee of Council, held at the office of the Association, on January 14th, 1875—present, Mr. G. Southam (President of the Council), in the chair; Dr. Falconer (Treasurer), Mr. Alfred Baker, Dr. Bastian, Mr. Callender, F.R.S., Dr. A. Carpenter (Croydon), Dr. R. Farquharson, Mr. Reginald Harrison, Mr. F. E. Manby, Dr. Parsons, Dr. F. Sibson, F.R.S., Dr. Smart, C.B., Mr. Heckstall Smith, Dr. Steele, Dr. Wade, Dr. E. Waters (Chester), Mr. C. G. Wheelhouse, and Dr. E. Wilkinson.

Read letters of apology for non-attendance from Dr. Copeman and Dr. E. L. Fox.

The minutes of the last meeting were read and found correct.

*Resolved*—That those whose names appear in the circular calling the meeting be and they are hereby elected Members of the British Medical Association.

*Resolved*—That the Minutes of the Journal and Finance Committee of this date be approved and the recommendations carried into effect.

*Resolved*—That the Minutes of the Scientific Grants Committee be approved and the recommendations carried into effect.

*Resolved*—That the Scientific Grants Committee be authorised to appropriate the balance of £35 of the grant of £200 according to the terms of the resolution read.

Read communication from Norwich, viz.:

The following resolution has been passed by the Local Executive Committee of the Meeting of the British Medical Association in Norwich, in August 1874:

"The Local Executive Committee, acting for the Annual Meeting of the British Medical Association at Norwich, in August last, maintain that the invitation to M. Magnan was justifiable. They believe that the repetition in England of an experiment calculated to throw light not only on the effects of a dangerous dietetic agent, but also on the obscure pathology of convulsive nervous disease, was advisable, remembering that, by similar experiments assisted by money grants from the Association, an important advance in therapeutical knowledge has been recently established. Whether, however, the Committee acted wisely or not in granting M. Magnan the opportunity he requested, they cannot refrain from expressing their surprise and regret that Sir W. Fergusson, the late President of the Association, and Mr. Tufnell, should have lent the weight of their influence in aiding a criminal prosecution against five gentlemen, who were not only professional brethren, but four of whom were simply acting as Secretaries on behalf of the British Medical Association."

*Resolved*—That the Committee of Council sympathises with the Honorary Secretaries of the Norwich Meeting, and approves the action they have taken with respect to the recent discussion on Vivisection; that it desires to congratulate those gentlemen on the result of the trial arising out of that discussion; and recommends that the expense to which they have been put in defending themselves be paid out of the funds of the Association.

Read Minutes of Subcommittee appointed to consider Dr. McQuibban's case, and Report, of which latter the following is a copy:

*Resolved*—That the Subcommittee, having carefully considered the case of Dr. MacQuibban, as referred to them by the Committee of Council in Minute 24, beg to report that they fail to find that there is any evidence that Dr. MacQuibban was engaged as Military Surgeon; but some colour was no doubt given to the idea by the letter from Dr. Grant, naming Dr. MacQuibban as his substitute, and in addressing Dr. MacQuibban as Surgeon to the Aberdeenshire Militia. The Subcommittee cannot, however, pass over the fact, that the pay of civil practitioners engaged to perform the duties of Military Surgeon is absolutely inadequate, and the Subcommittee urge upon the Committee of Council the necessity of taking steps to represent to the authorities the unfairness of the regulations to Civil Surgeons, and the degrading effect of such a scale of remuneration.

*Resolved*—That the Minutes and Report of the Subcommittee appointed to consider Dr. MacQuibban's case in accordance with Minute No. 24 be approved, and the Committee reappointed to consider and report upon the best way of bringing the matter before the proper authorities.

The Report of the Committee appointed at the Annual Meeting in London, August 1873, to consider the best means of providing for an adequate qualification in State Medicine for all Public Medical Officers, and referred to the consideration of the Committee of Council at the last Annual Meeting, held in Norwich, August 1874, was then considered.

*Resolved*—That Dr. Carpenter, Mr. Wheelhouse, and Mr. Callender be a Subcommittee to advise the Committee of Council upon the matter.

*Resolved*—That the consideration of the American letters be postponed.

The Laws of the South of Ireland Branch having been considered, it was

*Resolved*—That the laws of the South of Ireland Branch be approved and the Branch recognised.

*Resolved*—That the Committee of Council desire to congratulate the members of the South of Ireland Branch upon the formation of the first Irish Branch of the British Medical Association, and trust that it will be the means of causing a great increase of the Association in Ireland; and that the thanks of the Committee of Council are due and are hereby given to Dr. Macnaughten Jones and others for their exertions on behalf of the movement.

*Resolved*—That the Subcommittee appointed in November last be reappointed to consider and form the by-laws for the government of the Association; viz., the President of the Council, the Treasurer, Dr. Steele, Mr. Husband, Mr. Wheelhouse, Mr. Nicholson.

*Resolved*—That the consideration of the alteration of the Aberdeen Branch be deferred.

*Resolved*—That the alteration of the name of the Northern Branch to the Northern Counties of England Branch be approved and confirmed.

# CORRESPONDENCE.

## THE HAMPSTEAD HOSPITAL QUESTION.

Sir,—I think it is an old saying, "There is seldom smoke without fire", and so with public alarm there is generally a foundation. In the case of a panic arising from a proposal to erect a fever-hospital in a certain locality, what are the grounds for alarm? The building, if erected, would be for the reception of patients suffering from infectious diseases, and who could therefore impart infection. Their removal from their homes would be more with a view of preventing the spread of infection in households than of bestowing personal benefit, for the statistics of fever-hospitals present a dark picture, not only as regards the patients, but also the attendants. The reason assigned for this is, that several patients are placed together in a ward, that infection becomes intensified, and disease assumes a severer type. Another source of danger is, that the walls of the ordinary fever hospital absorb infection, and thus, as it were, add fuel to the fire. So much respecting the danger to the inmates of the hospital. The residents in the immediate neighbourhood of such hospital naturally reason that the infected air proceeding from the building may possibly infect them. Whatever truth there may be in this reasoning, we are led to inquire, In what manner can a person be infected through the medium of the atmosphere? The generally received idea is, that the inhalation of air, holding in suspension either so called disease germs, or minute particles of infected animal matter thrown off from the patient's body, is the cause of infection. Concerning disease-germs we know very little; but we are aware that minute particles of desquamated cuticle in cases of scarlet fever and measles (two diseases often attended with serious and fatal complications) are carried hither and thither by air-currents, thus affording a ready means of spreading those diseases over an area of uncertain limit. Whether small-pox and typhoid fever are communicable through the air, there is less evidence to show; but I think, as a matter of precaution, they should be dealt with in a sanitary point of view, in the same manner as the two first-named diseases.

In treating on the subject of hospitals (wherever they may be built) for the reception of infectious diseases, two main points, therefore, present themselves for consideration; the welfare of the patients and other residents within such hospital, and the protection of the public in the immediate neighbourhood. To obtain the former, the building must be placed in a healthy locality on the side of a hill, having a southerly aspect, and should be so constructed that each patient shall be surrounded with air uncontaminated by himself, or by his fellow-patients, or by the building. This can be gained by isolating each patient in a compartment made of non-absorbent materials, and having an inclined ceiling, the escape of foul air taking place at the summit of the incline, the ventilation being constant and complete. That the residents in the neighbourhood of such hospital may not be exposed to infection, the infected air from each compartment should undergo a purifying process by heat or by other means in its passage from the compartment to the outer air. These and other details of my mode of hospital construction have been published in the BRITISH MEDICAL JOURNAL. The conveyance of patients to the hospital could easily be managed, with safety to themselves and the public. A large van, built with non-absorbent materials, having a row of compartments on each side, and a passage up to the centre, should be sent around to collect the patients, and be eventually driven direct to the hospital, or be placed on a railway truck for the nearest station to the hospital. The inlet and outlet ventilators of each compartment in the van should be furnished with charcoal-filters, and the number of vans should be in proportion to the population.

A proposal has lately (December 26th) been made in the *Times* by Mr. Sydney Smirke, R.A., to have a floating hospital on the Thames for the reception of infectious cases from the metropolis, the patients to be conveyed thither in a steam-tender, specially fitted up for the purpose. Mr. Harry Leach, the medical officer of health for the Port of London, wrote, objecting to the scheme; his remarks, so far as they related to the vessel, being based on his experience of the old *Dreadnought*. About a year and a half since, I designed a sea-going hospital ship, embodying my published plan of construction. It has been approved of by many competent judges, and to such structure none of Mr. Leach's objections would be applicable.—I am, sir, yours obediently,

Plymouth, January 9th, 1875. HENRY GREENWAY.

# PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

A NICE POINT.—"The nicest point in the world," to use the words of the chairman, arose upon an application, by a medical man, at the last meeting of the Honiton Board of Guardians, for payment of a midwifery fee. The district medical officer had been ordered to attend the case, but did not; and the applicant, being the nearest medical man, was fetched. The delivery took place shortly after midnight, when the appointment of the district medical officer, being yearly, terminated; and it was argued that he was not, therefore, in office until reappointed. Under the circumstances the guardians voted ten shillings to the applicant.

# MILITARY AND NAVAL MEDICAL SERVICES.

PROMOTIONS.—Surgeon-Major A. L. Adams, M.D., retiring on half-pay, to have the honorary rank of Deputy Surgeon-General.—Surgeon-Major J. Fayrer, C.S.I., Indian Army, to be Deputy Surgeon-General.

## NAVAL MEDICAL SERVICE.

IT is announced that, questions having arisen as to the right of naval medical officers to practise their profession on shore when borne on the books of one of Her Majesty's ships, the Admiralty has decided that, when a medical officer is on full-pay, he should confine his professional attendance to those placed under his charge officially, and should not seek to obtain a practice among the civil community. From what we know of our naval medical brethren, we feel that this decision of the Admiralty will be acquiesced in as generally fair in preventing officers on full-pay from entering into private practice ashore in the ports at home where they may happen to be stationed. It intimates, too, the principle, that the pay given by the State is in exchange for the whole time and professional labour of its medical *employés*. This is very different from the action of the last Government, that declined to interfere in the co-operative functions of the clerks in the War Office and Admiralty after working hours. But, in all those cases affecting ourselves, we believe that much more is gained by the sense of honour generally pervading the more secured ranks of our profession than by any departmental orders; and we have reason to know that very seldom is the feeling of mutual support invaded on either side.

As concerns private practice on foreign stations, we have always understood that it is a recognised practice of the army, from which many derive considerable emoluments; while, on the other hand, even there, where the value of medical knowledge is enhanced by the scarcity of practitioners, the regulations of the navy can be brought to prevent the profitable occupation of his spare time by the surgeon of a ship of war. This, we contend, is scarcely just to the medical officer or to the sick, who would willingly request his aid if they knew that they could with propriety offer its requital. Let us trust that this decision may not be carried to its logical conclusion, where advice is sought without prejudice to any settled private practitioner.

# UNIVERSITY INTELLIGENCE.

## UNIVERSITY OF CAMBRIDGE.

PROFESSOR HUMPHRY'S LECTURES.—The Professor of Anatomy gives notice that the Lectures on Anatomy and Physiology will be continued on Tuesdays, Thursdays, and Saturdays, at 1 P.M., in the New Museums. The Lectures on Practical Anatomy will be continued on Wednesdays and Fridays, at 9 A.M. There will be classes in the Easter Term for gentlemen who are preparing for the Second Examination for M.B. There will be classes in Osteology and Practical Histology in July and August.

## UNIVERSITY OF EDINBURGH.

ADDITIONAL EXAMINERS FOR DEGREES IN MEDICINE.—At a recent meeting of the University Court, the following appointments of additional Examiners in Medicine were made under the regulations approved by Her Majesty, by order in Council of 6th August last:—With power of annual reappointment by the Court for three years—John Chiene, M.D.Ed., Lecturer on Surgery, to be Examiner on Anatomy; Angus Macdonald, M.D.Ed., Lecturer on Midwifery, to be Examiner on Midwifery; and James Dunsmure, M.D.Ed., formerly Surgeon to the Royal Infirmary, to be Examiner on Clinical Surgery. With power of annual reappointment by the Court for four years—Hugh Cleghorn, M.D.Ed., Stravithy, St. Andrew's, formerly Professor of Botany and Botanist to Government, Madras, to be Examiner on Botany; David Ferrier, M.D.Ed., Professor of Forensic Medicine, King's College, London, to be Examiner on Medical Jurisprudence. With power of annual reappointment by the Court for five years—James Dewar, F.R.S.E., Lecturer on Chemistry, Edinburgh, to be Examiner on Chemistry; Dyce Duckworth, M.D.Ed., Assistant-Physician to St. Bartholomew's Hospital, London, to be Examiner in Practice of Physic; and William M'Intosh, M.D.Ed., Murthly, author of various works on zoology, to be Examiner on Natural History. With power of annual reappointment by the Court for six years—Joseph F. Payne, M.B.Oxon., Assistant-Physician to St. Thomas's Hospital, London, to be Examiner on Pathology; and Thomas R. Fraser, M.D.Ed., F.R.S.E., Medical Officer of Health for Mid-Cheshire, to be Examiner on Materia Medica. With power of annual reappointment by the Court for seven years—James Dunsmure, M.D., to be Examiner on Surgery; D. R. Haldane, M.D.Ed., Lecturer on Practice of Physic and on Clinical Medicine, to be Examiner on Clinical Medicine; and Arthur Gamgee, M.D.Ed., F.R.SS. Lond. and Edin., Professor of Practical Physiology in Owens College, Manchester, to be Examiner on Institutes of Medicine.

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DR. HENRY TIZARD has been presented with a handsome epergne, and an address, printed in gold on blue satin, and framed. On the base of the epergne is engraved, "Presented to Henry Tizard, Esq., M.D., by the brethren of the Loyal Excelsior Lodge of Odd Fellows, Weymouth (Poole District, M.U.) as a token of their respect and esteem for his valuable services to the Lodge, Christmas, 1874." The address was as follows: "To Henry Tizard, Esq., M.D., J.P., Medical Officer of The Loyal Excelsior Lodge of Odd Fellows, Weymouth (Poole District) Manchester Unity. The Officers and Brethren of the Loyal Excelsior Lodge desire to thank you most heartily for your uniform kindness and attention to them, both in sickness and in health, during the long period that you have been connected with the lodge, and they beg you to accept this epergne (with this address), as a token of their great respect and esteem. The members of the lodge have great pleasure in wishing you and your family the compliments of the season, and they trust that you may be spared for many years to continue those services which you have discharged so faithfully and so well during the past. Christmas, 1874."

# MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on January 25th.

Messrs. Ernest W. Paul, Brixton; Robert Kains, Palace Road; Sydney Lloyd Smith, Brixton Road; William Makeig Jones, Blaenavon, Monmouthshire; Charles L. Webb, Bentley, Hants; Thomas Pink, Greenwich; Frank de Beauchamp Collenette, Guernsey; William L. Hughes, Carmarthen; Francis B. Brodribb, Upper Clapton; Arthur C. Haden, Sloane Street; and Ernest William H. Sall, Lancaster.

The following gentlemen were admitted members on January 26th.

Messrs. James Black, Highgate Road; Walter C. Morris, Barbadoes; William A. Stradling, Sloane Street; Marie Edouard Vaillant, Charles Street, Portman Square; Henry Habgood, Eastbourne; Arthur F. Sargent, Belsize Park; Henry H. Clutton, Westminster; William B. Richardson, Leeds; Henry M. Sampson, Yeovil, Somerset; John J. Roy, Hammersmith; Alexander F. Hawkins, Blackrock, near Dublin; Evan M. Boddy, Camberwell Road; Francis Williamson, Durham Place, Chelsea; Thomas Walter Barron, Sunderland; Edward Shackfield Newton, Canonbury Park; Ivor A. Lewis, Llantrissant, Glamorganshire; John Alfred Dearden, Douglas, Isle of Man; Francis Newsham, Oldham; George H. Ross, Hart Street, Bloomsbury; and Ernest C. Jackson, Harley Street.

The following gentlemen were admitted members on January 27th.

Messrs. Edward J. Adkins, Canonbury; V. L. H. Jones, Carmarthen; Edwin Lee, Leeds; Paul M. Chapman, Camden Park Road; Alfred George Buckland, L.S.A., Auckland, New Zealand; Clinton Thomas Dent, B.A.Cantab., Chesham Street; Herbert Duke, Clapham Road; Alfred Parks, West Bromwich; Charles Ferdinand Marks, M.D., Queen's University, Ireland, Dublin; Leonard Rudd, Kempsey, Worcester; Herbert Isambard Owen, B.A.Cantab., Gloucester Gardens; James Deighton Dixon, Gateshead; Walter Edmunds, B.A.Cantab., Hampstead; Robert Turner Hales, Holt, Norfolk; Friend Edward Streeten, Ealing, Middlesex; Frederick Worrell Friend, Bayswater; Ernest F. Cooper, Canonbury; Edwin R. Hutton, Lever Street, St. Luke's; and Kenneth S. Wallis, Cambridge.

Twenty candidates out of the seventy-four examined having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their studies for six months; and eight, having passed in surgery, will be admitted members of the College when qualified in medicine.

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Apothecaries' Hall.—The following gentleman passed his examination in the science and practice of medicine, and received a certificate to practise, on Thursday, January 7th, 1875.

Orr, James William, Pemberly, Bedford

The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, January 21st, 1875.

Lewis, Joseph, Milborne Port, Somerset
Walker, Hyde Edwards, Broughton-in-Furness, Lancashire

The following gentleman also on the same day passed his primary professional examination.

Barrow, John, St. Bartholomew's Hospital

## MEDICAL VACANCIES.

The following vacancies are announced:—

ABBEYLEIX UNION—Apothecary.
ARMY MEDICAL DEPARTMENT—Surgeons. Applications to be made to the Director-General of the Army Medical Department.
BARONY PAROCHIAL HOSPITAL, Barnhill, Glasgow—Dispenser.
BECKETT HOSPITAL AND DISPENSARY, Barnsley — House-Surgeon. Salary, £140 per annum. with furnished rooms, gas. and coals.
BIRMINGHAM and MIDLAND FREE HOSPITAL FOR SICK CHILDREN—Acting and extra-Acting Physicians. Applications not later than February 3rd.
BLACKBURN UNION—Medical Officer for the Harwood District. Salary, £25 per annum.
BRENTFORD UNION—Medical Officer for the Ninth District. Salary, £90 per annum.
BROMSGROVE UNION—Medical Officer for the Workhouse and the Bromsgrove District. Salary, £30 and £60 per annum, respectively.
DERBYSHIRE GENERAL INFIRMARY—Assistant House-Surgeon. Board, lodging, and washing, but no salary. Applications to Secretary.
EMSWORTH—Certifying Factory Surgeon.
ESSEX LUNATIC ASYLUM—Second Assistant Medical Officer and Dispenser. Salary, £100 per annum, with board, lodging, and washing.
FLAX MILLS FRIENDLY SOCIETY—Medical Officer. Salary, £110 per annum. Applications to A. M'Keeman, 7, Hunston Square, Johnstone, N.B.
GRANTHAM UNION — Medical Officer for the Ropsley District. Salary, £26 : 10 per annum.
HARDINGSTONE UNION—Medical Officer for the Brafield District. Salary, £45 per annum.
HARRIS, Parochial Board of—Surgeon. Salary, £66 per annum, including vaccination and medicine for the poor. The gentleman elected will get £90 per annum for attending the ratepayers and cottars within South Harris. Applications to be made to the Chairman of the Parochial Board of Harris.
HEADINGTON UNION—Medical Officer for the Wheatley District. Salary, £70 per annum.
HENDON UNION—Medical Officer for the Willesden District. Salary, £40 per annum.
HOSPITAL FOR WOMEN, Soho Square—Surgeon and Assistant Physician.
HULL GENERAL INFIRMARY—Dispenser. Salary, £75 to £100 per annum. Election will take place on the 28th instant.
INDIAN MEDICAL SERVICE—Twenty appointments as Surgeon. Examination in February 1875.
KILCHRENNAN and DALAVICH, Parochial Board of—Medical Officer. Salary. £66 per annum. Applications, on or before the 30th instant, to W. J. B. Martin, Ri-criun, Lochgilphead.
LEEK UNION—Medical Officer for the Endon District. Salary, £20 per annum.
LICHFIELD UNION—Medical Officer for the Alrewas District. Salary, £35 per annum.
MORVEN, Parish of, Argylshire—Medical Officer. Salary, £100 per annum. Applications to H. A. Fraser, Morven, N.B.
NORTHERN COUNTIES HOSPITAL FOR INCURABLES, Manchester—Dispenser. Applications on or before the 31st instant.
NORTH WALES COUNTIES LUNATIC ASYLUM—Assistant Medical Officer. Salary, £100 per annum, with board, washing, and lodging. Applications to be made on or before February 17th.
PAISLEY INFIRMARY—House-Surgeon. Salary, £80 per annum, with board and lodging. Apply to W. Hodge, Writer, Paisley, on or before February 6th.
POPLAR AND STEPNEY SICK ASYLUM DISTRICT—Assistant Medical Officer to the Asylum.
REDDITCH and DISTRICT MEDICAL ASSOCIATION—Medical Officer. Salary, £150 per annum, with fees and unfurnished house.
ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road—Physician. Applications to be made on or before February 15th.
ROYAL INFIRMARY FOR WOMEN and CHILDREN, Waterloo Bridge Road—Physician.
SAFFRON WALDEN UNION — Medical Officer for the Seventh District. Salary, £86 per annum.
ST. GEORGE'S AND ST. JAMES'S DISPENSARY—Honorary Accoucheurs. Applications on the 28th instant.
ST. LUKE'S HOSPITAL FOR LUNATICS—Second Clinical Assistant. Board and furnished apartments.
ST. MARY'S HOSPITAL, Paddington—Resident Registrar. Salary, £100 per annum, with board and residence.
ST. MARY'S HOSPITAL—Resident Registrar. Salary, £100 per annum, with board and lodging.
ST. MARY'S HOSPITAL MEDICAL SCHOOL—Medical Tutor. Applications to be made on or before February 1st.
SHEFFIELD PUBLIC HOSPITAL and DISPENSARY — House-Surgeon. Salary, £100 per annum, with board, lodging, gas, and washing.
SMALLBURGH UNION—Medical Officer for the Ludham District. Salary, £52 : 14 per annum.
STRATFORD-ON-AVON UNION—Medical Officer for the Welford District and Workhouse. Salary, £50 per annum.
THINGOE UNION—Medical Officer for the Seventh District.
TYNEMOUTH UNION—Vaccination Officer.
ULVERSTONE UNION—Medical Officer for the Hawkshead District. Salary, £20 per annum.
UNIVERSITY COLLEGE HOSPITAL—Resident Medical Officer. Applications not later than February 13th.
UNIVERSITY OF EDINBURGH—Additional Examiner in Medicine.
WEST WARD UNION—Medical Officer for the Patterdale District.
WISBECH UNION — Medical Officer for the Third District. Salary, £30 per annum.

## MEDICAL APPOINTMENTS.

*Names marked with an asterisk are those of Members of the Association.*

Beach, Fletcher, M.B., appointed Medical Superintendent of the Clapton Asylum for Idiots, London.
Brookhouse, Joseph O., M.D., appointed Physician to the General Hospital, Nottingham, *vice* W. T. Robertson, M.D., resigned.
Brown, Alfred G., M.R.C.S.Eng., appointed Surgeon to the Surrey Dispensary.
Brown, William J., M. B., appointed Assistant Medical Officer to the Borough Lunatic Asylum, Newcastle-on-Tyne, *vice* E. G. Levinge, M.B., resigned.
Brunton, Thomas Lauder, M.D., F.R.S., appointed Assistant-Physician to St. Bartholomew's Hospital.
Budd, Herbert G., L.R.C.P., appointed Surgeon to the Worcester Ophthalmic Institution.
Burtonshaw, Henry, L.S.A., appointed House-Surgeon to the North-Eastern Hospital for Children, *vice* G. Brown, M.R.C.S.Eng., resigned.
Church, William S., M.D., appointed Physician to St. Bartholomew's Hospital, *vice* F. Harris, M.D., resigned.
Firth, Charles, M.B., appointed Assistant-Surgeon to the Norwich Lying-in Charity, *vice* H. Ward, M.R.C.S.Eng., resigned.
FitzGibbon, Henry, M.D., appointed Surgeon to the City of Dublin Hospital, *vice* J. Tufnell, F.R.C.S.I., resigned and appointed Consulting Surgeon.
Gibson, Robert E., M.R.C.S.Eng., appointed Surgeon to the Norwich Lying-in Charity, *vice* T. W. Crosse, F.R.C.S.Eng., resigned.
Grinfield-Coxwell, John E., L.K.Q.C.P.I., appointed Medical Officer to the Worthing Infirmary, *vice* J. Goldsmith, M.D., resigned.
Hart, Philip N., M.B., appointed House-Surgeon to Queen Charlotte's Lying-in Hospital.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.*

### BIRTH.

Swan.—On January 24th, at Northleach, Gloucestershire, the wife of *R. Jocely Swan, M.R.C.S., etc., of a son.

### MARRIAGE.

Simpson—Bruce.—On January 21st, at Keig, Aberdeenshire, by the Rev. Dunca Campbell, B.D., James Simpson, M.D., of Tullynessle and Forbes, to Mar Barr, daughter of Alexander Bruce, Esq.

## OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

WEDNESDAY..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.

FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M. — Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

## MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Mr. Maunder's Third Lettsomian Lecture, "On Ligature of an Artery to arrest Traumatic Inflammation".—Odontological Society, 8 P.M.

TUESDAY.—Pathological Society of London, 8.30 P.M. Mr. Howard Marsh: Elongation of Bones of Lower Extremity in a Case of Diseased Knee (living specimen). Mr. Lawson: Sarcoma of Sclerotic. Dr. Hoggan; Microscopical Specimens of Melanoid Sarcoma in a Cod. Dr. Hoggan: Microscopical Specimens of Cancer. Dr. Dowse: Invaginated Intestine. Dr. Dowse: Syphilitic Disease of Rectum. Dr. Pye-Smith: Enlarged Liver and Spleen without Leukæmia. Dr. Pye-Smith: Hæmorrhagic Gout. Dr. Pearson: Cancerous Breast and Liver. Mr. Cripps: Fatty Degeneration of Muscles of Thigh. Dr. Greenfield: Contraction of Coronary Arteries. Dr. Greenfield: Obstruction of Renal Artery. Dr. Greenfield: Fibroid Disease of Heart. Mr. Butlin: Fatty Tumour removed during Herniotomy. Mr. Hutchinson: Teeth met with in Zonular Cataract. Mr. Knowsley Thornton: Melanotic Sarcoma.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Inaugural Address by the President, Dr. Priestley; Dr. Braxton Hicks, "Three Cases of Cephalotripsy, with Casts of the Heads"; Dr. Oswald, "Notes of a Case of Suppurating Tumour of the Left Ovary, with specimen; Mr. Ashburton Thompson, "On Zinc Phosphate in Amenorrhœa; Dr. Trestrail, "On the Treatment of Rigid Perinæum, and the avoidance of its Rupture"; Dr. Liebman (of Trieste), "Clinical Notes on the Early Course of Cancer of the Cervix Uteri"; and other communications.—Royal Microscopical Society, 8 P.M. Anniversary Meeting.

THURSDAY.—Harveian Society of London. 7.15 P.M.: Council Meeting. 8 P.M.: Dr. W. H. Day, "On Cerebral Complications in the Typhoid Fever of Children".

## NOTICES TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

### THE CONTAGIOUS DISEASES ACTS.

DR. CAMERON of Liverpool writes to inform us that of the entire staff of the Royal Southern Hospital, ten in number, only three have signed the memorial in favour of the Contagious Diseases Acts. Of about three hundred and twenty-two practitioners in Liverpool, one hundred and seventy-four have, we believe, signed the memorial. Of course, a good many are neutral, a good many uninterested, and some unfavourable.

M.B.EDIN.—The right of Bachelors of Medicine to assume the title of Doctor is at least doubtful, although courtesy habitually grants it to them. The Regulations of the University of London contain a distinct statement on this matter: viz., "The Senate desire it to be understood that Bachelors of Medicine of the University of London have no right, as such, to assume the title of Doctor of Medicine".

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, twelve o'clock.

### POISONING BY NITROUS OXIDE.

SIR,—My brother is a chemist in an alkali manufactory, and he has to work a great deal in a room impregnated with the fumes of nitric oxide. He frequently becomes severely poisoned by this atmosphere. He is anxious to learn what methods, or what antidotes, to adopt in order to relieve himself when in this state; because he finds that none of the medical men in his neighbourhood know much, if anything at all, about this kind of poisoning. He has found that leaving the room and keeping in fresh air palliates the symptoms, but it is a long time before the effects pass away. Will some of your readers kindly help him? Will they also state whether the inhalation of ether or ammonia would be of any service?

January 21st, 1875. I am, etc., M.R.C.S.

DR. MURPHY.—It is an old saying, that a warm October is supposed to predict a cold February; but

"If there's ice in November that will bear a duck,
There'll be nothing after but sludge and muck."

In April, say the Milanese, it is a fine time to lie in bed. May is a general favourite, although

"Come she early, or come she late,
She'll make the cow to quake."

### A QUESTION ON CLUB-PRACTICE.

SIR,—Is a man suffering from tertiary syphilis (rupia) entitled to the benefit of his club (Foresters)? The primary disease occurred after he had become a member, but as long as ten years ago. My own opinion is that, in justice, he should be, or one who suffers from acquired gout should not.—Yours faithfully,

January 26th, 1875. B. S.

⁂ In the supposed case, the club member is certainly entitled to treatment.

DR. J. A. P. (Manchester)—The prizes offered by the Royal College of Surgeons are open for competition amongst Fellows and Members of the College, not others. The subject for the Jacksonian Prize for the present year is "The Use of the Galvano-Caustic in the Removal of Morbid Growths", the essays for which must be delivered before Christmas-day next. The subject for the College Triennial Prize is "The Radicles of the Lymphatic System in Relation to the External and Internal Surfaces of the Body". The prize for the latter is either a gold medal of the value of fifty guineas, or a bronze medal (the John Hunter) and fifty pounds in cash.

### AN APPEAL.

SIR,—I beg to appeal to the medical world for a small donation in behalf of myself and three little children, the eldest only three years and a half old. My husband's death is the cause of my pleading. He expired in the County Asylum, Prestwich, on December 8th, 1874, aged 29, having been confined there since April 22nd. My husband had not attended to his practice for some time previously. He told his patients he was going on a tour, and they must call in some one else. The very day he was taken to the Asylum he parted with nearly all the furniture for a quarter the value; therefore every chance of making a little money was taken from me, and we have been left quite unprovided for. The day my husband was taken we had no money in the house, and he only a few stamps in his pocket. A neighbour, hearing how destitute we were left, kindly assisted me; and in a few days some of the medical gentlemen in Bolton-le-Moors, where my husband practised, gave me a few pounds. The facts can be attested by the signatures of the following gentlemen, of Bolton:—T. Garstang, M.R.C.S.; Robert Settle. M.D.; John Holt, M.R.C.S.; Thomas F. Pickering, L.R.C.P.; Edward Sunderland, M.R.C.S; Robert Patrick, M.R.C.S.; George Howarth, L.R.C.P.; F. B. Mallett, M.D.; Thomas Derham, M.D.; James Mackintosh, M.D.; Fredk. Waterhouse, L.R.C.P.; James Dorrian; H. Hatton; John Livy, M.D.; James Hall, M.B.; J. E. Scowcroft, L.R.C.P.; Chas. Rothwell, M.R.C.S.; John Redmayne, M.R.C.S.; Henry Powell, Vicar of Bolton; John Stott, Lecturer and Curate, Parish Church, Bolton-le-Moors; J. Binns Southam; R. F. Snape, F.R.C.S.; E. M. Garstang, M.R.C.S.—Yours very faithfully, CHARLOTTE M. NUTT.

15, Askew Road, Shepherd's Bush, London, January 1875.

MR. R. J. GRIFFITH (Punjaub).—Your letter shall be attended to; but all business communications should be addressed to the General Secretary, and not to the Editor.

### EXAMINATIONS.

AN important change will be seen in the following questions recently submitted to the candidates at the primary examination for the diploma of Membership of the Royal College of Surgeons. 1. What evidence exists of the influence of the nervous system on the functions of secretion and excretion? Explain how such influence may be exerted; and illustrate the subject by examples. 2. How much oxygen is consumed by a healthy adult person, under ordinary circumstances, daily? What are its principal purposes in the system? and in what forms is it chiefly eliminated? 3. Describe the diaphragm, its attachments, relations, and action. 4. Describe the thyroid and cricoid cartilages. Enumerate the muscles connected with them; and state the exact attachment of each. 5. Mention in order, from before backwards, the several structures which are in contact with the first rib. 6. Mention the structures exposed on removal of the palmar fascia; and describe their relative position. Candidates were required to answer four (including one of the first two) out of the six questions. Answers to less than six questions were not received before half-past three o'clock.

G. L. R.—From inquiries made, we find you have passed the preliminary examination in Arts, and can therefore commence your professional studies at once at St. Mary's Hospital, and thus save half a session. All the candidates (about 360) have had announcements sent to them.

### OUT-PATIENTS AT THE SOHO HOSPITAL.

SIR,—In a recent article in the *Daily News*, the following information is vouchsafed. "The out-patients of this hospital are very numerous, and Dr. Heywood-Smith and his colleagues are sometimes seven hours in disposing of them." Attention has already been drawn in your columns to the abuse of the out-patient departments in this and other hospitals. As Sir R. Allcock, an able member of the Charity Organisation Society, is, I believe, also now an active governor of the Soho Hospital, we may hope that he will give his attention to weeding the out-patients. I do not know what may be the meaning of the phrase "Dr. Heywood Smith and his colleagues". If Dr. Smith have any colleagues in disposing of the out-patients, I suppose they are not ashamed of their names being known, and they might as well be given.—I am, sir, yours, etc., X. L.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

### Medical Degrees and Titles.

SIR,—Your correspondent in the JOURNAL of the 9th instant, who signs himself "Igualidad ante la lei", I fear knows very little about the Universities when he says that Oxford and Cambridge "deservedly stand first", because the "holders of the above degree are gentlemen, and, to a certain extent, classical scholars". Now, sir, why the epithet "gentlemen" should be exclusively applied to men from Oxford and Cambridge, I cannot imagine. As to their being, "to a certain extent classical scholars", if your correspondent had taken the trouble to compare the Dublin course with the Oxford or Cambridge course for the degree of B.A. (it is necessary in all three Universities to have the B.A. before the M.B. or M.D. can be obtained), he will find that the Dublin course embraces a larger number of subjects, and contains a long list of classical authors. In Oxford, classics predominate: in Cambridge, mathematics; so his assertion is not applicable to the latter University. I of course am only alluding to men who merely go through the course for the B.A., which the majority of men destined for our profession only do. I therefore think we are quite as much entitled to be, "to a certain extent, classical scholars". In Edinburgh, I believe it is not necessary to be a graduate in arts in order to obtain the M.D., so she would be excluded from the above question, only as regards her *alumni* being "classical scholars".—I am, sir, your obedient servant,

A "B.A. AND M.B." of TRINITY COLLEGE, DUBLIN.

January 10th, 1875.

SIR,—I read with great interest your able article in the JOURNAL of the 20th ult., and, having followed from the first the controversy which has of late been carried on in your columns, I am led to be of your way of thinking on many of the points therein discussed. It seems to me, however, that there is an unnecessarily vast amount of jealousy in the breasts of those would-be unfortunate practitioners who do not possess the M.D. degree. If, as some one of them states, the sucking graduate is so much to be despised, why do they so anxiously covet his degree? One gentleman signing himself "L.K.Q.C.P." seems to have become so much bewildered as to what he is, that he asks to be enlightened on the subject by some "energetic M.D." I do not profess to be such, but should like to ask Mr. L.K.Q.C.P. of what he is a Doctor. Because he is a Licentiate of the College of Physicians, as well as Surgeons, he declares that if he be not a doctor, by the same token, then, he cannot be a surgeon. This seems to me to be very like a man arguing that because he is house-surgeon to a hospital (being L.R.C.P. and M.R.C.S.), therefore he is a physician to that hospital as well, or nothing at all. It is almost a pity but that some of the aspirants to M.D. degrees could be transplanted to Birmingham, for there they would soon become sickened of their high and mighty ambition. In that "great centre of advancement", you have "Dr. Smith" (the chemist): "Mr. Jones, physician" (M.D., F.R.C.P.); and last, but not least, "Mr. Robinson, physician" (a general practitioner, holding a surgeon's appointment at the Infirmary, taking physicians' fees for medical cases, and delighting in being considered a physician). How would this suit them?

Now let us see what is the result of granting degrees to men over forty. They are general practitioners all their lives till that time: they go to St. Andrew's, come home with their M.D., have the fact announced in the newspapers, and for ever after are looked up to as men superior to their fellows, as "having taken their physician's degree". Far higher do they stand, indeed, in the eyes of the general public than any man who, having worked hard, and having been fortunate enough to have obtained an university education and degree, starts in the neighbourhood, and can obtain no better title than "Mister" from his patients. Let us all be styled "Dr." if you like, but do not let the general public be led astray with the notion that, because a man goes up and gets his M.D. late in life, he is a superior being in any way. What do we find some L,R.C.P. doing with the deluded public? Why, endeavouring as best he can to impress upon them that he is better than "Mr." So-and-so, the M.D. "I am a physician", says he, "and that is more than he is." No man, I take it, ought to style himself physician unless he practise as such, and then he ought to be more than a Licentiate. A man is not esteemed any the less by his patients because he is not an M.D.; then why should there be such a desire on the part of the non-M.D.s for the title of Dr., unless it be that there is a vein of jealousy existing, which, to say the least of it, is childish—a vain conceit? They envy their younger brethren, and, fearing lest they should obtain any patients, would do anything to have the world think that they were not equal to themselves. This is a view of the matter which, I think, has not been put forth, and a reason, I consider, why the elder practitioner should not be admitted to the M.D. degree without residence or stricter examination. I do not see that the Universities are to blame for the matter: what ought to be objected to are the Colleges of Physicians which grant Licentiates' diplomas, and allow their holders to consider themselves qualified more than general practitioners—I mean the old-fashioned "College and Hall" men.

For some time back I have come to the conclusion that so long as there are different qualifications granted, so will there always be jealousy extant; for what, I say, is to hinder M.D.s, by university education, from labelling themselves "M.D.Lond.", "M.D.Ed.", and so forth? and will they not, forsooth, always be considered (amongst the profession at any rate) better than M.D., the after-birth?

With many apologies for this already too long communication, I subscribe myself, in all humbleness, yours,

L. M.

January 9th, 1875.

SIR,—It appears the thread-bare, and, as I thought, the worn-out, controversy about medical titles has again found a lodgment in the columns of the JOURNAL. I fully expected this much-vexed question had been wellnigh cremated; but it appears that, like the mythological phœnix of old, it has again risen from its own ashes, and assumed a lively and vigorous state of existence. It appears, to my mind, a piece of foolish absurdity and waste of valuable time squabbling about "medical titles". It is not what a man professes to be, but what he is. What do the public care about titles? They designate all who practise medicine or surgery, legally or otherwise, "Doctor". The common apothecary, the homœopathic or other quack, the village "bone-setter", and last, not least, the pompous kid-gloved and dashing unqualified medical assistant, all come under this appellation by an unscrupulous world, as well as the most learned and orthodox practitioner in Christendom. I do feel ashamed at some of my brethren wasting their valuable time in so puerile and contemptible an occupation, by taking up a subject that has virtually no interest in itself, in the minds of those whose higher and more laudable aims are the advancement of professional enterprise and the general benefit of humanity. If, instead of indulging their *cacoëthes scribendi*, they would employ their talent and influence to a better and more laudable purpose, it would redound more to their credit. There are numerous subjects on which the mind could dwell and experience develope, and this would be more productive of permanent good than squabbling about medical titles. To take up the language of our facetious "Middlesex" friend, if a fully legally qualified and registered practitioner be not a Doctor, what is he? a "baker or a tinker?" Would it not have been better had our opponents commenced a tirade upon the advertising quacks, who do not scruple to affix "Dr." to their names, instead of attacking legitimate practitioners in the way they have done? Are they more contemptible in the eyes of our *confrères* than those vile scoundrels who assume a position to which they have no legitimate right, and who are allowed to glory in their shame without the least attempt at interference? Let our University men who wish to lay claim to the honoured and distinctive appellation of M.D. or Dr., commence their onslaught on these pseudo-practitioners, and exterminate the whole race, before they venture to attack their equals in point of professional knowledge and position.—I am, yours respectfully,

January 1875. A REGISTERED PRACTITIONER.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Gazette? The Western Daily Press; The Manchester Guardian: The Ulster Advertiser; The Sussex Coast Mercury; The Broad Arrow; The Surrey Advertiser; The Bedale and Northallerton Times; The Hackney Express; The Liverpool Porcupine; The Scotsman; The Liverpool Mercury; The Glasgow Herald; The Stroud News and Gloucestershire Advertiser; The Bradford Observer; The Morpeth Herald; The Portsmouth Times; The Western Daily Press; The York Herald; The Sheffield Evening Star: The Brighton Guardian; The Sussex Daily News; The Wrexham Advertiser; The Newton Directory; The Sussex Coast News; The Berkshire Chronicle; The Hull News; The Southern Times; The Worthing Intelligence; The Hampshire Telegraph and Sussex Chronicle; The Sheffield Daily Telegraph; The Hereford Times; The High Peak News; The Brighton Daily News; etc.

COMMUNICATIONS LETTERS, ETC. have been received from:—

Dr. J. G. McKendrick, Edinburgh; Dr. H. Charlton Bastian, London; Dr. J. Matthews Duncan, Edinburgh; Dr. Bradbury, Cambridge; Sir John Rose Cormack, Paris; Dr. J. Hughes Bennett, Nice; Dr. George Johnson, London; Mr. W. Fairlie Clarke, London; Mr. T. Annandale, Edinburgh; Mr. Christopher Jeaffreson, Newcastle-upon-Tyne; Dr. J. Butler Hamilton, Fort Pitt, Chatham; Dr. R. J. Lee, London; Dr. J. Crichton Browne, Wakefield; Our Paris Correspondent; Mr. Furneaux Jordan, Birmingham; Dr. Joseph Bell, Edinburgh; Dr. J. W. Langmore, London; Dr. J. W. Moore, Dublin; The Secretary of the Clinical Society of London; Dr. Lauder Brunton, London; Dr. Fothergill, London; Mr. T. H. Bartleet, Birmingham; Dr. Finlayson, Glasgow; Dr. Edis, London; Our Ediuburgh Correspondent; Mr. T. Holmes, London; Dr. Styrap, Shrewsbury; Dr. H. Arthur, Airdrie; Mr. J. W. Measures, Wisbeach; Mr. J. Smithson, Dewsbury; Mr. W. F. Terry, Tiverton; Mr. J. J. Hues, Handsworth; Dr. E. W. Kerr, Kinlough; Dr. W. Walter, Dublin; Our Glasgow Correspondent; Dr. Alcock, Mullingar; Dr. J. Britton, Strabane; An Associate; Mr. W. Black, Ballymena; Mr. Lauder, Downpatrick; Mr. A. Craig, Pathhead; Dr. J. Paul, Barnes; Dr. D. Mackereth, Sandhurst; Mr. J. Randall, Dover; Mr. E. Buckell, Winchester; Mr. F. Clowes, Norwich; Mr. T. H. Wyatt, Homerton; Dr. Foster, Birmingham; Dr. C. Cuthbert, Edinburgh; Mr. J. J. Pickles, Leeds; Mr. W. W. Thetford, Strangford; Mr. H. A. Allbutt, Leeds; Mr. F. A. Lees, Middleton; Mr. R. Kershaw, Finsbury Park, London; Mr. V. Jackson, Wolverhampton; Mr. A. Matthew, Kinross; Mr. J. Henderson, Auchinblae; Mr. W. W. Wilson, Birmingham; Mr. G. Southam, Manchester; Mr. A. H. T. De Montmorency, San Marino; Our Dublin Correspondent; Mr. J. B. Marshall, Clapton; Mr. K. N. Macdonald, Ratho; Mr. J. R. Lane, London; Mr. R. J. Griffith, Punjaub; Mr. John S. Stoor, London; Mr. John Fraser, Cupar; Dr. Handsel Griffiths, Dublin; Mr. E. Leadbitter, Newcastle; Dr. Smith-Shand, Aberdeen; Dr. Keith, Edinburgh; Dr. Hawkes, Alton; Dr. Stevens, St. Remo; M.. Allison, Scarborough; Dr. De Mussy, Paris; Dr. Harris, Redruth; Dr. Weir, Sneinton, Nottingham; Dr. Cameron, Liverpool; Surgeon-Major Hall, Topsham; Mr. C. Steele, Clifton; Dr. Bond, Gloucester; Dr. Hime, Sheffield; Dr. Paget, Cambridge; Surgeon-Major Boileau, Dublin; Mr. W. H. Johnson, Great Yarmouth; The Secretary of the Howard Association, London; Dr. R. Liveing, London; Dr. H. Snow, London: The Secretary of Apothecaries' Hall; The Registrar-General of England; The Registrar-General of Ireland; Mr. T. M. Stone, London; The Registrar of the Medical Society of London; Mr. C. B. Brown, London; Mr. Wm. Acton, London; Mr. E. D. Stead, London; Mr. J. B. Blackett, London; Dr. Fayrer, London; Mr. H. Greenway, Plymouth; Mr. W. Berry, Wigan; Dr. Philipson, Newcastle-on-Tyne; Mr. Prangley, Aylsham; Dr. H. M. Jones, Cork; Dr. Garstang, Blackburn; Mr. R. H. Prior, St. Albans; Mr. C. E. Byron, Brompton; Dr. W. Williams, Cheltenham; Mr. J. Christison, Edinburgh; Dr. E. Casey, Windsor; Mr. J. H. Wraith, Over-Darwen; The Secretary of the Royal Microscopical Society; Mr. W. M. Lowick, Bristol; Dr. C. M. Tidy, Hackney; Dr. A. Rabagliati, Bradford; Dr. Kebbell, Brighton; The Mayor of Birmingham; Mr. F. C. Blackburn, Birmingham; Mr. B. B. Standen, Shipley; Mr. W. C. Clendinnen, Stafford; Mr. K. M. Macleod, Glasgow; Mr. John Parker, Skipton; Dr. Tucker, Sligo: Mr. P. H. Holland, London; Mr. T. J. Dyke, Merthyr Tydfil; Mr. G. Chambers, Eastbourne; Dr. G. Child, Oxford; Mr. Leigh, Manchester; Dr. Farquharson, London; etc.

## BOOKS, ETC., RECEIVED.

Lectures on Pathological Anatomy. By S. Wilks, M.D., F.R.S., and W. Moxon, M.D. Second Edition. London: J. and A. Churchill. 1875.

On Winter-Cough, Catarrh, Bronchitis, and Emphysema. By H. Dobell, M.D. London: J. and A. Churchill. 1875.

# AN ADDRESS
ON
# OBSTETRIC LITERATURE AND SCIENCE.

*Delivered before the Obstetrical Society of London.*

By W. O. PRIESTLEY, M.D., F.R.C.P.,
President of the Society.

GENTLEMEN,—In taking the Chair, which by your kind favour I occupy for the first time this evening, I am anxious to express my sincere thanks to the Society for according to me a position so distinguished.

When my nomination to the Presidency of the Obstetrical Society was first mooted, I confess I felt many misgivings as to my competence for such a responsibility. It is true that some twenty years occupied as an obstetric teacher and practitioner may give one a claim to be numbered among the seniors of the profession; but the pressure of other occupations, and considerations of health, have for a considerable period obliged me to abstain from attending the meetings of this and other societies, and consequently I am less familiar with the modes of procedure than some of our more eminent Fellows, who have "borne the burden and heat of the day", and who might justly look forward to the President's Chair as the reward of excellent service to the Society.

My objections on these points were overruled, and, when I understood that it was the earnest wish of the Council that I should be put in nomination, I could no longer hesitate to submit myself to the wish of the Society, and to accept what was so spontaneously offered. It remains for me to tender my acknowledgment of the honour conferred upon me, and to thank both the Council, who nominated, and the Fellows of the Society, who have ratified its selection. Whatever of diligence and of zeal may be required of your President, I shall do my utmost to bring to the discharge of the duties of this Chair, and, aided by our experienced secretaries, I may hope to conduce to a satisfactory dispatch of business, and a general advancement of the objects contemplated in the foundation of the Society.

Having been one of the original members—one of the small band who in 1858 met to consider the propriety of instituting an Obstetrical Society in London—I have watched with much interest its development from infancy to maturity, and the success it has achieved may well be a source of pride to its Fellows. There is, I believe, no parallel instance in the history of a medical society in this country of such rapid growth in so short a period as that which has taken place in the Obstetrical Society. In the short space of sixteen years, it has enrolled wellnigh 700 Fellows, and the annual recurrence of the *Transactions* testifies to the large number of active workers and contributors. The fact, indeed, has become apparent that the Society supplied a want which had previously been indefinitely felt by a large number of medical practitioners, and which only assumed the concrete when the Society was formed.

It has been said that every practitioner regards himself as an expert in obstetric practice, which perhaps is only another way of saying that most general practitioners have felt the tug and strain on their resources in midwifery practice, the necessity for immediate action in moments of peril, and that most have some victories to chronicle, some recollection of difficulties surmounted which have left perhaps more vivid impressions than in any other kind of practice. Be this as it may, the fact that by far the largest proportion of medical men in this country are engaged more or less in the practice of obstetrics, and in treating the diseases of women and children, affords a broad basis for the interest which is felt in a society whose object is to promote improvements in the obstetric art, and its influence permeates and pervades the mass of our medical brethren in proportion to the importance of the subject to them, and its bearings on their daily work.

Reviewing the history of the Society—young as it may be—I cannot doubt that it has done much good, and achieved something by way of advancing the science and art of obstetric medicine. The number and diversity of the contributions contained in the *Transactions*, the long record of pathological specimens, the exhaustive discussions on special topics, are all evidences of the zeal possessed both by town and country Fellows; and an appreciation of the scientific value of their contributions is shown by the sale of the *Transactions*, and by the frequency with which they are translated or transcribed into the literature of other countries. But I may be permitted to point out that, in proportion as the influence of the Society has grown as an exponent of gynæcological knowledge and opinion at home and abroad, so is its responsibility; and the greater the care which should be exercised on the part of the Fellows in the enunciation of opinions which, if promulgated, may possibly, though perchance unintentionally, form the groundwork for mischievous errors in practice.

I have often been struck with the curious current perversion of the views of some author who may have taken especial pains to make himself understood and to guard against misconception. In the University of London examination for degrees in Medicine, nothing was more common than to attribute to the late Sir James Simpson the practice of separating the placenta in all cases of placenta prævia, when it is well known to those who have studied his papers, that he only recommended this remedy in some unusual and embarrassing conditions. But, if errors may be promulgated from mere misunderstanding, how much more mischief may arise from teachings which are themselves erroneous or pernicious! Enunciated under the auspices of this Society, and promulgated in the provinces wherever the proceedings are read, the results may be disastrous both to doctor and patient; and hence it behoves each Fellow to guard both himself and the Society against the acceptance of error, which otherwise might become as mischievous as wide-spread. Caution is more especially necessary in reference to operations which involve important issues either to the life or future health of patients; and I venture with some diffidence to indicate one or two quicksands or dangers in the present state of gynæcological science.

It is, unfortunately, in the very nature of things, that exaggerated or partial views should be entertained when a new idea or a fresh method of treatment is developed; and mere enthusiasm often sways earnest men from one extreme to another. By way of illustration, I may point out that, when midwifery forceps became so perfected that in good hands they could be used in most cases with safety both to mother and child, and it became established that, as a rule, the use of instruments need not be deferred so long as heretofore—some zealous practitioners began to throw aside all precautions, to trust as little as possible to nature, and, by way of saving time, to have recourse to instrumental delivery more frequently than desirable. In like manner, one ingenious practitioner, struck by the way in which difficulty in the delivery of some head-presentations was overcome by version, actually proposed to turn in all cases of head-presentation, whenever the least delay occurred in the progress of natural labour, and the passages were sufficiently dilated.

In the department of women's diseases, there has from time to time been a tendency to give prominence to some single pathological condition, in such way as to shut out, or at least obscure, other and perhaps equally important affections of the uterus and its appendages. We have had an epoch in which the ovary was assumed to be the prime factor in all uterine ailments; we have had a period when inflammation and ulceration of the os and cervix uteri held the foremost place in uterine pathology; and now we are threatened with a reign of uterine displacements, in which the majority of symptoms of womb-derangement are attributed to flexions and versions of the organ; and, influenced no doubt by current medical opinion, patients, as they present themselves in the consulting-room, appear stricken with an epidemic of displacement, and imagine that all their discomforts are caused by dislocations of the womb, just as, at one time, the sufferers from uterine symptoms generally believed themselves to have ulceration; neither supposition, perhaps, being in accordance with the facts.

The promulgation of particular views in pathology, even if erroneous, would lead to little harm, if it did not culminate in hurtful methods of treatment, or tend to lower our *prestige* in the eyes of the public and in those of our brethren who practise in other departments of our profession. But, when theories carried into practice involve proceedings which may possibly be dangerous in their immediate or remote results, or which necessitate frequent vaginal examinations, great circumspection is required in their adoption.

Imagine what would be the result if the celebrated professor who first practised division of the cervix for dysmenorrhœa and sterility were to find many imitators without his genius, who began extensively to incise the cervix in most cases of painful menstruation, or where pregnancy was desired! Or picture what would result if it were generally believed that nearly all forms of uterine disorder could only be cured by the frequent repetition of some form of cauterisation; or, again, if a large body of medical practitioners were to become possessed of the single idea that uterine displacement was the root of evil in the majority of female ailments, and that pessaries of some kind were essential to cure both married and single women so suffering!

I would beg especially not to be understood as depreciating the labours of some of those eminent pioneers who have done so much to advance our knowledge of uterine disease. It would be in the last degree unjust not to acknowledge how much we are indebted to their conscientious labours; and there is great temptation to give preponderance to subjects which have occupied so much attention, and have cost much pains in investigation. But I am anxious to guard against the acceptance of some single idea or theory, which, if ridden as a hobby, may hinder the advance of a broader and more comprehensive uterine pathology, and perchance lead to meddlesome and mischievous methods of treatment. The mind preoccupied with a sole idea is apt to search only within the limits of that idea, and to overlook or ignore what may be more important, but beyond and outside it. In an experimental art like ours, practice goes through phases and fashions, in accordance with prevailing principles in pathology and therapeutics; and we are not alone in this respect. The practice of physic has had its phases of bleeding, blistering, and antiphlogistics, followed by a diametrically opposite stimulating method. A mercurial plan of treatment has had its day, and has been succeeded by an antimercurial plan, and so forth.

Scientific men are sometimes charged with being so conservative, as to be unwilling to entertain our suggestions which are out of the beaten path. This seems to me a groundless charge, so far as our own profession is concerned. Its members show the greatest aptitude to receive fresh accretions to their resources, if what is new affords reasonable evidence of genuineness. The danger is, perhaps, in the opposite direction. The recent and rapid progress in the physical sciences has raised expectation too high, and has sometimes favoured a too ready acceptance of novelties, which later experience does not approve without undervaluing recent improvements.

It has seemed to me, in making a general survey of our ground, and weighing our present position, that the great impetus given of late years, by many admirable workers, to the progress of uterine surgery, has tended to throw the balance somewhat too much over to the surgical side of the scale, and that operative and mechanical methods of treatment have displaced somewhat unduly and hurtfully the medical and psychical considerations in uterine cases.

It is essential to the proper exercise of our art that, while we lend an attentive ear to every suggestion of improvement, in action we should be conservative in the truest sense of the term, particularly when interference may possibly do more harm than good. I need not recall to the initiated the dangers which beset operators in midwifery, and the reasons which induce the wise practitioner to abstain from interference except when the necessity is imperative. The current axioms about "meddlesome midwifery" are as true in our times as in former days. Experience also has abundantly proved that even minor operations on the unimpregnated uterus cannot be undertaken with the same immunity as like operations in external surgery. A simple incision, the removal of a polypus, an intrauterine injection, the insertion of an intrauterine pessary—has not infrequently been followed by grave symptoms, which, in some cases, have terminated in the death of the patient, or in the permanent maiming of the genital apparatus by peritonitis.

It is no uncommon experience for a young gynæcologist to start full of ardour for operative procedures, which, he believes, will cut short the slower and more cautious methods of cure, but ere long he discovers that even slight operations cannot be performed without hazard; and, if he have a conscientious regard for the welfare of his patients, he grows more conservative as he grows older. It is true, we have witnessed great achievements in gynæcological surgery brought about by indomitable courage and infinite pains in the face of great perils. I know no more striking illustration of this than the success which our distinguished *confrère* Mr. Spencer Wells, and, following him, Dr. Thomas Keith, have attained in ovariotomy. But it must be remembered that this operation has been undertaken and perfected to avert the progress of a disease, which ere long inevitably terminated in death. The risk incurred bears a direct relation to the magnitude of the peril in which the patient stands before the operation; and there is no comparison admissible with hazardous operations which are undertaken for the alleviation of some minor ailment, or possibly for the cure of a woman who is barren, but otherwise in perfect health. While, therefore, the sagacious and prudent gynæcologist should shrink from nothing which will promote the ultimate good of his patient, he should not readily be beguiled into what is new or adventurous, without sufficient proof of its necessity, efficacy, and reasonable security, and without well considering whether some lesser measure will not bring about the same result. Further, he should be conservative of his resources, in diagnosis as well as in treatment. He who, as a rule, employs the uterine sound, without considering whether the whole circumstances are such as to afford *primâ facie* evidence that it is necessary to clear up some doubt, will certainly inflict a large amount of pain and annoyance on his patients, with a minimum of good result. The same observation applies in some degree to the use of the speculum; and, without being bound by any slavish rule on the subject, I may go so far as to say that any method of treatment for uterine affections—always supposing it to be efficient—the more readily commends itself, if it do not entail too frequent examinations *per vaginam*.

This Society, consisting as it does of so many who are eminent as obstetric teachers and practitioners, may with propriety act as moderator, when new views are propounded on matters within its province. While it gives countenance and encouragement to all sound innovations, which combine improvement with comparative safety, it may assess, so to speak, their true value and importance, and its judicial decision will command respect, in proportion to the care and caution of its deliberations.

From this aspect I regard the position of President as one of high responsibility, and I look forward with some diffidence to the exercise of the trust you have confided to me. I must, however, rely on your forbearance, and hope that, by showing a strict impartiality, I may win your approval; and, at the same time, guide the debates to a wise decision.

If the Society have already done much, there is yet ample work in store for it. Besides accumulating the valuable records of experience, there are numerous interesting subjects of inquiry which might make the reputation of Fellows who have aptitude for them. There are yet extensive mines of investigation, which have been but very partially worked, and which would well repay time expended on them. Take, for example, the diseases of the placenta. Notwithstanding what Simpson, Barnes, and others have done, much remains yet to be learnt. The whole subject of intrauterine death, comprising the pathology, causes, and prevention of abortion, and of the death of the fœtus in the later periods of pregnancy, is one full of interest, and offers a field for investigation of great extent.

Take, again, the subject of septicæmia, or blood-poisoning; how little we know as yet beyond what is conjectural; how little we know of the nature or of the origin of the poison itself, and yet how serious we know its results to be, and how helpless the wisest of us are to cope with it when extensively developed. Surely something might be done, by careful experiment and chemical analysis combined, to elucidate the subject and aid its prevention, or mitigate its effects.

One object of great practical interest on which further information is required, has been confided to a committee of able observers, nominated by the Society, to investigate and report upon. I allude to the subject of transfusion. The report is, I understand, nearly ready, and, when it it presented, it may be desirable to set apart an evening for its discussion, so that the opinions and experience of Fellows may be elicited on the general question of transfusion, and its value in actual practice.

One of your Presidents has called attention to the comparatively small number of contributions to the Society on infantile pathology. I agree in thinking this is to be regretted. The diseases of young children are commonly regarded within the province of the obstetric physician, and their treatment forms so large and important a section of work in the practice of every family doctor, that their careful and constant study becomes desirable on every available opportunity. It is well known that, from certain structures and physiological peculiarities, children are subject to diseases which differ in many important respects from those of adults. Their pathological anatomy differs remarkably from that of adult patients. If attacked by the same disease as the adult, the common ailment will, in accordance with the tender age of the patient, be modified in its course, be attended by other symptoms and complications, and perhaps terminate in a different manner. Special modes of diagnosis have to be employed in investigating children's ailments, and special therapeutics employed in their treatment.

In view of the importance of this subject, I trust that Fellows may be persuaded to bring more contributions before the Society concerning infantile pathology, and that the records may be found in next year's *Transactions*.

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THE Garstang Board of Guardians have passed a resolution to petition Parliament for the repeal of the Vaccination Acts.

TESTIMONIAL.—Mr. James B. Peacock has been presented with a handsome timepiece, and a purse containing £105. On the timepiece is inscribed: "Presented to J. B. Peacock, Esq., M.R.C.S., L.R.C.P., together with a purse of gold (of the value of one hundred guineas), by his patients and friends, as a token of their esteem on the occasion of his leaving Northallerton for Darlington.—January 27th, 1875."

# MATERNAL IMPRESSIONS.*

By R. J. LEE, M.D., F.R.C.P.,
Assistant Physician at the Hospital for Sick Children, Great Ormond Street.

It is generally assumed that the term "maternal impressions" is intended to denote those disturbances of the minds of women which occur at a period when they are naturally more susceptible than at other times to the influence of mental trouble, or to causes which excite, depress, or in any other manner produce serious impressions on their nervous systems. The difficulty of explaining satisfactorily the manner in which the phenomena arise has induced many of our profession to regard them more often as coincidences than as the consequences, of the causes stated to have produced them; while others, who have had a larger number of examples presented to their notice, have allowed the probability of cause and effect, yet have declined to speculate on the various links which unite one with the other.

Sometimes, however, a difficulty which has long appeared insuperable is diminished when we change the point of view from which we have been accustomed to regard it, and yields to attempts to overcome it when they are made in a different method and with well organised purpose; of which we have many examples in physical science, or more familiarly in the experience of the mountaineer, who succeeds in the ascent of lofty summits by an entire change in the starting-point of approach.

Such a change of position as that to which I refer is often the result of a suggestion from those who have tried and failed to accomplish their object by one particular plan, yet have neither the time nor energy to attempt the scheme which observation leads them to believe likely to prove successful. When such persons, however, give their directions to others, it is at least necessary that they should support them by satisfactory arguments, and should place at disposal such assistance as experience enables to offer. I need hardly say that I am in the humble position of one of this class, so far as regards having failed to elucidate the causes which give rise to those departures from the ordinary course of natural development which we meet with in the fœtus and in young children, and which are referred to "mental impressions" by which the mother has been affected. There is no intention, however, on my part, to throw labour on others in which I am unwilling to share. It is really from the fact that valuable observations may be made by many members of our Society, that the following remarks and suggestions are brought under their consideration.

Instead of describing generally the various conditions which are met with in practice, and are quoted as examples of maternal impressions, we may take a case which is related by Mauriceau of an instance of the kind. The chapter in which it occurs is entitled "Of the Diseases of Women with Child", and contains excellent directions for the management of the pregnant state. (Trans. Mauriceau's work, 2nd ed., 1716, Chamberlen.)

"If she ought to govern herself well in the observation of what we have lately mentioned, she ought no less to be careful to overcome and moderate her passions as not to be excessive angry; and, above all, that she be not affrighted, nor that any melancholy news be suddenly told her; for these passions, when violent, are capable to make a woman miscarry at the moment, even at any time of her going with child; as it happened to my cousin's mother (Mrs. Dionis), a merchant dwelling in the street Quinquamfois, whose father being suddenly killed with a sword by one of his servants, who, meeting him in the street, traitorously run him through out of spite and rage, because he had, some few days before, turned him out of doors. They brought immediately this ill news to his wife, then eight months gone; and presently after brought her dead husband, at which sudden fright she was immediately surprised with a great trembling, so that she was presently delivered of the said Dionis, who is to this day (which is very remarkable) troubled with a shaking in both hands, as his mother had when she was delivered of him, having yet no other inconvenience, notwithstanding he was born in the eighth month, by such an extraordinary accident; nor doth he seem to be above forty years old, though near fifty. When he signed his contract of marriage, they who knew not the reason of it, when they saw his hands shake, thought it was through fear of his bad bargain, of which they were disabused when they had heard the catastrophe that hastened his birth. Wherefore, if there be any news to tell a high-belly'd woman, let it rather be such as may moderately rejoice her (for excessive joy may likewise prejudice her in this condition); and, if there be absolute necessity to acquaint her with bad news, let the gentlest means be contrived to do it by degrees, and not all at once."

From such cases as this, the opinion must have originated that the child *in utero* might be affected indirectly through the mother; and though, through popular ignorance, very exaggerated and doubtful statements have been made regarding the extent to which maternal impressions may affect the child, still, like most popular ideas, there are sufficient reasons, when we consider it, to justify further inquiry into the subject. We may perceive, however, that the case just related is not one of those in which the child is born with some peculiar deformity of such a nature as to produce a resemblance, fancied or otherwise, to the object which was the cause of mental disturbance to the mother. This attempt to connect the deformity or other unnatural condition in the child with the form, colour, or other peculiarity in the object, is one which is constantly being made, though a not very careful consideration of the grounds for that idea would soon lead to the conclusion that such a relationship as popularly imagined is most improbable. In the reports of cases, for example, of a child having a mark upon its face resembling a spider, or that of one born with only one leg, in consequence of the fright sustained by the mother from the sight of a spider or a cripple, we have generally evidence that the person who relates them so strongly believes in this connection between cause and effect, that he has seen resemblances which to the sceptical mind would be quite inappreciable. For scientific purposes, it is difficult to make use of such cases, not only because the idea referred to may have led the reporter to force the resemblance to suit the theory, but because he has also probably forced the details of the occurrence of fright to the same extent and purpose.

The arguments generally urged against the theory of resemblance, if we may call it so, are of considerable force, though, indeed, of such a nature as to leave us dissatisfied, because they are negative rather than positive, and do not attempt to explain the facts by any other theory.

It has been observed that—

1. The same abnormalities occur very frequently where there has been no fright whatever.
2. In animals, as well as in the human species, corresponding deformities are met with, though there is no reason to imagine that they have been produced by fright.
3. Most deformities occur at those early periods of pregnancy when the woman is not sensible of or certain of the fact.
4. The same unnatural formation may be observed in several children of the same parent.
5. All abnormalities are rather subject to the laws of physiological development than to the effects of fright.
6. In twins, the abnormality is present in only one of the children.
7. We are aware of no direct nervous connection between the mother and child.
8. Serious physical disturbances, particularly fright, occur to pregnant women, but are not followed by abnormal conditions in the child.

Although these arguments do not explain the manner in which deformities arise, they support the theory that there is a law of variation which presides over all abnormal developments in the fœtus. It certainly would appear that they are intended to discourage the view that there is any connection between the mother and the child, and that such deformities occur in a certain proportion without any particular cause. It is probable that this view is correct, so far as regards certain forms of variation, though it would be quite reasonable to argue that the percentage theory is just as likely to be true of cause as of effect.

The fact that those deformities which are evident at once are more rare than the varieties which occur in internal organs and are only exhibited by dissection, will account for the difference in statistical returns intended to show the relative proportion between children born well and ill formed; and the general conclusion at which Förster (*Die Missbildungen des Menschen*, 1865) arrived, after an extensive inquiry into the subject, still remains true—namely, that there does not seem to be any definite numerical ratio between them. But, to decide to what extent maternal impressions are the cause of deformity—that is to say, in how many cases it is reported to have been so—we should require different statistics from those which simply exhibit the relative frequency of certain kinds of abnormality. It would be necessary, of course, to have a distinct account of the peculiar nature of the mental disturbance, the period of pregnancy at which it occurred, the duration of its effects, and, lastly, an exact anatomical account of the part or organ affected.

There are some forms of cardiac disease, of cutaneous disease, and others, in children, which you would hardly be inclined to refer to so remote a cause as the condition of the mother; and we might be disposed to allow simply that a feeble state of health in a woman is sufficient to affect her child; but we might not think of connecting congenital diseases of the heart in the child with rheumatism, scarlatina, or variola, in the mother. Thus it frequently happens that examples of deficiency of the tissues of the heart, an irregular distribution or connection or deficiency of the principal blood-vessels, are reported with anatomical exactness, while no account is given of the mental or bodily condition of the parent.

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* Read before the Medical Society of London.

There is one question the decision of which would be of great assistance; and that is, whether all deformities or deficiencies have originated very early indeed in fœtal life, and have, therefore, gone on *pari passu* with the growth of other parts; or whether it is possible that some of the less serious departures from the normal condition may have had their origin at later stages of pregnancy, and that, too, where the processes of development had so far followed the ordinary laws of growth. For instance, is it possible for the septum of the ventricles, at one time perfect, to undergo such changes as to result in the formation of an opening, which, of course, assumes the actual removal of already formed tissue? Or, again, suppose the growth of a finger were arrested at the second month of pregnancy, could those conditions be produced which we meet with of absolute deficiency in consequence of absorption and the increase in surrounding parts? Can morbid processes, such as that of inflammation, affect the septum of the ventricles, and be followed by absorption and rupture? Or, in the case of a limb, may the processes of nutrition and growth be arrested and take a retrograde course?

The other view—that, from the very earliest period of existence, the course of development is arranged, and that what we term abnormalities are the preordained results of another system of growth—has undoubtedly this argument in its favour, that, in many cases of abortion, at very early periods indeed, we meet with evidence of abnormality.

Not to wander away, however, into the inscrutable, let us return abruptly to the simple question, Can mental disturbances produce an influence on the fœtus *in utero?* We soon begin to see that it is necessary to classify the various causes which can affect the mind. A mental impression becomes too vague a term, when the variety of emotions is considered by which the mind may be excited. Fear, hope, joy, anger, in various degrees, producing various effects, and all the other means by which the mind may be agitated or depressed, appear to be beyond the reach of classification. Some might indulge the fancy so far as to imagine that certain emotions agitate certain organs of the body in particular, and that in this way the fœtus is affected; that, as certain emotions appear to disturb the circulation and violently agitate it, others—as, for example, long continued mental trouble—will produce disorders of nutrition by disturbing secretion and absorption.

We can understand the difficulty of establishing such a view as this; and those who are inclined to support it will probably find more assistance in the evidence of one or two careful observers, than in abstract reasoning. Without indulging in compliment, we may fairly attach considerable importance to the fact that, among such observers, Dr. Peacock has expressed an opinion in its favour. "The occurrence of accidents", he remarks, "and strong impressions upon the mind of the mother, are also supposed to conduce to the irregular development of the offspring; and in many cases such causes appear to have operated. In several instances which have fallen under my notice, the mothers of children labouring under malformations of the heart have assigned the defects in their offspring to strong mental impressions or shocks which they sustained during pregnancy; and there seems reason to believe that such causes, by deranging the maternal, and indirectly the fœtal, circulation, might produce the effects." (*Malformations of the Heart*, p. 165-166.) We must really commence by a close examination of what we intend by an "impression", in the sense in which we use it in these cases. It is clear that the mind may be influenced through any one of the senses, more particularly through those of sight and hearing. But in daily life, it is a matter of experience that the mind is terrified, troubled, or otherwise disturbed, by causes which act directly on no particular sense, more often than by those that shock through their direct influence on sight or hearing. That part of the individual which we are in the habit of calling by the name of the feelings or the emotions, is peculiarly liable to disturbance in this way. The case that has been related is an example of emotion from ill news, a more frequent occurrence than any other to which certain abnormalities in young children may be attributed.

Fear and joy may be taken as general expressions of two classes of mental conditions, of which the latter rarely, as far as is known, produces those effects we are considering.

Fear may arise in a variety of ways, and may affect the moral nature very differently, according to the manner and duration of its action. It is difficult to say what we mean by fright, as distinct from fear. Fear, or again anxiety, which would appear to be a protracted species of fear, is decidedly capable of producing impressions on the mind of a woman, and of being followed by abnormalities in her child. We have a class of cases where actual danger has been threatened, and a different state of excitement has been produced from that which follows sudden and alarming intelligence. Thus, we have instances of women whose lives have been threatened by another person; or where the life of one of their own children or of another person has been in danger from fire or violence in their presence; where they have been alarmed by an accident or a thunderstorm, whether injured or not by it. In these cases, we perceive that the senses are more or less directly affected, but decidedly in a manner different from that in which either sudden intelligence, or any object of disgust or fear, produces an impression. It would appear, therefore, that a "maternal impression" is not quite so easy to define as might be imagined. We can only admit that, through the feelings and through the senses, a variety of impressions may be made, varying principally with the extent to which moral and animal feelings are separately or simultaneously excited.

It is unnecessary for me to assure you that, instead of the subject appearing more intelligible on reflection and careful observation, it grows in difficulty, and seems more and more inexplicable. To increase this difficulty, it is found that a maternal impression may affect, not the bodily, but the intellectual, condition of a child, producing results practically far more serious than peculiar local abnormalities, such as deficiency of fingers, toes, etc.

I have yet one remark to make concerning the anatomical arrangement of abnormalities, which I ought to have introduced before. By this method, the deformities are classified according to the separate organs and parts in which they occur; for instance, those of the skull and spinal canal are grouped together; those of the hands and feet form another class, and so on; as well for internal as external parts. The number of names which such a system requires must necessarily be very considerable, since all parts of the body of a fœtus are liable to abnormal growth; and, although there may appear to be certain laws which govern these abnormalities—that is to say, that certain forms are more frequent or more rare than others—yet we are not assisted by such a method in the explanation of the causes which may have produced them. Nor, indeed, does it seem to me that we are much enlightened by the terms used in the classification—terms necessarily abnormal and monstrous; such, for example, as terata anakatadidyma, a class of double monsters united above and below, and containing as species prosopo-thorakopagus, thorakopagus, rachipagus.

It is clear that it is necessary to classify, if possible, the various causes which may produce an impression; but, as I have already remarked, such an attempt would be impossible in our present state of knowledge of the connection between external objects and the sensorium. It would be necessary for us to be able to explain how impressions produce effects in healthy persons before we could hope to discover their influence in pregnancy: for example, such cases as that of uterine hæmorrhage in a woman who has almost recovered from parturition, in consequence of the fright occasioned by seeing one of her children in flames, or of the sudden arrest of the secretion of milk in a similar condition from a somewhat similar cause.

Nor does the argument, that there is no direct nervous connection between the mother and child *in utero*, appear to be of much value, when we have instances of young children being affected with convulsions during suckling, in consequence of the mother having been alarmed by sudden fright or ill news. These are facts well established by experience, though they do not admit of direct anatomical explanation.

It would, on reflection, appear to be most natural that maternal impressions should be more frequently followed by some unnatural condition of the intellect of the child than by abnormalities of growth, and this point is worthy of particular attention.

It is at least a more reasonable view, and decidedly more practical, than that which attempts to connect the malformation with the object of terror. When the cause of fright has been of a moral character, and has principally excited the feelings, we should expect the results to be exhibited in an abnormality of the intellect rather than of the growth. To confirm our expectation, we find by experience that it is true. The instances of mental abnormality have been numerous which have come under my notice. Such cases of imbecility or deficiency of intellect in the child are almost always attributed by the mother to mental disturbance previous to its birth, while this is by no means so frequently the case in malformation. The ratio, too, between the numbers of cases of marked malformation and those of intellectual abnormality is much greater than you could suppose, and I do not think we should be exaggerating in estimating it as nine to one.

The term intellectual abnormality may very reasonably be objected to, and it would be quite fair to demand a definition of it. If a defini tion would assist in the explanation of the cause why a child should suffer in this way, we might be anxious to obtain it; but we can easily afford to leave the definition for the present, and inquire into the phenomena or the simple symptoms and conditions of these children. At an early age, that is, before two years are completed, it is premature to judge of the intellect of a child; yet there are symptoms which enable one to predict that, with the progress of time, there will not be a corresponding progress in its intellectual development. The important functions performed by the organs of speech, and the evidence of comprehension which we usually expect to be exhibited by the expression and the obedience of a child, are more or less deficient. Sometimes the sense of hearing and the powers of speech are simultaneously affected; in other cases, the appreciation of sound and harmony is above the average, while speech and intelligence, by which I mean a knowledge of the use of things and the influence of example, are absent.

When first these cases came under my observation, it appeared to me to be a more interesting question to determine what anatomical condition could have produced this deficiency in speech than to decide the exact nature of the maternal impression to which it was attributed. More extensive experience, however, has induced me for the present to confine my observation to the particular effects of purely emotional disturbances during pregnancy upon the child. We lose sight of such cases after the age of six or seven, because the parents have by that time discovered that there is little hope from medical treatment, and, therefore, seek for safe asylums for the children. Without entering into the details of the earliest symptoms of intellectual deficiency arising from maternal impression on this occasion, I still beg to express the hope that at another time I may be permitted to bring a series of cases before you; while, after the attention of the members of this Society has been directed to the investigation in daily practice of the view I have attempted to establish, it is more than probable that some important conclusions may result from a comparison of our opinions upon it.

## MATERNAL IMPRESSIONS.*

By JAMES CLAPPERTON, L.R.C.P.Edin., Market Deeping.

THE subject which I have the honour to bring before the notice of the members of this Association to-day is one not only of singular interest in itself, but is specially adapted for discussion by family practitioners. However much metropolitan men may have the advantage of the general bulk of country practitioners in many matters, our position secures for us a claim to be heard on the subject of those peculiar modifications of development in the fœtus which depend upon some fright, or other strong impression, made upon the nervous system of the mother, during the early months of pregnancy. Most of us who are engaged in midwifery practice have become more or less familiar with "the mother's mark" commonly met with in the form of discolourations of the integument, and pilous nævi; we are all well acquainted with the "strawberry", "raspberry", or "the mouse", which is so frequently seen. At times, the resemblance to some natural object is very marked; so faithful to nature, indeed, that the "mark" is recognisable by the most cursory glance, so close the simulation of the original object. At other times, a deeper impression is made upon the nerve-centres of the mother, and a distinct modification of the form of the fœtus is the result. This would seem often, indeed commonly, to be due to arrest of development, the primitive embryo retaining in its arrested evolution the characteristics of the creature which has occasioned the fright. There is something weirdly interesting in the fact that, when the object of fright is, as it frequently is, a living creature, one of the lower animals, its own configuration should be impressed upon the plastic form of the hapless being undergoing its evolution within the body of the startled or terrified mother.

In a case related by Mr. C. M. Thompson (of Sevenoaks) in the BRITISH MEDICAL JOURNAL of April 4th, the object of fright was a toad; and, when the child was born, the attendant, who had naturally been much puzzled with the presentation, found that the child's head and face exactly resembled a toad. From my own experience, I can quite understand how puzzled he might be. Though not a very old practitioner, I have met with four cases, which I shall briefly relate.

CASE I.—Mrs. H., aged 30, a healthy woman, went to the flour-bin; and, when she put her hand into the bin, a mouse ran across her arm. The child was born with a mark on its arm, which now distinctly resembles a mouse.

CASE II.—Mrs. G., aged 25, when pregnant with her third child, went into the straw-yard for some straw; a rat jumped out, and in her fright she put her hand across her throat. The child was born with a mark across the throat, which now resembles a rat in shape and colour. In her next pregnancy, she was frightened by a dog, and placed her hand over the sacrum. The child was born with a mark over the sacrum, which now resembles a dog. I may add, that the idea of selecting the place for the mark, which they deem inevitable, by striking the hand upon some part which is not likely to be seen, is prevalent amongst country people.

CASE III.—Mrs. T., aged 34, who had had several children, was returning from market, when a toad jumped across her path and frightened her; she went on to the full period, feeling as in her other pregnancies, except the dread of something being wrong. I was sent for to attend her, and, on my arrival, found her delivered of a still-born child free from "marks". She was suffering from strong labour-pains. On passing the finger into the os, no presentation could be detected. I introduced my hand, and with difficulty brought down a foot; after a few pains, the poor woman was delivered of a child resembling a toad, which died in a few moments.

CASE IV.—Mrs. H., aged 23, when about three months gone in her second pregnancy, was startled by one of the neighbours running into her house, and saying her pigs were fighting in the yard. She ran out and endeavoured to separate them, but without effect. From then until the sixth month, she was always thinking about the pigs, and expressed to her friends that she feared her child would be disfigured. On rupturing the membranes, a very large quantity of water came away; shortly afterwards, a female child made its descent. Then this specimen which I have the honour to lay before you was born.

Dr. Blundell, in his work on *Midwifery*, page 1012, relates an unusual case which occurred in the practice of Dr. Lee, where the monster was brainless, and was accounted for by the patient in the following manner. During her pregnancy, prompted by curiosity, she watched the doctor while he was engaged in examining the head of her son, who had died of hydrocephalus, and she saw the operation at the moment when the calvarium and brain were removed. A list of scores of interesting cases might be made, if care were only taken to put them on record, by the different medical men scattered through the country, who are interested in this matter; and I shall be most grateful to those gentlemen who shall from time to time publish such cases, or, if they do not choose to do that, if they will only address a private communication to me on the subject. Of course it is needless to say, that I should keep perfect faith with any gentleman who should desire to have his name kept out of the description of the cases he may furnish to me, in subsequent publication of the collected cases. I have received a communication from Dr. R. J. Lee, as to the effects of general fright or emotion upon the development of the fœtal viscera, especially of the heart and brain, which opens up a most interesting field of research. Its further discussion must, however, form the subject of some future paper.

There are two points of interest in these curious cases: one a speculative one, and one a very practical one. We will take the speculatively interesting matter first. How do these modifications of development on the part of the child follow the fright given to the mother? By what means is the change brought about? There is no doubt that the starting-point is a "state of expectant attention", to use the language of Carpenter, upon the part of the mother. It is the direction of consciousness to the part, the fixing the attention upon it, either by voluntary action on the part of the mother, who broods over the matter, and so prints the impression on the growing plastic tissues of her child; or by involuntary fixation of attention, by some action of the lower and deeper seated cerebral centres, independently of, and unconnected with, the higher volitional centres. Such persistent attention, voluntary or involuntary, affects the embryo in the womb. How is this influence of nervous impressions upon the organic functions brought about? The most careful examination of the umbilical cord has failed to discover, in the mass of the cord, the sarcode or jelly-like material of which it is composed, any trace of nerve-fibres. Carpenter is of opinion that this effect must be produced upon the maternal blood, and transmitted through it to the fœtus, since there is no nervous communication between the parent and the offspring (*Principles of Human Physiology*, sec. 733). Dalton, in his work on *Physiology*, page 629, is of opinion that it is through the placental circulation that those disturbing effects are produced upon the nutrition of the fœtus, and the mode in which these effects may be produced is readily understood from what has been said of the anatomy and functions of the placenta. But, with all due deference to such authorities, I may venture to suggest that there may possibly be such a nerve-communication existing in an altogether unexplored direction; I mean in the vaso-motor nerves which belong to every artery, and probably to the arteries of the cord. It is quite true that the fœtal tufts dip into the placental sinuses, and, as it were, float freely in the tiny wells of maternal blood. But, nevertheless, there may exist some nerve-communication in the structures which hold these fœtal tufts down in the placental sinuses. The possibility of such nerve-communication is suggested by the transmission of impressions from the mother's brain to the fœtal tissues. We are all aware that such mental impressions have produced very curious results under different circumstances; for instance, the well known case where a mother saw her son's fingers crushed by a falling window, and in half an hour's time her own finger showed changes similar to those in her boy's hand—changes which could only be the result of nervous influence. It would further appear that, whatever be the means of communication, the transmission is much more easily effected in some systems than in others. We know that, in numerous cases, intense anxiety on the part of the mother, a persistent fear that some change in her child will correspond with something that she has seen that has shocked her, has not resulted in any effect. On the other hand, these transmitted effects are occasionally recurrent in the same individual, as stated in the second case I related and in Mr. Thompson's case, where such change occurred a second time in the same woman. In my case, the first was a rat, the second a dog; in Mr. Thompson's, the first was a toad, and the second a tortoise, which left their impress upon the embryo. The systems of these women must have been inordinately susceptible to such impressions. This arrest of development, producing a resemblance to some natural object, some lower form of the vertebrata, is rendered comprehensible by the speculations and observations of Von Baer. Long before the hypothesis of Mr. Darwin had stirred the still waters of our ideas as to progressive development, Von Baer had observed that the human embryo corresponded, at different periods of its existence, to the fœtal forms of the vertebrata. At first, the human ovum is undistinguishable from that of a fish, as in the well known ovum of the late Professor Agassiz. It was a vertebrate ovum, and no more could be said. Then it is homologous to that of a reptile, then to that of a bird, and ultimately to that of a mammal.

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* Read before the Obstetric Medicine Section at the Annual Meeting of the Medical British Association in Norwich, August 1874.

Such shocks, then, might arrest the development of the embryo, when they occur (as they did in the cases I have related) before quickening. In fact, in all the cases I am acquainted with, the impression was received in the early months of pregnancy. This being the case, it produces such a perversion of tissue-growth as induces a retrograde movement in the fœtal lineaments, already assuming the characteristics of humanity, and a reversion to a lower type. Certain it is that these impressions occur some time before quickening, and that a certain amount of development secures the fœtus from the effects of any of these modifying causes. Neither are such impressions made upon the nerve-centres of the mother, and communicated to the fœtal form, confined to the human mother only. Certainly we have no record of a shock affecting any lower animal when frightened during pregnancy; but a very interesting case is given by Danniell in his *Field Sports*, which bears upon this matter. Danniell had a pointer bitch of pure breed, which he was conveying to a pure sire residing at some distance. We all know how carefully the true sportsman guards against the possibility of any *faux pas* which might militate against the purity of the strain. Consequently, when Danniell, in passing through a village, found the susceptible dogs pressing their attention upon his convoy, and the flirtation with one objectionable cur threatening to become specially serious, he felt no hesitation in shooting the intrusive canine cavalier. No physical intercourse had ever taken place, and the object of his journey was carefully secured. But, to his dismay, all the pups bore the impress of the cur he had sacrificed, and the nerve-centres of the pointer-bitch transmitted to her progeny the image which was indelibly stamped on them and fixed in her memory.

The transmission of these impressions is a matter which deserves more attention than it attracts, and a larger collection of cases and further investigation of the subject may perhaps elucidate the question, and clear up some of its difficulties. But it is now time to leave this section of the subject, and turn our attention to the practically interesting side of the question. This is the relation of such malformations to the diagnosis of the presentation. I can assure you, from my own experience, that the diagnosis of such a malformation, when it forms the presenting portion of the fœtus, is a very puzzling matter. No writer on obstetrics with whom I am acquainted has ever described such malformations as we are now considering in relation to their presentation, and the difficulties arising therefrom. Even that brilliantly suggestive man, my obstetrical teacher Sir J. Simpson, did not give us any indications for the recognition of such modified forms; neither, so far as I am aware, have any statistics been collected to show that unusual presentations are more than ordinarily frequent in fœtuses so altered, or to demonstrate that such changes in the configuration of the fœtal head, altering its relation to the pubic cavity, modify the position of the fœtus, or cause unnatural presentations to be more frequent. Such modified and altered fœtuses, when the change is pronounced, never survive. It is fortunate that they do not, as it renders it quite unnecessary to consider the question from the moral side, of the propriety or necessity of inducing their destruction by acts either of commission or omission. Still it is somewhat suggestive that babies so altered, anencephalous or other monsters, always seem conscious of the impropriety of survival in their case, and atone for their shortcomings and indiscretions by early demise. Probably they are not equal to maintaining an individual and separate existence.

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# CASE OF FRACTURE THROUGH BOTH RAMI OF THE LOWER JAW, TREATED BY EXTERNAL INCISION AND THE WIRE SUTURE.

By THOMAS ANNANDALE, F.R.S.E.,
Surgeon to the Edinburgh Infirmary, and Lecturer on Clinical Surgery.

In September last, I was asked to meet Dr. Moodie of Stirling in consultation on the case of J. C., aged 18, who had received a severe injury to his face from a railway waggon. A few days previously to my visit, the patient, when following his employment of a clerk on the railway, was knocked down, and the wheel of a waggon passed over the lower part of his face. Great swelling of the whole face followed the injury; and Dr. Moodie, who was called to see him, at once recognised a fracture through both rami of the jaw. Careful means were used to keep the fragments in position, but without success, and I was accordingly asked to see the patient.

An examination determined a fracture on the right side of the lower jaw at the junction of the angle and ramus, and one on the left side through the ramus, immediately above the angle. The body of the bone was uninjured. By a little manipulation and elevation of the body of the bone, the fragments could be brought nearly together; but, when the force was removed, the fragments at once separated, and the body of the jaw fell downwards so as to leave the mouth open and fixed in this position, as the patient had no control over the movements of the bone. There was a small wound on the right side of the cheek anterior to the seat of fracture, which was discharging pus freely. The experience of the treatment which had already been adopted having shown that some special means would be required to keep the fragments together, it was decided that the patient should be brought to town and placed under my care in the infirmary. Accordingly, he was admitted into my wards on September 28th; and, on the following day, I placed him under the influence of chloroform, and proceeded to secure the fragments together by means of the wire suture. Owing to the position of the fractures, it was found impossible to drill the jaw from the inside of the mouth, and I therefore made an external incision about two inches in length over the seat of fracture on the right side, exposed the fragments, and having drilled them, brought them together with strong silver wire. A similar incision was made over the fracture on the left side, and the fragments were drilled and treated as on the right side. The fragments on this side could not be brought accurately together, but they were secured as nearly so as possible. After the operation, there was still a slight tendency for the body of the jaw to become depressed, and in order to counteract this, a piece of soft gutta-percha was introduced between the molars of the upper and lower jaws on the left side, and held in this situation until it took a mould of the parts and became hard. It was then allowed to remain in this position, and a chin-bandage was applied to keep the jaws steady. The suppuration, which had existed before the operation, continued for several weeks, and from time to time small portions of necrosed bone separated, and were removed by the mouth. On November 13th, the wire on the left side being quite loose, was removed; and, on December 5th, that on the right side also became loose, and was removed. Both wires had been twisted on the inner aspect of the jaw at the time of the operation, and consequently both were removed by the mouth. After the removal of the second wire, the suppuration almost ceased, and the patient was dismissed on Dec. 9th. On January 6th, he returned to show himself, and there was then only a small superficial wound on the right side. The movements of the jaw were excellent, and the patient could masticate with ease. When the jaws were closed together, there was a slight lateral displacement of the lower one; but with this exception, and a slight swelling of one cheek, the parts were natural in appearance.

Remarks.—Fractures of the lower jaw have been occasionally treated by means of the wire suture (see Hamilton on *Fractures and Dislocations*, fourth edition, p. 119), and I have myself used this method in several cases of comminuted fracture of the body of the bone, drilling the bone through the mouth or through a wound which already existed. Mr. Bickersteth of Liverpool (*Medico-Chirurgical Transactions*, vol. xlvii) has suggested and practised a method of securing the fractured ends of this and other bones by means of a drill, and has given a most interesting account of several cases in which it was successfully adopted. The employment of special external incisions, as in the case related, has rarely if ever been practised in connection with recent fractures of the lower jaw. The objection to them is the resulting external cicatrix or cicatrices which, although not of so much consequence in the male, as the whiskers will usually completely cover them, must cause some deformity in the female. For this reason, I would only advocate an external incision or incisions in cases which cannot be successfully treated by other means. In the removal of the tongue, or portions of it, and in some cases of tumour of the jaw, I always now bring the ends of the divided jaw together by means of the wire suture; and my experience of this method is, that it is safe, efficient, and easy of application. Since writing this, Mr. Mason of St. Thomas's Hospital has been kind enough to direct my attention to the ingenious method of employing the wire suture in bringing the end of bones together, practised by him (*Medico-Chirurgical Transactions*, vol. liv). His method allows the wire to be easily removed at any time, and is, therefore, to be preferred to that which has usually been employed, should the case admit of the needle being passed in an oblique direction through both ends of the bone.

## ANOTHER CASE OF POISONING BY HOMŒOPATHIC SOLUTION OF CAMPHOR.

By GEORGE JOHNSON, M.D., F.R.S.,
Physician to King's College Hospital.

IN a paper of mine published in the last volume of the Clinical Society's *Transactions*, there will be found notes of five cases in which symptoms more or less distressing and alarming were caused by homœopathic concentrated solution of camphor. I am indebted for the particulars of the following case to a former pupil, who gives me permission to publish them, but begs me to withhold his name, for the reason that it is a rule of the public service in which he is engaged that no medical officer shall publish his cases without special permission, which is not always granted when asked for. I give the case as reported in a letter addressed to me by the medical officer who saw the patient.

"I was called in to see a lady about thirty-five years of age, and found her with a very pale face and weak pulse. She said she had been suffering from a bad cold and feverishness; that she had got up late, and had her dinner at about two o'clock. About an hour after dinner, her sister, who is an experienced nurse, dropped seven drops of homœopathic solution of camphor on a lump of sugar, and gave it to her. Immediately after taking it, she was attacked with a very faint feeling, which compelled her to lie down flat on the hearth-rug; and she nearly lost consciousness. This lasted about five minutes. When I arrived, her face was very pale, and her pulse was weak. I ordered her to bed, and gave her some aromatic spirit of ammonia and lavender. She was very drowsy after she got to bed, but had no more vertigo or faintness; and in a day or two she got rid of her cold. I am led to believe that this was a case of camphor-poisoning similar to those which you have published, for the following reasons: the attack occurred immediately after taking a dose of camphor; the patient says that she had never before had a similar feeling of faintness; and the vertigo or faint was followed by drowsiness."

There can, I think, be no doubt that the symptoms were a direct result of the camphor. The dose was smaller than in any other case which I have met with in which poisoning has resulted from the incautious use of this dangerous compound. The homœopathic concentrated solution of camphor is a saturated solution of camphor in alcohol, the proportion being an ounce of camphor to an ounce and a quarter of spirit. Seven drops would be an uncertain quantity; but seven measured minims would contain rather more than five and a half grains of camphor. In one of the cases which I have recorded in the *Transactions* of the Clinical Society (vol. vii), a dose of twenty-five drops, taken by a young lady for a cold, caused violent convulsions and nervous sequelæ which continued for several months. In another case, eight doses of three drops each, taken by a clergyman within forty minutes, caused violent headache, sickness, and inability to work for two months. In a case communicated to the BRITISH MEDICAL JOURNAL by Dr. Clifford Allbutt (Dec. 6th, 1873), two doses of at the most ten drops each rendered a robust mountain-guide so giddy that he was unable to proceed on his journey, and he had to be deposited in a cave for safety. Lastly, in two other cases, a teaspoonful dose caused convulsions and coma.

It is time that the public should be warned of the danger which they incur by the use of this poisonous homœopathic concentrated solution of camphor, which is more than seven times the strength of ordinary spirit of camphor. It is notorious that the modern disciples of Hahnemann have gone from the ludicrous extreme of infinitesimal dilution to the dangerous extreme of the greatest possible concentration of active and poisonous drugs.

## ON THE RELATIONS BETWEEN DIPHTHERIA AND SCARLET FEVER.*

By ARTHUR RANSOME, M.A., M.D.Cantab.,
Lecturer on Public Health in Owens College, Manchester.

THE following case shows the close connection between these two diseases.

On February 23rd last year, a boy at school had scarlet fever. He was isolated until March 25th, when his brother saw him and took the complaint. Other cases occurred at the school on the 29th, 30th, and 31st. On April 2nd, one of the masters had a rigor and sore-throat; he left at once, and was seen by me next day. On the third day, diphtheritic patches covered the tonsils; but there was no rash. Slight albuminuria accompanied the pyrexia; both disappeared by the seventh day. On April 9th, six days after he arrived at home, his mother was attacked, membranous exudation appearing in both tonsils; but there was no albuminuria, and no rash.

The origin of these cases must surely be traced to the epidemic of scarlet fever at the school; for there were no cases of diphtheria either in the neighbourhood of the school or near their home. The close relationship of these diseases has often been pointed out. In the *Report of the Medical Officer to the Privy Council* for 1859, Dr. Burdon Sanderson gives cases of diphtheria and scarlet fever coexisting; there also I find three cases of diphtheria following three of scarlet fever, and the former spreading to a neighbouring cottage. These diseases have much in common. They are alike in their zymotic or epidemic character; both are characterised by high pyrexia; their chief point of attack is the throat and the glands of the neck; and a rash is found in both diseases. Their sequelæ also are similar: suppuration in the lymphatic glands, ulceration of the ears, arthritic affections with or without cardiac complication, kidney-disease and dropsy, general or localised paralysis of the nervous system. I have seen each and all of these consequences after both diseases.

Some physicians have been led by these points of resemblance to regard them as one disease, the same poison producing different manifestations; but, in spite of their similarity, I venture to think the differences are too important and too numerous to permit so simple a solution of the problem. In the first place, diphtheria is seen to arise directly from scarlet fever. I have never known the converse action. There are other etiological differences. Though both are contagious, diphtheria is less so, and more frequently occurs in single cases. Where several cases occur together, some general cause is probably concerned. Scarlet fever is more frequently conveyed by clothes or other fomites, by attendants on the sick, and it may be conveyed by means of milk. I am not aware that diphtheria has ever spread by any of these means. The two diseases differ in their geographical distribution. Diphtheria is common in India, where scarlet fever is unknown. Colonies and all new settlements seem peculiarly liable to diphtheria; it has appeared in the Australian colonies and in South America, attacking the otherwise healthy town of Buenos Ayres. In Lima, it was noticed that the black races withstand its contagion. It selects high and well drained districts, when low-lying lands in the vicinity escape. Dr. Blake, in the *Transactions of the Medical Society of California*, mentions a most fatal epidemic at an elevation of 4,000 feet. Many places in England subject to diphtheria are either high or well drained. Scarlet fever also haunts certain places; but these scarlet-fever fields are not at high levels, nor are they those in which diphtheria is especially prevalent. Diphtheria is often connected with defects in the house-drainage, not always due to imperfection in the house-connection with a general sewage-system, but to leakage from private cesspools; so that a question of spontaneous origin may arise in this disease, which is hardly admissible with respect to scarlet fever. Season has a different influence on the two diseases; scarlet fever being most prevalent in the autumn, low barometric pressure and greater humidity in the air favouring its diffusion; while diphtheria may arise at any season, and, in my own experience, its most virulent epidemics have occurred in the summer months.

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* Abstract of a paper read before the Epidemiological Society of London, January 13th, 1875.

Another difference is found in the fact that scarlet fever is not often associated with other diseases, while diphtheritic affections are not uncommon in the course of other pyrexial disorders. It is recorded in the Report of the Diphtheria Subcommittee of the Epidemiological Society, that, in the epidemic of 1861, this disease occurred fifty-seven times alone, thirty-four times in association with scarlatina, nine times with small-pox, seven with measles, six with fever, and three times each with ordinary sore-throat, croup, and catarrh. But in the nature and symptoms of the two diseases are points of unlikeness too great to allow us to rank them as varieties of the same species. Thus, the rash of diphtheria is often absent, is very variable as to the time of its appearance; it occurs seldom at the outset of the malady, and I have seen it as late as the third week of its course. The period at which albuminuria sets in is also different, often appearing in severe cases of diphtheria within the first two or three days, whilst in scarlatina it seldom sets in until degeneration of the kidney is commencing. There is, indeed, an entire absence of definiteness about the duration of the symptoms of diphtheria, which of itself marks it off from the regular sequence of events in scarlet fever. I have known it last for six weeks, and even two months, without any evident affection of the cervical glands, but with constant formation of exudation on the fauces or on other mucous surfaces.

The mode in which diphtheria localises itself on the mucous membranes, or on the broken surfaces of the skin, would probably be sufficient to separate it from any other disease. I do not know that scarlet fever ever attacks the larynx; but I have seen the diphtheritic membrane appear in different cases upon wounds of the skin, upon blistered surfaces, and upon nearly all the mucous membranes of the body—the lips, cheeks, nose, ears, pharynx, larynx, trachea, and bronchi, and on the anus and vulva; and different epidemics have differed strangely in this respect; in one, the throat would always be the point selected for attack; and in another, the other mucous membranes. It is somewhat remarkable in the latter case that, although the disease was mild and there were no deaths, the subsequent complications were much more frequent and troublesome.

The last point of difference that I shall mention is the fact that, while scarlet fever seldom reappears again in the same individual, diphtheria seems by its first attack to confer no immunity from subsequent seizures; on the contrary, the susceptibility of the throat seems to be rather increased.

Upon taking a survey of all these relations existing between scarlet fever and diphtheria, it is evident that they are distinct diseases, and yet that there is some very close and definite connection between them. Wherein the bond consists, it is not easy to point out. From the manner in which the diphtheritic poison seeks out the highest points of the best-drained localities, it has appeared to me most probable that the virus of this disease must be of a more rarefied and subtle nature than the germs that produce scarlet fever.

It is possible that the nature of some other ferments may throw some light upon this subject. I would specially call attention to the discovery by M. Berthelot (*Comptes Rendus*, vol. l, p. 980) of an unorganised glucosic ferment in an infusion of yeast resembling diastase; also to the fact that one fermentation by organised beings frequently prepares the way for another. It may be suggested, that in one of these ways the singular relations existing between scarlatina and diphtheria might be accounted for. I do not venture to affirm that there is a strict analogy between these fermentative actions and the zymosis of scarlatina and diphtheria; but, as there exist in nature ferments requiring the presence of living germs, and others acting independently of them, so there are disease ferments with organic germs reproducing themselves, and others which have no definite term of life, and which are not self-reproductive.

It is probable that, in most cases of fermentation, the living being connected with each kind of this action is of a specific nature, and peculiar to the medium or to the food upon which it lives. In some instances, a ferment either during or at the end of its operation will produce the conditions favourable to the growth of another kind of germ, as seen in the crowd of vibrios appearing at the end of a mycodermic fermentation; so the pyrexial state may produce the condition most congenial to the diphtheritic ferment, whether that may prove to be an organised germ or an unorganised catalytic ferment. As my excuse for offering these suggestions, I will quote, in conclusion, the words of the great English philosopher Robert Boyle. "He that thoroughly understands the nature of ferments and fermentation shall probably be much better able than he that ignores them to give a fair account of several diseases (as well fevers as others) which will perhaps be never thoroughly understood without an insight into the doctrine of fermentation." (*Works*, ed. 1744, vol. i, p. 476.)

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## MALARIA.

By T. INMAN, M.D.Lond.,

Late Lecturer on Medicine at the Liverpool Royal Infirmary School of Medicine; Consulting Physician of the Liverpool Royal Infirmary.

As I anticipate that my friend Dr. Oldham will, in due time, make his remarks upon what has appeared on this subject in the JOURNAL, I do not intend farther to prolong the controversy, especially as I find it difficult to do so without being satirical upon the logic of those who have supported the old idea of malaria.

For example, to my mind it appears strange that an ague-fit coming on after a gravel-walk has been raked, or a pit dug, must necessarily rise from a disturbance of the earth. I can recall plenty of cases in which ditches full of vegetable *débris*, stagnant ponds, and soil of all sorts, have been dug out and dug over. In one, this process was marked by an attack of sciatica in the master; in another, by gout; in another, by chicken-pox; in another, by pneumonia; in another, by a drunken bout; in another, by catarrh; in another, by paralysis; in another, by chorea; and in another, by gonorrhœa. Would not every one "write me down an ass" if I associated any one of these complaints with an upturning of sods, delving ditches, taking up potatoes, storing carrots, turnips, or mangold, or with other farm-labour? Then, if an attack of ague should come on, are we to be asked to jump to the conclusion that the complaint was caused by raking a gravel-walk, or digging a grave in the nearest cemetery? Again, all the correspondents have avoided the very important point, that emanations, whether from marsh or river, trench or pit, are the most abundant and incessant during the heat of the day, a period when nobody pretends—except in such cases when the body is suddenly chilled by a hailstorm, or by wading through cold rivers, or by a cold wind from the mountains, or simply by a drying zephyr when the body is covered with thin garments soaked with perspiration, rain, etc.—that agues are caught. The well known Maremma and Pontine Marshes and the Campagna around Rome are innocuous during the day, when the sun is hot and every emanation strong.

When night falls, and emanation ceases, then comes the danger of ague, etc. Clearly, then, the cause must be sought in a something which there is in common between nights in general and those conditions that will give ague during the day. This something, most unquestionably, is not malaria, or an emanation from any soil.

I commend the inquiry to those whose experience is commensurate with their acumen. I am quite aware how easy it is to try to put down a thinker by an array of so-called facts; and I have known a "stay-at-home" astronomer convict of inaccurate observations the whole of the officers of an exploring expedition, who insisted that their chronometers went wrong for three days, under the influence of a land-breeze from Australia. The head man was not so silly as to stick up for the malarious effect of proximity to land, but re-examined his calculations, and discovered the error.

Some of the writers in the JOURNAL seem wholly to have misunderstood the bad effect of sleeping on the deck of a ship being dependent upon (1) hard work and exhaustion under a hot sun; (2) sleeping where the body is certain to be chilled by radiation or a cold land-wind; and they make merry over the fact that many are taken ill between decks. Unquestionably they are, when all the air-holes are kept open, and admit a chilly land-breeze. Men on board ships in the deadliest African rivers escape fevers—as far as they are caught on shipboard—by closing the windows at sundown. At sea, the air in the tropics is equable day and night, when not chilled by a cold land-breeze. In like manner, one may cross the Pontine Marshes by night, by excluding from the carriage in which one rides the bitter cold; not that which we call bitter in England, but very severe to those accustomed to a day temperature of 140 degs. in the sun and 88 to 92 degs. in the shade, and who are too lightly clad to bear a sudden fall to 60 or 50 degs. during the hours of darkness. No amount of experience in the field can alter the physical fact that in many places in hot climates the nights are colder than the days, especially when the sky is clear. Even frost occurs occasionally by night on the Sahara; and the Arab always keeps his most valued horses under cover after sundown, and in good stables too.

Nor can any amount of experience, from the Indus to the Pole, convince us that very formidable diseases—*e. g.*, pneumonia and bronchitis—are not frequently produced by a severe chill after fatigue and exposure to heat. I should pay no compliment to the writers if I were to count *seriatim* all those complaints—even including purulent periostitis and necrosis—which have fairly been traced to violent chill after exposure to heat, without a microscope being able to detect in the air or water to which the sufferers were exposed either fungoid spores or marsh malaria.

Once more I would add, that I have had the privilege of conversing familiarly with medical and other residents of Sierra Leone, Cape Coast Castle, Rangoon, Birmah, Fernando Po, the Gold Coast, the aguish districts of South America and the United States, the worst part of the West Indies, the fen districts of Cambridgeshire, and the worst parts of Italy. Some of my informants have had ague repeatedly; others have seen every one around them, including negroes, down with fever (I do not refer, of course, to yellow or other contagious fever), whilst they have escaped wholly during a residence of five years on the same spot.

The experience thus obtained is not to be despised, even although I have no personal knowledge of other malarious districts than those of Cambridgeshire and Italy.

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# THOUGHTS ON THE MANAGEMENT OF INCURABLE CHRONIC HEART-DISEASE.

By C. M. DURRANT, M.D., F.R.C.P.,
Physician to the East Suffolk and Ipswich Hospital.

I HAVE been induced to jot down a few passing reflections on the subject of this paper, from the circumstance that, while the treatment by drugs has undergone an almost exhaustive investigation by writers on heart-disease, its general management by moral and hygienic suggestions has been proportionately overlooked, and its paramount importance scarcely recognised.

The first question, then, that occurs to me—and a very important one it is—Do we, as practitioners, sufficiently inform our patient suffering from the consequences of an incurably diseased heart of the nature of his malady, with a view to his adopting such measures in the conduct of himself as may tend to ward off a suddenly fatal termination? The result of the daily inquests that are held will, I think, give a negative answer to this question.

A man uses sudden, and perhaps violent, exertion; falls; dies; an inquest is held. His usual medical attendant states that he has known (for some years possibly) that the individual has been the subject of an organic disease of the heart, and a verdict of death from natural causes is returned. The question arises, Had the patient been made aware of the precise nature of his complaint, and of its fatally hazardous character under the influence of sudden exertion? Too frequently, I believe, the individual undertakes the hurried movements which result in death in entire ignorance of his precarious condition; whereas, had he understood it, he might possibly, by his own prudence and care, have postponed the fatal termination. I am sure that we must all have been familiar with cases of sudden death from heart-disease, in which the patient, from a kind, but mistaken, feeling on the part both of physician and friends, has been left in absolute ignorance of his danger, or with only a vague conviction of something being wrong, yet without the remotest idea of what he should himself do to prevent a suddenly fatal catastrophe. The fear lest the shock, on being informed of his dangerous condition, produce the very result that we wish to avoid is, I believe, an altogether mistaken one. I am satisfied that no one with heart-disease will die one moment sooner for having been *properly* made aware of its existence; and I feel that we are all in duty bound, as honest responsible practitioners, and as Christians, to adopt the golden rule of doing as we should wish, under like circumstances, to be done by. If the patient be gently and kindly told by his medical attendant that, although his heart is seriously affected, still, if he carry out implicitly in his own person the rules laid down for his guidance, he may hope with confidence to have his life prolonged, I do not believe that anything but good can accrue from adopting this course. I am convinced that these suggestions have hitherto been very culpably neglected or insufficiently enforced, and that, if they were generally adopted, many cases of heart-disease now terminating with such painful suddenness might have life prolonged, and thus afford to the patient and to his family a lengthened interchange of social happiness. If, then, we admit the propriety of enlightening our patient as to his condition of danger, we have next to consider the especial influences which he will be called upon, for his own safety, to resist.

The first that will present itself to our minds will be the careful avoidance of sudden and hurried motion. Nothing is so likely to cause sudden death in advanced heart-disease as this. Hurrying to catch a train, attempting to walk rapidly up hill, especially in the face of a strong wind; dragging or lifting weights, and many other movements which will occur to the medical attendant to interdict, must be sedulously avoided by the patient. In cases of regurgitant aortic disease and great thinning of the ventricular walls, as well as in fatty degeneration of their structure, this injunction will be doubly necessary. I believe that prolonged travelling by train may be highly prejudicial, and tend to a fatal termination by exhausting nerve-force. I have seen two cases of sudden death follow upon a railway journey, which I could only explain in this way. Both were subjects of advanced valvular disease.

Another very necessary precaution, and one not to be neglected by the patient without the greatest hazard, is the avoidance of partaking at any one time of a large distending meal, even though the food taken be of an easily assimilable character. This is a fruitful, but not a sufficiently recognised, cause of sudden death in heart-disease. This senile syncope, as it has been called, may be generally traced to the filling the enfeebled stomach beyond its power of disposing of its contents. Undigested food, acting as a foreign body, irritates the stomachal nerves; and, thus irritation being reflected upon the cardiac nerves, they in their turn fail to influence sufficiently the coronary vessels, and hence the cardiac syncope, and, if not relieved, fatal termination. In all cases of organic heart-disease, the meals, let it be remembered, should be small in quantity, of easy assimilation, and of frequent repetition; so that the heart may not be pressed upon by a distended stomach, on the one hand, or its due supply of nerve-force exhausted by prolonged abstinence, on the other.

Cold liquids, if taken in excess, and especially if quickly followed by exercise, and more particularly if this exercise be up an ascent, are very likely, by exciting nerve-irritation, to produce cardiac syncope and sudden death. In these days of almost universal tea-drinking, and at all hours, it requires some courage to inveigh against the popular custom; neither is it my intention to do so, beyond a few observations bearing upon the especial subject under our consideration. I think that the discrepancy in the minds of medical men in regard to the effects of tea, and the diametrically opposed opinions which are so freely enunciated, are much to be deprecated. Tea acts chiefly as a nerve-stimulant, and, when taken in moderation as to quantity, and not too strong, it can in no wise be injurious in heart-disease. When taken under these circumstances, it exhilarates and restores, and may often well supply the place of alcohol, with its subsequently depressing and intoxicating effects. With some persons, it should be remarked, tea will be found to act as a powerful nerve-irritant, amounting almost to a poison, and producing cardiac feebleness, flatulence, irregularity of the heart's action, and the many nervous disturbances which we must all have witnessed, even if we have not in our own persons experienced its discomforts. In such idiosyncracies, the use of tea and coffee must be strictly prohibited.

Another question arises, as to how far a patient labouring under serious heart-disease should debar himself from sexual intercourse. I believe, as a rule, that it should be absolutely forbidden, especially in the more serious conditions of heart above referred to.

A very troublesome symptom, difficult to combat, and attended with extreme hazard, is the great restlessness of some patients, the subjects of advanced valvular disease. If the patient have been in the habit of frequent travelling when well, we shall find the greatest difficulty in keeping him at home. Now, sudden death away from his own family circle, as I have more than once seen, is by no means unlikely to occur. The disturbed circulation, affecting the brain, and producing great irritability, renders these cases peculiarly trying and difficult to manage. Firmness, kindness, and the most truthful admission of the real condition of the sufferer, while the attendant dangers are distinctly set before him, will alone avail to influence him, and to keep him at home.

Passive carriage-motion is good; but, as a rule, it will be better, I believe, to debar the patient from horse-exercise. Early hours must be enjoined; and, if the patient be wakeful at night, nourishment in the shape of beef-tea with brandy must be taken, and especially in the early morning, when the nerve-force is at its lowest ebb. Milk, with rum or brandy, may also be taken shortly before rising. In all cases of advanced heart-disease, the patient, as a rule, should invariably carry a small flask of brandy in his pocket.

In reference to medicinal treatment, it is not my intention to dilate further than to state that, in mitral valve-disease, aperients freely given, with a view to unload the venous capillaries, will afford the most relief. In aortic regurgitation, I have often seen much advantage derived from the infusion of senega, with henbane and spirit of nitrous ether, as recommended by the late Dr. Barlow.

In senile syncope, the result of an overdistended stomach, no time must be lost in emptying this organ by an emetic, to be followed as quickly as circumstances will admit by the administration of full doses of brandy with hot water. In those cases of advanced heart-disease in which dropsy is superadded, and in which diuretics often signally fail, temporary relief may sometimes be obtained from full doses of quinine.

# SURGICAL MEMORANDA.

### THE POLYPUS KNIFE-HOOK.

I CAN bear testimony to the value of the instrument described by Dr. Laidlaw Purves in the JOURNAL of the 23rd instant, since I was, I believe, the first to employ it. I am, I think, right in saying that the idea was suggested to Dr. Purves in conversation with Dr. Frank of Baltimore, and Dr. Whittell of San Francisco, the former of whom spoke of a knife-hook he had invented for dividing the muscle in strabismus. However that may be, the first instrument made was by Messrs. Weiss for Dr. Whittell, who brought it to me on January 11th, at the Central London Throat and Ear Hospital. Three cases of aural polypi presented themselves, on two of which I operated with the knife-hook, and the third was similarly treated by Dr. Whittell. In all the success was complete. One case was that of a child aged thirteen, who, having been severely frightened when seven years old, had been since subject to epileptic fits, and was certainly the most timorous patient I have ever encountered. The merest touch, or even the sight of the forceps or snare, caused such alarm, that I quite despaired of ever being able to operate. The knife is, however, such a benign-looking instrument, that the child permitted it to be used with scarcely an objection. With aural, as with nasal or laryngeal polypi, it is impossible to say what is the best instrument for general use, because it is very difficult to accurately gauge beforehand the seat and extent of surface of attachment of the growth; but I have no doubt that the knife-hook will prove a most useful addition to—and probably a substitute for some of—the many ingenious, but more complicated polypus-extractors, already in use.

LENNOX BROWNE, F.R.C.S.Edin., Surgeon and Aural Surgeon to the Royal Society of Musicians.

# CLINICAL MEMORANDA.

### THE PATHOLOGY AND TREATMENT OF CHOLERA.

AFTER reading Dr. Crombie's paper in the JOURNAL of Jan. 9th, I referred to Braithwaite's *Retrospect* for 1848. I freely admit that Dr. Bell has forestalled me generally in what I have written on the pathology of cholera collapse, although there are some points on which I differ from him, but which would take up too much space to enter into here. I was aware that Dr. Bell considered cholera a form of malarious fever; but I did not know his views about the pathology of the disease. I can only say that, when I mentioned my opinions to some medical friends of standing and long experience in India, in 1869, I was assured that my views were original. Some even thought them *too* original. For the last two years I have only seen the *Indian Medical Gazette* occasionally; and I have not observed the remarks referred to by Dr. Crombie. But now, with regard to the point of real practical importance—the treatment: Dr. Bell recommends bleeding in collapse. This treatment has been discussed so freely by various writers, that I will only say that I think it probable bleeding would do good in many cases if the blood could be obtained from the veins, which is the difficulty. The drugs that Dr. Bell suggests are, quinine *with iron.* Now if, as Dr. Bell wrote—and as I perfectly agree with him—the nervous system in cholera collapse is in an abnormally high state of tone, what is the use of giving nervine tonics? The remedies that seem to me more appropriate are the true sedatives which tend to lower this tonic condition and relax spasm. I hope that the hypodermic injection of chloral hydrate will not yet be condemned, but that it may have an extended trial, taking care to have the drug very *pure* and *fresh,* and that the point of the syringe be thrust into the muscles, as suggested by Mr. Higginson, the civil surgeon of Kheri, in Oudh, whose experience of this mode of treatment is certainly very encouraging. But I beg to recommend other sedatives as well. In the paper that appeared in the *Indian Annals of Medical Science* for March, 1870, I suggested that hydrocyanic acid should be administered subcutaneously. One minim, dissolved in twenty minims of water, might be injected and repeated at intervals, or the patient might inhale the fumes of the acid from a bottle: this, I fancy, would speedily produce an effect, but I have had no opportunity of using it. Aconite, veratrum viride, and other sedatives might also be tried; and I trust that medical officers in India will carefully try these various remedies, and record the results of their experience in the treatment of cholera collapse by sedatives.

A. R. HALL, Surgeon Army Medical Department, Topsham.

# OBSTETRIC MEMORANDA.

### IS PUERPERAL FEVER CONTAGIOUS?

IN the JOURNAL of January 16th, is recorded the committal of a midwife for trial on a charge of manslaughter by conveying puerperal fever to patients; and the important question is asked, "Is it certain that puerperal fever is contagious?" Most practitioners, I imagine, would answer unhesitatingly in the affirmative. As bearing on this question, the following cases have occurred in my practice during the last few weeks.—CASE I. December 23rd, 1874. Mrs. A., had her first labour; the presentation was natural, and the labour fairly easy; peritonitis set in on the fifth day, and death occurred on January 2nd, 1875. The lacteal secretion was scanty from the first; the lochia were satisfactory to the last. Previously to this, I had not had a case of peritonitis for several years. CASE II. December 28th, 1874. Mrs. B. was confined; the presentation was natural, and the labour easy. She recovered without a bad symptom. CASE III. January 3rd, 1875. I delivered Mrs. C. The presentation was natural; the labour easy. Recovery took place without a bad symptom. CASE IV. January 5th, 1875. Mrs. D. was delivered. The presentation was footling, the labour tedious, requiring more manual assistance than usual. She recovered without a bad symptom. CASE V. January 5th, 1875. Mrs. E. was confined for the first time. The presentation was natural, the labour fairly easy. Peritonitis set in on the fifth day; and she died on January 13th. In this, as in the first case, the lacteal secretion was scanty, but the lochia satisfactory throughout. CASE VI. On January 14th, 1875, I was requested to attend Mrs. F., which I declined to do, and advised that another practitioner should take charge of the case. Calling next day to inquire after the patient (as I had attended all her family for many years), I found that, instead of having other medical assistance, she had been delivered by her mother, who had not only assisted to nurse the last case, but had actually helped to wash and lay out the corpse. Recovery took place without a bad symptom. I offer no remarks on the foregoing cases; I simply submit them to the consideration and comments of my brother practitioners.

JOHN A. ORR, A.B., F.R.C.S.I., L.K.Q.C.P.I., Fleetwood.

# THERAPEUTIC MEMORANDA.

### JABORANDI.

ON January 29th, I had the pleasure of bringing a detailed account of this interesting and important drug, and of some experiments I had made for the purpose of observing its action, before the Pathological and Clinical Section of the Birmingham Branch of the Association. Thanks to the courtesy of Messrs. Southall, who kindly sent me some specimens of jaborandi about two months ago, I have had an early opportunity of testing the physiological effects of this new and remarkable medicine. I am able fully to confirm the statements which have been made by Dr. Ringer and others concerning the power of jaborandi to produce very copious sweating and salivation. For the following account of the results of a dose of the drug, given to a healthy lad, aged 17, I am indebted to Dr. Bisset Smith, one of the house-physicians at the Queen's Hospital. On January 5th, at 10.30 A.M., John W. drank an infusion prepared from six *grammes* (one drachm and a half) of jaborandi. Just before taking the drug, his skin was dry, his temperature in the axilla was 98.25 deg. Fahr.; pulse, 90. At 11.10 A.M., the temperature was 97.9 deg. Fahr.; pulse, 104. The skin was moist over the whole of the body; the face and forehead were perspiring profusely. At this time, the lad complained that his mouth was filling with water. He said there was a mist before his eyes. At 11.40 A.M., the temperature was 97.9 deg. Fahr.; pulse, 96. The skin was perspiring profusely. Salivation continued. He said he could not see anything on the other side of the ward, a distance of about twenty-five feet; he could see anyone standing by the side of his bed perfectly distinctly. The pupils were not altered from their normal condition. At 12.10 P.M., the temperature was 96.6 deg. Fahr.; pulse, 90. The skin was less moist. There was no derangement of vision; no salivation. At 1 P.M., the skin was of natural moisture; temperature, 96.8 deg. Fahr.; pulse, 96. I was very much struck by the derangement of vision produced in this case, for I had not seen such a condition recorded as one of the results of the administration of the drug. Mr. Martindale has since described the effects of a dose of jaborandi upon his own vision; and Mr. Tweedy has published the results of a series of elaborate investigations, which he has conducted with the view of establishing the exact effect of the medicine upon the eye. In the case I have just quoted, the effect of jaborandi upon the bodily temperature was most marked. The temperature began to fall as the sweating became evident. In one hour and forty minutes after taking the infusion, the lad's temperature had fallen from 98.2 deg. Fahr. to 96.6 deg.

JAMES SAWYER, M.D., M.R.C.P.,
Physician to the Queen's Hospital, Birmingham.

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# REPORTS OF SOCIETIES.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JANUARY 26TH, 1875.

C. J. B. WILLIAMS, M.D., F.R.S., President, in the Chair.

### ON THE TEMPERATURE OF PHTHISIS PULMONALIS AND ON THE VARIOUS CONDITIONS INFLUENCING IT.

BY C. THEODORE WILLIAMS, M.A., M.D., F.R.C.P.

THE author, after briefly reviewing the labours of Jochmann, Lebert, Küchenmeister, Ringer, Wilson Fox, and others on the thermometry of phthisis, proceeded to demonstrate the reasons why hitherto no definite laws governing the rises and falls of the temperature in the disease had been discovered; the main point being the comparatively few observations taken *per diem*, and the acute and exceptional character of the cases under observation. A clinical and pathological account was then given of one hundred and four consumptive patients, inmates of the Brompton Hospital, and, therefore, subjected to the same equable atmospheric and hygienic conditions, in all of whom the temperature was taken at least five times, and in many of them seven, ten, and twelve times daily, for periods varying from seven to thirty days. The patients were sixty-three males and forty-one females, embracing all acute and chronic forms of the disease except acute tuberculosis. The temperatures were taken for the most part in the axilla, and in some instances, for comparison, in the mouth, by the clinical assistants and by Dr. WILLIAMS himself, with thermometers manufactured by the best makers. These observations amounted in number to between four thousand and five thousand. To ascertain more fully the exact thermometrical phenomena of the disease, and especially the night changes, in twelve cases an hourly record was carried out for twenty-four consecutive hours, and in some instances it was repeated for a second similar period. The state of the pulse, respiration, skin, bowels, and urine was likewise noted; as also the time of meals and the amount of food taken. The cases are classified in the following manner, according to stages: 1. First stage, active (where formation of tubercle was taking place); 2. First stage, quiescent; 3. Second stage, that of softening; 4. Third stage, active (with increasing excavation and tuberculisation); 5. Third stage, quiescent (or chronic cavity). The results of the analyses under these headings were then given, and the temperature at each of the hours of observation, viz., 8, 10, and 11 A.M., 2, 5, 8, 10, 11, and 12 P.M., as also the intermediate day temperatures occasionally taken and the night observations. The media, maxima, and minima of each stage were stated, and tables and charts were exhibited to explain more fully the method of calculation and the results arrived at. The influence of the states of consolidation and of tubercle formation, of softening and of excavation, as well as extension of disease, on the temperature, were dwelt upon, and illustrative instances of each given; the pathological state being proved in many cases by *post mortem* examinations. The chief conclusions as to the diurnal temperature of the disease were as follows. In a large number of chronic phthisis cases, the temperature is normal or subnormal, sometimes falling to between 93 deg. and 94 deg. Fahr.; a continuity of low temperatures being most marked in the first and third quiescent classes. In pyrexial cases, the temperature is seldom very high, 104.6 deg. Fahr. being the highest recorded. In the majority, a marked rise takes place after 2 P.M., and a rapid fall occurs after 10 P.M., which continues throughout the night, until its minimum, sometimes as low as 94 deg. is reached before 7 A.M.; a slight recovery is then perceptible, the normal being seldom, however, attained before 9 or 10 o'clock. This temperature wave may be shifted a few hours, the rise taking place later in the afternoon, the high temperature being maintained farther on into the night, and the lowering consequently delayed by some hours. Any continuous rise of temperature is followed by a certain amount of collapse, though not always to a corresponding degree. The disease in all its stages shows the post meridian rise and the nocturnal fall, with the early morning collapse temperatures; and that the latter is a characteristic of phthisis is proved by Dr. Williams' observations on a healthy man (placed under similar conditions to the consumptive patients), in whom the night temperatures did not fall materially below the day ones. The first stage exhibits a more gradual rise and fewer extremes of temperature than the third. In the third stage, the temperatures are the highest and the lowest; both afternoon pyrexia and nocturnal collapse being most strongly marked, the one having been known to rise to 104 deg. Fahr., the other to sink to 93 deg. Fahr., thus exhibiting a range of 11 degrees. The second stage shows intermediate thermal features between the first and third stages, active. Tubercle may form, and the various processes of lung-disorganisation may proceed uninterruptedly without apparently causing any considerable rise of temperature, and may even be accompanied by a subnormal temperature; this being probably due to the collapse influence on the constitution. Many of the variations in the phenomena are to be explained by the formation of pus, the liquefaction of adjoining tissues, the imprisonment of the purulent and caseous compounds, and their subsequent evacuation by expectoration. Phthisis has a distinct temperature course, marked, on account of these changes, by great intermissions; but the idea that in each case it depends on individual idiosyncrasy is founded on imperfect observation. In all cases, two principal agencies appear to determine the temperature course: first, an excessive action of the natural processes by which the body heat is maintained; secondly, the influence of collapse, proceeding from the well marked weakening of the constitutional powers in phthisis. These two agencies are continually struggling for the mastery, and the result of this conflict is the temperature course of the disease. The influence of the first is seen in the rise in the afternoon and evening well marked in the active forms of all three stages, and regularly recurring day after day for long periods; the influence of the second was shown in the rapid nocturnal fall and low temperatures of early morning; the collapse influence was also seen in the subnormal day temperatures, occasionally occurring in all stages of the disease, and even where the active processes of lung tuberculisation, of softening, and of excavation may be taking place. It is, however, chiefly noted in the quiescent forms of the first and third stages. When low temperatures accompany active forms of the disease, it is probable that the collapse influence is stronger than the pyrexial, and, therefore, masks it. When the chart shows occasional fitful variations, these agencies are, perhaps, evenly balanced, and may alternately prevail, as is witnessed in the end temperatures of consumption; and to these derivations, noticed in advanced cases, may be ascribed the prevailing, but erroneous opinion of phthisis having no definite temperature courses. The author concluded with a careful comparison of weights of the above patients, with their temperatures, and made some deductions therefrom.

Dr. WILSON FOX said that the profession must be much indebted to anyone who would take such trouble in the recording of temperatures as Dr. Williams had done. For some years, he had attempted the same thing; but he had not yet made an analysis of the results. The fact as to the morning and evening temperatures was generally known. What was wanted was, to know at what hours the temperature could be taken with the greatest accuracy. It appeared that the highest evening temperature was at 5 P.M.; but there seemed to be this difficulty, that on no two days at the same hour was the temperature alike. For instance, the temperature at 8 A.M.—the lowest—might be in successive days 97 deg., 98 deg., 99 deg., and 100 deg.; and, at 2 or 3 P.M., it might be 101 deg., 102 deg., or 103 deg. These facts must influence our ideas as to treatment; they must show that the use of therapeutic agents (excepting the cold bath) must be guided by the vitality of the patient rather than by the thermometer. Phthisis was one of the exhausting diseases; chronic suppuration was another. In a case of chronic suppuration following delivery, the extreme variation of temperature was 10 deg. He believed that Dr. Burdon Sanderson regarded great variations in temperature as indicative of suppurative fever. He thought that it was not the existence of pus, but the process of its formation, that led to pyrexia. The more inflammatory processes tending to destruction took place, the more frequent were the variations of temperature. There was, however, an exception to this in pneumonia. It was not yet possible to give the reasons for the variations in individual cases; but Dr. Fox believed that at some future day this would become possible.—Dr. DOUGLAS POWELL objected to Dr. Williams' view of the unity of phthisis in all its forms. He thought that a more useful classification could have been made than that into stages. Taking the first and second stages together, anyone who had studied the subject carefully, as Dr. Williams had done, must be struck with the different ways in which the disease commenced. When cases of all kinds were mixed, the mean results obtained were less valuable than they would be if a classification were made. The observations of Dr. Williams as to evening temperatures were of much value; the great fact, however, which had come out, was the great fall of temperature in the early morning hours; and this would probably be of much importance in treatment. This fall must be due, he thought, to exhaustion; it might, perhaps, be avoided by feeding the patient at night. He asked whether Dr. Williams had made any observations as to the effect of food in modifying the fall of temperature. It had been suggested that the best plan of preventing night-sweats was to feed the patients. The most striking facts were those observed in the third stage; it was towards the end of the disease that the physical signs merged into one kind. —Dr. DRYSDALE had observed, in the North London Hospital for Consumption at Hampstead, that, for a month or two at a time, almost every patient increased in weight, no matter what their temperature might be. He agreed very much with Dr. Williams in his objections to Niemeyer's doctrine of the varieties of phthisis. The only variety that he sometimes met with was one which he attributed to syphilis. He thought that, in miliary tuberculosis, the temperature would be high in proportion to the number of tubercles.—Dr. T. H. GREEN asked whether the pyrexia in the third stage was due to disintegration and softening, or to the presence of the first stage of the disease in some other part of the lung. He believed that the latter was the cause. He asked also whether the thermometer would indicate the occurrence of an infective process in phthisis.—Mr. HERBERT PAGE said that the curves of temperature in the first stage of phthisis resembled what was seen in surgical cases, where the occurrence of suppuration was marked by similar variations.—Dr. LEARED asked whether the observations on temperature would assist in the diagnosis of the stages of phthisis.—Dr. SYMES THOMPSON said that previous observers found that phthisical patients presented idiosyncrasies which rendered thermometric observations futile as regarded treatment. He thought that it had been proved that quinine was a powerful agent in keeping down a high elevation of temperature; but how far real good was done by preventing a rise of temperature, was another question.—Dr. CURNOW had taken the temperatures of several of Dr. Thompson's patients in the Brompton Hospital by day and by night. There was great difficulty in finding the averages, although the temperatures touched at certain parts of the day. In some cases complicated with diabetes, there was no rise of temperature. With regard to the influence of the formation of pus, similar fluctuations of temperature were observed in cases of softening of the brain after embolism. Hence, the formation of pus did not sufficiently explain the variations of temperature. The same was the case in separation of fibrin in the blood, leading to metastatic abscesses.—Dr. THEODORE WILLIAMS thanked the Society for the careful criticism which his paper had received, and for the suggestions given, which he would not fail to lay to heart in his future work. In reply to the various speakers, he stated that, though it was true that it had been known that morning temperatures were lower than evening in consumption, the exact temperature course, with its variations, was now depicted for the first time, with its remarkable afternoon rise, and still more striking nocturnal fall. As to irregularity of temperatures taken at the same hour, this was not more the case in phthisis than in health, where the observations varied considerably; but variations of this kind in phthisis were sometimes to be explained by a shifting of the whole temperature course by an hour or so. He was strongly of opinion that the chart of the third stage (active class) was typical of suppuration; and various speakers had strengthened this conclusion by adducing evidence from other suppurative diseases, medical and surgical. The low temperature of the early morning was due to exhaustion, and might possibly be avoided by feeding the patient through the night; but his observations on this point were not yet complete. Whether the local infective process in the lung from a caseous centre could be detected by temperature, he could not tell; but, in several instances where general infection of the system had taken place, it had been characterised by a chart resembling that of pyæmia. He was aware of his classification being rather too simple; but, the results of investigations on this point having been confirmatory of the unity of phthisis, he preferred a few distinct classes, with well marked features, to a number of small divisions hardly to be distinguished from each other. The thermometer might sometimes detect the formation of tubercle before physical signs did; but, on the other hand, tubercle might form without any rise or fall of temperature. The best hours for clinical records in phthisis were: for the low temperatures, from 3 to 6 A.M.; for the high, from 5 to 8 P.M. Dr. Theodore Williams felt much indebted to the Secretary for his admirable reading of a paper, which, abounding as it did in statistics, was difficult to render very palatable.

## EPIDEMIOLOGICAL SOCIETY OF LONDON.

WEDNESDAY, JANUARY 13th, 1875.

W. R. E. SMART, M.D., C.B., Inspector-General R.N., President, in the Chair.

*The Relations between Diphtheria and Scarlet Fever.*—By ARTHUR RANSOME, M.A., M.D. [The paper is printed in abstract at p. 172.] —Dr. SQUIRE fully concurred with Dr. Ransome in considering diphtheria and scarlet fever as specifically distinct; he had known diphtheria arise from scarlet fever, but had never seen diphtheria give rise to scarlet fever. Dr. Ransome had ably set forth the pathological distinctions: his observations on the disputed question of rash confirmed observations made by Fothergill and by the Spanish writers of an earlier time. The period for the occurrence of albuminuria in the two diseases marked an important difference. Agreeing with much in this paper, it might be permitted him to doubt if the etiological differences were quite as great as they were there assumed to be. He had known four deaths from diphtheria at an elevation of 1,000 feet, in North Wales; but, would not the infection of scarlet fever spread among the susceptible of any Alpine village, whatever the elevation, when conveyed thither, just as plague had done in years gone by? In diphtheria, it was important to disinfect cloths and handkerchiefs used by the sick, to guard against the conveyance of the disease by *fomites;* both it and scarlet fever might be disseminated by sewer-gas, and water might be the means of conveyance. The geographical differences were not quite ascertained. An old friend and fellow-student, the late Dr. Chuckerbutty, had satisfied himself of the identity of scarlatina in Calcutta and in London. Hot climates and seasons diminished some of the risks of scarlatina, without affecting the fatality of diphtheria. Scarlatina was not completely self-protective; some persons repeatedly had scarlatina sore-throats; and there were instances of a protective effect resulting from diphtheria. The persistence of the morbid process to six or eight weeks in diphtheria closely corresponded to what was often observed in scarlet fever; nor were the sequelæ altogether indefinite. We knew when, and in what order, to expect paralytic complications. Both diseases were frequently spread by convalescents six or eight weeks from their commencement, and in both an early separation of the healthy from the sick gives them security; if either disease had been contracted, it would show itself quickly, with this specific difference, that scarlet fever was seldom delayed beyond the third or fifth day, while diphtheria was not unfrequently eight days latent.—Dr. MURRAY remarked that scarlet fever in India was seldom severe, while diphtheria was often fatal. Dengue differed from scarlet fever, among other points, in this, that it caused no mortality.—Mr. LAWSON spoke as to the existence of both diphtheria and scarlet fever at the Cape. A caution was necessary in receiving the first accounts of any diseases in the colonies or abroad as proofs of their first appearance; they were often first reported only when attention had been drawn to them by their attracting notice at home.—Dr. SMART described the distinctive features of dengue; the suddenness of the attack and intensity of the feeling of illness contrasting strongly with the rapid convalescence in most cases; it certainly was not scarlet fever, and many of the Europeans seized with it must have previously had scarlet fever. He had never met with scarlet fever in hot climates. The dark races were not exempt from diphtheria; in the epidemic in the West Indies, which he had described in the *Transactions* of the Society, some of the most characteristic cases were among the blacks. Buenos Ayres had long ceased to merit its original designation; though well situated, and, doubtless, with good air once, yet, with increase of population and neglect of drainage, the sandy soil, on a bank of clay saturated with sewage, became the home of cholera, of fever, and, no doubt, of diphtheria also.

## MEDICAL SOCIETY OF LONDON.

MONDAY, JANUARY 11TH, 1875.

VICTOR DE MÉRIC, F.R.C.S., President, in the Chair.

*Malignant Tumour of the Leg: Amputation.*—Mr. HENRY SMITH related the particulars of a case of malignant tumour of the leg requiring amputation. The patient was a gentleman, aged 51, intensely gouty. Six months before Mr. Smith saw him, he had noticed a small swelling at the middle third of the front of the leg, which, though painless, slowly increased. A country practitioner saw it, and punctured it twice, when nothing but a little blood was evacuated. When seen by Mr. Smith, it was a soft somewhat flattened swelling, about the size of a medlar, situated over the front of the tibia just at the junction of the upper with the middle third; it was adherent to the skin. He at once pronounced it to be malignant, and recommended that an attempt should be made to remove it, and, if necessary, that amputation should be performed. Another surgeon who was consulted advised the same course, but recommended amputation through the knee-joint, to give the patient a better chance of non-recurrence. Mr. Smith amputated through the knee, sawing off the condyles. The patient did well. On examination, the tumour was found to be of a medullary kind, involving the bone extensively on its surface, and extending deeply down, but for a very limited space, into the medullary membrane. There were several inches of healthy bone between this point and the knee. Mr. Smith desired to obtain the opinion of the Fellows whether the better plan would have been to amputate through the continuity of healthy bone, or through the joint. Sir William Fergusson was assured, from his own large experience, that it was neither justifiable nor necessary to amputate beyond the bone when there was plenty of healthy tissue to cut through. Sir James Paget and others, on the contrary, held the opinion that there was much more chance of a recurrence of the disease if the bone involved were not entirely removed. This was a very serious point to settle, as amputation of the thigh in a man beyond the prime of life was fatal in 25 or 30 per cent. of the cases, whereas, in amputation below the knee, the mortality was reduced to at least one-half of this. With regard to the liability of recurrence of the disease being greater or less after each operation, there was, as far as he knew, no reliable information.—The PRESIDENT said that, if he were to be operated on himself, he would choose the greater operation, though the rate of mortality was higher in it, rather than the more serious danger of the disease not being eradicated by an insufficient operation.—Mr. MAUNDER remarked that his principle in these operations was, the tumour being local and the constitution not infected, to cut widely round the tumour, so as to insure its total removal. In a similar case to that of Mr. Smith, he cut through the knee-joint with the happiest results. The patient had an excellent stump, and there had been no return of the disease for three years.—Mr. BRYANT regretted that Mr. Smith had not given the vertical section of the bone, as then the exact extent of the disease could have been ascertained. He did not think it necessary in all cases to remove the whole of one organ when attacked with malignant disease; for, when the lower third of the tibia was diseased, it was not necessary to amputate at the knee-joint. He highly approved of Mr. Smith's operation at the knee in this case; but criticised his division of the condyles, as this at once produced section of the bone, and exposed the patient to the danger of pyæmia.—Mr. GANT cited several cases of similar operation which did well.—Mr. ROYES BELL gave an instance of a child similarly operated on, which recovered in a week.

*The Least Sacrifice of Parts as a Principle of Surgical Practice.*—Mr. BRYANT read a paper on the least sacrifice of parts, which, he maintained, ought to be a leading principle of surgical practice. He explained the principle as one that forbade the surgeon to sacrifice more of the body than the absolute necessities of the case demanded; that called upon him to remove the disease, but no more; that enabled him in accidental surgery to make a flap for an amputation wherever he could, and in some cases to make no flap at all, but to leave the case to nature to repair; and, in pathological surgery, to cut through tissues infiltrated with inflammatory deposits rather than go above a joint or take away more of a limb than the necessities of the case demanded. He condensed the subject into three main propositions, each of which he illustrated by cases. The first proposition was: "That, in case of division or accident, no more of the body is to be taken away than the necessities of the case demand". He illustrated this chiefly from the surgery of the foot. At first sight, the proposition might appear to be a truism; but he asked if it were not true that, in cases of disease of the metatarsal bones or joints, surgeons were not too apt to regard the individual case as a good one for Chopart's operation, or Pirogoff's, or Syme's, and to forget that a good recovery of the foot might ensue on removal of the diseased bone or bones without any amputation at all. In support of this, he quoted Mr. Lister (Holmes's *System of Surgery*, second edition, vol. v), who expressed his opinion "that Syme's amputation is calculated to supersede entirely that of Chopart's, besides taking the place of amputation of the leg in the majority of cases formerly supposed to demand it." He entirely dissented from these views; he believed that, for local disease alone, no form of amputation of the foot should be entertained until less severe measures had been employed and failed; that, when amputation of the foot was called for, the minimum amount of foot should be taken away; that, when a Chopart's operation would suffice, a Pirogoff's should not be thought of; that, when a Pirogoff's was applicable, a Syme's should not be entertained; and that an amputation of the whole foot was never to be undertaken when the disease could be removed by less severe measures. The remarks made were as applicable to other parts as to the foot. Fingers and thumbs were often removed in cases of injury that, if left to nature, might often be saved. Joints were excised that might be saved by free incisions, or by the removal of necrosed bone; and amputations were performed above a joint or high up a limb in order that good flaps might be made. He illustrated all these points by cases, quoting seven cases of disease of the different tarsal bones, cured by the removal of the diseased bone; and three of extensive disease treated respectively by Chopart's and Syme's amputations, or by amputation of the leg. In disease of the bones of the foot, he had met with a case in which the resection of a tarsal bone was called for; for bone that was not dead was reparable, and to take this away was too often to take away that which, if left, would make good the parts that had died. The author then proceeded to illustrate the value of the proposition by the treatment of cases of diseased joint, and dwelt for some time upon the value of free incisions into suppurating joints. He referred to thirteen cases successfully treated by this method; and stated his belief that a free cut into a disorganised articulation was rarely followed by any other than a good result; that, when the suppurative process was due to synovial disease, a recovery without further surgical interference might be looked for; when it was due to local necrosis, the incision helped nature towards recovery by expediting exfoliation and the subsequent removal of the bone by either natural processes or some surgical proceeding. In more severe cases, the incisions gave relief, and in no way added to the mischief. The treatment of disease of the joints due to local necrosis was then considered, and a series of ten cases was read, including examples of disease of the shoulder, elbow, hip, knee, and ankle joints, in which recovery followed the removal of dead bone from the articulations. The second proposition was: "That, to carry out this principle, the surgeon may, in pathological amputations, fearlessly divide tissues infiltrated with organised inflammatory products, and even cut through the walls of suppurating cavities or through diseased joints, more particularly to save amputating above a joint." Mr. Bryant illustrated this proposition by the particulars of ten cases, in all of which recovery took place. The third proposition was: "That, in accidental surgery, parts irreparably injured are alone to be removed, and no healthy tissues are to be sacrificed in order to perform a recognised, and probably a named, operation; that, to these ends, the surgeon ought to utilise even doubtfully useful integument, or even leave a stump to granulate, when, by so doing, some portion of the shaft of a bone can be left, a joint saved, or amputation above a joint avoided." In the surgery of the hand, this practice was strongly advised, more particularly the injuries of the thumb. Amputation of a thumb, unless smashed irreparably, the author condemned; and, under all circumstances, the irreparably injured parts ought alone to be taken away, and doubtfully viable skin left. Cases were quoted to illustrate the proposition: ten of the toes; one of the foot; a Chopart's amputation, in which a long anterior flap was made; one of crushed arm, which was left to nature to granulate, and a good stump left; two of crushed legs, in which a rapid recovery followed amputation at the knee-joint; and one of ruptured popliteal artery, treated in the same way with success. The author concluded by stating that he could still further illustrate the value of the principle "of the least sacrifice of parts", pointing out how Sir W. Fergusson had always urged the removal of tumours of the jaw from within, and Sir J. Paget tumours of bone generally by enucleation.—The PRESIDENT said that attempting to save parts often failed. He would like to know what dressings were used.—Mr. ADAMS remarked that the author's cases involved the great principles of conservative surgery. He briefly reviewed the fall of amputation and the rise of conservative surgery under the hands of Brodie, Syme, Fergusson, and others. Excision was first advocated; but now it appeared that Mr. Bryant advocated simple incision into the joint, and he believed Mr. Gay was the first to carry out this practice.—Mr. H. SMITH said that Mr. Bryant's views were by no means new. He had learnt the practice of incising joints that were suppurating many years ago from Mr. Gay. It was a mode of proceeding which he highly approved.—Mr. BRYANT said he did not lay any claim to novelty, but advocated the great principle of conservative surgery. The dressing he used was dry lint enveloped in cotton-wool, not with a view of excluding germs, but of keeping up an equable temperature.

## GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

TUESDAY, JANUARY 12TH, 1875.

JOSEPH COATS, M.D., Vice-President, in the Chair.

*Cerebral Tumours in a Horse.*—Dr. KNOX showed the brain of a horse, from a case of double amaurosis. A diagnosis of tumour in the choroid plexus had been made by a veterinary surgeon in Dublin, but the history of the case was imperfect. The lesions were a sarcomatous enlargement of the pituitary body, and sarcomatous tumours on both choroid plexuses. The pituitary body was of the shape of a ball, measuring one inch in diameter. It had exerted considerable pressure upwards on the third ventricle, optic tracts, and commissure, and outwards on the carotid arteries and venous sinuses; it thus was, without doubt, the chief cause of the symptoms observed in life. On section, it was found somewhat irregularly lobed, with loose connective tissue between the lobes; the substance of the lobes was brittle and somewhat grey; ecchymosis had taken place to a considerable extent in some of them. The enlargement was found to be due to a hyperplasia of the normal gland-tissue; the cells, however, were larger, and contained one or more large nuclei; they were either single or in groups, enclosed in the meshes of the connective tissue, which existed in marked abundance. The tumours on the choroid plexuses were small and oval; the right rather larger than a bean, the left rather smaller. These consisted almost entirely of small angular masses of cholesterine (resembling miniature gall-stones) imbedded in loose connective tissue. The outer part of the tumours were firm, and consisted of adenoid tissue similar to that found in the pituitary body. The tumours were thus lympho-sarcomata; and Dr. Knox was inclined to believe that they were of constitutional origin—probably connected with disease of the lymphatic system. In support of this view, he referred to a case reported by Professor Williams of Edinburgh (*Vet. Med.*, p. 424), in which similar tumours appeared "after recovery from an attack of farcy affecting the cervical and facial absorbents".—Dr. LEISHMAN wished to know what symptoms had afforded ground for the diagnosis of tumour in the choroid plexus, as these might have a value in the human subject.—Dr. JOSEPH COATS said that, in his experience, small growths on the choroid plexus were of comparatively frequent occurrence in the human brain. These growths were mostly either cysts or psammomata, and appeared to produce no symptoms whatever, even when they reached as large a size as the larger of those in Dr. Knox's case. He felt inclined to consider these tumours in that case as simple coincidences.—Dr. ALEXANDER ROBERTSON agreed that such growths in the choroid plexus were very frequent in the human brain in all sorts of cases.—Dr. KNOX said the history was very imperfect; but he presumed the surgeon had diagnosed the choroid plexus as the seat of the tumour, simply on account of their frequency in this situation, and their extreme rarity anywhere else. Such tumours frequently existed in the brain of the horse, also apart from any symptoms.

*Improved Elastic Tourniquet.*—Dr. DAVID FOULIS showed an instrument he had devised, which was now made and kept by Hilliard. It supplied a want felt in applying Esmarch's elastic band, namely, a simple and efficient means of fastening the band at any point. It consists of two connected metal tubes: one to hold the band, the other to catch it at any degree of tension. To apply it, the band is stretched across the limb, the catch being in the middle; the ends are then passed under and around the limb, and brought up and slipped into the slit of the upper tube, while on the stretch. The expansion of the India-rubber, on relaxation, fixes the ends firmly in the catch. To remove the pressure, the ends are stretched, and, while thus narrowed, are lifted out of the slit. Dr. Foulis showed various applications of this tourniquet on a patient (for amputation at the shoulder-joint, upper part of the thigh, etc.) He said that the elastic tourniquet prevented bleeding from the veins, as well as the arteries, without any previous bandaging of the limb being required, provided the limb were elevated for a short time before its application, so as to remove engorgement; the veins were thus converted into tubes closed at the upper end. He also said this catch allowed a relaxation of the pressure to be made gradually, so as to guide the surgeon in the tying of the smaller arteries cut at an amputation; by putting one of the turns on loosely and the other more tightly, the latter could be removed at the desire of the surgeon in the picking up of the arteries. There had, however, been no opportunity as yet of testing the instrument in actual operation.—Various members tested the efficiency of the catch, and expressed their satisfaction with its simplicity and freedom from slipping.—Dr. ALEXANDER PATTERSON thought such a portable tourniquet, so efficiently and so easily and rapidly applied, would form a valuable instrument for military practice on the field.

*Neuroma: Microscopic Characters.*—Dr. ALEXANDER PATTERSON showed a small oblong tumour removed by operation from the median nerve, in the upper arm. The man had suffered from paralysis of the left forearm for eight years, and the growth was supposed to have been due to an injury. In removing it, the tumour was found quite distinct from the surrounding tissues, with the exception of the nerve which ran into it.—Dr. THOMAS REID exhibited sections of this tumour under the microscope. He said that, on making a longitudinal section, traces of the original fasciculi of the nerve-substance were observed by the naked eye running through the centre of the tumour. This consisted of a soft slightly elastic tissue, with a tendency to nodulation at the surface. The microscopic sections through the central part showed traces of the fasciculi of nerve-fibres, principally at the smaller extremity of the tumour, which seemed the most recent portion. The interspaces of this reticulation were occupied by loose connective tissue, containing abundance of small round cells. At the other extremity of the tumour, the nervous tissue appeared to be entirely replaced by these cells. The general substance of the neuroma was made up of these cells retained in a fine stroma. From the large size of the arteries imbedded in the tumour, it must have contained much blood during life, and Dr. Patterson informed him it was considerably larger than the specimen as now exhibited. The tumour, although probably of traumatic origin, was evidently not composed of simple granulation-tissue, as chromic acid did not act on it as it would have acted on such tissue; the cells, moreover, were smaller than usual granulation-cells, slightly oval and highly refracting, and resembled the ordinary granules of the neuroglia in size and shape. He thought the tumour was to be classified as a sarcoma or gliosarcoma.—Dr. JOSEPH COATS regarded the case as one of false neuroma. The tumour was not composed essentially of nerve-fibres, as in certain true neuromata which he had seen; the history suggested an inflammatory origin, but he was not prepared at once to classify it exactly.

*Morbid Specimens.*—Dr. ALEXANDER PATTERSON showed a preparation from a fatal case of extravasation of urine. There was stricture of the urethra; and an impacted stone just behind it.—Dr. HECTOR C. CAMERON showed some urinary calculi.

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## MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

WEDNESDAY, JANUARY 6TH, 1875.

RUTHERFORD HALDANE, M.D., President, in the Chair.

*Exhibition of Patients, Specimens, etc.*—Mr. ANNANDALE showed:—1. A little boy, on whom he had operated for Traumatic Arterio-venous Aneurism of the Popliteal Artery and Vein. He had cut down on and tied both vessels, with good result. 2. A man, whose Tongue he had removed for Epithelial Cancer. He had divided the jaw at the symphysis, and then split the organ, removing each half separately by means of the *écraseur*. 3. A lad, who had sustained a Fracture through both Rami of the Lower Jaw. As the fragments could not be kept together by any ordinary means, he had made an external incision over the fracture on both sides, drilled the fragments, and brought them together. The patient could masticate, and the deformity was not great. 4. A Goître, which he had removed by Dr. P. H. Watson's operation without much hæmorrhage, though it was partially adherent to the trachea. The patient unfortunately died of secondary hæmorrhage on the night of the operation, as he would have it done in the country. 5. A preparation of Osseous Ankylosis of the Knee and Ankle-joint.

Mr. JOSEPH BELL showed preparations of Gurjun Oil in its purity, as an emulsion and as an ointment, in which forms it is used and recommended by Dr. Dougall, of the Convict Prison in the Andaman Islands, as a mode of treatment for leprosy, which, in his hands, has proved most successful. Mr. Bell gave some details as to the preparation and use of the drug, and of the excellent results which Dr. Dougall has obtained.

Dr. MCKENDRICK showed a set of Electro-Physiological Apparatus made for him by Mr. Hart, instrument-maker, Edinburgh. It included: 1. Various kinds of clamp-forceps; 2. Polarisable electrodes; 3. Non-polarisable electrodes; 4. Various kinds of keys; 5. An electromotor; 6. Heidenhain's tetanometer; 7. Commutators; 8. Pflüger's hammer; 9. A new kind of electrode for experiments on the rapidity of the nerve-current.

Dr. CADELL showed a wax cast of a penis, with an uncommon form of Primary Syphilitic Lesion—*induration only, without any ulceration of the skin.* There was slight desquamation of the cuticle from the most prominent part of the induration. The resulting secondary symptoms were mild.

*Bloodless Surgery.*—Mr. CHIENE read a paper on this subject. It consisted of a review of Esmarch's method of operating after elastic compression of the limb, and with an elastic cord instead of a tourniquet. Mr. Chiene discussed the advantages and disadvantages of each of these plans. The gist of his remarks was, that the elastic compression was inapplicable and dangerous in many cases, from its driving back into the circulation cancer or putrid fluids; that it was too perfect, as it emptied even his smaller capillaries, and thus prevented the formation of a proper coagulum in the larger vessels. He much preferred a method which has for years been in use in the Edinburgh Infirmary, and which he believed was introduced by Mr. Lister, namely, to elevate and bandage with a common roller the limb to be removed. He also much preferred the ordinary tourniquet to Esmarch's elastic one, because the latter cannot be slacked off gradually, but must be removed entirely, so that much blood may be lost in tying the vessels.—Mr. JOSEPH BELL agreed in many of Mr. Chiene's theoretical objections to Esmarch's method. He had given it a very full trial, and believed that, while it was easily managed with good assistants in hospital practice, the old-fashioned tourniquet was much more suitable for cases in private, especially in the country, where few skilled assistants were to be had. He liked Esmarch's method much in cases of necrosis or excision of joints such as the wrist-joint, which demand careful dissection, and in which the wound could be plugged, and thus all bleeding stopped before the elastic cord was removed. He also thought it of great advantage in all cases in which needles, splinters, bullets, etc., had to be sought for, as it entirely removed any bleeding, and also rendered the parts partly anæsthetic.—Mr. BLACK stated that in Aberdeen Dr. Keith used to bandage the limb of old people before amputation, and have them elevated, so as to empty them of blood, and thus save it to the system. He saw Esmarch's method lately in St. George's Hospital, but there they used the old-fashioned tourniquet, instead of the elastic ring.—Mr. ANNANDALE had not used Esmarch's method, and did not intend to do so.

*Hydronephrosis.*—Dr. COGHILL read an account of a case of hydronephrosis of the right kidney in a lady, aged 30. It had resisted all remedies; but, after a single tapping by an exploring needle, which let out four pints six ounces and a half of straw-coloured fluid, the patient recovered. He alluded to the rarity of the disease, and gave references to other cases.—The PRESIDENT expressed his interest in this case.

*Jaborandi.*—Dr. CRAIG read a short communication on the properties and botanical characters of the new sialogogue jaborandi. He described the difficulty he had met with in obtaining any; and detailed the symptoms he had observed on himself after taking the only dose of the drug he could procure. He took less than a drachm of the drug infused in hot water for two hours. In twenty minutes after it was swallowed, salivation commenced, and in a few minutes the mouth was literally flowing with water. Simultaneously, a perspiration appeared on the forehead and over the whole body. This continued for four hours. The temperature of the patient remained normal; that of the room being 54 to 56 deg. Fahr. The drug appeared to act by direct stimulation of the sweat and salivary glands; and it appeared to be a sialogogue of extraordinary power.

## PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, JANUARY 23RD, 1875.

HENRY KENNEDY, M.B., and subsequently Sir D. J. CORRIGAN, Bart., Vice-President, in the Chair.

*Pendulous Tumour of Mamma.*—Dr. MACSWINEY exhibited a curious tumour removed from the breast of a woman, aged 50. Six years ago, at the time of the menopause, a "wart" appeared near the centre of the right breast. For a long time, the growth gave no trouble, but ultimately the skin over it became abraded, and exuded a viscid serous fluid. Mr. Kane, Surgeon to Jervis Street Hospital, finally removed the tumour at Dr. MacSwiney's request. The pedicle was six inches in length, and sprang from the areola, close to the nipple. Dr. MacSwiney considered that it arose from hypertrophy of the sebaceous follicles of the part. He referred to Mr. O'Ferrall's paper on Pendulous Tumours, in the *Dublin Quarterly Journal of Medical Science* (vol. iv, 1847, p. 305 *seq.*), in which that gentleman described a precisely similar case.

*Cholesterin in the Eyeball.*—Mr. H. WILSON showed an eye removed from a child, aged 2½, in whom a brilliant golden yellow reflection from the eye gave rise to a suspicion of glioma, or of non-pigmented sarcoma of the choroid. The ophthalmoscope revealed a tumour which pressed from behind forwards, encroaching on the optic nerve and lens. The retinal superficies was healthy. The eyeball was removed, and cholesterin was found behind the retina, a collection of fluid between the choroid and retina being filled with cholesterin plates.

*Intracranial Hæmorrhage.*—Dr. E. H. BENNETT presented the calvarium of a young man, aged 19, who had been struck on the head with a beam. He fell senseless, but quickly rallied after vomiting. In about two hours, he again sank into unconsciousness, hemiplegia occurred, and he died seven hours and a half after the receipt of the injury. A fracture ran downwards from the coronal suture, through the temporal fossa, to be lost in the zygomatic fossa. The dura mater was extensively detached from the bone, and an immense clot of blood filled the intervening space. The source of the hæmorrhage was the meningeal artery, which was torn through two-thirds of its circumference. The separation of the dura mater had evidently permitted the great hæmorrhage, which in turn induced fatal compression of the brain.

*Fatty Degeneration of Heart.*—Dr. H. KENNEDY showed a specimen from the body of a woman, aged 80, who had presented the phenomenon of "Cheyne-Stokes's respiration", with a pulse of 66, but without any abnormal cardiac sound. On this last point, Dr. Kennedy laid particular stress, as valvular degenerescence, in his opinion, by no means frequently accompanied general fatty degeneration of the heart. In the present case, the right side of the organ was almost entirely fatty.

*Fatal Obstruction of the Intestines.*—Dr. J. K. BARTON showed the intestines of an old man, who suffered from constipation for four weeks. When admitted to hospital, his belly was much distended, yet there was but little tenderness on pressure. The pulse was quick and weak. The right side of the abdomen was dull on percussion. After a calomel purge, fluid fæces escaped freely, but no solid matter passed. Vomiting set in, and finally Dr. Barton punctured the intestine with a small trocar and cannula. No great relief followed, and colotomy was performed on the right side. The patient was at once relieved, but sank from shock after a few hours. Extensive peritonitis was found, and an obstruction existed at the junction of the ascending and transverse colon. A constriction extended for three inches in this situation, and the pyloric orifice of the stomach was also surrounded by the same hard and rigid fibrous material, which had evidently been developed in the submucous connective tissue. Microscopically examined, the mass was proved to be of lymphy origin.

*Rupture of Posterior Part of Liver by Force applied anteriorly.*—Mr. JOHN HAMILTON laid on the table the liver of a boy, aged 9, on whom a wall had fallen. He was taken into hospital collapsed, but without any external mark of injury, excepting a cut on the chin. He rapidly died. All the viscera were uninjured except the liver, which had been extensively lacerated. The Spigelian lobe was torn away; the surface of the organ was bruised; in the lobulus quadratus there was a deep rent; there was an abrasion on the right posterior aspect, and close by a deep rent almost divided the liver into two parts. Twenty-six ounces of blood lay in the peritoneal cavity. It was clear that the force applied anteriorly had not been resisted by the soft parietes and yielding liver; hence the absence of injuries in front. But the hard spine had acted as a counter-force, and so had torn the posterior surface of the liver when violently dashed against it.

## MANCHESTER MEDICAL SOCIETY.

DECEMBER 2ND, 1874.

JOHN GALT, F.R.C.S.Eng., in the Chair.

*Molluscum Fibrosum.*—Dr. LEECH showed a specimen of molluscum fibrosum, occurring in a mother and daughter. The face and neck were the parts principally affected. Both patients were attacked at or about the same age. Dr. Leech had examined microscopically some of the small growths, and found them to consist of hypertrophied connective tissue.

*Treatment of Nævus.*—Mr. CULLINGWORTH exhibited two patients, illustrating the treatment of nævus by Dr. Geiger's method.

*Chronic Albuminuria.*—Mr. JONES exhibited the kidneys from a case of chronic albuminuria. Besides general anasarca and ascites, the patient had double hydrothorax, hydropericardium, and right pneumonia. The right kidney weighed six ounces, and the left three ounces. Both organs were lobulated and extremely anæmic, and the left was only about half the size of the right. The great difficulty in this line seemed to be, to determine whether the organs were originally of different size, or whether the smaller one had undergone contraction.

*Diseased Liver and Ascites.*—Dr. W. ROBERTS exhibited the liver from a patient who died with ascites. The history of the case was briefly as follows. E. M., aged 19, was admitted into the Manchester Royal Infirmary, on September 18th, for the second time. The abdomen was enormously distended with fluid. The superficial veins were very prominent; there was no swelling of the legs. The liver could not be felt. The urine was normal. Paracentesis abdominis was performed, and twenty-five pints were evacuated. She had been tapped twice during her previous stay in the infirmary, and forty-five pints of clear straw-coloured fluid drawn off. After the last tapping, peritonitis set in; and she died three days after the operation. The liver weighed thirty ounces. Its surface was smooth; the capsule was thickened and adherent to the diaphragm and abdominal parietes. The organ was anæmic; and the lobules were very distinctly mapped out and surrounded by thickened connective tissue. The spleen was much enlarged, firm, and weighed twenty-seven ounces. There were old cellular adhesions on the right side of the chest, more especially at the base. The intestines had a sodden appearance, and were matted together by recent lymph. Dr. Roberts explained the atrophy of the liver by extension of inflammation that had existed in the right pleura through the diaphragm to the corpuscle of the liver, and thence invaded the connective tissue of the organ itself. In confirmation of this view, he related a case mentioned by Dr. Murchison in his work on the liver.

*Avulsion of the Scalp.*—Mr. BOUTFLOWER again showed a case in which the entire scalp had been torn off by machinery; and in which the skin had been successfully reproduced by means of transplantation.

*Capsulated Scirrhus of the Breast.*—Mr. CULLINGWORTH read a short paper on a case of capsulated scirrhus of the breast. A cordial vote of thanks to the reader of the paper brought the meeting to a close.

# SELECTIONS FROM JOURNALS.

## THERAPEUTICS.

Infusion of Myrtle as a Remedy for Leucorrhœa.—M. Delioux de Savignac believes that myrtle, which contains both essential oil and tannin, is well indicated for leucorrhœa. As myrtle-flowers only contain the essential oil, whilst the berries and the leaves contain both essential oil and tannin, he recommends the employment of the latter. He uses them as an infusion, pouring a *litre* of boiling water on ten *grammes* of the leaves or berries. If a very powerful astringent action be required, from twenty to thirty *grammes* of the material must be used. The infusion, when used, must be cold or slightly warmed, copiously employed to the quantity of four or five pints, and should be carried up as high as possible.

Treatment of Pertussis by Inhalation.—Dr. J. Winthrop Spooner, in the *Boston Medical and Surgical Journal*, Nov. 5th, 1874, details the results of his experience in eleven cases of whooping-cough treated by the plan recommended by Dr. John J. Caldwell of Baltimore in the number of that journal for April 20th, 1871; viz.: ℞ Fluid-ext. belladonnæ ♏v ad x; potass. bromidi ℈j; ammon. bromidi ℈ij; aquæ ℥ij. Inhale one tablespoonful in an ordinary steam-atomiser. Dr. Spooner uses a tablespoonful of this mixture, and fills up the glass of the atomiser with water. When the disease is at all severe, he uses the atomiser twice daily until the urgency of the symptoms is relieved, and then continues it once daily until the cough has entirely disappeared. In some cases, he has somewhat varied the proportion of the ingredients, but has made no essential departure from the formula given. The effect of the method shows itself immediately; and, besides the prompt relief of the distressing symptoms, the period of the disease itself is much lessened in the majority of cases. In only one of the eleven cases was any other treatment than that by inhalation used; and the apparent failure in this case seemed to be due to the difficulty in administering the remedy thoroughly, on account of the age of the child—only two years old.

Quinine as a Prophylactic against Erysipelas.—Dr. Y. R. Le Monnier, Visiting Surgeon of the Charity Hospital, New Orleans, in the *New Orleans Medical and Surgical Journal*, November 1874, considers quinine, until otherwise proved, as a preventative of the erysipelas which often follows wounds. "When the disease is epidemic", says Dr. Gross, "it often shows itself within a very short time after the receipt of an injury, however slight". In Dr. Le Monnier's ward, the disease raged for five months, during which time he dared not operate, unless in cases of immediate necessity. In one case, a patient was operated upon for fistula of the anus on April 19th, and on the morning of the 21st, he had erysipelas at the seat of injury. He had to operate on another patient for fistula of the nates on the same day, and there were three cases of the exanthem in adjoining beds. He then prescribed quinine as a prophylactic for the first time (two grains every two hours; afterwards three times daily). The patient was in the infected ward for seventeen days, his wound progressed satisfactorily, and he was discharged cured without having had erysipelas. Dr. Le Monnier continues: "From this day I gave quinine in two-grain doses three times daily to all the patients upon whom I operated, and have not had any new cases among them. One patient to whom I did not give it, not thinking it necessary, was taken sick with the disease [erysipelas of the anus] May 1st, 1874", subsequently to manipulations for gradual dilatation of a stricture of the rectum.

## MEDICINE.

Suppression of Urine.—The following cases of prolonged suppression of urine are given in the *Transactions* of the Maine Medical Association, 1874, as having been reported at one of its meetings. Dr. P. C. Wiley of Bethel reported a case of entire suppression of urine for thirty-seven days, with recovery. Dr. B. F. Buxton of Warren reported the case of a woman, thirty years of age, very fat, and subject to a mild form of eclampsia of an epileptiform character. When seen, she had violent pain, which, she said, was nearly as severe as labour. She had passed no urine for twenty-four hours. He introduced a catheter, but found no urine in the bladder. He gave her diaphoretics and opiates. He saw her the next day, and still she had passed no urine. On the ninth day, Dr. Estabrook saw her with him, and they both expected a fatal result. At the end of ten and a-half days, she passed a large quantity of urine from the bladder, which seemed normal in quality. From that time, she made a good convalescence. During all this time, there was no symptom of blood-poisoning, and no vicarious action of any other organs; there was no urinous smell; her bowels were constipated, and the skin was flushed. Dr. A. S. Thayer of Portland reported the following case. A child had scarlatina, which ran its usual course for three weeks, when there was suppression of urine. She passed about one drachm the following night. There was considerable anasarca; she was nervous and sleepless, and the stomach was irritable, but there were no convulsions. At the end of exactly one week, she passed about an ounce of urine, and made a good convalescence. Dr. G. F. French of Portland reported a case of a girl, eighteen or nineteen years of age, very hysterical, in which there was complete suppression for seven or eight days, and then but a small amount was passed. This was repeated at three different times at varying intervals. She also abstained from food for three weeks.

Peritonitis with Purulent Effusion: Tapping: Recovery.—Dr. A. J. Fuller of Bath, United States, reports the following case (*Transactions* of the Maine Medical Association, 1874). Mrs. S., aged 28, previously healthy, was attacked on the night of May 12th, 1872, after walking some distance exposed to cold night air; all the usual symptoms of peritonitis were present, high fever, tenderness and swelling of the abdomen, with constipation. Dr. Fuller saw her on the 13th, and pursued an active antiphlogistic treatment, combined with alteratives and sedatives. On the 19th, she was so far recovered that he discontinued his visits. On May 24th, he found the abdomen largely distended; no pain or tendernesss; she felt quite well. There was fluctuation over the whole abdomen, having all the appearance of serous effusion. The distention had been very rapid, without any perceptible constitutional disturbance. Such remedies as were indicated were employed, without the least improvement. There was no perceptible change for six weeks; then some slight chills, with prostration, appeared. Feeling that further delay would be detrimental, Dr. Fuller operated July 16th, and, on withdrawing the trocar, it was followed by a full stream of six quarts of pure pus. The wound was dressed with cotton-wadding, secured by adhesive straps. In the following three weeks, Dr. Fuller drew five quarts more of pus at different times—the original wound never healing until all was removed. This large drain rendered the patient somewhat anæmic, with loss of strength. With tonics and generous diet she soon began to recover, and seemed to fully regain her health. The interesting point is, that so large a collection of pus should form suddenly with so little constitutional disturbance.

## SURGERY.

Tarlatan as a Bandage and Dressing for Wounds.—Dr. A. B. Cook of Louisville, in speaking of the value of this material (*American Medical Weekly*, Dec. 26th, 1874) in the treatment of wounds, says that its advantages are, that it is "cheap, light, transparent, cool, and comfortable; it is so open in texture, that it secures the daily inspection of the wound or diseased structure, without the necessity of removing the dressing or disturbing the patient — two things much dreaded by the sick. It does not interfere in the least with the local application of poultices, water, or medicated lotions; it gives free exit to pus and other exudates; sinuses and abscesses can be injected by passing the nozzle of a syringe through the meshes; the wounds or diseased parts can always be cleansed, and, if necessary, deodorised, by passing a moist sponge lightly over the bandage. The bandage must be cut of the required length with scissors."

Treatment of Cancer by Arsenical Paste.—Dr. Daniel Lewis of New York contributes to the *American Practitioner* (December, 1874) the results of ten unpublished cases of cancer treated by Marsden's arsenical paste, viz.: ℞ Arsenious acid, ʒij; mucilage of gum acacia, ʒj. Mix into a paste too thick to run. Of three cases treated by Dr. Crandall, Andover, New York, one patient, a male, aged 69, "lived two years without recurrence (of the epithelioma of two years' standing below the left ear), when he died of some cardiac affection"; the second patient, aged 50, with epithelioma on the right cheek, still remains well after five years; and the third, a male, aged 62, with medullary cancer of the vertex, continues well after two years. Dr. Lewis reports seven cases treated in the same way by himself, with uniformly satisfactory results; and two cases by Dr. Fordyce Barker, one without recurrence after four years, and the other with recurrence after one year, when the knife was used, but with what result is not known.

## BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1875.

SUBSCRIPTIONS to the Association for 1875 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

# BRITISH MEDICAL JOURNAL.

SATURDAY, FEBRUARY 6TH, 1875.

## MEDICAL ADVERTISING.

MR. JAMES LANE's address, of which we recently published an abstract, is, we hope, likely to give rise to some further consequences. The remarks which he made on medical advertising are repetitions of similar observations which have been many times made with more or less force and clearness, and with more or less authority. The most important official utterance was that of the London College of Surgeons. This College some time since passed a resolution condemning the practice, and the College of Physicians endorsed it.

The general result of all that has been done and said cannot at this moment be highly estimated. There is, as far as we see, an unanimous assent that medical advertising, as now carried on in the daily papers, is an evil; and that the cat should be belled. But who is to bell the cat? The College of Surgeons disapprove; but their disapproval is in a vague general form, which does not materially touch the conscience of any individual, and has not had the least effect. The leaders of the profession disapprove; but the names of Sir W. Jenner, Sir H. Thompson, Dr. Barnes, and others, were advertised lately, without their knowledge, across three columns of the back page of the *Pall Mall Gazette*, by a medical newspaper which has been particularly energetic in denouncing medical advertising (at the same time that it has practised it at all the railway book-stalls). A well known medical publisher of high repute followed the example; and, a few days afterwards, the back page of the same evening paper was ornamented by other names of medical men and the subjects of their writing, printed across three columns. What the *Lancet* had done, Mr. Macmillan might repeat; and the names of Dr. T. L. Brunton, Dr. George Johnson, Dr. Roberts, Dr. Broadbent, Dr. Basham, Mr. Power, and Mr. Brudenell Carter, were presently brought into the same public prominence and in the same place as those of Sir William Jenner and Sir Henry Thompson. If we mention names in thus describing an example of medical advertising, it is because we think that it is only by living examples that the dead words of a vague resolution can be galvanised into life. They import no element of unpleasant personality; for we are not aiming at distributing critical censure, but only at holding a mirror up to existing facts, and placing realised facts in contrast with ideal resolutions. No journal has been stronger in denouncing medical advertising than the one we mention, which even went so far as to blame a London physician by name for allowing copies of his works to lie upon the table of his waiting-room. Nevertheless, it avails itself of placards and railway-bills to announce to gaping railway-passengers the names of medical men who deal with all sorts of subjects which are to the multitude *caviare*, and to the laity unclean. The names we have quoted are those of distinguished men; yet we find them, owing to the act of the oldest medical journal, and of the most respectable of publishers, figuring prominently in a half-page advertisement across the back of a leading evening paper.

We are obliged to conclude that vague resolutions as to "excessive" advertising are without evident force or definite meaning. It is difficult to say how professional advertising, as such, could be carried to a greater extent than in big capitals across the back page of a daily paper. It used to be said, that "excessive" advertising means the advertising which a man did for himself; and "legitimate" advertising means the advertising which somebody else did for him. Thus, if a medical work were advertised only in "the publishers' column" of the *Times* and *Daily News*, or in the periodical column of a medical publisher in the political and literary papers, that would be a "legitimate" advertisement; if the author himself "took the advertising of his book in his own hands, and if it appeared, therefore, in other parts of the paper, such as what is sometimes fairly enough called 'the quack's corner', or alone anywhere", that would be excessive advertising. Such a classification is very faintly plausible regarded at the first blush. A moment's examination, however, disposes even of its plausibility. There is no reason why a medical author should allow his publisher to select the places and prices of advertisement; that may easily mean, that he pays twenty per cent. more than he need to pay for all his advertisements, and that many of them appear in places where it is to the publisher's rather than to the author's interest that they should appear. Some of the most distinguished of our medical authors choose to retain their copyrights, and to manage their advertising for themselves. Their advertisements in the daily papers will then appear out of the regulation column. This, therefore, is a classification of advertisements which will not bear a moment's inspection. Moreover, in both the cases to which we refer by way of example, as being the most recent and striking which have come under our notice, the advertising is done on the authority of a medical publisher or medical editor.

Now, here are two questions left for decision which are pretty sharply defined, and which it may not be inopportune to attempt to obtain solution. Are Sir William Jenner, Sir Henry Thompson, and Dr. Lauder Brunton, and the other gentlemen whose names we mention, disposed to approve and vindicate the advertisements in which their names appear? If they are, it would be desirable to know it, and we should attach great weight to their opinion even while differing from it. In that case, the resolution of the College of Surgeons, which was, we rather think, endorsed by the College of Physicians, will go for very little, and the observations of Mr. James Lane must be accepted under special interpretation. The discussion will be then left where it began, before any *obiter dicta* had been pronounced.

Do they disapprove of it? We are disposed to hope that they will inform our readers that they disapprove of these advertisements. We reach, then, a further point. It will then become evident, that neither the experience of the most ancient and loudly protesting medical paper, or the judgment of the most eminent of publishers, can be trusted to define propriety in advertising medical contributions and medical works in daily papers. Still less, as we all know, can we trust the taste and self-restraint of individual authors of various degrees. The standard is gradually lowered by fine degrees, until, at last, it falls very low indeed.

The final conclusion is not hard. It is no less than this: that, in medical advertising, British medical authors and publishers must conform to the rule which is current in France (we believe, indeed, everywhere in Europe) and in America. This may be severe, but it cannot be intolerable; since it is the rule of propriety universal amongst medical men in every other civilised country in Europe. The physician, the surgeon, the general practitioner, who, in France or in America, should advertise, or allow to be advertised, his medical works in a political paper, or in any other than a medical paper, would at once indicate that he resigned his pretensions to professional respect, and that he accepted professional ostracism.

Is it not, indeed, without meaning that books addressed only to technically educated men — books unintelligible, and, if unintelligible, therefore offensive to the eyes of ordinary people—should be announced at the breakfast-table?—that the young lady who looks for the last new novel, or the latest announcements in music and literature, must perforce read of "the diseases of the genital organs", "the pathology of the testicle", the "painless cure of gonorrhœa", the means of fecundation, and the cure of sterility? There are certain medical authors who avowedly address books, for good and useful reasons, to non-medical readers; those will, of course, take their place, as before, among avowedly popular books. We are not speaking of these, but of purely medical works for medical readers. We say that there is no reason in the world why these should be advertised in the daily papers: no reason, of which we know, which has ever been advanced. There are, indeed, as Mr. James Lane very plainly states, pecuniary motives which may render such a course advantageous. The same motives would justify painting a van or blowing a horn. They are motives which are only respectable when restrained by the sense of usefulness and propriety. We wish, then, now broadly to raise the issue: Shall medical advertising in the political papers be recognised in this country as a lawful professional proceeding, or shall it be discontinued? And as some very distinguished professional men have lately been included—by no act of their own—amongst those whose latest medical writings have been so advertised with extraordinary prominence, and as we have frankly mentioned them, and now candidly appeal to them for their views, we are not without hope that they will help us in the solution of what is really by no means a trifling professional difficulty.

## AN OBSTACLE TO ARMY MEDICAL REFORM.

It is impossible to read the letters which reach us from time to time from our army correspondents, without perceiving that there is one very serious obstacle in the way of effecting anything like a marked improvement in the consideration attached to the army medical service at large by the authorities at the Horse Guards and War Office, and, as a consequence, in the status and welfare of the medical officers individually, which would be sure to follow such increased consideration if only it could be attained. There is a remarkable want of unanimity among the army medical officers. A very large proportion of them seem to desire a change in the organisation of their department; but, as to the particular change which is to be desired, the most opposite opinions are expressed. Even with respect to the fundamental arrangements for conducting their hospital duties, and to the relations which should exist between themselves and the combatant officers of the army, they hold very different views. There is not a corresponding want of agreement in the views and aims of the naval medical officers on fundamental questions; and, as they are thus free from important differences among themselves, they are able to combine their energies, and to devote them to a common end. The attainment of success in their objects is, therefore, a far more probable event than it is as regards those of their brethren in the army. No doubt, the efforts of the naval medical officers and their friends are strongly assisted by the fact that there is a dearth of aspirants for commissions in the naval medical service; but still the naval officers have an advantage in all pulling together, which the divergent views, and apparently the divergent interests, among their brethren in the army prevent them from having. Nor is the want of agreement, to which we refer, to be found in the executive ranks only; different views respecting departmental organisation are put forth, and their adoption is strongly urged as the only means of restoring content in the department, by medical officers of wide experience, some of them, indeed, holding the most prominent positions in the administrative ranks.

From all that we can gather, the army medical officers seem to be split up into three distinct parties as regards the conflicting views under notice. One party demands a complete return to what is called the *regimental system*, or, to designate it more correctly, the mixed regimental and staff system. Under this system, part of the medical officers would be gazetted and belong permanently to regiments, while part would form a special body, the members of which would be available for services of all kinds, as was formerly the case. A second party, in opposition to the system just named, presses for a *general corps system*. Under this system, all the medical officers constitute a single corps, and are employed on duty wherever their services are required, whether with regiments or elsewhere. This seems to have been the principle of recent regulations affecting the army medical service, but it is stated that the principle has been only imperfectly applied. It is also said that what has been done has been done in such a way as to neutralise the advantages which would have resulted from it, if the principle had been applied judiciously and with due consideration for the officers affected by the change. The third party is striving for the reintroduction of the *regimental system, but in a modified form*. Under this plan, the regimental system is to be reverted to in time of peace so far as regards medical officers belonging permanently to regiments, but their patients are to be treated by them in station hospitals instead of regimental hospitals; while, in time of war, medical officers are to be liable to be moved from their regiments as if they formed a general medical staff.

Many reasons are given in favour of each of these three systems. The leading arguments put forth may be summed up as follow. For the first, or regimental system, it is alleged that the greatest inducement which the army medical service formerly offered to a student was the fact that, at the outset of his start in life, the army surgeon occupied, owing to his regimental connections, a social rank which it takes the civil practitioner years to attain; that by its means he acquired early competency; that, from the alteration of the system, the army medical service has suffered, because men of inferior stamp only can be induced to enter it; and that the *prestige* of the medical profession is essentially lowered in consequence. It is further urged that, almost all combatant officers being in favour of the separate existence of regiments, medical officers should necessarily form an inseparable part of them; that medical officers so placed become identified with regimental interests, become acquainted with the constitutions of the men, and prevent malingering; that, in war, the regimental hospital system is best, because regiments need medical officers of their own then more than at any other time; that general hospitals are general evils; that departure from the regimental system entails an enormous increase in the charges for the conveyance of the sick and their guides to general hospitals, in the erection of new buildings, and other ways; that a thirst for military command is in full force in the unification scheme, while the reasonable authority of medical officers is most fully supported in regiments; that the regimental system prevented the frequent changes of station and other intolerable inconveniences associated with them, which are sources of discontent and unhappiness among medical officers.

In favour of the second, or general corps system, it is contended that the old regimental hospital system, with its independent hospitals and hospital equipment, has been proved to be impracticable in war time, and that in warfare of the present day, in which armies move so rapidly, it is more than ever so; that in campaigns the sick must be treated in general hospitals, and though some medical officers must always be with regiments, the bulk of the medical officers can be most serviceably employed in hospitals where patients from all corps can be equally admitted; that, as armies are only kept up for service in war, all parts of an army should practise in peace time the system which must be used in war; that the cost of regiments transporting their own hospital establishments from station to station throughout England and Ireland was found to be excessive, while this costliness is greatly lessened by the system of station hospitals; that patients in general hospitals obtain the same advantages which patients in civil hospitals derive from greater observation of their cases, from mutual consultation and help by the medical staff; that the medical officers are benefited by having a wider sphere of professional observation than they can have in small isolated hospitals; and that general hospitals, like regimental hospitals, are good or bad, according as they are well or ill supervised and conducted. As regards the medical service in its character of an army department, it is stated that a system which forms the medical officers into a single corps, puts all the medical officers on a more equal footing in respect to home and foreign service, changes of station and duties; and that another advantage of it is, that it is likely to engender, in course of time, an united feeling, and to create for the medical officers the same professional weight and authority as is found in other scientific corps of the army, but which can never be looked for under a system of division with divided interests and advantages.

For the third, or modified regimental system, these advantages are claimed. There would be a better division of duties; the regimental surgeon-major would do duty in the station hospitals, treating his own men in contiguous beds and wards as far as practicable, while the juniors would do the barrack duties, examine prisoners, and attend women and children; the younger medical officers would acquire habits of discipline and learn routine duties under their seniors; the establishment of station hospitals, having permanent surgeries, would obviate loss or destruction of property by its conveyance from place to place; the medical officers would again have all the advantages of regimental life secured to them permanently in time of peace, while their severance from regiments in time of war would be only temporary; the soldiers would like it better, for they would always find one regimental doctor ready to interest himself in their welfare; the system would meet all the requirements of war as well, or better, than any other plan.

Such are the leading arguments advanced to induce those in power to organise the medical branch of the army on one or other of the above named plans. We do not pretend to be able to reconcile these conflicting views, even if we had time or space for the discussion of the numerous topics that are involved in them. A more intimate acquaintance with the technical details of the army medical service is required for such a task than any outsider can possess. But is there no one in the department itself of influence enough, no one gifted with sufficient power of logical reasoning and utterance, to evoke concord out of this discord? Can it be true, as some assert, that there are medical officers so wrapped up in their own personal interests, that they will listen to no reasoning that appears to be at all adverse to them, nor accept any compromise, though the common good may be ensured by it? We do not believe it. We know there must be difficulties in the way of obtaining a full settlement of such diverse aspirations, but we can hardly believe that these difficulties may not be overcome; at any rate, if differences must exist, they need hardly be forced into notice so much as they are. Of one thing we are certain, that a show of greater unanimity of views and feeling is not a matter merely to be wished for, but that it is one the attainment of which is of essential importance, if there is to be that real improvement in the professional influence and circumstances of the army medical officers which their best friends desire for them, and which, more than all others, their civil brethren of the British Medical Association, as is well known, have endeavoured to obtain for them.

## THE GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

THE unconfirmed minutes of the last meeting of the Executive Committee, amongst other resolutions, contain the following:

That the *Medical Register* for 1875 be published; that 3,000 copies be printed; and that it be left to the Treasurers and Registrar to determine what number of copies should be bound.

That the list of public officers and functionaries supplied by Government with copies of the *Medical Register* be the same as for last year, with the addition of the Scottish Procurators Fiscal, fifty-three in number, as recommended by the Home Office. (*See* Minutes of Meeting of Executive Committee, October 22nd, 1874, vol. xi, pp. 36-7.)

A letter was read from Mr. Danby P. Fry, Assistant-Secretary of the Local Government Board, in reply to a letter from the Council, which directed the attention of the Local Government Board to the Regulation contained in Article 178 of the General Consolidated Order, requiring that the certificate referred to in that Article shall be given by a medical practitioner, who is a Member of the Royal College of Surgeons of London, or a Fellow or Licentiate of the Royal College of Physicians of London; and, drawing attention to the objections which exist to such a restriction, having regard to the fact that the Medical Act, 1858, was passed with the view of abolishing any distinction between the legal qualifications of medical practitioners.

The reply was to the effect that the Board have had this matter under their consideration, and, having in view the provisions of the Medical Act, it seems only reasonable that the restriction contained in Article 178 of the General Consolidated Order should be removed. When that Order is revised, for which an early opportunity will be taken, the Board will bear in mind the suggestion of the General Medical Council on this subject. The Board desire, also, to point out that the Order referred to was issued in 1847, before the passing of the Medical Act, 1858.

The Registrar was requested to apply by letter to the Royal College of Surgeons, and the Queen's University, Ireland, requesting that they will make their returns without further delay; and it was resolved that 5,100 copies of the addition to the *Pharmacopœia* of 1874 be printed forthwith.

THE Prince of Wales has promised to preside at the forthcoming anniversary festival in aid of the German Hospital.

IN the report of the Pathological and Clinical Society of Glasgow, which we publish in another column, will be found a short notice of a very useful and ingenious improvement on Esmarch's apparatus for bloodless operations, which was highly approved by those present, and deserves the attention of surgeons.

COLLECTIONS for the hospitals were made in all the places of worship at Sheffield last Sunday. The amount received, according to the returns at present sent in, is £1,700, and it will be augmented by collections not yet announced. The sum obtained last year was £1,796.

THE return to Gainsborough of four men, who had been imprisoned for non-vaccination of their children, was this week made the occasion of a public torchlight demonstration. The men headed the procession, wearing their prison-dress. Subsequently, at a meeting, they were presented with a silver cup.

THE late Emperor of China died, it is stated, after eleven days' illness, from an attack of small-pox, which is making great ravages in Pekin. The help of foreign medical men had been persistently refused, and the Emperor was attended only by his chief physician, Nona-Tzen.

### LIVERPOOL MEDICAL INSTITUTION.

THE following gentlemen have been elected Officers and Council for 1875. *President:* Mr. McCheane. *Vice-Presidents:* Mr. T. Shadford Walker, Dr. Davidson, *Dr. Steele, *Dr. Desmond. *Treasurer:* Dr. Oxley. *Secretary:* Dr. Lyster. *Secretary for Ordinary Meetings:* Dr. Glynn. *Librarian:* Dr. William Carter. *Other Members of Council:* *Dr. John Bligh, Mr. Edgar A. Browne, *Dr. W. Macfie Campbell, Dr. Caton, *Dr. Dickinson, *Dr. Grimsdale, Mr. Harrison, Mr. Newton, Mr. Rushton Parker, Mr. Puzey, *Dr. Turnbull, *Dr. Waters. Those marked * were not in office last year.

### THE ROYAL UNITED HOSPITAL, BATH.

THE annual meeting of the subscribers and friends of this hospital took place on the 26th ult. The reports read showed that the income for the past year from all sources amounted to £4,799, and the expenses to £4,769. The number of in-patients during the year was 1,018, giving a daily average of 75.16. Each patient was in the hospital, on an average, 26.94 days. The out-patients numbered 8,900, being an increase of 525 more than in 1873. Two wards had been set apart for the treatment of such infectious diseases as might occur after patients had been received into the hospital; and the Committee were requested to consult with the sanitary authority with a view of providing suitable premises for the reception of contagious diseases. Dr. Falconer was unanimously elected President of the Hospital, and the proceedings terminated with the usual vote of thanks to the Mayor for presiding.

### THE ROYAL NATIONAL HOSPITAL FOR CONSUMPTION.

THE Governors of the Royal National Hospital for Consumption and Diseases of the Chest recently held their annual meeting, when it was stated that very great and satisfactory progress had been made during the past year. Two memorial houses had been given—one by the Baroness Meyer de Rothschild, and the other by the Earl of Strafford. These make sixteen houses, either complete or in course of erection; but it is found that, for practical working, two subsidiary blocks or houses are urgently needed for the temporary residence of patients awaiting their turn of admission into the hospital proper. The sum of £1,500 has been presented for the erection of one; and help is needed for the purpose of commencing and finishing both these auxiliary houses, as well as for providing a laundry, bakery, sea-baths, and farm-yard buildings. The annual income of the hospital amounts to £800, and this was supplemented last year by the Brackenbury and Rattray legacies. The income is, however, insufficient to carry out fully the objects the Committee have in view; and they are burdened with a debt of £2,000 on their buildings. With a view of increasing their funds, a bazaar will be held in May next. Mr. Sampson Copestake was elected Treasurer, in succession to the late Mr. Henry Leaf.

### ABUSE OF CHARITIES.

A WRITER in a popular periodical gives his experience of the inconceivable meanness people will stoop to to obtain medical advice for nothing. "There might be some excuse in the prevalent opinion that the most eminent men are selected to see patients at special and other institutions; but the same practitioners can be consulted at their own homes—and, as a matter of fact, the well-to-do impostors who obtain gratuitous relief are not grateful enough even to send a donation to the institution. Shall I ever forget meeting, at an assembly at the Mansion House, the wife and daughters of an alderman, who had come to me disguised in shabby apparel to seek advice, at an hospital where I had recently been appointed surgeon."

### LECTURES AT THE ROYAL COLLEGE OF SURGEONS.

PROFESSOR WILSON, F.R.S., commenced his course of six lectures on Dermatology in the theatre of the Royal College of Surgeons on Monday last. The following is the syllabus of Mr. Wilson's lectures. General classification of diseases of the skin under three heads—inflammation, nutrition, and innervation. Preceding courses devoted to diseases of inflammation and part of those of nutrition. Diseases of nutrition are: dystrophic, atrophic, and hypertrophic. Dystrophic affections include: lepra, struma, lupus, lymphoma, xanthoma, and epithelioma. Atrophic affections: dermatoxerasia, ichthyosis, sauriosis, striæ atrophicæ, morphœa, and scleriasis. Dermatoxerasia, its relations with ichthyosis and sauriosis; therapeutic considerations. Striæ atrophicæ, morphœa, and scleriasis; their pathology and therapeutic treatment. Hypertrophic affections: verrucæ, horns, and concretions, corns, angeioma or vascular nævus, areolo-fibroma, areolo-fibrous tumours, and fibrous tumours. Verrucæ, their pathology; pathology of horns and concretions; therapeutical treatment of verrucæ; pathology of corns and their treatment; pathology and treatment of angeioma. Pathology of areolo-fibroma; the Bosjeman; remarkable cases of dermatolysis; hypertrophic nose; spargosis; boucnemia; elephantiasis Arabum, therapeutic management. Areolo-fibrous tumours: acrochordon; spilus or tegumentary nævus; molluscum; fibrous tumour; cheloma; therapeutic considerations. Diseases of innervation: pruritus; prurigo; neuropathic excoriations; hæmorrhagic stigmata; illustrative cases: Louise Lateau's case. Hyperæsthesia; anæsthesia.—Professor Parker, F.R.S., will commence his course of eighteen lectures on the Structure and Development of the Skull, in continuation of his course of last year, on the 15th instant.—The lectures of Professors Lee and Turner will be commenced some time in June next.

### "THE GREAT AMERICAN DOCTOR."

ON January 27th, an adjourned inquest was held upon the body of a man whose death has caused some little stir in Liverpool. The circumstances of the case are briefly these. Edward Manratty, a sheeter employed on the railway, died somewhat suddenly on the 13th ult. For about four months, during the early part of his illness, he had been attended by Dr. Bligh; but he subsequently consulted a man named Tumblety, who calls himself "the Great American Doctor". This man undertook to cure him for fifty shillings, but afterwards reduced his price to thirty shillings. This sum was paid by Manratty's wife, who received in return some pills, herbs, and a mixture, with directions as to their use. The deceased took a tablespoonful of the mixture, and died the same night. Tumblety was then asked for a certificate of death, but denied all knowledge of the case, and returned the thirty shillings to Manratty's wife. Application was next made to Dr. Bligh, but he refused to give a certificate, and very properly reported the case to the coroner. An inquest was held on the 19th ult., and was adjourned in order that the contents of the stomach might be analysed. But little information seems to have been obtained, either by the *post mortem* examination or by the chemical analysis; and no indications were found which pointed to the administration of poison. Dr. Bligh himself said, after the examination, that, if required to certify as to the cause of death, he should attribute it to disease of the heart and lungs. It was asserted, in Tumblety's defence, that he did not wish to have anything to do with the case, and put a prohibitory price upon his drugs; but the deceased and his wife had such confidence in him, that they would have his advice, cost what it might. The coroner, in summing up, commented in strong terms upon the inhumanity of a man taking thirty shillings, under such circumstances, for what, in all likelihood, was not worth thirty pence. He could only describe Tumblety's conduct as an eagerness to obtain money which could not be too strongly condemned. The jury returned a verdict to the effect that the deceased died from natural causes, but whether his death was accelerated by the administration of the mixture supplied by Tumblety there was no evidence to show. The jury also strongly censured the conduct of Tumblety in administering medicine, he being in total ignorance of the condition of the patient. In such a case as this, it was highly important that an inquest should be held. The circumstances attending the death were sufficiently suspicious to call for thorough investigation. We cannot help wishing, however, that the inquiry had proceeded a little further, and that steps had been taken to ascertain the real medical standing of the so-called "Great American Doctor". It would have been well if Tumblety had been called upon to produce the "documentary evidence" in his favour of which his counsel spoke, in order either to substantiate his position as a qualified practitioner, or, failing this, that his pretensions should be exposed and his true character made public.

### LEGISLATION IN PRUSSIA REGARDING TRICHINISED MEAT.

THE Superior Tribunal in Berlin recently decided that the seller of meat containing trichinæ was not liable to the penalties provided for the sale of unwholesome food, unless he knew that the meat contained trichinæ, or unless his ignorance were due to negligence. A deputation of medical and scientific men consequently urged on the Ministry the importance of making obligatory, through the whole of Prussia, the examination of meat, especially the microscopic examinations of all pigs killed, and of the portions of flesh of dead pigs imported from abroad (American bacon). The Ministry has accordingly addressed a rescript to the district authorities, in which, while professing their inability to comply with the suggestions of the deputation to their full extent, they urgently recommend that the microscopic examination of meat should be rendered obligatory by police regulations, so far as the circumstances in the respective circles allow it. In the Magdeburg circle, the examination of meat has been obligatory since 1865, and in that of Cassel since 1871.

### THE USE AND ABUSE OF THE GYMNASIUM.

Two severe accidents occurring during gymnastic exercises recorded in the hospital reports of one journal (the *Boston Medical Journal*), in one case proving fatal, suggest to it comments on the dangers attending the system on which gymnasia are usually conducted. It is rare, fortunately, that the faults of this system are made apparent by a melancholy accident such as this, but it is only in such cases that the public generally is warned that exercise in the gymnasium is not confined to moderate limits, but may mean work of a much more serious character. The weak and the strong alike are led step by step until the point of endurance has been passed by many, in a vain attempt to emulate feats which should be attempted only by the most powerful and skilled gymnasts. Indeed, some of the performances daily practised by many young men should be absolutely prohibited in the gymnasium. It is hardly necessary to say that great discrimination should be made in regard to the character of exercise suitable to each individual; and that is particularly true in the case of young men and boys, who are the most constant frequenters of the gymnasium. During the period of adolescence, injuries may be inflicted which will eventually break down the most powerful frames. Cases of this kind are common enough to the physician. The remedy is a simple one. Place the gymnasium under the control of a medical officer who shall be the sole judge of the exercise suitable for each individual. Exclude acrobatic performances altogether, and we shall hear less of strained hearts and weakened lungs, while severe injuries like those we have to-day to record will be unknown. This system of supervision has been fully tried at Amherst College, and has worked in the most satisfactory manner.

### CASTS OF SKULLS.

PROFESSOR FLOWER, the conservator of the museum of the Royal College of Surgeons, reports that the collection contains a series of casts of the interior of the cranial cavity, representing exactly the form and size of the brain (when covered by its membranes) of men of various races and many other species of animals. With a view to diffuse the information to be derived from the study of these casts, and believing that many members of the profession and many educational institutions will be glad to avail themselves of the opportunity of possessing them, the Council of the College has authorised the issue of copies at the lowest cost at which they can be reproduced, which, of course, will partly depend upon the number likely to be required. The following is a list of casts of which duplicates can be obtained. The numbers prefixed to the names are marked on the casts; the numbers after the names refer to the specimen in the Osteological Series from which the cast was made: 1. Man (*European*), 5733; 2. Man (*Turk*), 5563A; 3. Man (*Tartar*), 5484 (remarkably brachycephalic); 4. Man (*Chinese*), 5489A; 5. Man (*New-Zealander*), 5389; 6. Man (*East African*), 5378A; 7. Man (*West African*), 5363B; 8. Man (*Bushman*) 5357; 9. Man (*Australian*), 5317 (Port Essington, compressed type); 10. Man (*Australian*), 5331 (Adelaide, depressed type); 11. Gorilla (*Troglodytes gorilla*), adult male, 5178; 12. Chimpanzee (*Troglodytes niger*), adult male, 5086; 13. Orang (*Simia satyrus*) adult male, 5054; 14. Siamang (*Hylobates syndactylus*), 5032; 15. Entellus Monkey (*Semnopithecus entellus*), 5006; 16. Macaque Monkey (*Macacus cynomolgus*), 5000; 17. Chacma Baboon (*Cynocephalus porcarius*), 4723; 18. Howling Monkey (*Mycetes seniculus*), 4718; 19. Squirrel Monkey (*Callithrix sciureus*), 4666; 20. Ruffled Lemur (*Lemur varius*), 4661; 21. *Galeopithecus volans*, 4630B; 22. Tupaia (*Cladobates tana*) A 2398*a*; 23. Tenrec (*Centetes ecaudatus*), 2396B; 24. Hedgehog (*Erinaceus Europæus*), 2392A; 25. Rousette Bat (*Pteropus edulis*), 2422A; 26. Tiger (*Felis tigris*); 27. Dog (*Canis familiaris*); 28. Walrus (*Trichecus rosmarus*), 3868; 29. Porpoise (*Phocæna communis*), 2512A; 30. Dugong (*Halicore dugong*), 2634; 31. Elephant (*Elephas Indicus*); 32. Hippopotamus (*Hippopotamus amphibius*); 33. Pig (*Sus scrofa*), 3263; 34. Ox (*Bos taurus*), 35. Camel (*Camelus Bactrianus*); 36. Horse (*Equus caballus*); 37. American Tapir (*Tapirus terrestris*); 38. Sumatran Rhinoceros (*Rhinoceros Sumatrensis*), 2938; 39. Hyrax (*Hyrax capensis*), 3115A; 40. Capybara (*Hydrochærus capybara*); 41. Beaver (*Castor Canadensis*), 2159; 42. Rabbit (*Lepus cuniculus*); 43. Sloth (*Cholœpus didactylus*), 2387B; 44. *Glyptodon clavipes* (fossil), 417A; 45. Kangaroo (*Macropus giganteus*), 1732; 46. *Thylacoleo carnifex* (fossil), 1539A; 47. Wombat (*Phascolomys vombatus*); 48. *Dasyurus ursinus*; 49. *Echidna hystrix*; 50. *Ornithorhynchus paradoxus*. Applications for any, or all, should be made to Professor Flower, at the College of Surgeons.

### MANSLAUGHTER BY MIDWIVES.

REFERRING to the recent case at Coventry, which we lately noticed, in which a midwife has been committed by a coroner's jury for manslaughter, on the ground that she had neglected a warning not to attend lying-in women, lest she should infect them with puerperal fever, the editor of the *Obstetrical Journal* writes: "There are several points of interest in this case. First, the question as to the contagiousness of puerperal fever, the reality of which some individuals might perhaps be found to dispute; second, the legal right of a coroner to step in and warn an obstetrician not to attend women in labour; and thirdly, does not it again demonstrate the necessity of instructing midwives? Mrs. Ingram's attainments are sufficiently manifested in her answer to the coroner, who asked her if she knew what child-bed fever was? 'I never met with it, and did not even know until Dr. Brown told me. I never had a woman done badly in my life before—never'. It is to be hoped that the British Medical and Social Science Associations, and the Obstetrical Society of London, will continue their exertions, and endeavour to obtain from the present Government the favourable consideration and promise of co-operation which they had succeeded in obtaining from the late administration. The position of this country with regard to the instruction of midwives, and the regulation of their practice is, when compared with the rest of Europe, disgraceful and humiliating. It can only be by a comprehensive parliamentary enactment that this class of women can be converted into safe and useful public servants."

### INFECTIOUS DISEASES IN FAMILIES.

THE following important notice has been issued by the authorities of the London Fever Hospital for public information. The London Fever Hospital assists in preventing the spread of contagious fever, and receives as patients working men and their families, domestic servants, clerks, and *employés* in commercial houses. It also provides special wards for private patients, where they may, if desired, be attended by the family medical attendant. The hospital was founded in 1802 for the treatment of patients suffering from contagious fever, and from that time up to the opening of the Metropolitan Fever-Asylums was the only institution of the kind in the metropolis. The Metropolitan Fever-Asylums having now relieved this hospital of the responsibility of taking charge of the very poor, the attention of the committee has been given to the prevention of the spread of contagious fever, by rendering the hospital available for the reception and treatment of cases of fever occurring in families in good circumstances, or in schools, hotels, among the *employés* of large commercial houses, etc., while continuing to offer its benefits to the working classes not receiving parish relief. The arrangements they have adopted for the present are as follow. 1. Working men or their families are admitted at once without payment and without letter of recommendation, on the production of a certificate from a medical man, stating that they are suffering from contagious fever, and are not in receipt of parish relief or otherwise proper cases for the Metropolitan Fever Asylums. 2. Domestic servants, *employés* in houses of business, and others similarly situated, who are sent to the hospital for the convenience of employers, will be admitted into the general wards on the recommendation of a governor or annual subscriber of one guinea, or as heretofore, on payment of two guineas on admission. 3. For such patients as require isolation and better accommodation than that offered by the general wards, eight large rooms have been prepared and furnished with every requisite for comfort, in which a single patient, or two children of the same family or from the same school, can be received. The payment for one of these rooms, with the attendance of an experienced nurse, and the care of the resident medical officer and physicians, and including food and medicines, has been fixed at three guineas per week. If desired, cases admitted into the private wards may be attended by the family medical attendant. The committee are assured that, in making provision for private patients, they meet an urgent public requirement, and they are prepared to extend the accommodation should the demand for an extension arise. The hospital will, at the same time, continue to render public services of the highest value, by receiving working men and the members of their families, who might otherwise, through an attack of fever, be compelled to take the first step towards pauperism by seeking parish relief. In order that those who may need the accommodation offered by the hospital, when attacked by contagious fever, may be acquainted with the arrangements made for their reception, it is desirable that the existence of these arrangements should be made as generally known as possible, and the committee seek, for this purpose, the co-operation of all directly or indirectly interested in the public health. A carriage for the conveyance of fever-patients is kept at the hospital, and is sent at once for cases requiring admission, the only payment asked being for horse-hire.

### THE SANITARY STATE OF CALCUTTA.

A MOST remarkable diminution in the rate of mortality in Calcutta is shown in the returns from that city for 1871-1873. Five years ago, the deaths were 20,000 *per annum*; they are now said to be reduced one-half. This astonishing improvement is attributed to the attention to sanitary measures which have converted the city from an undrained and pestilential hole into a well-drained place with a water-supply "far better than that of London, and as good as that of Glasgow". Strong measures were taken in the city to make the registration of deaths compulsory, and the mortuary returns are now properly and regularly supplied.

### THE AGE AT WHICH CHILD-BEARING CEASES.

A PAPER was recently read by Dr. Fordyce Barker before the New York Medical Library and Journal Association, upon "The Age of Women when the Capacity for Child-bearing Ceases". The object of the paper, as abstracted in the Boston *Medical Journal*, was to define physiologically, and as a matter of experience, what are the limits to the reproductive function of women. Ovulation and menstruation, though often coincident, do not necessarily bear to each other the relation of cause and effect, nor does ovulation always occur at the time of menstruation. Menstruation is, therefore, to be regarded as an accidental and incidental phenomenon, and is a flow of blood from the interior of the uterus at stated periods, irrespective of ovulation. Ovulation, but not menstruation, is essential to conception. The occurrence of menstruation in a woman advanced in years is no evidence of the occurrence of ovulation at the same time. When senile atrophy of the ovaries takes place, ovulation ceases and conception is no longer possible. Usually this period is reached between the fortieth and fiftieth years of the woman's age. In very exceptional cases, this change does not take place until from one to four years later. Dr. Barker alleges that these are well-established facts, proved by multitudes of *post mortem* examinations; and, moreover, that not a single authenticated case has been known of a woman over fifty-five years of age who has given birth to a child, except that of Sarah, the wife of Abraham. Many such have been reported, but none are supported by conclusive evidence; hence the conclusion that the laws of physiology, the experience of mankind, and the decisions of the courts will justify the medical witness in declaring, when questioned in court as to the age during which child-bearing is possible, that a woman over fifty-five years of age is past the period of child-bearing. In further proof of the fact that though menstruation and ovulation are generally coincident, they do not bear the relation of cause and effect, Dr. Barker stated that the one may exist without the other, as proved by many well-established cases; that cicatrices have been found in ovaries, indicating rupture of Graafian vesicles, many years previous to the appearance of menstruation, and that fresh cicatrices have also been found in old women a long time after the cessation of menstruation; that we have now eight well-authenticated cases in which women have menstruated and continued to do so after both ovaries were removed, rendering ovulation impossible. In the discussion which followed the reading of the paper, Dr. Caro remarked that, during his residence in Sicily, the Government recognised the possibility of child-bearing commencing at the age of eleven years and two months, and continuing to the age of fifty-four or fifty-five years. He reported that while living there he had personal knowledge of a woman who had given birth to thirty-one children; and that twenty-two of them had sat at the same table. This woman gave birth to her last child when she was fifty-four years old. It was supposed she had a double uterus, from the fact that a child was born every *six months*. Unfortunately, when the woman died, no *post mortem* examination was obtained.

### THE ROYAL BOTANICAL SOCIETY.

THE usual annual course of eight lectures on Botany by Professor Bentley will be delivered on Fridays, commencing May 14th, at the gardens of the Society in the Regent's Park. The admirable medical flower and herb garden which this Society possesses is insufficiently known to medical students and practitioners. There is nothing more instructive than the study of these living and growing specimens; and we particularly recommend Professor Bentley's early morning course of systematic botany, delivered at the gardens at 8 A.M. during the spring and summer months, to students of medical botany. The course is in its way unrivalled, and the early morning study in these delightful gardens is both physically and intellectually profitable. These lectures are largely attended by pharmaceutical students. There is no reason, we think, except that they are not sufficiently known, why they should not also attract a large class of medical students.

### VIVISECTION.

A CORRESPONDENCE has been carried on in the columns of the *Times*, during the last week, on the subject of "Vivisection", between Mr. Hutton, the able editor of the *Spectator*, and Mr. Ernest Hart. The subject matter, is, however, in no important way new to the majority of our readers; and, as the correspondence is long, we need not reproduce here any part of it. In the course of the correspondence, Lord Harrowby has intervened to announce that the Society for the Prevention of Cruelty to Animals is not responsible in any way for the statements of the memorial or for its promotion. Baroness Burdett Coutts pleads the cause of the humming-birds of Brazil, which are much used for the plumage of ladies' hats. We recommend to the Society's attention, the gelding, nicking and docking of horses; the repeated bleeding of calves; the cropping and snipping of dogs; the trimming of game-cocks in public exhibitions; the coursing of hares (especially in enclosures); the wholesale maiming and murdering of pigeons at Hurlingham; the pegging of lobsters; and the production of liver-disease, in its largest and most painful development, in geese. If the principle that pain, inflicted for purposes of sport, commerce, luxury, and convenience, be admitted by the Society—if it look with complacency on gelded horses, cropped dogs, castrated tom-cats, exhausted hares, maimed and half-murdered pigeons, emaciated and diseased geese, not to speak of tortures by the trapper and huntsman further afield—it is hard to understand the plea that the art and science which aims at saving human life, shall alone be prohibited from authority over the life of lower animals.

### RECENT URBAN MORTALITY.

DURING last week, 5,909 births and 4,080 deaths were registered in London and twenty other large towns of the United Kingdom. The annual death-rate was 28; in Edinburgh, it was 29; Glasgow, 28; and Dublin, 39. In eighteen English towns, it ranged from 17 in Portsmouth, and 18 in Wolverhampton, to 30 in Oldham, Nottingham 31, Manchester 31, Liverpool 32, Birmingham 35, and Salford 35. Whooping-cough, small-pox, and scarlet fever were all fatally prevalent in Birmingham; and the deaths from scarlet fever and enteric fever excessive in Sheffield. In London, 2,567 births and 1,650 deaths were registered; the births exceeded the average by 128, whereas the deaths were 26 below the average. To the seven principal zymotic diseases, 171 deaths were referred; being 83 below the average. The deaths referred to diseases of the respiratory organs were 409, being 4 below the corrected average number of the week. In "outer London", the death-rate from all causes and from the seven principal zymotic diseases was 20.3 and 2.3 per 1,000 respectively, against 25.0 and 2.6 in "inner London". The mean temperature of the air at Greenwich was 43.2 deg., or 5.1 deg. above the average. Rain fell on four days during the week, to the amount of 1.25 inches.

### SANITARY STATISTICS IN THE FAR WEST.

UNMISTAKABLE signs of sanitary progress and increasing interest in health-matters may be observed in all parts of the world; and, in the present day of constant and rapid intercommunication among nations, no part of the world is so remote that its sanitary condition can safely be regarded with selfish indifference. Vital statistics have received much attention in America, and the subject has there been handled with much ability and industry. In many respects, sanitary organisation has in many of the States been for some years more complete than in this country; and the health-reports have frequently been State papers of more than ephemeral interest and value, especially in Massachusetts. The report of Dr. Henry Gibbons, the health-officer of the city and county of San Francisco, for the year ending June 30th, 1874, deserves more than a passing notice, partly from its intrinsic merit, and partly from its evidence of the due appreciation of the importance of sanitary matters in this city of the Far West. The city possesses a Board of Health, consisting of the mayor (who is the *ex officio* president), and five physicians, with a clerk. In addition to the health-officer, there are a quarantine officer, a secretary, two health-inspectors, a market-inspector, and a messenger. Such is the sanitary staff of San Francisco, and the total annual cost of the health-department is less than £3,000. At the outset of his report, the health-officer confesses to considerable difficulty in estimating the population of his city, as, since the last census in 1870, great changes have taken place in many of the wards, and the rate of increase has varied to a remarkable extent. He urges the taking of a city census in 1875; and states that, by following the recent example of Providence city, and utilising the police force as "census marshals", the enumeration could be carried out at the cost of a few hundred, or, at most, a thousand dollars. In the calculation of his rates of mortality, Dr. Gibbons adopts 200,770 as the population of the city—an estimate derived from a recently issued City Directory. The estimates, however, of the numbers living under five years of age, and between five and seventeen years, are formed from numbers obtained at a recent school census. One of the most noticeable features in the city population is a colony of Chinese estimated at 14,500, who are stated to be liable to a considerably higher death-rate than the rest of the population. During the year to which the report relates, the rate of mortality in the city was equal to 20.3 per 1,000 of the estimated population, against 17.4 and 17.5 in the two preceding years. It appears, from a table showing the death-rates in fourteen of the largest American cities, that San Francisco is one of the healthiest in the States. The increased death-rate in the year 1873-4 was due to the epidemic prevalence of scarlatina, which caused a death-rate equal to 1.9 per 1,000 of the population. Among the Chinese, the rate of mortality from all causes was equal to 32.1 per 1,000, against 19 in the American population. It is difficult, however, without more definite information, to decide how far this is due to the effect of abnormal distribution of age. It appears that, of the Chinese, little more than 10 per cent. are aged under seventeen years; whereas, in the rest of the population, the proportion was more than 46 per cent. If the Chinese population consist almost exclusively of adults past middle age, then the apparently high death-rate does not imply low sanitary condition; and this supposition is supported by the fact that, among the small number of Chinese under seventeen years of age, the mortality was at the rate of only 23.3 per 1,000, against 27.4 among the rest of the population under that age. In a city of such rapid growth as San Francisco, it is important, in order that its death-rate may be properly estimated, that the proportional distribution of ages of the population should be known and taken into account. Among children under five years of age, the death-rate in the city in 1873-4 was equal to 61.9 per 1,000, which was 3.8 per 1,000 lower than the English life-table rate at those ages, but exceeded by 22.5 per 1,000 the rate in the healthy districts of England. Should a census of the population be taken during the present year, it is to be hoped that Dr. Gibbons, in his next report, will still further prosecute his inquiry into the death-rate at the different groups of ages, and the proportional distribution of the population, especially at the later periods of life—say at the age of sixty years and upwards. Beyond all question, however, the death-rate in San Francisco is low, and the city may be called healthy by comparison with most other large cities, American and European; and this in spite of many nuisances and sanitary shortcomings, which are dwelt upon in the report in forcible language, which will doubtless command the attention from the Board of Health which it deserves. Washerwoman's Bay, Mission Bay, and Mission Creek, are especially condemned for their sanitary condition. With respect to Mission Creek, from its source past "its intersection with Harrison—the very recollection of which locality by a person who has visited it is almost sufficient to sicken—to the outlet in Mission Bay, and even beyond, it smells to Heaven with a loudness and persistence that the strongest nostrils may not withstand, and the disinfectants of a metropolis could not remove." When these and other described nuisances are abated, there appears to be nothing to prevent San Francisco from becoming one of the healthiest cities in the world. Climate and temperature are evidently in its favour. According to a table based upon the observations of twenty-four years, the mean temperature of January and December is 48.9 deg. and 50.3 deg., and it ranges in the other months only from 52.1 deg. in February to 61.8 deg. in August.

## SCOTLAND.

THE death-rate in Glasgow was last week reduced to twenty-eight, the lowest it has been since October. The reduction is mainly in pulmonary complaints, and unclassified general ailments of organic origin.

A BAZAAR recently held in Edinburgh in behalf of a hospital for incurables realised the sum of £4,500, and a quantity of goods remain unsold. The Duchess of Edinburgh contributed £30, and a "well-wisher" £100.

THE following appointments have been made in the Glasgow Western Infirmary. *Physician:* Dr. James Finlayson; *Dispensary Physicians:* Dr. G. P. Tennent and Dr. Joseph Coats; *Extra Dispensary Physician:* Mr. D. C. McVail; *Pathologist:* Dr. Joseph Coats; *Surgeon:* Dr. A. Patterson; *Dispensary Surgeons:* Dr. J. G. Lyon and Dr. W. B. Fleming; *Extra Dispensary Surgeon:* Dr. David N. Knox.

## IRELAND.

ON the recommendation of Colonel Peel Dawson, the lieutenant of the county, the Lord Chancellor has appointed Dr. James C. L. Carson and Dr. Robert Sharp, both of Coleraine, to be magistrates for the county of Londonderry.

### ROYAL COLLEGE OF SURGEONS OF IRELAND.

DR. CROLY, jun., has been elected a member of Council of the Royal College of Surgeons, in the room of the late Dr. R. Adams; and Dr.

Croly, senior, has been appointed examiner in midwifery in the place of Dr. Cronyn, resigned. It was announced by mistake, in last week's JOURNAL, that Dr. Cronyn, lately appointed Professor of Midwifery to the Royal College of Surgeons, had resigned the professorship; it should have been stated that he resigned the examinership.

### THE PROFESSORSHIP OF CHEMISTRY IN DUBLIN UNIVERSITY.

THE election to this professorship has been postponed for a week. The following are the candidates: Richard Apjohn, A.M.; Edmund Wm. Davy, A.M., M.D., M.R.I.A.; M. Forster Heddle, M.D.; Henry King, A.M., M.B.; Dr. Emil König (Tübingen); John William Mallet, A.B., LL.D.; Temple Augustus Orme; James Emerson Reynolds, L.K.Q.C.P.I., F.Chem.S. London and Berlin; George F. Rodwell, F.R.A.S.

### THE KING AND QUEEN'S COLLEGE OF PHYSICIANS: THE NEW CHARTER QUESTION.

WE learn from the Dublin newspapers, that Dr. Lyons brought forward his proposal for a meeting of the licentiates of the College, to consider the proposed supplemental charter. Dr. Lyons' motion, not having been seconded, fell through. Since our last number was published, a rejoinder to the College answer to the dissent has been forwarded to the Chief Secretary for Ireland, and has been ordered by the College to be printed as a supplement to the other papers printed and forwarded in the preceding week. The rejoinder brings forward no new point.

### HOSPITAL SUNDAY AND THE DUBLIN EYE AND EAR INFIRMARY.

AS noticed in our issue of last week, the Dublin Eye and Ear Infirmary was refused a grant from the Hospital Sunday Fund, on the ground of its being more of a private than a public institution. As might have been expected, the Surgeon-in-Chief—rather a grand title for a medical officer of a small special hospital—has written an indignant letter to the committee, and published it in the Dublin newspapers. The honorary secretary has answered the "chief surgeon's" letter, and, we think, finally disposed of the very special argument in favour of the very special institution. All the other participating hospitals seem satisfied, and certainly have shown no public sign of discontent.

### THE KING AND QUEEN'S COLLEGE OF PHYSICIANS: THE NEW BUILDINGS.

THE new hall of the College of Physicians is now almost complete. This will be a valuable addition to the College. The hall has been built with the express object of accommodating large meetings of the medical and scientific societies which hold their meetings within the College walls. Few public medical corporations have taken so much trouble, and gone to such expense, as the Irish College of Physicians in providing space for the meetings of the profession.

### ROTUNDO LYING-IN HOSPITAL.

THE annual report of Dr. Johnston, the master of this institution, the largest of the kind in Europe, has lately been published, and from it we find that there were 1236 deliveries during the year, and only 15 deaths from all causes, viz., placenta prævia, 1; apoplexy, 1; convulsions, 1; scarlatina, 3; bronchitis, 1; peritonitis, 3; pyæmia, 1; sloughing, 1; fatty degeneration of kidneys, liver, and heart, 1; typhus, 1; typhoid fever, 1. This mortality is extremely small, considering the epidemic of scarlatina, which has existed for so many months in Dublin, and also the prevalence of other zymotic affections; especially, also, when it is considered the class of people admitted, many having been seduced or deserted, or ill-treated by their husbands, or whose husbands had died lately. The low death-rate is attributable by Dr. Johnston to the strict attention to cleanliness, and to the fact that there was a constant current of pure air permeating the wards, and rendering any poisonous emanations innocuous. Of the 1236 deliveries, in 997 the labour was perfectly natural, terminating within 24 hours, and in 40 it lasted over that period. In 45 cases, the ovum was expelled at the sixth month; and, in 138 cases, the forceps were used, 105 of whom were primiparæ, of whom 5 died. There were 24 cases of twins, and version was performed 14 times. *Post partum* hæmorrhage occurred in 25 cases, and 104 women had chloroform administered without any bad result. The report is a satisfactory one; and, considering the number of inmates, the mortality is extremely low, and reflects great credit on Dr. Johnston's supervision of this institution.

### DR. JAMESON OF DUBLIN.

THIS gentleman died at his residence in Harcourt Street, on last Monday, at the age of 72. He was for many years connected with Mercer's Hospital, as surgeon, but resigned some few years since. He was an ex-president of the Royal College of Surgeons, and consulting surgeon to the Coombe Lying-in Hospital. Among his contributions to medicine were papers on Œdema of the Glottis, Strangulated Femoral Hernia, and Ovarian Dropsy. His death arose, it is believed, from renal and vesical disease.

### POOR-LAW MEDICAL OFFICERS IN BELFAST.

AT a meeting of the Belfast Dispensary Committee, held on February 1st, Dr. Arnold gave notice that he would move the following resolution at the next meeting: "That, in view of the facts disclosed in the reports of Mr. O'Brien, Inspector of the Local Government Board, and of our honorary secretary, now read, regarding the exceedingly arduous duties of the several medical officers and the amount of duty discharged by them, in the opinion of this committee, it is imperative that additional dispensary medical attendants be appointed for the Belfast Poor-law district." The *Belfast News-Letter*, in commenting on the proposal, justly remarks that, although at first sight the additional appointments may seem to increase the burden on the ratepayers, the increased medical care, by diminishing the amount of sickness and mortality, would really tend to diminish the taxation; and that, even if a trifling additional taxation were involved, it is a duty, in the interests of the poor and for the sake of humanity, to submit to it.

### THE BIRTHS AND DEATHS IN DUBLIN DURING 1874.

DURING the year 1874, there were registered in the Dublin registration district 8,903 births, equal to a ratio of 28 per 1,000 of the population. The weekly average was 171. The deaths registered during the year were 8,190; equal to 26 in every 1,000 of the population, which was also the average death-rate for the previous ten years. The rate was equal to 28.6 in every 1,000 of the male population, and to 23.8 per 1,000 of the female population. The deaths registered in Belfast during the year afforded a ratio of 29 in every 1,000 persons living; in Cork, 24; in Limerick, 24; in Londonderry, 20; in Waterford, 25; in Galway, 21; in Sligo, 17. As many as 604 deaths from scarlet fever were registered in Belfast during the year, of which number 401 were registered in the last quarter. The deaths from zymotic diseases registered in Dublin exceeded the average of the preceding ten years by 63—the number being 1,916, or 1 in every 4.3 of the deaths, and 61 in every 10,000 persons living. Scarlet fever, which has been epidemic in Dublin for the last fifteen months, proved most fatal, causing 834, or 10 per cent., of the total deaths. The deaths due to fever were 352; to small-pox, 2; whooping-cough, 40; measles, 97; diarrhœa, 203; diphtheria, 44; croup, 113; quinsy, 19; and erysipelas, 49. Bronchitis caused 1,000 deaths; pneumonia, 206; heart-disease, 376; and phthisis, 862.

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**THE ARCTIC EXPEDITION.**—The following is, we believe, a correct list of those medical officers the names of whom have been submitted for approval to Mr. Ward Hunt for service with the new Arctic expedition, viz., Staff-Surgeon Colan, M.D., and Surgeon E. L. Moss, M.D. These two officers are intended to serve immediately with Captain Nares. Staff-Surgeon of the 2nd Class Belgrave Ninnis, M.D., and Surgeon R. M. Coppinger, M.D., will, no doubt, be attached to Commander Markham's ship. Dr. Colan has gained for himself a high reputation in connection with the successful cure of Sir J. E. Commerell's severe wound, received on the West Coast of Africa.

## DR. RUMSEY, F.R.S.

At a meeting of the Council of the Gloucestershire Branch of the British Medical Association held at Gloucester, January 28th, after an expression of sympathy with the family of Dr. Rumsey, the following resolution was unanimously adopted; and the secretary was requested to send copies of the same to the editor of the British Medical Journal, and to the general secretary of the Association.

"That the Council of the Gloucestershire Branch having heard, with profound regret, of the serious illness of Dr. Rumsey, and of his consequent incapacity for further professional work, desire to call the attention of the executive of the Association, and of the members generally, to the many and valuable services rendered by Dr. Rumsey, during a period of more than thirty years, to the cause of public health. They would suggest that such services are entitled to public recognition, and would urge the Association to use its influence for the furtherance of this object."

# SPECIAL CORRESPONDENCE.

## EDINBURGH.

[FROM OUR OWN CORRESPONDENT.]

*The New University Buildings.—Hospital Sunday.—Fever Accommodation in the New Infirmary.*

Last week, the acting committee who are looking after the New University buildings made their award among the plans of the four architects who competed. Their choice fell upon the designs of Mr. R. Anderson of Edinburgh. Mr. Anderson had taken great pains to make himself acquainted with the requirements of modern university buildings to be devoted to scientific purposes, and spent some time on the Continent examining into the arrangements of several of the principal universities of France and Germany. In the present designs, he has wisely made the internal arrangements the principal object of attention, and has subordinated the external appearance to them. In general terms, the various class-rooms and museums, with their appurtenances, are ranged round a central court of somewhat irregular shape, and take up rather more than three of its sides, the fourth side being appropriated to the Great College Hall. This last, which is situated on the east side of the building, is designed in the form of a Greek theatre, and is capable of holding from 2,000 to at most 2,500 persons, its floor being on a level with the first floor of the other buildings. The anatomy class-room, lying on the south side, is circular in form, with a diameter of 55 feet, and intended to hold 400 students. Near it, on the top storey, is the dissecting-room—an arrangement similar to the one which is in use at present in the University. Connected with it are a bone-room, a microscopic-room, and other smaller apartments for injecting, etc. In the same part of the buildings, namely, the south side, are situated the class-rooms for surgery and practice of physic, each to hold 250 students. In the front of the south side lies the great museum, measuring 112 feet by 40 feet, and entirely lighted from the roof. On the west side, adjoining the New Infirmary, are the chemistry-rooms, including class-room, laboratories, practical department, and workshops, all of the most ample description, the class-room being large enough to accommodate 400. Near it are the midwifery and pathology departments, one above the other. On the north side lies the principal entrance, into Heriot Row, several large reading-rooms for professors and students are placed, together with other rooms in connection with the College Hall. At the east end of this front come the materia medica and medical jurisprudence departments, and beyond them the great hall. The style of architecture adopted is the *cinquecento*—a phase of Italian, and one which, while it gives ample scope for satisfactory internal arrangements, is characterised externally by a look of solidity and dignity which is very suitable to its object. The central part of the side facing the street has three storeys above the basement, the remainder of the building only two. From within, the central court, the great hall, and the museum are striking and conspicuous objects. At the north-west corner of the great hall, a campanile, rising to the height of 230 feet, is placed, which serves two purposes—the one that of a belfry, the other as a ventilator to the great hall, as two ventilating shafts pass up along the tower. The architect estimates that the building, without the tower just spoken of, should be erected for about £70,000, the sum fixed as a desirable limit to expenditure.

A further list has been published of Church Subscriptions received on Hospital Sunday of about £150, making the sum total nearly £1,800.

The town authorities and the Infirmary managers have at length come to terms regarding the debated points of fever accommodation in the new infirmary. There is to be accommodation always for fifty fever patients, and, in case of an epidemic, three small outbuildings which stand apart from the principal buildings will be brought into requisition, thus giving thirty additional beds. The equally debated question of what we are to do with the sewage of the new hospital still remains unsettled, as some of the town-councillors persist in thinking that the passage of infirmary sewage through the ordinary drains will be likely to injure the health of the inhabitants, in spite of Sir Robert Christison's assurances to the contrary. The great advantage of the route proposed by the managers was clearly shown, inasmuch as by the St. Leonard's route the fall is 1 in 141, while that to the westward is only 2 in 227, sometimes as little as 1 in 438.

# ASSOCIATION INTELLIGENCE.

## BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

The next meeting will be held in the Council Room of the Midland Institute, on Thursday, February 11th, 1875. The Chair will be taken at three o'clock P.M. precisely.

*Business.*—To receive a Report from the Habitual Drunkards Committee.

*Notice of Motion.*—Dr. Fowler Bodington will move: "That the amended Report of the Education Committee, together with the scheme, be adopted by the Branch, and forwarded to the Editor of the Journal for publication."

*Papers.*—1. On Functional Derangements of the Ovaries. By Dr. Malins.

2. Remarks on the Treatment of Skin-Diseases at General and Special Hospitals. By Dr. Mackey.

3. On Rheumatic Hyperpyrexia. By Mr. F. E. Manby.

Members are invited to exhibit Pathological Specimens at the commencement of the meeting.

Balthazar Foster, M.D.,
James Sawyer, M.D., } *Honorary Secretaries.*

Birmingham, February 1875.

## NORTH WALES BRANCH.

The intermediate meeting of this Branch will be held at the Castle Hotel, Conway, on Tuesday, February 16th, at 12.30 P.M.; Thos. E. Jones, Esq., President, in the Chair.

Dinner at 3.30 P.M.

T. Eyton Jones, *Honorary Secretary, pro tem.*

Wrexham, January 19th, 1875.

## BATH AND BRISTOL BRANCH.

The fourth ordinary meeting of this Branch will be held at the York House, Bath, on Thursday, February 18th, at 7.15 P.M.; F. Mason, Esq., President.

R. S. Fowler,
E. C. Board, } *Honorary Secretaries.*

Bath, February 1st, 1875.

## SOUTHERN BRANCH: EAST DORSET DISTRICT.

A general meeting of this District will be held at the London Hotel, Poole, on Thursday, February 18th, at 1.30 P.M.; H. D. Ellis, Esq., President, in the Chair.

*Business.*—1. To promote combined action with the Bournemouth and West Dorset Districts.

2. To elect officers for the present year.

3. To appoint the number, places, and times of meetings during the year, and the amount of annual subscription.

Dinner at 4 P.M., at the London Hotel; charge, 5s., exclusive of wine.

C. H. Watts Parkinson, *Hon. Sec.*

Wimborne, January 31st, 1875.

## METROPOLITAN COUNTIES BRANCH.

An ordinary meeting of this Branch will be held at the rooms of the Medical Society of London, 11, Chandos Street, Cavendish Square, on Friday, February 19th, at 8 P.M., when Dr. Lockhart Clarke, F.R.S., will read a paper on Cases of Paralysis.

Alexander Henry,
Robert Farquharson, } *Hon. Secretaries.*

February 1st, 1875.

## BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE third ordinary meeting of the Branch was held at the Royal Hotel, Bristol, on Thursday evening, January 14th; F. MASON, Esq., President, in the Chair. There were also present thirty-four members and one visitor.

*New Member.*—E. S. Greensill, Esq., Royal United Hospital, Bath, was unanimously elected a member of the Association and this Branch.

*Papers.*—The following papers were read.

1. On Failures of our Art. By T. Cole, M.D. This led to an animated discussion, in which Drs. Inman, Beddoe, Shingleton Smith, and Messrs. Collins, Tibbits, and Bartrum, took part.

2. The Classification of Cases of Blood-Poisoning. By R. W. Tibbits, M.B. After a few remarks from Dr. Dobson, the further discussion of this important subject was deferred until the next meeting.

## SOUTH OF IRELAND BRANCH: ORDINARY MEETING.

THE third meeting of the session 1874-75 was held in the theatre of the Royal Cork Institution, on Wednesday, January 13th; Dr. THOMAS GREGG, President, in the chair.

*Arterio-Capillary Fibrosis.*—Dr. RINGROSE ATKINS read a paper on this subject. Having first described the minute anatomy of granular contracted kidney, he detailed the views of Sir William Gull and Dr. Sutton on this so-called pathological condition, and then discussed a series of experiments and observations made by him, the result of which supported Dr. George Johnson's views on this subject. The conclusions arrived at from these experiments were as follows. 1. Glycerine alone will generally (though not in all cases) produce the so-called "hyalin-fibroid" appearances of the walls of the arterioles in specimens set up in it. 2. A mixture of equal parts of glycerine and camphor-water will invariably produce these appearances, corresponding almost exactly to those described by Gull and Sutton as being due to morbid processes. 3. The maximum distension and consequent "hyaline" appearance of the outer elastic coat of the arterioles is produced by the glycerine and camphor-water solution *acidified*. He next examined, on pathological grounds, the tenability of the above-mentioned authors' views, pointing out many facts brought forward by them in support of their doctrine, which could be equally well explained on other grounds; then, adverting at some length to the views of Johnson, Traube, and Bamberger on the muscular hypertrophy of the walls of the arterioles found in chronic Bright's disease, he exhibited a specimen of an arteriole of the skin mounted in glycerine, where the hypertrophied muscular tissue was coexistent with the distended elastic outer coat, and concluded by hoping that each individual member, as opportunities presented themselves, would inquire into the vexed question for themselves, withdrawn though it may be from the beaten path of medical literature. The paper was illustrated with numerous microscopical specimens and drawings.

*Therapeutic Uses of Electricity.*—Dr. W. H. SANDHAM read a paper on electricity as a therapeutical agent, and illustrated his remarks by some interesting cases, in which this remedy was resorted to with complete success, and which had resisted other modes of treatment.

*Injection of Perchloride of Iron in Post Partum Hæmorrhage.*—Dr. CURTIS gave the details of a case of injection of perchloride of iron in *post partum* hæmorrhage, occurring in an extremely anæmic and enfeebled woman, who had already borne several children, and who was situated amidst the worst surroundings of overcrowding, and was badly nourished. The hæmorrhage came on suddenly on the ninth day; and, on his being called to see the case, he found her quite blanched and almost pulseless; there was complete subinvolution of the uterus, which was yet quite soft and flaccid, easily admitting the fingers into its interior. Ergot had no effect, and the woman was dying of general profuse oozing, some clots also passing away. On examination, with the assistance of Dr. S. O'Sullivan, he determined to inject perchloride of iron, which he did in the usual strength (one to three) to the amount of about four ounces. The effect was instantaneous; the bleeding was arrested; and finally, by the aid of good support, the patient made a good recovery.—A long discussion followed on the prudence of using the perchloride as a *dernier ressort* in such cases. The general expression was in its favour, but only when other means had failed.—Dr. JONES detailed a case in which he had injected ergotine cutaneously under similar circumstances, with the best effect.—Dr. SANDHAM instanced a case where he had induced contraction *in extremis* by means of electricity, and spoke most strongly of this means of treating hæmorrhage.—The PRESIDENT, after a long experience in midwifery, was glad to be able to recommend the old plans of checking hæmorrhage which had always been adopted, cold in its various modes of appliance, ergot, pressure, and the cautious administration of stimulants. He would not hesitate to inject perchloride, which he looked on as an invaluable resort in extreme cases. He was with the old authorities of the Dublin school, who deprecated the too free use of the hand in the uterine cavity. It should be remembered that the occurrence of such cases was very rare, and that the tendency to exalt these extraordinary aids would incline students and young practitioners, perhaps, to place less importance on the judicious management of their cases in regard to the due precautions to prevent hæmorrhage during labour, and the control of such by means within the reach of all. No one, however, would underrate the value which the perchloride and transfusion conferred on obstetric practice.

# CORRESPONDENCE.

## HOSPITAL ABUSES.

SIR,—Permit me to invite the attention of the Association to the subject of hospital abuse; and to suggest that it take up in its corporate capacity the consideration of the best means of treating this gigantic evil.

I believe it could render no greater benefit to the public, as well as to our profession, than by employing its influence in the suppression of this prevailing perversion of charity; and I feel assured that no mere individual effort is equal to this purpose. Much has been attempted from time to time, yea, much has been done, both by individual as well as by combined exertions, and I gladly avail myself of the opportunity of bearing testimony to the fact; but I maintain that the difficulties are too great to be overcome by sporadic effort, and can only be adequately attacked by systematic and united action, such as the Association could afford.

I need scarcely adduce further argument in proof of the existence of this abuse of hospitals—it is admitted on all sides that hospital relief is misapplied to an immense extent; but I may be permitted to state that, through the vigilance of the lay-officers of the Royal London Ophthalmic Hospital, between five hundred and six hundred persons were refused admission as ineligible in one year.

And, if one hospital afford such facts, what must be the magnitude of the abuse which all those of the metropolis, as well as provincial ones, could furnish!

There is, indeed, no doubt that multitudes avail themselves of advantages too freely offered, and thus rob suitable recipients of the benefits provided by the benevolence of the charitable for the sick poor.

But, as medical men, giving our gratuitous services to hospitals, we should be very quixotic and unjust to ourselves were we silently to allow ourselves to be defrauded of our means of subsistence through the meanness of those who, under the guise of assumed poverty, obtain our unrequited help. It, therefore, becomes us to demand that all reasonable care be exercised to exclude from hospitals those whose circumstances enable them to obtain advice on the usual terms; and to this end, I invite the aid of the Association in devising a scheme for the suppression of this abuse, and moral influence in enforcing its adoption.

I am, Sir, your obedient servant,
J. C. WORDSWORTH, F.R.C.S.

London, 1st February, 1875.

## DIPSOMANIA.

SIR,—It is now more than twelve months since I was urgently entreated by a former patient to try to establish a Home in the environs of London for the treatment of intemperance in the upper and middle classes. I therefore set myself the task of ascertaining whether such an institution would be desirable, whether it would receive the countenance and aid of my medical brethren, and whether it could be made self-supporting. On all these points, the evidence was conclusive, and in the affirmative.

That an institution devoted exclusively to this class of patients, and this only, was desirable, seemed proved by the fact, within my own knowledge, that many dipsomaniacs of the above classes, who would gladly avail themselves of such a Home did one exist, are now disposed of either as inmates of lunatic asylums or of hydropathic establishments, or in the families of medical men or of clergymen, in none of which can they be treated as their case demands. The desirability was also attested by all those leading physicians and psychologists to whom I applied for information and advice on the subject, and who have kindly attached their names to the document accompanying this letter (see below). Further testimony was met with in the Report of the Select Committee on Habitual Drunkards. Dr. Forbes Winslow, in his evidence, expresses his belief that "if establishments were organised for the reception of persons addicted to chronic habits of intemperance, hundreds would avail themselves of these institutions, and voluntarily surrender themselves for a time to control and treatment. Such institutions are, to my mind, one of the great and crying wants of the age". Dr. Druitt expressed his opinion that inebriate asylums were quite as much required as lunatic asylums, and that "they would be the salvation of many".

That the Home I propose to establish would receive the countenance and aid of my professional brethren, I have every reason to believe, from the letters I have received from members of the profession in different parts of the country, and from the promised support of those eminent men who have signed the accompanying letter.

I am aware that many take a less sanguine view than myself of the amount of good likely to be achieved, and consider it essential that there should be a legal power of detention; and it is well known that the late Mr. Donald Dalrymple gave up his practice and entered Parliament for the express purpose of inducing the legislature to grant this power. Admitting the desirability of getting such a law passed, and the increased success in treatment that would result, yet I maintain, both from personal experience and from the reports I have received of the working of similar institutions in America, that much more might be done than is actually accomplished, were a more systematic method of treatment pursued than has hitherto been attempted in this country. This brings me to the last point of my inquiry—Whether the institution could be made self-supporting? On this subject, I have ascertained that, provided the establishment be conducted on a sufficiently large scale, little or no risk will be incurred. To assist me in raising funds for the purpose, the Earl of Shaftesbury has kindly promised to preside at a meeting to be held in Willis's Rooms at three o'clock on Thursday, February 11th; and I earnestly entreat all those of my medical brethren who are interested in the subject to come and support his lordship. Several eminent members of the three learned professions have promised to take part in the proceedings.

I am, etc., CARSTEN HOLTHOUSE.

George Street, Hanover Square, February 1st, 1875.

The following is the document above referred to:—"To Carsten Holthouse, Esq., 3, George Street, Hanover Square.—We, the undersigned, fully alive to the prevalence of this disease, and to the great want of an institution specially devoted to its treatment, are of opinion that such an one as you propose, which shall afford to its inmates the comforts of a home and the pleasures of society, while at the same time they are protected from temptation, would be a great boon both to the patients and to their families, and is well entitled to our recommendation and support.

"George Burrows, M.D., F.R.S. (*President of the Royal College of Physicians*); Thomas Watson, M.D., F.R.S.; Charles J. B. Williams, M.D., F.R.S. (*President of the Royal Medical and Chirurgical Society*); William Jenner, M.D., F.R.S.; William W. Gull, M.D., F.R.S.; J. Russell Reynolds, M.D., F.R.S.; C. B. Radcliffe, M.D.; Henry Monro, M.D.; William Wood, M.D.; H. Maudsley, M.D.; G. Fielding Blandford, M.D.; William Fergusson, F.R.S.; James Paget, F.R.S.; Prescott Hewett; Henry Thompson."

## CRUELTY TO ANIMALS.

SIR,—The honourable and practical manner in which the Committee of Council has expressed its opinion on the recent so-called vivisection prosecution renders it needless for me to say much on that subject. I am sure that the action of the Committee of Council will gratify all those members who were present at, and voted for the continuance of, Dr. Magnan's experiments at Norwich.

As one who voted for the continuance of Dr. Magnan's experiments, you will, perhaps, permit me to make a few remarks on the general action of the "Society for the Prevention of Cruelty to Animals". I give in to no one in my admiration of the principles of that Society as expressed by its title, but I am compelled to take exception to the Society's mode of carrying out such principles. When one sees the amount of suffering that is inflicted every day on the lower animals, suffering inflicted in our public streets, as Dr. Copeman pointed out before the magistrates at Norwich, inflicted often on account of fashion, and still no action taken by the Society, one cannot but for a moment imagine that we have travelled back to the dark ages, when, to be a man of science, was a surety of being prosecuted by those who thought they possessed a finer feeling of humanity than their fellows. This will, I think, be strengthened by reading some of the statements of the recent deputation on the subject. Those who heard Sir James Paget's calm but forcible reasoning on the justifiability, or not, of the infliction of pain on the lower animals (which was repeated by Mr. Cadge at Norwich), must have been struck by the contrast between Sir James's temperate remarks and those of some who denounced Dr. Magnan's experiments.

The subject has been so much misrepresented that, as you remark, nothing but free ventilation in the legislature will allay the public anxiety which has been called forth.

In addition to the forcible instances of cruelty to animals which you give in your article in last week's JOURNAL, permit me to jot down the following.

1. There is the one of the bearing-rein, which has been so much condemned in the daily press of late.

2. The practice of nicking and docking horses' tails, which is continually done. These operations are done to the manifest improvement of the appearance and carriage of the horse; still they cause pain, and are done to please fashion.

3. The practice of rounding foxhounds' ears, which means cutting off a considerable amount of the ears, so as to made the pack look uniform and light; it is, I am told, done in most kennels.

4. The practice of dubbing gamecocks. This consists of removing the skin and wattles from the throat, cheeks, and face of the birds, and the large comb on the head. This leaves a large surface which has to cicatrise. I am informed that no gamecock is exhibited without having been "dubbed". Now, as cock-fighting is not permitted, surely this must be a most unnecessary act of cruelty, and is simply done at the behests of fashion. Yours obediently,

Fishguard, February 2nd, 1875. J. HANCOCKE WATHEN.

## YELLOW FEVER.

SIR,—In your *précis* of the proceedings at the meeting of the Royal Medical and Chirurgical Society, on the 12th instant, I am reported to have said, that "I believed in no specific yellow fever, apart from malarious fever". May I ask you to be good enough to correct an error, the result, I imagine of my having been imperfectly heard? What I did say was, briefly, as follows—"I do believe in a specific form of contagious continued fever prevailing, within certain geographical limits, endemically, and recurrent in formidable and destructive visitations at uncertain intervals, liable to be conveyed even beyond the latitudes within which it is most prevalent; altogether distinct and apart from malarious remittent, which occurs in the same localities, and is often seen in India, especially in the vicinity of the submontane regions, known as the Terai, where the conditions favourable to the development of malarial poisoning exist in abundance; and which, though it may be accompanied by yellow skin, brown dry tongue, delirium and stupor, hæmorrhage from stomach and bowels, and even albuminuria, is not identical with the yellow fever of the West Indies, or such as the *Eclair* conveyed to Boa Vista and England, or such as I should have ventured to think, had I not been informed otherwise, was that which visited H.M.S. *Doris*, and which disappeared when she passed into other latitudes. This yellow fever, I remarked, was, as far as I knew, unknown in India, and that it is a curious fact such should be the case, seeing that the physical conditions usually supposed to be essential to its occurrence, exist in part of that country. But I mentioned the fact that fevers have occurred in India at different times, and in various places, such as the Mahamurree in Rohilkund, the Pali disease, the Burdwan fever, even now prevailing, that have been regarded as contagious, and, indeed, in some degree, may have become so, from intensity of insanitation and over-crowding; though it is probable that they are but forms of malarious poisoning, not to be grouped in the class to which yellow fever, typhus, etc., belong. However nearly certain forms of remittent non-contagious malarious fevers may resemble the real yellow fever, I think they must be regarded as quite distinct; and the distinction is of importance, not only in its pathological aspect, but also in regard to questions of quarantine. I also made a passing allusion to albuminuria as a complication of malarious as well as o real yellow fever, and that it was more frequently present than is sometimes suspected, and said that it is a question which merits further investigation.—I am truly, J. FAYRER.

London, January 25th, 1875.

## MALARIOUS FEVERS.

SIR,—As I have had some years of personal experience of malarious fevers in malarious districts, perhaps my facts may weigh somewhat against Dr. Inman's opinions. I do not think I misrepresent him when I say that he considers the cause of malarious fevers to be a great variation of temperature, notably between that of day and night; often due to the precipitation of the moisture which takes place after sundown.

1. In my experience, the time of the year during which the greatest variation of temperature occurred was the cold weather, December and January, when there was often a difference of 40 deg. Fahr. in the shade between day and night; but, at this time of the year, there was no fever except among those previously infected. At that time of the year, very heavy dews did occur; but, strangely, they did not produce fever.

2. The most sickly time of the year was not when the water covered the land, but in autumn, when it was drying up, and the surface of the earth was exposed, covered with putrefying vegetation. On the Brahmapootra, when the nights are cool comparatively, no one gets fever when sleeping in mid-stream, but, if the steamer be anchored in shore when the nights are very hot, then the fever seizes its victims; but, surely, if Dr. Inman and Dr. Oldham be right, the fever should be most apt to occur in mid-stream.

3. It is a notorious fact that new clearances, as in the tea-districts, are more unhealthy, not only for natives, but for Europeans who do not work in the sun. Old stations, kept free from shingle, with a river frontage not shut in by hills, remain free from fever, although in the centre of malarious districts, except in very wet seasons when the water drying leaves long growths of vegetation to putrefy in the sun.

4. In this country, many workpeople are exposed to greater variations of temperature than there are in India, but they do not get malarious fever.

5. I do not understand Dr. Inman's dogmatic assertion, that terrestrial emanations only take place by day. After sundown, in the tropics, the earth begins to radiate its heat, warming the lower stratum of the atmosphere, which rises and carries with it anything light enough to float in the current. Surely this is what is meant by a terrestrial emanation.

6. Everyone willingly admits the importance of all Dr. Inman says about prevention. The importance of a chill is generally admitted by both lay and medical residents in malarial districts; and to the recognition of this fact we must attribute the change which has taken place in Anglo-Indian dress—from cottons to flannels and tweeds; but he must not exalt an occasioning cause into the true cause of the disease.

The theory that decomposing vegetation forms a suitable nidus for the development of the poison of malarious fever seems to me to agree with all our knowledge, though, like the analogous theory of the cause of typhoid fever, it does not exclude other modes of development which are not perhaps so obvious.—I am, sir, your obedient servant,

Edinburgh, January 5th, 1875. M. B.

## CLUB PAYMENTS.

SIR,—Allow me—a practitioner of forty years' standing—to express my entire concurrence with your remarks on the subject of payments, etc., by clubs.

I have long striven, and not altogether unsuccessfully, in endeavouring to raise the rate of remuneration paid by Friendly Societies; and I was delighted to find that the medical men of North Wilts had unanimously resolved to increase the payments, and to fix a minimum. Whenever I have complained of the low rate of payment, I have been met by the remark: "It is all your own fault; the matter lays entirely with the profession; if you insist on a higher rate, we should be obliged to pay it; but, if one of you will not take the rate, others will," etc. And here lies the truth: we are not true to ourselves or to each other. It is the old old story.

I was glad, therefore, to learn that the men of North Wilts had roused themselves from their lethargy, and had determined to acquit themselves like men. I hoped their example would be followed in South Wilts and the adjoining counties; but to my disgust I read in the *Salisbury and Winchester Journal* of Saturday last the following.

"Trowbridge.—The several benefit clubs have been all up in arms about the contemplated advance in fees intimated by the medical men of North Wilts. A large and enthusiastic meeting has been held here, at which all the clubs have been pretty well represented, to confer with medical men of Trowbridge on the subject. The result has been, that the meeting was decidedly against the proposed change, and the new scale of fees has been entirely abandoned, as far as Trowbridge is concerned."

This is all I know of the matter; but it would be interesting to know the why and wherefore of such a sudden change in the *unanimous* determination of the previous week.

Will some Trowbridge practitioner be so good as to enlighten the profession in the matter? Your obedient Servant,

L. OWEN FOX, M.D., F.R.C.S.

Broughton, Winchester, January 18th, 1875.

## MEDICAL ADVERTISING AND MEDICAL REVIEWING.

SIR,—As I read in your pages the report of Mr. Lane's manly address at the Harveian Society, I was reminded of the following legend of the early Northmen. I quote from memory. "Denmark was overmatched by enemies; one especially of her heroes, with intelligent method, tried to stem the opposing force; he was outvoted, and retired to a cave in 'living death'. Time passed; the country's calamities increased; an oracle declared that the only salvation for the country was in resuscitating the rejected councillor; yet, it added, death would ensue to the intrepid one who broke into the cave. At last, a fearless and patriotic citizen dared the assault; dark mists and thunder followed the brave entry; for an instant, when the cloud cleared off, the aged sage was seen with beard grown through the stone table on which his elbows had rested for years; on the ingress of light and air, he revived, the table crumbled to pieces, and he exultingly exclaimed, 'It is well there are yet men in Denmark'. Animated by this augury, men took heart, worked, Denmark was saved." May I not compare Mr. Lane to the patriotic one who braved the threatened danger, and "dared to be free"? Let me commend the perusal of Mr. Lane's address to all who may not have read it, or have but slightly considered its important bearing.

Circumstances caused me to be detained on a wet Sunday, two years ago, at an inn in a county town. I was much thinking of the loose degrading system of medical authors' advertisements, especially in non-medical papers, quasi-"puffs". Two lines would return to my recollection:

"Pigmies are pigmies still, though perched on Alps;
And pyramids are pyramids in vales."

The inn's best room had but two books—a big Bible and a beautifully illustrated edition of *Don Quixote*. From the preface of the latter (the biography of Cervantes), I extracted the following, so much then in accordance with my train of thought; it will agree well with what was ably expressed by Mr. Lane, as told through your last number.

"Everything we know of the personal character of Cervantes adds to our appreciation of his writings. He was an accomplished scholar, a brave soldier, a kindly gentleman, and sincere and pious Christian. He was, as M. Viardot remarks, an illustrious man before he became an illustrious writer, one who was the doer of great deeds before he produced an immortal book."

I am, Sir, yours faithfully,

Hampstead, January 18th, 1875. CHARLES F. J. LORD.

## REPORT OF THE COMMISSIONERS IN LUNACY.

SIR,—I think most men holding public appointments in asylums will agree with the opinion expressed in your article on the report of the Lunacy Commissioners, on the 9th instant, that these gentlemen perform their duties in a courteous way, and with an evident desire to improve the places they inspect; but I demur to the conclusion your reviewer draws as to the "unmurmuring way in which their policy is everywhere received and acted upon". As a matter of fact, it is not so. There exists a chronic antagonism between the "great unpaid" and the commissioners, which mars the improvements and efficiency of many public asylums. For instance, at the Cambridge Asylum, the Commissioners have for seven years past urged the appointment of an assistant medical officer, and have even invoked the aid of the Home Secretary to remonstrate with the justices; but all in vain, though there are nearly three hundred patients here. Moreover, though they reported, in 1871, to the Home Secretary, that the same asylum was "inadequate and unfit", it remains in the same state, in spite of plans and correspondence. The history of the Kent and Middlesex Asylums is one long battle between the justices and their "enemies" at Whitehall. These things are not so apparent in the Blue Book, which has been reviewed through rose-coloured spectacles in the JOURNAL. For my part, I wish there were a simple despotism at Whitehall, and that the Commissioners were omnipotent. The asylums would be more satisfactorily managed, and there would be more encouragement to those who now waste their lives in doing good to an ungrateful and ignorant public in spite of itself.—I am, yours, etc.,

G. M. BACON, M.D., Medical Superintendent.

Cambridge co. Asylum, January, 1875.

# PUBLIC HEALTH
AND
# POOR-LAW MEDICAL SERVICES.

## GOVERNMENT INQUIRY AT OVER-DARWEN.

WE have before us a local paper, in which there is a long account of the inquiry at Darwen, to which we called attention in our issue of January 23rd, as having been ordered to be held.

In consequence of a representation made by some of the inhabitants at Darwen to the Local Government Board, setting forth that the Darwen Local Board neglected its duty in the matters of drainage and the removal of refuse and other nuisances, and that, on account of these defaults, the health of the inhabitants of Over-Darwen had been endangered, a Commission, consisting of Lieutenant-Colonel Cox and Mr. Basil Cane, was appointed to inquire into the matter. Two of the petitioners appeared to prove the case. One of them, Mr. Deakin, read a long statement as to the general sanitary state of Over-Darwen, pointing out how many streets were without sewers; how nuisances very generally existed, and the want of paving, flagging, and channeling; how, in one place, the sewage ran from houses over the adjacent ground, finding its way ultimately through a brook into a mill-pond; how, in another street, the sewage from the houses ran into the River Darwen; how complaint was made as to the bad state of this street, in a letter which was read at the Highway Committee in January 1873, but "was then refused attention"; and so on. In the course of the proceedings, Lieutenant-Colonel Cox expressed the opinion that the allegation that the Local Board had failed in its duty as the Nuisance Authority could not be supported by saying that there were "nuisances in the streets, because that did not establish that there had been a failure in carrying out the Nuisance Removal Act". He added, that it was necessary to the carrying out of the Nuisance Removal Acts, that notice should be given to the Local Authority by certain persons only, enumerated in the Act 18 and 19 Vict., cap. 121; and that, "when a nuisance is found to exist, the Nuisance Authority shall cause complaint thereof to be made to a Justice of the Peace in order to establish a specific fault, and in order to abate the nuisance". He then added, "In enforcing that obligation, it will be necessary to show that the persons entitled to complain did complain, and that the Board had failed to do that of which complaint had been made." It thus appears to have been the fixed idea of the Commissioners, that no neglect could be imputed to the Local Board as regards the Nuisances Removal Acts, unless the Board's attention had been specially called to a certain nuisance by certain supposed qualified persons, and those only. Mr. Cane, the other Commissioner, also made remarks of a similar tenour to those of his colleague. This ruling of the Commissioners appears to us to be entirely wrong, and contrary to the law. Up to the passing of the Sanitary Acts of 1866, such an exposition of the law might have been correct; but, on the passing of that Act, it was altered. Part II of the Sanitary Act of 1866 is stated to be an "amendment of the Nuisances Removal Acts", and embraces the following return. "It shall be the duty of the Nuisance Authority, to make, from time to time, either by itself or its officers, inspection of the district, with a view to ascertain what nuisances exist calling for abatement under the powers of the Nuisance Removal Acts, and to enforce the provisions of the said Acts in order to cause the abatement thereof, also to enforce the provisions of any Act that may be in force within its district, requiring fireplaces and furnaces to consume their own smoke."

With this section of an Act of Parliament in force, we fail to see how such a course of proceeding as that ruled to be adopted at the Darwen inquiry with reference to the Local Board's "default in enforcing the provisions of the Nuisances Removal Acts", can be sustained; and the only conclusion at which we can arrive on reading the report of the first day's proceedings is, that the Commissioners were in ignorance of the existence of the section which we quote above. It would seem that the General Inspectors have not even yet become acquainted with all their duties. Such proceedings as that of the first day of the Darwen Inquiry are not likely to induce gentlemen to complain of defaulting Local Authorities; and the public have a right to demand that inspectors sent down to investigate judicially such neglect as has for years obtained, shall be thoroughly acquainted with the Acts of Parliament under which they hold inquiry. We trust that Mr. Sclater-Booth will, for his own credit's sake, himself see into this matter; for the Darwen Inquiry is (as his Inspector in his opening address said) one, the circumstances of which "are well known, not only in Over-Darwen and the Blackburn Union, but in the county, and far beyond the county".

## POOR-LAW MEDICAL APPOINTMENTS.

BATE, George, M.R.C.S.Eng., appointed Assistant Medical Officer to the new Woolwich Union Infirmary at Plumstead, and Dispenser to the out-door poor, Plumstead District.

BUCHAN, Charles F., M.B., appointed Medical Officer and Public Vaccinator for the Ludham District of the Smallburgh Union, Norfolk, *vice* S. T. Huke, M.R.C.S.Eng., resigned.

BUCK, Joseph R., L.R.C.P.Ed., appointed Medical Officer for No. 1 District of the Worcester Union.

CRAVEN, John, L.R.C.P.Ed., appointed Medical Officer for the Parish of Thurso, Caithness-shire, *vice* W. Bruce, M.D., deceased.

DAKEYNE, Thomas E., L.R.C.P.Ed., appointed Medical Officer of the Leek District and the Workhouse of the Leek Union.

FOSTER, G. H., M.B., appointed Medical Officer to the Workhouse, Hitchin Union, *vice* O. Foster, M.R.C.S., resigned.

FURLEY, Robert C., L.R.C.P.Ed., appointed Medical Officer to the Poor House at Craiglockhart, Edinburgh.

GALLWEY, John H. M., M.B., appointed Medical Officer and Public Vaccinator for the Ponteland District, and Medical Officer for the Workhouse of the Castle Ward Union, Northumberland.

IRWIN, William, L.R.C.P.Ed., appointed Medical Officer and Public Vaccinator for the Manorcunningham District of the Letterkenny Union, co. Donegal, *vice* J. Smyth, M.D., deceased.

TURTLE, James, M.R.C.S.Eng., appointed Medical Officer for No. 2 District of the Hackney Union.

WALSHE, Denis, L.K.Q.C.P.I., appointed Medical Officer to the Poplar and Stepney Sick Asylum.

WANKLYN, Arthur, M.B., appointed Medical Officer and Public Vaccinator to the Endon District of the Leek Union.

WEBSTER, Henry W., L.R.C.P.Ed., appointed Resident Medical Officer of the Woolwich Union Workhouse and Infirmary.

NEMO.—The primary duty of a Registrar of Deaths is to register every death that occurs within his subdistrict, and to obtain the best information relating to all the particulars thereof required for insertion in the register. With regard to the cause of death, the new Registration Act, in Section 20, says—"In case of the death of any person who has been attended during his last illness by a registered medical practitioner, that practitioner shall sign, and give to some person required by this Act to give information concerning the death, a certificate, stating to the best of his knowledge and belief, the cause of death; and the cause of death, as stated in that certificate, shall be entered in the register, together with the name of the certifying medical practitioner." If all persons were attended in their last illness by registered medical practitioners, the provisions of the new Act would make the certification of the causes of death all but complete. It is well known, however, that many persons are attended in their last illness by duly qualified, although *unregistered*, practitioners; others by unqualified practitioners, and in a certain small proportion of deaths there is no medical attendance whatever during the last illness, and yet all these deaths must be registered. In either of the two first cases it is the registrar's duty, on the production of what purports to be a certificate of the cause of death, to enter such cause in the register, but without the word "certificate", or the name of the practitioner. In cases of deaths, where there has been no medical attendance upon the deceased person, the registrar is instructed to obtain the best information as to the cause of death which the informant can furnish, and of course to omit the word "certificate" from the Cause of Death column in the register.

# MILITARY AND NAVAL MEDICAL SERVICES.

MOVEMENTS OF ARMY MEDICAL OFFICERS.—Deputy Surgeon-General J. McGrigor Grant, M.D., is appointed to be principal medical officer at Bermuda, *vice* Deputy Surgeon-General Webb, whose tour of foreign service is about to expire.—Surgeon B. R. Jagoe, M.D., is placed on general duty, Mhow circle, accompanying the draft of 108th Foot to Nusseerabad. Surgeons J. Prendergast and J. E. V. Foss, M.D., are placed on general duty, Poonah circle. Surgeon J. S. Wilkins is placed on general duty, Poonah; and Surgeon W. A. Barren, on general duty, northern division, from December 4, 1874.—Surgeons G. H. Harvey and G. Hare have been struck off the strength of the Aldershot Division. Surgeon W. B. Steele has been ordered to do duty with the 1st Station Hospital at Aldershot.

## THE SOURCE OF DISCONTENT IN THE ARMY.

THE *Army and Navy Gazette* contains the following remarks on the discontent prevailing in the Army Medical Department, and its causes.

"The members of the Army Medical Department express fears lest, in considering the cause of the existing discontent, the Secretary of State for War should fail to appreciate the many advantages of the system they one and all so strenuously uphold. To a civilian, the evils of the General Hospital arrangement may not be so apparent as to a soldier. It has, however, to be remarked that it is not juniors alone who condemn the system inaugurated by the warrant of 1873. We happen to know for a fact that, taking the whole list of surgeons-general and deputy surgeons-general, containing forty-three names, there are not half-a-dozen officers to be found who would come forward as supporters of the document in question. When those placed beyond the operations of the objectionable clauses number themselves among its strongest opponents, it must be allowed that things need to be mended. A deputy surgeon-general, writing to us, says:—'There is no fear whatever that a change will not be effected. The complaints are so general, that the staunchest adherent of the late administration would think twice ere he voted in antagonism to a whole department.' The doctors, it is to be hoped, may take heart when we assure them that, two years ago, the writer 'of the above' was one of the greatest believers in the advantages which it was thought would accrue from the alteration. Now he is the very first to raise his voice against the change."

We are not aware of the source whence our contemporary has obtained his information regarding the all but universal concurrence of opinion existing among the administrative officers of the Army Medical Department as to any one particular system of conducting the hospital arrangements. The correspondence which reaches us, and the pamphlets and articles which are published from time to time on the subject, lead us to the conclusion, that there are many conflicting views among them on the topic in question. Certainly not a few medical officers, both administrative and executive, hold strong objections to the application of the regimental system, as it formerly existed, to the circumstances of the present day; while some who have been advocates of the regimental system still desire that the system of hospital administration introduced in 1863, with some modifications, may have a fair trial, which it certainly has not as yet had. There are many combatant officers who do not approve of Mr. Cardwell's system of localisation of the Forces in Great Britain and Ireland; yet, now that it has been introduced, and that much expense has been gone to in providing the necessary accommodation for the troops and establishments connected with the system, they quite admit the necessity of giving it a complete trial. The arrangement of station hospitals is intimately connected with the general plan of army arrangements introduced by Mr. Cardwell, and cannot be got rid of altogether without a change of the whole system. But the general hospital arrangements may be modified in details, and in this way some sources of discontent among individuals may be removed; indeed, it has already been modified in one important particular; viz., that of surgeons attached to regiments attending to the sick soldiers of the particular regiments to which they are attached, and to them only, in the station-hospitals. But there are more important sources of discontent in the Medical Department at large than this or that method of hospital management, and to these we have called attention in several recent numbers of the JOURNAL. Among them, the want of greater professional weight and authority, a more speedy course of promotion, higher rates of remuneration, and of better rates for retirement, hold the foremost place in the minds of most of the army medical officers; and we trust that, when considering the causes of the existing discontent, the Secretary of State for War may have these desiderata, which are of solid importance, prominently brought to his notice by those whose duty it is to call his attention to the subject.

# OBITUARY.

## ROBERT ADAMS, M.D.T.C.D., F.R.C.S.I.

### SURGEON IN ORDINARY TO THE QUEEN IN IRELAND, ETC.

DR. ROBERT ADAMS died in Dublin, on Wednesday, January 13th, at the advanced age of 83. While yet at an early age, he gave promise of great capacity for the art of surgery, and, on the completion of his collegiate studies, entered ardently into the science of comparative anatomy. He then visited the Continent, and made himself practically cognisant with the best methods of performing the most difficult operations; and, on assuming practice as an operative surgeon, speedily gained a high position in the profession. He was a distinguished graduate of the University of Dublin, and held the Regius Professorship of Surgery in that institution. On three several occasions he acted as President of the Royal College of Surgeons in Ireland; he was also a member of the Council of that body, ex-President of the Dublin Pathological Society, surgeon in ordinary to the Queen, and consulting surgeon to the Rotundo, Sir Patrick Dun's, and the Richmond Hospitals. He contributed several articles, on Abnormal Joints, to Todd's *Cyclopædia of Anatomy and Physiology*, and was the author of the well-known and most valuable work on *Chronic Rheumatic Arthritis*, with an atlas of plates. Although attacked with heart-disease, he had a most extensive practice, and may be said to have died in harness, working as he did to a very short period before his death. His remains were interred on last Tuesday, and the funeral was followed by the leading physicians and surgeons of the city in which he resided for so many years.

## EDWARD CUTLER, F.R.C.S.

THIS eminent surgeon died on Monday, September 7th, at the residence (15, New Burlington Street), where he had resided and practised since 1842. He commenced his surgical education by becoming a pupil of St. George's Hospital in 1820, when the late Sir Benjamin Brodie was one of the surgeons; and he numbered among his fellow-students Mr. Cæsar Hawkins (his junior by a few years), the late Dr. Robert Ferguson, and Sir Charles Locock. He was a successful and popular surgeon of the Lock Hospital for some years. In 1834, he was elected assistant-surgeon of St. George's. His abiity, especially as an operator, attracted the notice of Sir Benjamin Brodie, who selected him for his assistant in private practice, and these relations formed the basis of a firm and lasting friendship between them. On the death of Mr. Walker, in 1843, Mr. Cutler succeeded to the surgeoncy of St. George's, and established a reputation there for his eminent success in operations, and in the after treatment of his patients—qualities which soon secured him a large private practice. He became a fellow of the Royal College of Surgeons in 1843, and subsequently obtained a seat in the Council. The patient interest which he bestowed on the cases under his care, united to his bright social qualities, formed a combination which will live in the memory of a large circle of private as well as professional friends. He died at the age of 77, of natural decay, having continued his practice till within two years of his death. He married, in 1824, the daughter of the late Sir Thomas Plumer, Master of the Rolls.

# UNIVERSITY INTELLIGENCE.

## UNIVERSITY OF CAMBRIDGE.

SCHOLARSHIPS IN DOWNING COLLEGE.—An examination for three minor scholarships will be held in Downing College on Tuesday, the 6th of April next, and the three following days, and will begin at 9 A.M. on Tuesday. The examination will be in classics, elementary mathematics, law, and natural sciences. There will be two papers in law; one on jurisprudence and elementary Roman law, and one on international law; including the relations of these to moral science. The examination in natural sciences will include chemistry, theoretical and practical, physics, comparative anatomy, and physiology. Candidates in law and natural sciences will be expected to show such a knowledge of classics and mathematics as will enable them to pass the previous examination. Persons who have not been entered at any College in the University, or who have not resided one entire term in any such College, are eligible to these minor scholarships, which will be of the value of £60 *per annum*, and tenable for two years, or until their holders are elected to foundation scholarships. No one elected minor scholar will receive any emoluments until he has commenced residence as a student of the College. Satisfactory testimonials as to their moral character must be sent to the Master by all candidates on or before Thursday, the 1st of April, and each candidate is requested to state in which subject he desires to be examined. Further information will, if required, be given by John Perkins, Esq., Tutor of the College.

# MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentleman was admitted a Fellow on January 28th, 1875.

Hunter, William Guyer, M.D.Aberdeen, India

Admitted Members.

Corbould, Francis John, M.D.Aberdeen, Reigate
Coupland, Sidney, M.D.Lond., Elsham Road
Dukes, Clement, M.B.Lond., Rugby
Elliott, George Frederick, M.D.Dubl., Hull
Evershed, Arthur, Belle Vue
Gowers, William Richard, M.D.Lond., Queen Anne Street
Hunt, Benjamin, M.D.St. Andrew's, Edgbaston, Birmingham
Mackey, Edward, M.D.Lond., Birmingham
Stretton, William Harris, M.D.St. Andrew's, St. Bartholomew's Hospital

Admitted Licentiate.

Edwards, Roger, University College Hospital

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on January 28th.

Manoel Martinho Gonsalves, L.S.A., Cambridge Terrace, Hyde Park; Roger Edwards, L.R.C.P.Lond., Dolgelley, North Wales; Herbert Smalley, Grays, Essex; Francis H. Champneys, B.A.Oxon., Lichfield; Robert Wharry, Charlton, Kent; Edward P. Balshaw, Bayswater; John B. Footner, Romsey, Hants; Thomas Smailes, Pickering, Yorkshire; Frederick Henry Spooner, Plymouth; William Y. Harvey, Rutland Street; Awdry Peck, Bath; H. Gordon Cumming, Exeter; Henry A. Lovett, Norwich; George Hastings, Brixton; Wm. R. Basham, Aldershot; and George [illegible] Hart, Birmingham.

The following gentlemen were admitted members on January 29th.

Messrs. Bernard Pitts, B.A.Cantab., Northampton: Henry North, Winchester; J. Arthur Kempe, Exeter; W. Tonge-Smith, Jamaica; and Levi C. Lane, M.D.Jeff. Coll. Philad., San Francisco, California.

Of the 110 candidates examined, 65 obtained the diploma, and 29 were referred; eight passed in surgery, and when qualified in medicine, will be admitted members of the College; the others, who went in only for surgery, were referred.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, January 28th, 1875.

Barrow, Arthur Haynes, Denbigh Place, Pimlico
Bowker, Edward Harwood, Chesterfield, Derbyshire
Gonsalves, Manoel Martinho, St. Mary's Hospital
Lacy, Alexander Gairdner, Guernsey

The following gentleman also on the same day passed his primary professional examination.

Neylan, John, London Hospital

At the Preliminary Examination in Arts, held at the Hall of the Society, on January 29th and 30th, 1875, 51 candidates presented themselves; of whom 26 were rejected, one retired, and the following 24 passed, and received certificates of proficiency in general education. In the First Class, in order of merit:

1. Charles Matthias Lamb. 2. Annie de la Cherois. 3. Henry Hinds Austen. 4. Knowlson Townsend. 5. Charles Graham Havell.

In the Second Class, in alphabetical order:

H. K. Bamber, John Cock, J. C. Culling, W. H. Day, T. Dutton, C. H. Fowler, G. C. Hamilton, H. Hawksworth, Joseph King, R. J. Oswald, H. R. Powell, G. W. Roberts, G. S. Robinson, F. H. Saunders, E. W. Shepard, John Smith, H. Tause, Jane Waterson, and A. G. Whitmore.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At examination meetings of the College, held on Tuesday, Wednesday, and Thursday, January 12th, 13th, and 14th, 1875, the License to Practise Medicine was granted to—

Kennedy, John William
Rae, William Masters
Tully, Edmond

The License to Practise Midwifery was granted to—

Kennedy, John William
Murphy, George Wyndham
Rae, William Masters

## MEDICAL VACANCIES.

THE following vacancies are announced:—

ABBEYLEIX UNION—Apothecary.
ARMY MEDICAL DEPARTMENT—Surgeons. Applications to be made to the Director-General of the Army Medical Department.
ASHTON-UNDER-LYNE UNION—Medical Officer for No. 3 District.
BARONY PAROCHIAL HOSPITAL, Barnhill, Glasgow—Dispenser.
BECKETT HOSPITAL AND DISPENSARY, Barnsley — House-Surgeon. Salary, £140 per annum, with furnished rooms, gas, and coals.
DERBYSHIRE GENERAL INFIRMARY—Assistant House-Surgeon. Board, lodging, and washing, but no salary. Applications to Secretary.
DOWNHAM UNION—Medical Officer for No. 6 District.
EMSWORTH—Certifying Factory Surgeon.
ESSEX LUNATIC ASYLUM—Second Assistant Medical Officer and Dispenser. Salary, £100 per annum, with board, lodging, and washing.
FLAX MILLS FRIENDLY SOCIETY—Medical Officer. Salary, £110 per annum. Applications to A. M'Keeman, 7, Hunston Square, Johnstone, N.B.
GRANTHAM UNION — Medical Officer for the Ropsley District. Salary, £26 : 10 per annum.
HARDINGSTONE UNION—Medical Officer for the Brafield District. Salary, £45 per annum.
HARRIS, Parochial Board of—Surgeon. Salary, £66 per annum, including vaccination and medicine for the poor. The gentleman elected will get £90 per annum for attending the ratepayers and cottars within South Harris. Applications to be made to the Chairman of the Parochial Board of Harris.
HEADINGTON UNION—Medical Officer for the Wheatley District. Salary, £70 per annum.
HENDON UNION—Medical Officer for the Willesden District. Salary, £40 per annum.
INDIAN MEDICAL SERVICE—Twenty appointments as Surgeon. Examination in February 1875.
KENT and CANTERBURY HOSPITAL—Dispenser and Assistant House-Surgeon. Salary, £50 per annum, with board and lodging. Applications to be sent in on or before the 12th instant.
KILBURN DISPENSARY—Assistant Resident Medical Officer. Salary, £80 per annum, with apartments.
KILLALA UNION—Medical Officer for the Workhouse, and the Killala Dispensary District. Salary, £50 and £110 per annum, respectively, and fees. Applications to be made on or before the 20th instant.
LEEK UNION—Medical Officer for the Endon District. Salary, £20 per annum.
LICHFIELD UNION—Medical Officer for the Alrewas District. Salary, £35 per annum.
MORVEN, Parish of, Argylshire—Medical Officer. Salary, £100 per annum. Applications to H. A. Fraser, Morven, N.B.
NORTH WALES COUNTIES LUNATIC ASYLUM—Assistant Medical Officer. Salary, £100 per annum, with board, washing, and lodging. Applications to be made on or before February 17th.
PAISLEY INFIRMARY—House-Surgeon. Salary, £80 per annum, with board and lodging. Apply to W. Hodge, Writer, Paisley, on or before February 6th.
REDDITCH and DISTRICT MEDICAL ASSOCIATION—Medical Officer. Salary, £150 per annum, with fees and unfurnished house.
ROYAL FREE HOSPITAL, Gray's Inn Road—Two Junior House-Surgeons. Applications on or before the 10th instant.
ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road—Physician. Applications to be made on or before February 15th.
ROYAL INFIRMARY FOR WOMEN and CHILDREN, Waterloo Bridge Road—Physician.
SAFFRON WALDEN UNION — Medical Officer for the Seventh District. Salary, £86 per annum.
ST. LUKE'S HOSPITAL FOR LUNATICS—Second Clinical Assistant. Board and furnished apartments.
SALOP INFIRMARY—Assistant House-Surgeon.
SEAMEN'S HOSPITAL—House-Physician. Salary, £120 per annum, with furnished rooms and attendance. Applications on or before the 22nd instant.
SMALLBURGH UNION—Medical Officer for the Ludham District. Salary, £52 : 14 per annum.
THINGOE UNION—Medical Officer for the Seventh District.
TYNEMOUTH UNION—Vaccination Officer.
ULVERSTONE UNION—Medical Officer for the Hawkshead District. Salary, £20 per annum.
UNIVERSITY COLLEGE HOSPITAL—Resident Medical Officer. Applications not later than February 13th.
UNIVERSITY OF EDINBURGH—Additional Examiner in Medicine.
WEST WARD UNION—Medical Officer for the Patterdale District.
WISBECH UNION — Medical Officer for the Third District. Salary, £30 per annum.

## MEDICAL APPOINTMENTS.

*Names marked with an asterisk are those of Members of the Association.*

FLEMING, William J., M.B., appointed Assistant to the Professor of Physiology in the University of Glasgow.
GOODHART, J. F., M.D., appointed Physician to out-patients, Evelina Hospital for Sick Children, *vice* F. Taylor, M.D., appointed to the in-patients.
HOLLIS, E., M.B., appointed Resident Medical Officer to Chalmers' Hospital, Edinburgh, *vice* A. R. Coldstream, M.B., deceased.
HUMPHREYS, Henry, M.R.C.S.Eng., appointed Medical Registrar at the Middlesex Hospital, *vice* S. Coupland, M.B., resigned.
LAMB, William H., M.R.C.S.Eng., appointed House-Surgeon to the Sheffield Public Hospital, *vice* G. E. K. Thorpe, M.R.C.S.Eng.
*LEVINGE, E. G., A.B., M.B., appointed Junior Assistant Medical Officer of the Hants County Lunatic Asylum, Knowle, Fareham.
LYELL, Robert W., M.D., appointed Surgical Registrar at the Middlesex Hospital, *vice* A. Clark, F.R.C.S.Eng., resigned.
MEIGHAM, Thomas S., M.D., appointed Surgeon to the Glasgow Eye Infirmary.
MUNRO, Æneas, M.D., C.M.Univ.Edin., F.F.P.S.Glasg., appointed Assistant-Physician to the Hospital for Women, Soho Square.
POWELL, Evan, M.R.C.S.Eng., appointed Assistant Medical Officer to the Essex Lunatic Asylum, *vice* R. L. Shone, M.R.C.S.Eng., resigned.
REEVES, Henry Albert, M.R.C.S.Eng., F.R.C.S.Edin., appointed Surgeon to the Hospital for Women, Soho Square.
SMITH, Roland D., M.R.C.S.E., appointed Junior Resident Medical Officer to the London Hospital, *vice* H. T. Shapley, M.R.C.S.
TAYLOR, Frederick, M.D., appointed Physician to the in-patients, Evelina Hospital for Sick Children, *vice* C. Hilton Fagge, M.D., resigned.
THOMPSON, H. G., L.K.Q.C.P.I., appointed Resident Medical Officer to the Western Dispensary, Westminster.
THORPE, G. E. K., M.R.C.S.Eng., appointed Surgeon to the Sheffield Public Hospital.
WADDELL, John C., M.D., appointed Assistant-Surgeon to the Norwich Lying-in Charity.
WADDY, Henry E., M.R.C.S.Eng., appointed Surgeon to the Gloucester Infirmary, *vice* J. P. Wilton, M.R.C.S.Eng., resigned.
WILTON, J. P., M.R.C.S.Eng., appointed Consulting Surgeon to the Gloucester Infirmary.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.*

### BIRTHS.

ELLIS.—On January 21st, at Reynoldston, near Swansea, the wife of Henry Vause Ellis, M.B., of a son.
IMAGE.—On February 2nd, at Westgate Street, Bury St. Edmunds, the wife of Francis E. Image, M.B.Cantab., of a daughter.

### DEATHS.

ARCHER.—On January 28th, aged 62, Maria Elizabeth, wife of George Esq., Surgeon, Feltwell Brandon.
KEELE, Henry W., M.D., Staff-Surgeon R.N., at Highfield Lodge, near Southampton, aged 84, on January 23rd.
KEVIN, Charles, Esq., Deputy Inspector-General of Hospitals, late of the Madras Medical Establishment, aged 67, at Oxford Terrace, on January 24th.
MARTLAND.—On January 28th, Maggie, the wife of William Martland, M.R.C.S.Eng., St. John's Lodge, Blackburn, aged 34. Friends will please accept this intimation.

DR. CHARLES T. VACHELL.—At the annual meeting of the governors of the Glamorganshire and Monmouthshire Infirmary, the following resolution was passed:—"That the warmest thanks of the governors are due, and are now offered, to Dr. C. T. Vachell for his attention to the duties of his office, and especially for his kindness while house-surgeon to the patients under his charge; and this meeting desires to record its regret at losing Dr. Vachell's services."

## OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY ......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.50 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.

FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M. — Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

## MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Mr. T. S. Dowse, "Some Practical Hints on the Relief of Pain by the External Use of Hydrate of Chloral"; Dr. Sansom, "A Case of Presystolic Murmur (patient shewn); Dr. Thudichum, "On Chemical Statics of the Brain".—Royal College of Surgeons, 4 P.M. Mr. Erasmus Wilson, "On Dermatology".

WEDNESDAY.—Epidemiological Society, 8 P.M. Dr. Squire, "Further Remarks on the Period of Infection in Epidemic Disease".—Royal College of Surgeons, 4 P.M. Mr. Erasmus Wilson, "On Dermatology".

FRIDAY.—Clinical Society of London, 8.30 P.M. Dr. Vivian Poore will exhibit a patient with Paralysis of Serratus Magnus; Dr. Southey will exhibit a patient with Lepra Anæsthetica; Mr. Pugin Thornton, "Notes of a Case of Exceeding Infrequency of the Pulse"; Dr. T. T. Whipham, "Notes of a Case of Fatal Pleuropneumonia in an Opium-eater".—Royal College of Surgeons, 4 P.M. Mr. Erasmus Wilson, "On Dermatology".

## NOTICES TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

### FOREIGN DEGREES.

SIR,—In my letter to your JOURNAL a few weeks ago about foreign degrees, I gave some information concerning the M.D. of Brussels and Giessen. A short time ago, I wrote to the Dean of the Medical Faculty of the University of Giessen, asking information about their degrees, more especially those of medicine. In reply, I had a letter, in excellent English, stating that the fee for the M.D. was £20; that the candidate could be examined in English, and that the examinations lasted about three hours. The letter was signed, I think, "Dr. Eschardt". I have, unfortunately, mislaid it, and so cannot be positive. I will be obliged if M.D. Giessen will give in your JOURNAL some information, for those who intend visiting Giessen, as to the route, the nature of the examination, and best hotel accommodation. If he would also kindly answer me some further questions, I will be glad if he will forward me his address, under cover, to your office.—Yours truly,

January 12th, 1875. A PHYSICIAN.

MR. BRAKE MARSHALL.—In refusing to make up the lotion, Mr. Goodwin was clearly wrong, and his observations were unjustifiable. In refusing to supply strychnia for the dog, except under the conditions of the Poisons Act, Mr. Goodwin was clearly right. The first was a prescription; the second was not.

### PUERPERAL INFECTION.

SIR,—In answer to Obstetricus, I beg to state that during puerperal fever at Doncaster, many years ago, Mr. Storrs had to burn all the clothes he had worn, and to absent himself from Doncaster, I think, three weeks, before resuming his practice of midwifery.—I am, etc., W. A. S.

ALPHA.—The solution of most morphia-salts darkens in colour by keeping: this is due to a slight decomposition. The hypodermic solution of acetate of morphia has been kept for months, and, although it has become much darker, there has not been any perceptible diminution of strength.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

### ON THE INFLUENCE OF TEMPERATURE DURING CHILDBIRTH.

SIR,—In the regulation of the temperature of the body lies the key to the problem of the successful management of natural labour, and of the condition subsequent to it. For the safe conduct of labour, it is essential that the mind be calm, and the body warm and perspiring; and everything which conduces to these results conduces equally to the well-being of the patient and to the progress of labour. Of the correlation of the mind and body and of the body's temperature, it is impossible in this letter to allude except in the briefest manner. Nowhere is this interdependence so emphatically expressed as during childbirth. Then, as every practitioner is aware, the slightest feeling of apprehension is sufficient to arrest in a moment the whole progress of labour. In a moment the colour leaves the face, and the temperature of the body is, for a time at least, reduced.

"In calmness and confidence shall be thy strength." This excellent motto, beautifully illuminated in gold and colours, should, I venture to suggest, be suspended in a conspicuous position in the chamber of every woman about to become a mother, and should be the subject of frequent reflection. Of the significance of a warm climate in affording its proverbial facility to childbirth, it may be sufficient to remark that the condition of body which there occurs naturally should, in a colder climate, be induced artificially; and the first thing which in general is instinctively done is to light a fire. Under the influence of a great and general activity of body, aided and sustained by an elevated surrounding temperature, labours, even in this country, are sometimes begun and ended with surprising rapidity. A person who was occupied in baking cakes, whilst standing before a large bread-oven, was suddenly taken with her first and only pain, and had barely time to kneel down in front of a chair before the child was born. This I regard as a typical case; and it is worthy of consideration whether precisely similar results might not, as a rule, be accomplished were the mass of parturient women subjected to equally favourable conditions.—I am, etc., M.D.

Harlesden, January , 1874.

MR. PARTRIDGE (Stroud).—The name of the person issuing the circular is not—as far as we can find—in the *Medical Register* or in the *Medical Directory*; and he appears not to be M.D. of any British University. Inquiry of the authorities of the University of Edinburgh and of the Medico-Chirurgical Society of Aberdeen might ascertain with what justice he parades the names of these institutions in connection with his own.

### DENTAL SURGEONS.

AT the written examination for the license in dental surgery of the Royal College of Surgeons on January 8th, the following questions on anatomy and physiology, and pathology and surgery were submitted to the candidates. The candidates were required to answer at least one of the two questions both on anatomy and physiology and on pathology and surgery.—*Anatomy and Physiology:* 1. Describe the attachments of the buccinator muscle, how it is engaged in mastication, and whence it derives its vascular and nervous supply. 2. From what source is the fluid in the mouth derived? State the principal causes which influence the amount formed, and explain how those causes act.—*Pathology and Surgery:* 1. Describe the origin and development of a cyst in the lower jaw. How would you distinguish it from other tumours in this region? and what does it usually contain? and state how you would treat it. 2. Describe the treatment you would adopt in continued hæmorrhage after excision of a portion of a tonsil.—In dental anatomy and physiology, and in dental surgery and pathology, candidates were required to answer at least *two* out of the three questions on each subject.—*Dental Anatomy and Physiology:* 1. Explain fully the different theories concerning the formation of dentine, especially in relation to the tubuli. Of what do their contents consist? and how may they be pathologically affected by disease? 2. State the ages at which the eruptions of the deciduous and permanent sets of teeth commence, and the ages at which they are respectively completed. Describe the characters by which you would distinguish between the first and second molars of the deciduous set, and between the first and second lower molars of the permanent set. 3. Explain the several circumstances which conduce to the protrusion of the chin and the shortening of the face in old people; and describe the ways in which artificial teeth rectify such conditions.—*Dental Surgery and Pathology:* 1. Draw a distinction between toothache arising from diseased conditions of the teeth and pain in teeth arising from constitutional causes. Name the constitutional conditions and diseases which principally affect the teeth. 2. Describe the conditions under which certain of the permanent teeth in the adult may be wanting from the mouth when none have been extracted. Point out the particular teeth most frequently absent, and state the circumstances which probably explain such deficiencies. 3. What are the different varieties of united teeth, and the nature of the union? State the probable causes of such union between contiguous teeth, and the consequences to which that condition may lead.

NEMO.—There was an examination for the "L.M." on Thursday week. We believe it is eighteen months since the last took place, and in all probability will be much longer before the next occurs.

### POISONING BY NITRIC OXIDE.

SIR,—Unfortunately, the printer has given the wrong title to my query: the error may, of course, be due to my very bad writing. What I wanted to learn was, the best and readiest mode of counteracting the effects produced by inhaling *nitric oxide* fumes, not *nitrous oxide.* How to act in cases of poisoning by the latter gas is, I hope, well known to all the members of our profession.—I am, etc.,

January 30th, 1875. M.R.C.S.E.

MR. BENJAMIN BLOWER.—Your letter is inadmissible, as it wholly departs from hygienic considerations, to enter into a discussion on theological matters, the importance of which we do not undervalue, though we consider that they would be out of place in these columns.

"OS SACRUM" (St. Bartholomew's).—You will find the following lines in Butler's *Hudibras.*

> "The learned Rabbins of the Jews
> Write there's a bone, which they call 'Luz',
> I' the rump of man, of such a virtue,
> No force in Nature can do hurt to;
> From whence the learned sons of Art
> '*Os Sacrum*' justly call the part."

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, twelve o'clock.

### The Fever at Lewes.

SIR,—In your notice of the outbreak of enteric fever at Lewes, in page 155, it is stated that "the disease having been evidently due to defects connected with the system of water-closets, we are not surprised to hear that an effort is about to be made to induce the population to abandon this means of removal of excrement". I sincerely trust that efforts to induce them to do so will utterly fail, for the natural course to follow the discovery of defects in a system which has elsewhere proved eminently successful, is not to abandon the system, but to remove its defects. It is not stated what the special defects are, but most probably they are such as allow of the escape of air from the soil-pipes into the dwellings. At Croydon, many years ago, an outbreak of fever, as well as its continuance in less violent form, was with great probability attributed to this cause; but since the soil-pipes have been continued to the tops of the dwellings, and means of free escape of sewer-air provided, Croydon has been remarkably free from enteric fever; and it is all but certain that if this very simple remedy were adopted at Lewes, it would be followed by the like complete success.

It may probably be contended that the same result will follow the substitution of earth-closets for the present system; but that is far from probable, as a permanent result, though it possibly may be so during the continuance of a carefully conducted experiment. I have known several instances of different modes of disinfection, apparently very successful as long as they were carefully watched, fail utterly when that vigilant watchfulness became relaxed. No doubt pigs might be kept in a town without creating any nuisance, if every one who who kept them were as careful in preserving the extreme cleanliness that in some rare instances I have known to be observed; yet few would be silly enough to propose that the keeping of pigs in towns should be encouraged, because it would be possible, by enforcing extreme cleanliness of pig-sties, to prevent them from being nuisances; for every one knows that this, though physically easy, would be usually nearly impossible. But such a proposition would not be much more foolish than that of encouraging the inhabitants of a town to form collections of compost, consisting of human filth, covered with a sprinkling of earth, in close contact with every dwelling, on the bare chance that every one of such collections will always be so carefully managed as not to be a nuisance, thus rendering the safety of every one dependent upon the carefulness of every one living near. It will, no doubt, be urged that all that is needed is a litle constant care. Exactly so, but that is just what is most difficult to secure. Surely we have had experience enough to prove this. Amongst the minor miseries of life, one of the most common is the difficulty of getting our dust regularly taken away. I know many who, like me, have failed, but never heard of one who succeeded in having this needful work even tolerably well done.[*] What right have we to expect that earth-closets will be better attended to, and will not be as our dust-holes are, constant causes of vexation, annoyance, and danger? Where there are no sewers and no regular water-supply, and where land under cultivation is close at hand, an earth-closet is a convenient arrangement; but to introduce them in towns where water-closets can be used, because those are dangerous when easily avoided defects are permitted to continue, would be a backward step indeed.—I am, etc., P. H. HOLLAND.

⁂ The defect with which the outbreak of fever at Lewes was associated, and which has been described in a previous number of the JOURNAL, was not that which Mr. Holland supposes, but one which led to contamination of the town-water; and though it has been completely remedied, we were not surprised, considering the magnitude of the evil in which it had resulted, to hear that the opportunity had been made use of by those who are desirous of introducing a different system of excrement removal. If all that Mr. Holland alleges against the dry-earth system turn out to be true, it is certainly inapplicable to towns; but it is precisely experience of this sort which is required. The system has answered well in public institutions, and we shall be glad to know from the Lewes experiment whether or not it can be applied to towns.

MR. J. H. WATHEN and a Liverpool Associate write to express their satisfaction at the resolution of the Committee of Council relating to the "Norwich prosecution".

### Fungus of the External Ear.

SIR,—Will you permit me to ask that your correspondent "D. McD.", who reports his own case of ear-disease, supposed to be caused by a fungus in the meatus, may be good enough to send a specimen of the parasite to me for examination? As I am rather interested at present in this form of ear-disease, may I be permitted here to state that I shall esteem it a favour if any of my professional brethren, having similar specimens in their possession or cases under their care from which they may remove fungus-like *débris*, to send such to me for inspection, together with a concise history of the case from which the fungus was removed. I shall gladly defray any expense connected therewith, and return the specimens, if desired to do so. The object I have in making this request is this: I have been for some time on the look-out for one or other of the rarer varieties of fungus, said to have been been found by Steudener, Hassenstein, and others, till now without success. I have reasons (probably not well founded) to believe that I shall not find them; but if the request I now make is responded to freely (I have already shown that disease of the ear due to fungus is not at all rare in this country), I may succeed in finding the object of my search.

In conclusion, I may state, *à propos* of your correspondent's remarks as to the relative values of lamb's- and cotton-wool, that in my experience neither variety produces "irritation". Properly applied—as, for instance, in the relapsing form of *otitis furunculosa*, or (*à la* Yearsley) to increase the labyrinthine pressure—it is in many cases invaluable. With these exceptions, however, its use in the course of disease of the ear is only temporary, as a protective after operations or in acute diseases. In chronic cases, its use, for obvious reasons, is inadmissible.—I am, sir, your obedient servant, JAMES PATTERSON CASSELLS.

2, Newton Terrace, Glasgow, January 11th, 1875.

CHIRURGUS.—The French medical paper which gives most attention to surgical work is, we think, the *Gazette des Hôpitaux*. The annual subscription in Paris is thirty *francs*. The offices are at 5, Rue des Saints-Pères. The cost of postage to England is charged in addition.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

### Prescribing for the Million.

SIR,—I observe in a daily paper a report of a "Gresham Lecture", by Dr. Symes Thompson, On Catching Cold, in which occurs the following paragraph. "Mixed with hot water and nutmeg, spirits—rum especially—had great power of promoting perspiration, and therefore of relieving cold. The drugs having an analogous effect were æther, especially when taken in small and repeated doses of two drops to a teaspoonful of water every ten minutes; opium, of which some people took half a teaspoonful on going to bed, and after a heavy sleep woke up with a dry mouth and a tendency to headache, but free from cold." Next day appeared the following correction: "In our report of Dr. Symes Thompson's lecture 'On Catching Cold', reference was made to opium being taken in half-spoonful doses. The drug alluded to was tincture of opium." I do not think the correction any great improvement on the error, and I almost doubt whether the Gresham Lectures were intended to be the medium of "prescribing for the million". The Gresham Lectures used to be dignified, able, and serious productions, delivered in Latin. It may be wise to lower them to the million and deliver them in English; but in adopting this form of popular prescribing for common ailments, I doubt whether Dr. Thompson is consulting his own dignity or fulfilling the objects of the endowment.—I am, etc.

CIVIS LOND.

### Medical Degrees and Titles.

SIR,—M.A.Oxon., whose letter you published in your last issue, seems to esteem his degree much more highly than it deserves. To obtain the degree of B.A. is by no means a difficult matter to a man who has resided at Oxford the necessary time, and who has had the great advantage of being well ground up for the examination; in fact, many men of very inferior abilities obtain it. The M.A. of necessity follows, if the candidate reside the required time; indeed, I believe that residence is not at all necessary, but that any B.A. of three or four years' standing, who has entirely forgotten all he knew when he obtained the degree, has merely to pay the necessary fee to become M.A. The higher degrees of B.D., D.D., etc., are granted, I believe, after much the same fashion; so that I cannot see that M.A.Oxon. has much cause to write a high-sounding letter regarding his University distinctions. But, presuming its degrees to be all he thinks them to be, he must remember that the standard required for University honours differs at each of the Universities in the United Kingdom; and it would seem, therefore, as sensible to deny a B.A. of Aberdeen the right of using the title because he did not obtain it after the same ordeal as at Oxford, as it is to exclude men who have gone through a course of study, and have passed an examination, sufficient to allow human lives to be entrusted to their medical care, the privilege of taking a degree in medicine, if they can pass an examination to obtain it. Again, if in speaking for myself I may speak for others who desire the distinction, to take a degree without a thorough examination is the furthest from our wish; but we want to prove to those who believe us beneath them in medical knowledge, because we have no degree, that, even after several years of hard work in practice, we can pass an examination which would be a sore trial to many who are already M.Ds.

Respecting M.A. being "made straight off", your correspondent seems to think that impossible. Does he never see in the daily papers, that His Grace the Archbishop of Canterbury has, after examination (and not always that), conferred the degree of M.A. on certain gentlemen whose names follow the announcement?

Your correspondent seems to think that those who only possess a license to practise have undergone no education in medicine; he forgets that four years of study are required, three of which must be spent at a medical school. I myself spent nearly seven years in study, five winter and four summer sessions being spent at one of the best medical schools in London, where I obtained distinction in more than one branch of medicine, and attended all the courses required for the M.D.Lond.; and yet, from circumstances over which I had no control, was unable to obtain a degree.

Again proposing that some university be petitioned respecting this matter,

I am, Sir, your obedient servant,

January 25th, 1875. A COUNTRY PRACTITIONER.

SIR,—A L.S.A. is an apothecary, and has many privileges, some to be envied, others not. A L.R.C.P. is a physician, and reference to a Latin dictionary will explain the meaning of "Doctor". A graduate of an university is M.D. Can there be greater plainness? Why all this not to be commended correspondence because a L.R.C.P., who no doubt twelve years ago was told he should use the courtesy prefix Dr., wishes to distinguish himself from an apothecary, who often brings no credit on the profession by keeping "open shop". The only legal enunciation of what is law pronounces him a physician, and it must therefore follow he is a Dr. I see in this a very proper and laudable distinction, and it robs no one of his right; because a graduate can, if he choose, and wishes it to be known, put his coveted M.D. on his plate, etc.; and the old and valued apothecary, by his plain Mr., will show he prefers it.—Yours, etc., M.D. and L.R.C.P.

SIR,—When looking over your valuable JOURNAL of the 2nd instant to-day, my attention was considerably attracted by a letter which appeared therein concerning "Medical Titles" contributed by a L.K.Q.C.P.I. As a student in medicine, I will reply as best I know how to L.K.Q.C.P.I.'s "few general questions" (as he terms them) to some of his M.D. adversaries, for the simple reason that I feel satisfied graduates in medicine will not consider it worth their trouble to reply to such absurdities, as I will now prove his queries surely are.

In the first place, he asserts that he is a Doctor legally and morally because he and his brother happen to be Licentiates of a College of Physicians, and he wishes to know "if physicians are not Doctors, what are they?" I say that they are merely physicians, and not Doctors, as I consider, in my humble opinion, that it is quite as absurd to assert that Licentiates in Medicine are Doctors as that Licentiates in Law are Doctors in the same Faculty, or that Licentiates in Divinity are also Doctors, etc. As to the example which he illustrates concerning the prefix "Surgeon", I hold that it is not at all a parallel instance in the present argument. If I could be induced to believe that a Licentiate of a College of Physicians is legally and morally a Doctor, I would no longer trouble myself with the extensive and costly curriculum which the Universities now demand. The learned editor of the *Dublin Medical Press*, when condemning the conduct of a L.K.Q.C.P.I. six months ago, for having signed a medical certificate as a Doctor in Medicine, said that the dignity and honour of the College were being compromised by such proceedings, and that he who obtains the credit of such qualifications without being entitled to them is sailing under false colours; and he concluded by hoping that the Fellows of the College would consult their own dignity rather than encourage such disingenuous misrepresentations. L.K.Q.C.P.I. also wants to know in what single way a M.D. man is more a Doctor than a Licentiate of a College of Physicians. I say that it is simply because the former holds a Doctor's degree and the latter does not. He might as well ask in what single way is a L.S.A. more an apothecary than a L.K.Q.C.P.I., both having diplomas to practise medicine. As to the prefix "Engineer", I look upon such an example as having about as much weight in the present argument as I do on that of "Surgeon", which I criticised in a foregoing paragraph. I fully concur with his opinion as to the scouting of examiners for foreign degrees. So I will now take the liberty of informing Mr. Licentiate that he is both a physician and surgeon, but no more a Doctor of Medicine than the writer, who is possessed of neither license nor degree.

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[*] At a recent meeting of the Chelsea Vestry, 587 complaints were reported, all relating to the non-removal of dust. (*News of the World*, January 24th, 1875.)

All Licentiates know that the M.D. is a mark of higher professional attainments and scholarly culture than the License of a College of Physicians: and I feel satisfied that they knew this as well as I did before they entered a College at all, therefore I am of opinion that they should be content with what qualifications they now hold, or else, without rushing into public print, comply with the bye-laws of some British University, pass the examination, and obtain the degree.

Apologising for trespassing on your valuable space, I am, sir, your obedient servant,

ÆSCULAPIUS.

January 11th, 1875.

SIR,—Please allow me a very few words on the vexed subject of "Medical Titles". Nearly all your correspondents seem to leave out of view entirely the common-sense aspect of the question: simply this, that some men would like to rectify an omission of their student days. All of us would like to do the same. I, for instance, regret, and will never cease to regret, that I did not pass the preliminary examination of the London University, because, now that I would wish to appear for the F.R.C.S.Eng., I find that an examination in Greek is required, and I have neither time nor inclination to "get up" Greek again. Still, though a surgeon, I have no more right to dub myself F.R.C.S. than a L.R.C.P. has to dub himself M.D. They ought, and I ought, to have considered these things when a student. When a Licentiate is called Doctor by courtesy of his professional brethren, he ought to remember that the title is given him out of respect to the profession, as it does not redound to our honour to tell the public that So-and-so is not a Doctor. I have noticed that it is only those men who have not the M.D. degree who stickle for the title of "Doctor". Those who have the degree care not what they are called; and if in general practice, like myself, are as often called Mr. as Dr. I do not object to call a L.K.Q.C.P. Doctor, but I object to his signing after his name M.D.—I am, etc.,

M.D., M.R.C.S.

SIR,—It was my wish in youth to practise as a physician, and I therefore requested my parents to send me to the University of Edinburgh, that I might graduate there in the Faculty of Medicine. Now, my father, being a general practitioner in a small country town, and having practised all his life with the M.R.C.S. and L.S.A., wished me to succeed him and to take the same diplomas. The consequence was, I was sent to a provincial school of medicine: and two years before I was qualified to practise, my father died. I was unable to succeed to his practice, and it was therefore sold. In course of time I took the L.R.C.P.Edin. and L.S.A.Lond., and commenced practice for myself in a large town. I did not, however, like general practice; but of course I have been obliged to stick to it, and I have obtained a fair amount of success. I could, however, have done much better if I had had a degree of M.D. in addition to my present diplomas, for many appointments are only given to graduates of British Universities, and the public know well that an University man ranks higher than a mere Licentiate or member of a College. In consequence, his advice will be oftener sought after, and he will be able to take a higher fee. It is a hard case for me, and for hundreds like me, who have not had the choice of education in early life, and who are in possession of legal diplomas, that we should be unable to offer ourselves for examination (without residence) at a British University. I in common with others have had four full years of medical study, have been in practice over six years since, and have kept up my knowledge of medicine and other subjects in addition, yet there is not a portal open for the coveted degree. I would propose that a petition be offered to the University of Cambridge, praying for medical practitioners of five years' standing, and who have studied at some medical school for four years, to be admitted to the examination for the M.B. degree, and then, after the lapse of one year, to another examination for the M.D. degree. The preliminary examinations of other bodies should be accepted in place of examination in Arts or matriculation. I mention Cambridge for this reason: the University has shown itself of late most anxious to diffuse knowledge all over the country, and has established lectures in various large towns under what is known as the Cambridge University Extension Scheme. Again, the University proposes to admit all medical practitioners to its examinations in "public medicine". It has shown itself willing to do right and to act justly. Surely if sufficient pressure could be brought to bear upon the authorities, we should soon be admitted to degrees without residence. I hope this subject will be taken up, and a petition be set on foot to the University authorities; and if once a door is opened, we shall hear no more of the vexed titles of "Dr.", M.D., etc.—I am, sir, yours faithfully,

ONE WHO WOULD LIKE THE M.D. DEGREE.

January 1875.

SIR,—As this subject is again being ventilated in your columns, perhaps you may be able to find room for the following remarks, which may elucidate some of the points under discussion.

"The Charter of William and Mary, and the Act of the Irish Parliament 1 Geo. III, cap. xiv, made perpetual by the Act 30 Geo. III, cap. xiv, s. xi, confer on the Fellows and Licentiates of the King and Queen's College of Physicians the title of Doctors of Physic." Here, then, we are on firm ground, Licentiates of the Irish College having legal right to the prefix "Dr." The London College, while at one time sanctioning, now forbids the assumption of the title by its non-graduated Licentiates, though I am not aware of any case in which this bye-law has been put in force. The Edinburgh College steers a middle course, and neither permits nor forbids, but states "that some name must be found for non-graduated Licentiates of a College of Physicians, shorter and more conveniently distinctive than their legal designation; and if it be not formally arranged by the Colleges what that name is to be, the public and the profession will take the matter into their own hands, and will establish an usage overriding all formal objections that may be taken to the employment of one or other of these conventional titles".

The *Lancet*, when referring to the year of grace, has the following. "The Council of the Royal College of Physicians of Edinburgh are just now fighting the battle of common sense in the profession. They have taken up the sword for the *plebs*, and if they wield it manfully, and with frank and valorous mien, there can be no question of the result. They have offered to the general practitioner of the United Kingdom a means for placing himself on a professional level, as far as title and degree can go, with the magnates of the profession." No Licentiate of a College of Physicians would think of denying the right of Doctors of Medicine to call themselves physicians. Why, then, should graduates be so sore on the point of Licentiates prefixing "Dr." to their names? and yet there are, perhaps, as good legal grounds for calling the former in question as the latter. If the question "Are you a physician?" were asked of a Doctor of Medicine, he would, I think, answer in the affirmative; but if the question were, "Are you a Licentiate of a College of Physicians? he could not so answer. So it would be with a Licentiate: Are you a Doctor? Yes. Are you a graduate? No.—I am, sir, faithfully yours,

A PHYSICIAN.

January 1875.

MR. UNDERHILL.—Yes.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Gazette; The Western Daily Press; The Manchester Guardian; The Ulster Advertiser; The Sussex Coast Mercury; The Broad Arrow; The Surrey Advertiser; The Bedale and Northallerton Times; The Hackney Express; The Liverpool Porcupine; The Scotsman; The Liverpool Mercury; The Glasgow Herald; The Stroud News and Gloucestershire Advertiser; The Bradford Observer; The Morpeth Herald; The Portsmouth Times; The Western Daily Press; The York Herald; The Sheffield Evening Star; The Brighton Guardian; The Sussex Daily News; The Wrexham Advertiser; The Newton Directory; The Sussex Coast News; The Berkshire Chronicle; The Hull News; The Southern Times; The Worthing Intelligence; The Hampshire Telegraph and Sussex Chronicle; The Sheffield Daily Telegraph; The Hereford Times; The High Peak News; The Brighton Daily News; The Bath Argus; The Pembrokeshire Herald; The West Briton and Cornwall Advertiser; The Glasgow Herald; The British Mail; The Indian Medical Gazette; The West Country Lantern; the Ripon Gazette; etc.

COMMUNICATIONS LETTERS, ETC. have been received from:—

Dr. T. L. Brunton, London; Sir John Rose Cormack, Paris; Dr. J. Hughes Bennett, Nice; Mr. T. H. Bartleet, Birmingham; Dr. Finlayson, Glasgow; A Member; Dr. George Johnson, London; Dr. Joseph Bell, Edinburgh; Dr. B. W. Foster, Birmingham; Dr. J. W. Moore, Dublin; Dr. Edis, London; Our Paris Correspondent; Mr. J. A. Orr, Fleetwood; Dr. Ringrose Atkins, Cork; Rev. Dr. Haughton, Dublin; Dr. Batten, Gloucester; Mr. Sydney Henson, Manchester; Mr. Benjamin Blower, Liverpool; Mr. J. W. Allan, Fort William; Mr. J. B. Edge, London; Dr. Steele, Liverpool; Mr. W. B. Young, Reading; Mr. F. Armstrong, South Shields; Dr. Ralph Richardson, Ile et Vilain, France; Dr. John Kirkman, Melton; Mr. J. Smithson, Dewsbury; M. A. Cartaz, Paris; Mr. S. Wilson Hope, Petworth; Dr. J. J. Charles, Belfast; Mr. C. Holthouse, London; Dr. G. Buchanan, Glasgow; Dr. T. Green, Bristol; Dr. T. Inman, Clifton; The Registrar of the Royal College of Physicians, London; Dr. James Russell, Birmingham; Mr. C. Steele, Clifton; Mr. Mordey Douglas, Sunderland; Mr. T. Partridge, Stroud; Dr. W. N. Thursfield, Shrewsbury; Mr. Wm. Carter, Liverpool; Mr. John M. Rhodes, Barlow Moor, Manchester; Mr. Jas. Clapperton, Market Deeping; Mr. Eastes, London; Mr. T. Holmes, London; The Secretary of Apothecaries' Hall; The Registrar-General of England; The Registrar-General of Ireland; Mr. T. M. Stone, London; The Registrar of the Medical Society of London; Mr. T. P. Pick, London; Dr. J. Milner Fothergill, London; Mr. Eassie, London; Dr. Langmore, London; Mr. J. Woodman, Exeter; Dr. Baylis, Tunbridge Wells; Dr. Ward Cousins, Portsea; Mr. J. Morris, Dunfermline; Dr. Batty Tuke, Edinburgh; Dr. Gray, Oxford; Mr. J. Reid, Canterbury; Dr. E. Watson, Glasgow; Mr. W. Druce, Oxford; Dr. Jay, Chippenham; Dr. Matthews Duncan, Edinburgh; Dr. Mackey, Birmingham; Dr. Clouston, Edinburgh; Mr. J. Leach, Heywood; Dr. Rogers, Saltash; Dr. E. Williams, Wrexham; Mr. G. Archer, Feltwell; Mr. Macfie, Tottenham; Dr. J. H. Torrance, Wolston; Mr. E. Llewellyn, London; Mr. C. E. Varenne, York; Mr. J. C. Wordsworth, London; Mr. W. Fairlie Clarke, London; Dr. Smart, Haslar; Dr. W. Marcet, Cannes; Our Dublin Correspondent; Mr. J. H. Thomas, Merthyr Tydfil; Mr. David Mickle, Kirklington; Dr. J. Sawyer, Birmingham; Mr. John Corrigan, Dublin; Dr. C. K. Ord, Lewisham; Professor Longmore, Wolston; Mr. J. Wathen, Fishguard; The Secretary of the Medical Society of London; Dr. Squire, London; Dr. Hill, Birmingham; Dr. Weaver, Longton; Mr. C. H. Watts Parkinson, Wimborne; Mr. Leonard Armstrong, Newton Abbot; Dr. J. C. L. Carson, Colervaine; Mr. T. J. Sanger, Alfriston; Mr. E. C. Barber, London; Mr. Fowler, Bath; Mr. E. C. Board, Bristol; Mr. H. V. Ellis, Swansea; Dr. Durrant, Ipswich; Mr. Lennox Browne, London; Dr. Rabagliati, Bradford; Dr. J. Blake, San Francisco; Dr. J. B. Nevins, Liverpool; Mr. E. J. Gaillard, Louisville, Kentucky; Mr. A. Jackson, Sheffield; Dr. Bradbury, Cambridge; Dr. Priestley, London; Mr. Colam, London; Mr. Stear, Saffron Walden; Mr. Underhill, Tipton; Dr. Cagney, Charleville Mr. Jones, Cleobury Mortimer; Mr. Gale, London; etc.

## BOOKS, ETC., RECEIVED.

A Lunacy Chart. By Lyttleton S. Forbes Winslow, M.B. London: 1874.

Is Torquay relaxing? By C. Radclyffe Hall, F.R.C.P. Torquay: 1874.

Manual of Pathological Anatomy. By C. H. Jones, M.B., F.R.S., and E. H. Sieveking, M.D. Second Edition. By J. F. Payne, M.B. London: J. and A. Churchill. 1875.

Contributions to the Mechanism of Natural and Morbid Presentations. By J. Matthews Duncan, M.D. Edinburgh: A. and C. Black. 1875.

Note-Book of Materia Medica, Pharmacologia, and Therapeutics. By R. E. Scoresby-Jackson, M.D., F.R.S.E. Third Edition. By Angus Macdonald, M.D.Edinburgh. Edinburgh: Maclachlan and Stewart. 1875.

A Treatise on Cutaneous Medicine and Diseases of the Skin. By H. S. Purdon, M.D. London: Baillière, Tindall, and Cox. 1875.

First Annual Report of the Sanitary Conditions of the Combined Rural and Urban Sanitary Authorities of the Halifax Union. By T. Britton, M.D.

# LECTURES
ON
# THE OCCURRENCE OF ORGANIC FORMS IN CONNECTION WITH CONTAGIOUS AND INFECTIVE DISEASES.

*Delivered at Owens College, Manchester.*

BY
J. BURDON SANDERSON, M.D., V.P.R.S.,
Jodrell Professor of Physiology in University College, etc.

## LECTURE II.

### CHANNELS BY WHICH BACTERIA MAY ENTER THE ANIMAL ORGANISM.

IN the bodies of men and of the higher animals, there are innumerable doorways by which particles as small as septic bacteria must constantly enter, yet no putrefactive changes occur. Bacteria, as we have seen, are, if I may so express myself, potentially present in all articles of food; for every kind of ordinary liquid has the faculty, when added, even in the smallest proportion, to a "cultivation liquid" (*i. e.*, a liquid fitted to serve as soil), of determining in it at once the development of bacteria. The fact that, even when we employ the highest powers of the microscope, we can see absolutely nothing in these liquids, only teaches us that our modes of observation are insufficient; for we have the proof, not merely that they act zymotically, but that we can deprive them at will of this power, either by heat or by agents such as carbolic acid, which are destructive to bacterial life. Thus, in ordinary drinking water, in cold meat, in fresh vegetables, in cheese above all, and in all ordinary specimens of milk, we are constantly taking in efficient sources of saprogenous life.

When such aliments come into relation with the absorbing apparatus of the intestine, whatever of course is chemically soluble enters the blood-current by the veins, while the insoluble parts enter the lymphatic system by the villi. The mechanism of absorption by the villi is such that even inorganic solids, in a state of fine division, are very readily taken in, and thus find their way from the intestinal cavity into the lacteals, through the thoracic duct, into the blood-stream. Anatomically, this was formerly very difficult to understand; for, so long as it was supposed that the epithelial covering of the villi was set on a structureless hyaline basement-membrane, it was difficult to see how particles could pass through such a membrane. Now we know that this membrane is not structureless, but that here, as in other examples of supposed structurelessness, the substance is penetrated by channels lined with protoplasm, which in the one direction are ready for the taking in nutritive particles, especially oleaginous ones, and in the other communicate with the commencing lacteal.

But, before these anatomical conditions were known and understood, it was proved experimentally that solid bodies in a state of fine division readily entered the lacteals. It is a great many years since Oesterlen showed that, if charcoal in extremely fine powder were mixed with the food of animals, the particles could afterwards be found in the circulating blood. *A fortiori*, therefore, if bodies relatively so enormous as charcoal-particles can be taken into the blood-stream by the villi, bacteria must certainly get into the vascular system whenever they are present in the intestinal liquids. Yet, notwithstanding the ubiquitousness of bacterial germs, it is manifest that the chance of their entrance into the organism by the intestine must depend in a considerable degree on the quality of the food, and particularly on its liability to septic change, and on the readiness with which its constituents are absorbed. Of these two conditions, the latter is likely to be the more influential.

Those alimentary substances which are soluble, as has been already said, enter the circulation by diffusion—a process which would exclude even particles so small as bacteria. But the fatty constituents can only obtain admission by interstitial channels, such as those which form the beginnings of the lacteal absorbents in the intestinal villi. Hence we are led to anticipate that a liquid like milk, of which the oleaginous particles are of extreme minuteness and in enormous numbers, all of which enter the absorbent vessels without undergoing any chemical change, would have a better chance of serving as a vehicle for saprogenic germs than any other sort of food. Whether this is so, is still a matter of speculation. It is supported by what was ascertained in the inquiry relating to the remarkable epidemic of typhoid fever in London last year. With reference to that epidemic, it was, I think, clearly shown that the spread of typhoid was due to a widely spread contamination of a certain supply of milk; but it was not shown what was the nature of that contamination.

Notwithstanding the trouble that was expended in the research, it cannot be admitted that a case was made out in evidence of its specific origin—*i. e.*, its origin from previously existing cases of typhoid fever. This question must, I think, be allowed to remain open. For my purpose, it is sufficient that it was contaminated, and that the contamination had a very wide distribution. For if this be admitted, a practical lesson may be learnt from it—*i. e.*, that, if it happened once, it may and will happen again; and that greater precautions against contamination than are at present used are necessary. In England, we use our milk raw. In Germany, and in all countries in which acid fermentation products are consumed by the population, the milk is all boiled at the dairy before anything else is done to it; for, if it were not so, it would not be possible to produce sour milk, without constantly running the risk of septic fermentation. It would pass through the stage of lactic acid fermentation into that of putrefaction. I have myself ascertained experimentally that it is not possible, as regards London milk, to keep it until it is acid without its becoming at the same time putrid. Sour milk, as used in Germany, is a refreshing and wholesome beverage, but a little leaven of septic bacteria is sufficient to deprive it of both these qualities, as any one knows who has attempted to prepare it from London milk.

The other doorway for the introduction of bacteria is the mucous membrane of the lungs. Experiment has proved that, in animals exposed to a smoky atmosphere, the black particles are absorbed by the mucous membrane, and can be traced step by step along the course of the absorbent channels. It was indeed in this way that the first step was made towards the acquisition of that knowledge of the lymphatic system of the lungs which has lately been brought to comparative completeness by the anatomical researches of my colleague at the Brown Institution, Dr. Klein; for it was by Knauff's experiments* on the effects of a smoky atmosphere on dogs that the manner in which smoke particles find their way through the pulmonary epithelium, and thence into the network of superficial lymphatics, that the course and distribution of these channels first began to be understood. In the pulmonary mucous membrane, we have, then, a second unguarded portal by which morbific particles can enter the animal organism.

### GERMLESSNESS OF HEALTHY LIVING TISSUE.

These considerations lead us to another question, which lies nearer to the object we have in view in these lectures—the elucidation of the relation of bacteria to disease. From experiments made in 1871, I came to the conclusion, that the blood and tissues of healthy animals were barren; that is, that, when subjected to conditions of temperature favourable to the development of microphytes, no such organisms were developed in them, provided that they were protected from external contamination. The general truthfulness of that conclusion has been confirmed by better and more exact experiments than mine, so that "barrenness" may now be accepted, as regards muscle and blood, as a criterion of health. But, from recent experiments which have been made at Heidelberg under the direction of Professor Kühne,† and which I have lately repeated a good many times, following his method exactly, it appears that the negative property of germlessness is not one which belongs to all organs, and that, in particular, those parts of the animal body which are in closest proximity to absorbing mucous membranes are most liable to be found pregnant with microphytic life when tested by suitable methods. Kühne's mode of experiment is as follows. An animal having been killed by opening a large artery, the organ of which the germlessness is to be tested is rapidly exposed, and a small bit cut out with a sharp scalpel, to which a previously boiled silk cord is attached. The preparation is then, without a moment's loss of time, dipped in paraffin at 120 deg. to 130 deg. cent. (about 250 deg. to 260 deg. Fahr.), and immediately afterwards withdrawn, allowed to cool, and again dipped. This process having been repeated several times, it is finally plunged into paraffin at a lower temperature (52 deg. cent. = 125.6 Fahr.), and allowed to remain until the whole mass (which is contained in a paper box like that used by histologists for "embedding") is cool. The thread having been burnt away, the whole is covered by an additional layer of paraffin, and the cake is placed in the "warm chamber" at a temperature of 30 deg. cent. (86 deg. Fahr.) In this process, the surface-layer of the embedded bit of tissue is of course cooked, *i.e.*, its albumen is coagulated, but the interior remains unaltered. If the tissue be germless, it remains free from organisms, and is found to be so when the preparation is examined microscopically after remaining four or five days in the chamber. I place before you several such cakes of paraffin, some containing muscle, others liver, kidney, or spleen. I cannot assert that any of them are free from organisms, but it is quite possible that that of muscle may be. As regards the others, I will answer for it that all are full of bacteria—bacteria, be it understood, of which the germs unquestionably did not enter after death—germs which existed and retained their latent vitality in the living tissue. Muscle and blood, if healthy, are germless; liver and spleen never are.*

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* See my paper on Artificial Tuberculosis, in the *Report of the Medical Officer of the Privy Council for* 1868.

† Tielgel, Ueber Coccobacteria septica im gesunden Wirbelthierkörper. (Virchow's *Archiv*, vol. lx, p. 453.)

The experiment I have been describing is by no means the only one by which it can be shown that blood and muscle are germless. As regards blood, the earliest is that of Professor von Recklinghausen, to which, as may be remembered, Professor Tyndall referred in his famous lecture on Dust and Disease. This consists simply in allowing blood to flow from an artery into a platinum capsule, which has been heated to redness and allowed to cool. It is then placed in a moist chamber, *i.e.*, a chamber of which the atmosphere is saturated, and kept at the temperature of the body, or rather below it (35 deg. cent. = 95 deg. Fahr.) The blood so kept remains without putrefaction for months, if protected from contamination. The coagulum first formed disintegrates; the colouring matter of the corpuscles leaves them, becomes dissolved in the liquor sanguinis, and crystallises, if crystallisable; but, after this, no further change occurs. This method has been improved and modified by Klebs; for in the form originally devised it often fails.

Instead of using a capsule, he employs a glass tube of the same nature as the one exhibited at last lecture. When it is desired to collect a specimen of blood, the drawn out end of the tube is introduced into a vein and secured in its place by a ligature. This done, the point (which is of course within the vein) is seized by the thumb and finger and broken off. The tube being half vacuous, the blood fills a great part of it. The tube is then withdrawn, and immediately closed hermetically. The specimens of blood thus collected may be kept for any time without undergoing putrefactive change. If the blood of animals whose colouring matter is readily crystallisable be used, and the temperature be suitable, the liquid in the tube contains crystals of hæmoglobin. Most of it, however, undergoes a peculiar change, which results in the production of an amorphous coloured mass, differing from hæmatin in its insolubility in alkalies.

The other method—that of cultivation—was employed by Dr. Ferrier and myself in our original experiments in 1871. It was by it that the fact of the absence of the septic ferment in the blood was first established. Having found that all exposed liquids possessed what I then called the zymotic property—that is, the power of starting the development of *Bacteria Termo* in Pasteur's liquid—we extended our inquiries, not only to other animal liquids, but also to healthy tissue, and concluded that all the liquids and tissues of the body are germless.†

## RELATION BETWEEN SEPTIC PROCESSES AND THE PRODUCTION OF FEVER.

We must now apply ourselves to the consideration how far the organisms with which we have been occupying ourselves have to do with the processes of disease. As I said, the inquiry must be approached from the pathological side. As naturalists, we may be interested in all the lessons to be learnt from bacteria: in studying the remarkable influence of the conditions under which they originate and grow, in modifying their form, or the question how they come into existence, as it were, out of nothing. But all this is beside the mark; at all events, beside our mark as pathologists. To us, who are concerned about disease, and have its prevention and cure as our ultimate object, the subject loses its interest the moment it becomes unconnected with bodily disorder. Life is short, and the work to be done long and difficult. We must, therefore, keep close to our own subjects, if we wish to make progress.

There are three sorts of diseased processes in which bacteria are supposed to be concerned: the process of fever, certain processes dependent on inflammation, and the various processes of specific infection. The relation of the development of bacteria to the febrile process can be investigated experimentally; for liquids are within our reach that have this property, viz., when introduced in a very small dose into the circulating blood of a living animal, they produce fever—a fever which derives its claim to be so called not merely from its being attended with rise of temperature, but from its consisting of the successive stages which go to make up a febrile accession or attack; viz., a period of latency, a rigor with rapid rise of temperature, followed by loss of muscular power, and a period of decline, the whole process being of short duration—not more than five or six hours, and not being accompanied by any local disease whatever, but being throughout a blood-process.

The liquids in question are exclusively derivable from one of two sources; viz. (*a*) products of inflammation, (*b*) products of putrefactive decomposition of blood, muscle, or other animal tissues. I shall speak of them as pyrogenic liquids. Among inflammation products, those of serous and catarrhal inflammations are the most frequent sources. As regards the former, *i.e.*, liquids of serous inflammations, those are most active which are of infective origin, *i.e.*, those of which the producing processes are secondary. Of catarrhal products, there is one which has been used by Senator, and which I have also used myself as a source of pyrogenic material. I refer to the expectoration of the purulent stage of phthisis. From this liquid (which is of course always to be had in any quantity), an extract can be obtained by treating it with two per cent. solution of common salt, which admits of filtration. This extract is always pyrogenous.

It is to be noted first that all of these liquids are apt to contain bacteria; they are not, however, putrid in the ordinary sense; the last mentioned, for example, retains the peculiar odour of purulent expectoration; and, secondly, that all of them are more active when freshly prepared than at any subsequent period. If, *e.g.*, they are subjected to the temperature suitable for putrefaction, they very rapidly lose their activity, and the rate at which this occurs varies with that of the putrefactive process. This must not be understood to mean that they were not at first in a state of decomposition, but simply that the *pyrogen* (as we may, for shortness, call it, whatever its chemical nature) is a product which is produced at an early stage in the septic process.

But there is, as I have said, another source from which pyrogenous material can be derived, viz., from any animal liquid or tissue in the early stage of septic decomposition. The favourite tissue for the purpose is muscle. If a quantity of muscle be chopped up and placed in water at a temperature of from 60 deg. to 70 deg. Fahr. for a couple of weeks or so, an infusion is obtained which is pyrogenous. The exact period at which it acquires this property depends on various conditions, more than all on temperature. If this period be allowed to go by, the pyrogenous activity declines, while the obvious signs of putrefaction become more apparent. If the extract be used in the crude state, the result of introducing it into the circulation is often rapidly fatal. The reason of this is that embolism occurs. Little plugs are formed which find their way into the pulmonary artery and produce sudden death. Even if the liquid be strained, the production of fever (the effect which at this moment interests us) is not the only one which presents itself. Local effects are produced of the class to which I have applied the term secondary inflammation, viz., infective nodules in the internal organs—serous and mucous inflammation. Those animals which are prone to tuberculosis become, in consequence of such an injection, eventually tuberculous, although at the time they may apparently recover from the immediate effects. These effects—all of which must be regarded as in so far embolic that they are dependent on the circumstance that the liquid contains particles of irritating material which are carried by the blood-stream to various parts of the body, and there prove foci or centres of infective inflammation—have evidently no necessary connection with fever in the sense in which we have agreed to use the word, viz., as consisting in rapid augment of temperature, attended with the characteristic muscular phenomena of rigor, followed by adynamia, and succeeded by a much more gradual decline.

It may, however, be possible by suitable methods to obtain this purely pyrogenic effect without the others. In other words, there may be in muscle-extract, at an early stage in the process of putrefaction, a substance which possesses the pyrogenic activity without that of producing secondary inflammation.

Before proceeding to state what others have done, and what I have done myself, in the effort to find such a substance, let me draw your attention to the remarkable fact that no therapeutical agent, no synthetical product of the laboratory, no poison, no drug is known which possesses the property of producing fever. The only liquids which have this endowment are liquids which either contain bacteria or have a marked proneness to their production.

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* It is desirable to note that in the experiments I have myself made with reference to the germlessness of muscular tissue, that of the dog was used. In substituting muscle of the rabbit, I have failed. I believe this stands in relation with the observed proneness of the latter animal to traumatic infection as compared with the immunity of the former.

† Under conditions not as yet sufficiently known, organic forms, probably allied to bacteria, are met with in the blood of healthy persons. About three years ago, a discovery was made simultaneously by Dr. Ferrier, and by Dr. Lostorfer of Vienna, that in certain individuals bodies exist in the blood which in form resemble sarcina. They are to be found in blood which has been received into calcined tubes with all the necessary precautions. If such tubes are kept at the temperature of the body for a week or two, they are found to multiply rapidly. This observation has been confirmed by Cohn (*Beiträge, loc. cit.*, p. 223). A still more remarkable observation was made by Dr. Osler in my laboratory two years ago. He found that in the blood of certain apparently healthy persons, peculiar aggregations of pale particles of extreme minuteness, but definite form, existed in considerable numbers. These were studied under the microscope, on a stage of which the temperature was maintained at 38 deg. (about 100 deg. Fahr.), and exhibited a series of changes, all of which are carefully figured in his paper (*Proceedings of the Royal Society*, No. 153). In short, each aggregation resolved itself in the course of half an hour or an hour into individuals, each of which possessed the power of active locomotion.

Further, let me remind you that, whatever effort we may make to discover a disease-producing agent, we must take, both as our starting point and as our guide post, the one fact that we know about it, viz., its pathological action. For our problem is this. In a mixed liquid, we have reason to believe that a body exists which has the property of producing fever. Let us suppose that, by the use of appropriate chemical methods, we succeed in separating from it a crystalline principle which forms compounds of definite characters and constitution. To us this is of no value, unless it can be shown that the body so obtained contains the fever-producing property. Or let us suppose that a certain organic form is present, and that, by appropriate methods, we can determine its botanical characteristics, it is of no interest unless it can be proved that the form encloses the property. It was from forgetting this principle that Hallier, whose indefatigable labours as a botanical investigator of the forms of vegetation which he believed to associate themselves with diseased products were referred to in the last lecture, lost his way. He forgot that, in the investigation of morbific agents, pathological experiment and observation are the only safe guides. His results are valueless, not so much because the botanists say they are wrong botanically, but because he went on developing form out of form, without ascertaining as he went along, by repeated experiments, that the clue he was following was the right one.

Let me now return to my own experiments. I will not weary you by detailing the steps by which I was led to adopt my present method, but will content myself with reminding you that the purpose is (assuming that, in all probability, the pyrogenous is separable from what has been called the "phlogogenic" action of the material in question, viz., the septic extract of muscle) to effect this separation by obtaining the "pyrogen" in a convenient form.

The plan is as follows. The liquid is first precipitated by absolute alcohol. The precipitate is separated by decantation, again extracted with boiling alcohol, and then filtered. The residue, after having been freed from alcohol by placing it *in vacuo*, is extracted with distilled water. The water extract is at once filtered. It is a limpid liquid, which, on injection into the circulation, proves to be pyrogenous. It contains 1.2 per cent. of solids. The dose required to produce a characteristic access of fever in a moderate sized dog is five cubic centimètres, that is, three-quarters of a grain of solid matter.

From this experiment, two conclusions suggest themselves—1. That the agent, of whatever nature, is soluble in water, insoluble in strong alcohol; 2. That it cannot consist of bacteria, or have anything to do with them. Both of these conclusions would be erroneous; and this leads me to what I regard as the kernel of the experiment, viz.: We have an apparently homogeneous and transparent solution which is pyrogenous. Are its constituents really in solution? Is it really homogeneous? If I had not from other experiments learnt that no "animal poison" is really soluble, I should have answered the first question unhesitatingly, Yes. To test it, we apply a method first introduced into pathological investigation by Professor Klebs of Prague—namely, filtration under pressure through porous cells. By applying this method, I obtain a second filtrate. I test it physiologically, and find that it is not pyrogenic. Pyrogen, therefore, is a substance which passes through filtering paper, but not through porcelain. Further, I find, on microscopical examination, that the first filtrate, although at first it contains no bacteria, is not entirely free from particles; and, if I repeat the examination after an hour, bacteria are present in considerable numbers. If I examine the second filtrate in the same way, even twenty-four hours later, it remains barren. The porcelain has, therefore, removed from the liquid, along with the pyrogenous agent, that on which the development of bacteria depends.

We can scarcely overlook the bearing of these facts on the question of the mode of origin of bacteria; for, considering that bacteria in their ordinary state are destroyed, as Dr. Bastian and others have shown, at the temperature even of boiling alcohol, and that, without reference to temperature, they are inevitably killed by immersion in absolute alcohol, it is clear that our fever liquid as used contains no active bacteria. It is equally clear that it contains that particulate material out of which bacteria spring, for otherwise it could not be deprived of its fertility by filtration. It must, therefore, contain particles which, although they resist alcohol and heat, yet are endowed with a latent capacity of development. I may add that the existence of such particles has been inferred on other grounds by mycologists, who have compared their condition to that of the winter-spores (*Dauersporen*) of the fungi.

# LECTURES
## ON THE
# EXPERIMENTAL INVESTIGATION OF THE ACTION OF MEDICINES.*

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## VI.—RESPIRATION.

*Position of the Respiratory Centre; chiefly situated in the Medulla Oblongata, but extends also to the Spinal Cord.—Effect of Strychnia upon it.—Influence of Nerves upon it.—Influence of Vagus.—Vagus contains two sets of Fibres, Accelerating or Inspiratory, and Retarding or Expiratory.—Cause of Rapid Breathing in Pneumonia.—Influence of the Superior and Inferior Laryngeal Nerves.—Nasal and Cutaneous Nerves.—Local Action of Vapours when inhaled.—Action of Ammonia.—Methods of Registering Respiratory Movements.—Acceleration of Respiration by Drugs.—Is it due to* (1) *Excitement of the Voluntary Nerve-Centres,* (2) *Increased Temperature,* (3) *Increased Venosity of the Blood?—Increased Venosity may be due to* (*A*) *Prevention of Blood from reaching the Air;* (*B*) *Prevention of Air from reaching the Blood. Blood may be prevented from reaching Air*—(*a*) *By Stoppage of the Heart: Action of Quinine.*—(*b*) *By Embolism of the Pulmonary Vessels; Action of Condurango.*—(*c*) *By Contraction of the Pulmonary Capillaries; Action of Muscarine.—Observation of the Pulmonary Capillaries in the Frog under the Microscope.—Effect of Heat and Cold upon them.*

IT used to be supposed that the respiratory centre was not only situated in the medulla oblongata, but was confined to it. Legallois found that the cerebral hemispheres, cerebellum, and even a part of the medulla itself, could be removed without arresting respiration; and thus showed that the respiratory centre was either in the medulla or in the spinal cord. (*Expériences sur la Principe de la Vie.* Paris, 1830, tome i.) Flourens noticed that injury to a point named by him *nœud vital*, at the lower end of the calamus scriptorius, instantly arrested respiration, and thus caused death (*Comptes Rendus*, vol. xxxiii, page 437); and all experimenters have found that division of the cord just below the medulla also arrested breathing. These experiments seem to show most conclusively that the respiratory centre is situated in the medulla, and does not extend to the spinal cord; but the recent researches of Prokop Rokitansky (Stricker's *Medicinische Jahrbücher*, 1874, p. 30) on this subject show how careful we must be in drawing conclusions from experiments. Like all others, he has found that, under normal conditions, breathing ceases as soon as the influence of the medulla is destroyed by division of the cord just below it. But if strychnia be given to the animal, so as greatly to increase the excitability of its respiratory centre as well as of other reflex centres before the cord is divided, respiration will go on after the section has been made; and strychnia injected into the veins after the section will restore the respiratory movements, which the cut had arrested. This shows that the respiratory centre is not confined to the medulla, but extends into the spinal cord. The part contained in the cord is, however, too weak to keep up respiration alone under ordinary circumstances, though it can do so when its power is increased by strychnia. These remarkable effects of this poison give promise of future benefit from its use as a restorative in cases of death from drowning, etc.; but further experiments on animals are necessary before we dare employ such a powerful remedy in man.

Rokitansky's experiments enable us to demonstrate the presence of a respiratory centre in the spinal cord, as well as in the medulla of adult animals; but it is only fair to say that this was shown long ago by Brown-Séquard in the case of young ones. In young mammals and adult birds, he found that the thorax continued to execute rhythmical respiratory movements for a short time after the cord had been divided transversely at the level of the first or second pairs of cervical nerves, so that there must needs be a part of the respiratory centre in the cord below that level (*Journal de la Physiologie*, vol. i, 1858, p. 223, and vol. iii, 1860, p. 153). Besides this, he considers that there are what we may term peripheral respiratory centres—viz., ganglia in the substance of the diaphragm itself analogous to those in the heart, which enable it to contract rhythmically after its connections both with the medulla oblongata and with the spinal cord have been destroyed (*op. cit.*, vol. ii, 1859, p. 115).

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* The request of a correspondent for a reference to Hering's experiments has, fortunately, directed my attention to a mistake of some importance in my last lecture. I there stated that Hering found that respiratory movements ceased when arterialised blood was passed through the head and venous blood through the body; while, on the contrary, asphyxial convulsions took place when venous blood was passed through the head and arterial blood through the body. I ought to have said that movements occurred in the blood-vessels such as would have taken place had the same sort of blood which circulated through the brain been passing also through the body. The experiments, however, were made on curarised animals, so that respiratory movements were impossible. Hering had previously ascertained that the arterial movements were synchronous with the respiratory movements, and might, indeed, be regarded as caused by impulses proceeding from the respiratory centre. They might thus serve as indications of the condition of the centre, where respiratory movements had been paralysed by curara. This paper is to be found in the *Wiener Acad. Sitzungs-ber., Math.-naturw. Classe*, vol. lx, Abth. 2, pp. 829-856.

Although the excitement of the respiratory centre and the amount of work done by the respiratory muscles depend on the venosity of the blood in the medulla oblongata, yet this work may be differently distributed by the respirations becoming quicker but shallower, or slower but deeper, without the quantity of air respired being at all altered. This is effected by the action of various afferent nerves, of which the chief are the vagus, the superior laryngeal, and the nasal nerves; though others, such as the cutaneous nerves generally, have considerable influence.

Irritation of the vagus, or of its central end when divided, lessens the resistance in the respiratory centre, and quickens the respiration, but makes it shallower. Stronger irritation causes prolongation of inspiration. A very strong excitation annihilates the resistance in the centre, and causes inspiration to be almost indefinitely prolonged, so that the breathing is completely arrested.

The ends of the vagi in the lung are normally in a state of constant excitation, and therefore division of these nerves renders the respiration slow.

Irritation of the vagi, on the contrary, causes, as we have said, considerable acceleration of the respiration; and the quick breathing which we observe in pneumonia is probably due to the irritation of the pulmonary branches of the vagus which the inflammation produces. It can hardly be caused by the venous condition of the blood alone, nor yet by increased temperature; for the blood may be very much more venous in bad bronchitis, and the temperature higher in fever, without the respiration becoming anything like so rapid as in a case of pneumonia. But, although I thus speak of the vagus as an inspiratory or accelerating nerve alone, I do this only for the sake of simplicity, as this is its chief function. It really contains, however, both inspiratory and expiratory fibres, although the former predominate. (Hering and Breuer, *Wiener Acad. Sitzungs-ber. Math.-Naturwiss. Cl.* vol. lvii, Ab. 2, page 672.) The inspiratory fibres are excited by collapse, and the expiratory fibres by distension, of the lung. Thus, these nerves form a sort of regulating mechanism for the respiratory movements. As soon as a deep inspiration is taken, the distension of the lungs excites the expiratory fibres, and leads to the consequent expulsion of the air; as soon as expiration takes place, the collapse of the lungs excites the inspiratory fibres, and thus leads to renewed inspiration.

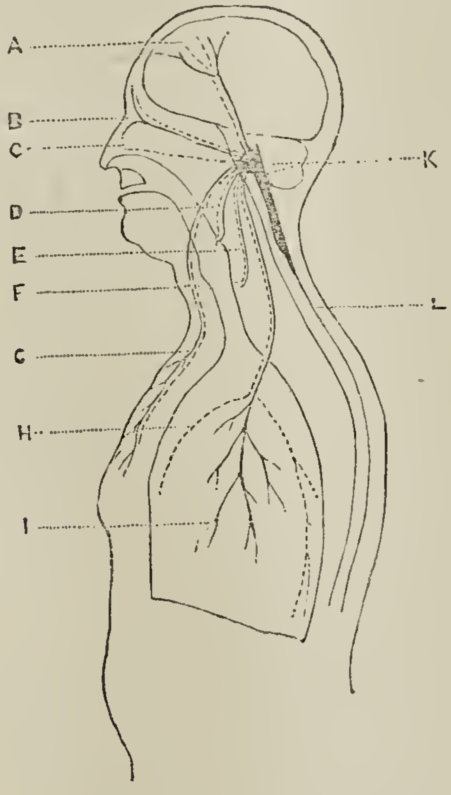

Fig. 1.—Diagram showing the position of respiratory centre, and the afferent nerves which influence it. Inspiratory nerves are indicated by plain, and expiratory by dotted, lines.

A. Inspiratory and Expiratory Fibres for voluntary alterations in Respiration.
B. Cutaneous Nerves of Face.
C. Nasal Branch of Fifth Nerve.
D. Superior Laryngeal Nerve.
E. Inferior Laryngeal Nerve.
G. Cutaneous Nerves of the Chest.
chiefly expiratory.
F. Larynx.
H. Expiratory Fibres of Vagus excited by distension of Lung.
I. Inspiratory Fibres of Vagus excited by collapse of Lung.
K. Respiratory Centre in Medulla and Cord.
L. Spinal Cord.

As the effect of irritating other nerves as well as the vagus is not always alike (Bert, *Leçons sur la Respiration*, page 490), it is probable that the laryngeal, nasal, and cutaneous nerves, may also contain both inspiratory and expiratory fibres. It has already been mentioned, that the accelerating fibres of the vagus in the lungs are probably irritated in pneumonia, but in bronchitis the expiratory ones are chiefly irritated, and give rise to the expiratory efforts in coughing, which serve to expel any irritating substance in the bronchi. When these fibres are exhausted, or the respiratory centre is feeble or irresponsive, the mucus will remain, and consequently strychnia suggests itself as an auxiliary in such cases. If the irritation depend on something which cannot be removed by coughing, such as miliary tubercle, we employ opium, chloral, etc., which lessen the excitability of the respiratory centre.

Moderate irritation of the superior laryngeal nerve renders the respirations slower but deeper; a stronger irritation prolongs expiration; and a very strong one causes the respiration to stop entirely in the state of expiration (Rosenthal, *Athembewegungen*, p. 244) until the increasing venosity of the blood greatly stimulates the respiratory centre, and causes respiration again to commence.

Irritation of the inferior laryngeal nerve (Burkart, Pflüger's *Arch.*, vol. i, p. 107), and of the supramaxillary (Kratschmer, *Sitzunges-ber. der Wien. Acad.*, *Math.-Nat. Cl.* 1870, vol. lxii, Abt. 2, p. 24), and nasal branches of the fifth nerve, acts in a similar way to irritation of the superior laryngeal nerve, as well as irritation of the cutaneous nerves generally, and especially of those of the face and chest. (Schiff, *Compt. rend.*, 1861.)

We have then to find out whether the alteration in respiration produced by any drug is due to its action on the respiratory centre, or on some of the nerves which influence it; and the following table may help us to do so more readily, by showing at a glance the chief ways in which the respirations may be accelerated or retarded.

| | | |
|---|---|---|
| The respiratory movements may be quickened by | Excitement of nerves. | Increased irritation of the vagus.<br>By action of voluntary centre. |
| | Greater excitement of resp. centre. | Increased temperature of blood.<br>Increased venosity of blood.<br>Action of drugs. |
| The respiratory movements may be rendered slow by | Diminished excitement of respiratory centre. | Diminished venosity of blood.<br>Action of drugs. |
| | Nervous influences | Slight irritation of cutaneous nerves.<br>Action of voluntary centre.<br>Paralysis of vagi.<br>Irritation of superior laryngeal nerves.<br>Irritation of inferior laryngeal nerves.<br>Irritation of nasal nerves. |

If the drug to be experimented on be injected subcutaneously or into the veins, the actions on the respiratory centre and on the vagi are the chief points which require attention; but if we are experimenting with a vapour, its local action on the nasal, laryngeal, and possibly, also, on the pharyngeal nerves (Brown-Séquard, *Archives of Scientific and Practical Medicine*, p. 94) must be carefully attended to, as it may greatly modify its general action on the respiratory centres. Thus Kratschmer has found (*op. cit.*) that tobacco-smoke inhaled by a rabbit through its nostrils, or blown upwards into the nasal cavity from an aperture in the trachea, will cause arrest of breathing in a state of expiration from the irritating effect of the vapour on the nasal branches of the fifth, while it has no such effect when blown into the lungs. Ammonia, when inhaled, also arrests the respiratory movements in the same way; but Knoll (*Sitzungs-ber. der Wien. Acad.*, vol. lxviii, Abt. 3, p. 255) has observed that, if it be blown into the lungs, while the nostrils are carefully protected from its influence, it causes accelerated and shallow breathing, alternating with slow and deep respirations, and occasional stoppages in the position of expiration, obviously from its action on the different fibres of the vagi. When injected into the blood, it causes, according to Funke (Pflüger's *Archiv*, vol. ix, p. 436) various alterations in the respiration, which are not easy to analyse, but it

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certainly seems to excite the respiratory centre; and the use of carbonate of ammonia in bronchitis has long been familiar to the medical profession.

The movements of respiration are not only more easily counted than in any other way, but their depth, and the relation of inspiration to expiration, best noted by causing them to register themselves on a revolving cylinder. Various means of doing this have been suggested by different authors. One of the simplest consists of a needle pushed into the diaphragm, and connected by a thread with one of Marey's levers (see Fig. 2). Marey's pneumograph consists of a cylinder of soft India-rubber, enclosing a spiral spring, whose extremities are connected with two pieces of metal which form the ends of the cylinder. A band is passed round the thorax of the animal, and attached to the ends of the cylinder. The interior of the cylinder is brought into communication with one of Marey's levers; and as each respiratory movement draws the ends of the cylinders wider apart, or allows them to approach, the air is rarefied or compressed, and a corresponding movement is transmitted to the lever. Bert has modified this, and made it more sensitive by making the cylinder itself of metal, and its ends of India-rubber. Another method—one more ordinarily employed—is to introduce one limb of a T-tube into the nostril or trachea of an animal, or to connect it with a tracheal cannula. The respired air passes through the other end, and the third limb is connected with one of Marey's levers.

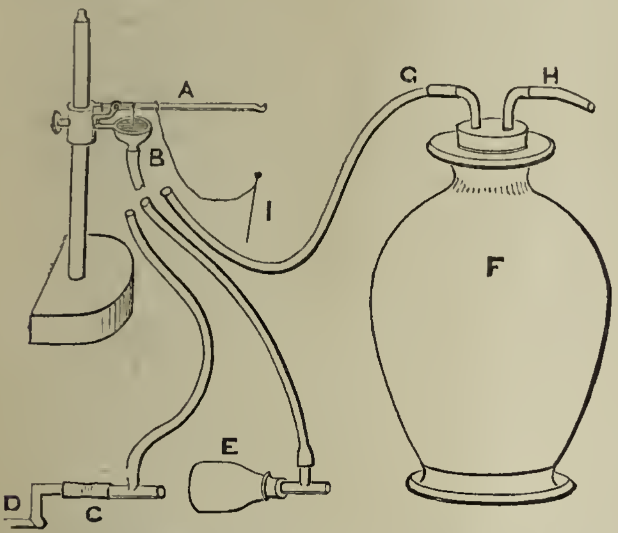

Fig. 2.—Method of registering respiration. A is the lever of Marey's registering apparatus; B is a hollow drum, with open tube below, and covered at the top with a piece of thin caoutchouc, on which rests a tin plate connected with the lever A. When the air is blown into B, the caoutchouc is lifted, and the lever rises. When air is drawn out, the caoutchouc sinks, and the lever falls. The tube of B may be connected by India-rubber tubing with the respiratory passages in several ways. C is a T-tube, open at one end and connected at the other with a cannula, (D), which is placed in the trachea of the animal and brought into communication by its upright limb with B. Instead of D, an India-rubber catheter may be placed in the animal's nostril. E is a caoutchouc-bag, which is tied over the animal's muzzle and used instead of the tracheal cannula. F is a large vessel, from which two tubes (G and H) proceed. G is connected with the lever B, and H with the respiratory passages of the animal. I is a needle, which is simply connected with the lever by a thread: when pushed into the diaphragm, it registers the respirations.

IS QUICKENING OF RESPIRATION DUE TO IRRITATION OF THE VAGI?—When the respiratory movements become quickened by the injection of a drug into the circulation, the first cause to which it may be due, mentioned in the preceding table, is irritation of the ends of the vagus in the lung. In order to discover whether this be the cause or not, the vagi must first be divided and the drug injected. If it act only on the ends of the vagus, the respiration which was quickened by injection when the vagi were intact, will not be quickened by it when these nerves are divided.

IS THE QUICKENING DUE TO EXCITEMENT OF THE VOLUNTARY NERVOUS CENTRES?—This cause of quickening is eliminated by narcotising the animal with opium or chloral, or by removing the cerebrum. For the method of doing this, see Sanderson, *Handbook for the Physiological Laboratory*, page 295.

IS IT DUE TO INCREASED TEMPERATURE?—If the temperature of the animal have risen above the normal—the fact can readily be ascertained by the thermometer—it may then be reduced by the application of cold water or ice, or by a stream of cold air directed on the surface of the skin. Unless the cooling be effected very gradually, these applications cause reflex disturbance of the respiratory movements through the cutaneous nerves.

IS IT DUE TO INCREASED VENOSITY OF THE BLOOD?—The drug may produce this by its action on the blood; and this is to be determined by the means already described. Generally we let a little blood issue from an artery; and if its colour be of normal brightness, we conclude that the gases it contains are also normal.

But external respiration may be arrested or diminished, the blood rendered venous, the respiratory movements consequently increased, and dyspnœa and asphyxia produced by preventing the blood from reaching the air, as well as by preventing the air from reaching the blood. The blood may be prevented from coming into relation with the air: (*a*) By stoppage of the heart; (*b*) By embolism of the pulmonary artery; (*c*) By contraction of the capillaries of the lung.

(*a*) BY STOPPAGE OF THE HEART.—When respiration is suddenly impeded in any of these ways, the breathing becomes panting; and when it is suddenly stopped altogether, asphyxial convulsions occur. When the jugular vein is chosen for the introduction of drugs into the circulation, they come very quickly and without much previous dilution with blood into contact with the heart and pulmonary vessels, and thus affect them more strongly than they would do if injected subcutaneously, or into one of the veins of the extremities. When a large dose of quinine is thus injected, the heart may be stopped at once, and convulsions ensue. Any alteration of the heart's action produced by a drug is easily noted by means of a needle fixed in the ventricle.

(*b*) BY EMBOLISM OF THE PULMONARY ARTERY.—This cause of interrupted respiration may easily lead an inexperienced observer to very erroneous conclusions regarding the action of a drug. Supposing him to inject an unfiltered solution of some extract into the jugular vein, he may find the respiration almost immediately afterwards become panting; the eyes start from their orbits, the limbs become convulsed, the head drawn back, and after one or two quivering contractions, life becomes extinct. He at once concludes that the substance he has injected is one of extreme activity, whereas it may be really quite inert; the violent symptoms which followed its injection being due to the extract being imperfectly dissolved, and the suspended particles producing embola in the pulmonary vessels.

In some experiments which I made on condurango, I was at first misled by this circumstance, and believed that the drug had a tetanising action, like that of strychnia, as convulsions came on immediately after injecting a solution of the extract into the jugular vein. The same mistake has probably been made by Giannuzzi,* who attributes a convulsive action to the drug. By injecting the solution into the peritoneal cavity, however, I found that it had no action whatever even when used in large quantities, while a solution of strychnia applied in the same manner would have acted nearly as strongly as when injected into a vein.

(*c*) BY CONTRACTION OF THE PULMONARY CAPILLARIES.—When contraction of the pulmonary capillaries is produced by a drug injected into the veins, the venous blood is hindered from reaching the left side of the heart, and the left ventricle and arterial system become empty, and the arterial pressure sinks while the right ventricle and venous system become swollen and turgid. The alteration of the blood-pressure in the arterial and venous systems may be measured by manometers connected with them; but while the arterial fall in the pressure is easily observed, there is considerable difficulty in measuring that in the veins, due to the rapid formation of coagula in the tube which is pushed down the jugular vein into the vena cava.

Another method is, to open the thorax and note the colour of the lungs and the comparative fulness of the right and left sides of the heart, and of the venous trunks, before and after injection of the drug. The animal is first narcotised, and a cannula placed in the trachea. The skin and cellular tissue are then divided along the middle of the sternum and reflected on each side. The muscles are then divided along the line of the costal cartilages, and artificial respiration is begun. The abdominal muscles are then separated from their attachment to the sternum and costal cartilages; the latter are cut through, except the first, which is left untouched in order to avoid wounding the internal mammary artery, and the sternum is bent upwards and retained in its position by a hook. In the rabbit, it is generally unnecessary to tie any vessels, as the bleeding stops quickly of itself; but if any one should bleed much, it ought to be laid hold of and ligatured. Artificial respiration being carefully and regularly kept up by means of a metronome, the colour of the lungs, the size of each ventricle, and the number of cardiac pulsations is observed, the drug injected, and the observation repeated. The pulsations must be counted, because slowness of the heart's action, by affording time for the accumulation of venous blood in the right ventricle, would cause it to become distended, although there were no obstruction to the pulmonary circulation. When the drug to be experimented on is not a solution but a vapour, it must be passed into the lungs by the method already described (British Medical Journal, May 20th, 1871).

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* Gianuzzi and Bufalini, *Ricerche eseguite nel Gabinetto di Fisiologia della Universita di Siena*, pp. 71-86; abstracted in the *Centralblatt für die Med. Wiss.*, 1873, p. 824.

In this way, I have found that muscarin causes contraction of the pulmonary vessels, and produces dyspnœa (see British Medical Journal, November 14th, 1874), although the heart continues to beat, and artificial respiration is vigorously kept up. The lungs become pale, the right side of the heart swells up, and the left side and arteries become empty, as represented diagrammatically in Fig. 4.

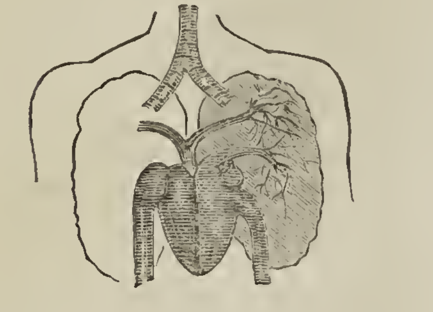

Fig. 3.

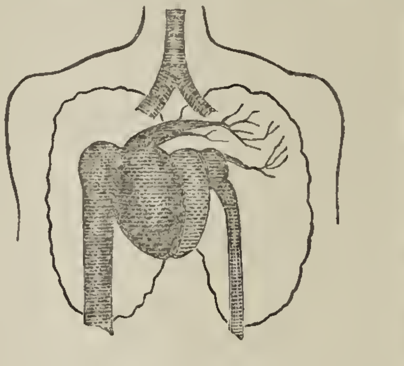

Fig. 4.

Fig. 3.—Diagram representing the normal condition of the circulation. Both the veins and arteries are moderately full: the two sides of the heart are of much the same size, and the circulation through the lungs is free.

Fig. 4.—Diagram representing the condition of the circulation after the administration of muscarine. The veins are distended, the artéries empty; the right side of the heart is much enlarged, the left side collapsed, and the circulation through the lungs almost entirely arrested.

The vapour of chloroform blown into the lungs causes a similar appearance, but it arrests the cardiac pulsations more or less completely at the same time.

The action of drugs on the pulmonary capillaries in the frog may be observed directly by means of the microscope. A frog is curarised, and a glass cannula, to which a short piece of India-rubber tubing is attached, is tied into its larynx. An incision is then made into the side of the frog a little below the arm, care being taken not to injure the lung in dividing the thoracic wall; and, the lungs being inflated through the cannula, one of them protrudes through the opening. The piece of India-rubber at the end of the cannula must then be clamped, so as to prevent the air from escaping and the lung from collapsing (Fig. 5).

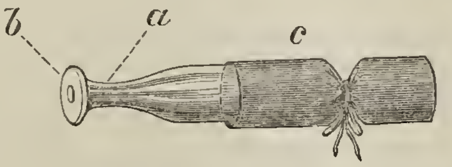

Fig. 5.—Form of tube for insertion into the larynx of the frog. It is made by drawing out a piece of tubing to the size marked *a*, heating the end and pressing it against a piece of metal, so that it assumes the shape *b*. *c* is a piece of India-rubber tubing, which must be closed, either by a ligature, as shown in the drawing, or, what is still better, by a clip, so as to prevent the escape of air from the lung.

The whole frog is then placed on a glass plate, which is fixed with a clip to the stage of the microscope. The lung is brought under the objective, and supported, if necessary, by a cork ring fixed to the glass plate with sealing-wax. Any changes in the calibre of the pulmonary vessels are then readily observed by means of a micrometer placed in the eye-piece.

Four years ago, I attempted to ascertain by this method the effect of sudden changes from heat to cold on the lungs; and I have found that, if a stream of warm moist air be first directed on the lung, and immediately afterwards a stream of cold moist air, the capillaries sometimes contract as much as one-third of their diameter under the influence of the cold.

Dr. Sharpey informs me that the lung of the toad, unlike that of the frog, does not collapse even when no obstruction is offered to the escape of air; and therefore, if toads be used, the India-rubber tube and clamp on the cannula are unnecessary.

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The late Dr. Pickford.—At the annual general meeting of the Brighton and Sussex Infirmary for Diseases of the Eye, the following resolution was passed. "That the Governors of this Charity desire to offer to Mrs. Pickford their sincere expression of condolence in the loss of her late husband, Dr. J. H. Pickford, to whose exertions the Charity mainly owes its foundation, and who, during a period of more than forty years, exerted his best interest in its behalf."

# REMARKS ON THE LOCAL USE OF LIQUOR FERRI PERCHLORIDI IN CANCEROUS ULCERATIONS OF THE UTERUS.*

By CHARLES J. GIBB, M.D.,
Consulting Surgeon to the Newcastle-on-Tyne Infirmary.

Cancerous diseases of the uterus have generally progressed so far before they come under professional observation, as to pass as incurable from one medical man to another, and it thus happens that I see a large number in my consulting-rooms. It is rare to find the disease so superficial and purely epithelial in character, or, if interstitial, so confined to the mouth and neck of the uterus, that the diagnosis can be made with such certainty as to justify the surgeon in excising it; and, in the advanced stages, the foul discharges make the patient so loathsome, that, in spite of the keenest feelings of pity, the surgeon is inclined to view the case as utterly hopeless, and to leave all manual treatment to the nurse. When we remember how much relief can be given to the worst symptoms of the most incurable cases of external cancer by operation, or by other measures calculated to remove fungoid or sloughing surfaces or masses of the disease; how pain can thus be relieved; bleedings prevented; foul discharge moderated or made less disgusting in character,—it is not surprising that surgeons should strive to give similar relief to the worst cases of cancer of the womb, and be more or less successful in their efforts. From time to time, I have tried the various local applications I have seen recommended; have made use of many caustics; have been taught by painful experience that caustic potash, or caustic potash and lime, are unmanageable, and too dangerous to the surrounding parts to be used with the freedom requisite to be of service; that the actual cautery is too fear-inspiring; that nitric acid or acid nitrate of mercury (which had to be used with great care) are inefficient; and that lunar caustic and powders or points of zinc or alum are useless as caustics.

About two years ago, I had occasion to dilate the uterus in a very obstinate case of menorrhagia proceeding from large vascular granulations in the cavity of the enlarged organ. The strongest pharmacopœial solution of the perchloride of iron (being in fact iron dissolved in pure acid) was injected into the open uterine cavity, and a piece of sponge soaked in the solution left there for twenty-four hours. This treatment was perfectly successful, and I viewed with surprise the efficient way in which the soft and vascular growths were destroyed, while the normal structures of the uterus and vagina were but little inconvenienced, and certainly not in the least eroded. Since that time, I have been accustomed to use this solution in many cases of cancer of the uterus; and, having promised our secretary to read a few notes at this meeting regarding its usefulness in my hands, I jotted down the histories of the following four cases, being the cases of cancer in which I used it in my consulting-rooms during the week succeeding the day I made that promise.

Case i.—Mrs. B., aged 36, a shopkeeper, married five years, without children, was a strong powerful woman until fourteen months ago, when she was seized with menorrhagia, followed by the foul sanious discharges and other symptoms of cancerous ulceration. She came to my office six weeks ago, anæmic to the last degree, from almost constant hæmorrhage and putrid discharge. On examination, the mouth and neck of the uterus were found destroyed, and their place occupied by a large, deep, sloughing, cancerous sore. The body of the uterus felt greatly enlarged, and as hard as a cricket-ball, whilst the vagina was quite free from disease. Profuse hæmorrhage attended the examination. The sore was filled with cotton-wool soaked in the solution of the perchloride, and the vagina stuffed with tow. She came from a distance by rail, and was ordered to remove with her fingers, or allow the lady who accompanied her to withdraw, the stuffing of tow next morning, and trust to the injections of zinc and alum to wash away the cotton-wool; and appropriate blood-making and aperient medicines were prescribed. On her second visit, she expressed herself as much stronger, very little bleeding having taken place during the week. The application of the perchloride was repeated; and I did not see her for the next ten days, in consequence of a severe pain compelling her to remain in bed. The sore was much healthier in appearance; there had been very little bleeding, and the discharge had become scanty and semi-purulent in appearance, without any of the old putrid smell. She was, however, very feeble, and made the journey with great difficulty. Instead of placing the cotton-wool soaked in the perchloride over the sore, I elevated her breech, half filled the vagina with the solution for a couple of minutes, then sucked it up with a syringe and left a plug of tow in the vagina, to be removed next day. The improvement was marked on her fourth visit, and on this, her sixth, I found there had been a little bleeding once during the week, whilst forcing away a very costive motion. The ulcer was perceptibly smaller, and free from slough, the circumference of the vagina having contracted considerably around it. A small quantity of oil-like pus lay in the vagina; but the examination still caused the ulcer to bleed slightly. The ulcer was again bathed with the strong perchloride, and she returned home, expressing herself as twice as strong as when she first called upon me, and very much relieved from the local misery.

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* Read before the Northumberland and Durham Medical Society.

Case II.—Mrs. R., aged 36, an innkeeper, with several children, the last 7 years old, commenced to have menorrhagia, and the ordinary symptoms of cancer of the womb, nearly a year ago. She began to attend my offices four months ago, and was found to have a large, soft, bleeding epithelioma, covering the swollen and apparently destroyed vaginal parts of the uterus, and extending along the front wall of the vagina to within an inch and a half of the orifice of the urethra. She came in a cab, and her linen was drenched with blood. She was exceedingly anæmic, with daily hæmorrhage, and was evidently in the last stage of the disease, the sore bleeding on the least examination. A large piece of cotton-wool, soaked in the perchloride, was placed over the diseased part, and the vagina was stuffed with tow. On her second visit, a week afterwards, the hæmorrhage had almost ceased; the sanious putrid discharge was much lessened, and, though there was little change to be seen in the appearance of the sore, the finger felt it to be less fungoid and pultaceous in consistence, and less blood followed the examination. I may here remark, that the bleeding fungoid sores were so extensive as to make it utterly impossible to use any speculum, and the oiled finger of myself and assistant had to be used to open the vagina and make the necessary examination and applications. The same examination was made weekly during the nine successive visits, by which time she had regained much of her lost strength, walking a considerable distance to my rooms, and experiencing but little pain or inconvenience, except in passing urine and fæces. The hæmorrhage had ceased after the third application; the foul sanious discharge had given place to a scanty oil-like purulent matter without smell; the fungoid vaginal sore was healed, or rather, converted into a thick nodulated, gristly, cicatricial substance, covered with a thin smooth membrane, whilst the deepest part, that corresponding to the uterus, alone presented a chink-like ulcerated surface. It was difficult to see or reach the deepest part, on account of the remarkable contraction that had taken place in the calibre of the vagina, which, from being very capacious and soft, admitting several fingers, had become changed to a rigid tube, that would scarcely allow more than one finger to pass along the upper part of the canal. At this period, some of the children became ill of fever, and she did not visit me for six weeks, having gone through much fatigue in nursing them. On again examining her this week, on her return, I found she was again suffering from a recurrence of the hæmorrhage, consequent, as she asserted, upon the menstrual flow; and I found also that the disease had again opened out the deepest part of the cicatrix, and formed an irregular foul ulcer nearly the size of a crown-piece. The front part of the cicatrix remained in much the same condition. I covered the sore with wool soaked in the perchloride, and warned her against such negligent attendance in future.

Case III.—Mrs. B., aged 46, a stout healthy-looking lady from the country, the mother of several children, called upon me about a year ago, having slight discharge and bleedings in the intervals between the monthly periods, as well as excessive monthly flow. Her other symptoms were so slight, that her husband, who was also a patient, had difficulty in persuading her to see me. The mouth and neck of the uterus were found to be red and raw-looking, bleeding on the slightest touch, also hard and considerably enlarged, and there was an ulcerated crack at the orifice of the organ. She attended my rooms once a week for about two months. Lunar caustic was applied at first; but, as it produced little change, the perchloride was used a few times with such good effect, that, considering herself quite well, she did not return to see me until to-day, when, she tells me, the bleedings have again returned lately, and she feels a heavy uncomfortable weight in the uterine region. On examination, the whole organ is found greatly enlarged and very hard, being evidently infiltrated with scirrhous disease. The old ulcer is again open, bleeds freely on examination, and there is considerable discharge. The perchloride has been applied.

Case IV.—Mrs. F., aged 69, from the sea-coast, consulted me about eight years ago for a discharge, occasional menorrhagia, and the uncomfortable bearing-down and other symptoms indicative of uterine mischief. The uterus was found atrophied, and the os and neck almost destroyed by a chronic cancroid ulcer, in appearance like lupus; the whole case reminding one strongly of a similar condition of the breast which I have often seen in old people to continue in a chronic state for years. Potassa fusa and other caustics and injections were used for more than a year, the result being the total destruction of the vaginal part of the uterus and the formation of a deep sulcus there, which, after remaining healed for some months, again opened out, and has ever since compelled her to attend my rooms two or three times a year for a month or two together. A slight bloody discharge is the only symptom that now tells her the cicatrix has given way, and of this discharge she has the greatest dread. Lunar caustic or nitric acid, with the use of injections, were generally successful after a time in healing the sore, or rather, crack in the cicatrix. I am now accustomed, however, to fill the wound with a small piece of wool dipped in the perchloride, and retaining it there for the first day by a plug of tow in the vagina: find it frequently, in spite of the use of injections, to stick in the place until next visit, a week afterwards, when I remove it. I find the perchloride to be by far the most effectual means of healing the scar when it cracks and bleeds; and on this occasion I made the usual application.

In reviewing the above cases, I have to remark that, since the first case was committed to paper, the patient has visited me twice, and on each occasion has reported large losses of blood, although, on examination, the sore looks clean, and the discharge remains a thick brownish pus quite devoid of smell. What remains of the uterus is infiltrated with cancer; and, although the treatment has greatly relieved the most distressing symptoms, it is evident that a fatal termination cannot long be delayed. Indeed, I have seen that, where the form of cancer is hard, and embraces the whole of the uterus, the destruction of the enlarged organ often takes place by a rapid disintegration attended with alarming gushes of blood, and all that can be done only lengthens the downward path, and makes it less foul and painful. It is different with that class of cases of which the second is a good example. Here there was as pure an epithelioma as is met with in the uterus, spreading over the adjoining surfaces of the vagina, and not infiltrating or running deeply into their structures, but throwing out surfacewards exuberant vascular fungoid granulations, quickly renewed as the older parts sloughed away. Into this soft albuminoid structure the acid solution of iron sinks, destroys, and disinfects; and, strong as it is, it only hardens and tans, but does not in the least destroy the healthy mucous membrane of the vagina. A few applications of the cotton-wool soaked in the solution suffice to clear away the greater part of the diseased growth. Reparative efforts are then made by the comparatively healthy structures underneath, and the further applications appear to hasten cicatrisation, as well as to eradicate the remains of the disease. In one case very similar to the second, the lady has now been quite well for some months, and the resulting cicatrix, when she ceased to attend upon me, had so narrowed the upper third of the vagina, that the finger could not pass along it, and was so thick, and hard, and tubercular, that I could not resist coming to the conclusion, that, in the process of cure, a large amount of albuminoid matter had exuded into, and become solidified in, the structures surrounding the disease. Whether the thickening and solidification of the cicatrix and immediately adjoining parts is what naturally takes place in this region when epithelial cancer is destroyed by other caustics, I have no experience to know; possibly it may partially result from the action of the solution left for so long a time on the highly vascular structures supporting the diseased growth—structures that have been so long accustomed to throw into the diseased mass the large supply of albuminoid food necessary for its support. In another case of apparent cure, where the epithelial disease was confined to the uterine structure, I did not observe this condition of the cicatrix; and it may be that the presence of so much connective tissue in the vaginal wall is the cause as well as the seat of this peculiar formation, reminding one of a bad case of keloid growth in the skin, or the hard irregular cicatrix of a bad burn. The course of cancer in the womb is sometimes so rapid, from the quick disorganisation and sloughing of the uterus, and the sufferings of the patient so great, that it is impossible, in a dispensary practice like mine, to see such cases as often as necessary, and to follow them out satisfactorily, or to persuade a sensitive woman to have repeated applications of an agent which does not give immediate or permanent relief. In such cases, indeed, no remedies can be of much avail. It is when the disease is purely epithelial, and chronic, and rodent in character, and confined to the surface, that the treatment I have described does most good, and, as I have said, appears to cure even bad cases. The application of the perchloride rarely causes pain. On four or five occasions, a patient, on returning home, has been confined to bed for a few days, and, in one of the successful cases, for upwards of a fortnight, in consequence of a severe colicky pain in the region of the uterus, lower abdomen, and back. I am inclined to think that the wool had been oversaturated in the perchloride in such cases, as it has occasionally happened that the solution has flowed from the vagina over the vulva after the patient has left my offices, and those parts been blistered and painfully excoriated as a consequence. On this account, I am now very careful to wash away with a syringe all discharges from the surface of the cancer, and to raise the breech of the patient to prevent any overflow of the solution over the vulva, and, after applying the perchloride, to suck up with a sponge from out of the bottom of the vagina any superabundant solution which a slight pressure on the saturated wool over the sore may cause to flow out; after that, to retain the wool in its place by a loose plug of tow in the vagina; and, lastly, to dry and oil the vulva before the patient rises from the couch.

I have always used the strongest pharmacopœial solution undiluted, as I have only used it to secure a caustic action. At first, I applied it on a piece of sponge or lint; but finally found cotton-wool to answer best, as it sucks up any quantity that may be required, parts with it easily, and can be moulded into any form, so as to fill a cavity or cover over and adhere to any growth. It has happened occasionally that I have found the cotton-wool still adherent over the sore a week or more after its application, and, when removed, it is always a black or chocolate-coloured mass, frequently quite solid, from the quantity of blood or albuminous matter absorbed in its meshes and clotted therein; indeed, one patient gravely told me she had passed a solid brown egg a few days after one of her visits. No doubt it was the hardened wool, although she declared she had cleared out the vagina the day after her visit.

I have kept no record of all the cases I have treated with the perchloride; but, as I have generally had six or eight under treatment at one time, I must have used it in twenty or thirty cases; and its beneficial influence has been so marked, that I would strongly recommend its trial in suitable cases.

## CASE OF LARYNGITIS: TRACHEOTOMY: RECOVERY.

By SURGEON-MAJOR J. H. PORTER, Assistant Professor of Military Surgery, Army Medical School, Netley.

IN this case, an acute attack supervened on the disease in a chronic form.

Gunner T. W., Royal Artillery, aged 30, of thirteen years' service, was invalided from India in February, 1874, after a residence there of seven years, on account of extensive syphilitic disease, affecting the bones of the left foot. When he arrived at Netley on April 23rd, 1874, he was suffering from hoarseness of voice and irritative cough, which had first attacked him on board ship, immediately after entering the Mediterranean. Inhalation of the vapour of turpentine and creasote was ordered, while iodide of potassium was given internally; and under these remedies the laryngeal symptoms had so nearly disappeared, that the usual arrangements were made for him to leave the hospital on the 8th of July. On the 3rd of the month, however, the laryngeal symptoms suddenly became aggravated, his voice became weak and hoarse, and he was troubled by cough of a croupy character. The treatment which had relieved him before had now no salutary effect, but appeared rather to aggravate his symptoms. Minute doses of antimony were then administered, the temperature of the ward was kept high, and under these circumstances the patient experienced relief, and appeared to be progressing satisfactorily, when, at 2 P.M. on the 7th of July, he became much worse. His countenance became livid, his skin was bathed in cold perspiration, and he suffered greatly from hoarse cough, accompanied by bloody sputa, and a sense of impending suffocation. He complained of great pain on the right side of the larynx, which was swollen. The pharynx was greatly congested, and the epiglottis could be felt enlarged and thickened. The highly sensitive condition of the parts prevented the use of the laryngoscope. He obtained comparative relief at intervals, but at 4 P.M. his symptoms assumed such a threatening character, the patient being almost asphyxiated, that it was decided to open the trachea.

The condition of the larynx precluded direct surgical interference so far as it was concerned. Chloroform having been administered, the patient was placed in position for the performance of tracheotomy. The knife had already touched the upper rings of the trachea, when the patient ceased to breathe, became quite black, and was apparently dead. Without delay the scalpel was plunged into the trachea, and, with considerable difficulty, a tube was introduced. Artificial respiration was then adopted by means of Silvester's method, and in about ten minutes animation was restored. In half an hour he was breathing easily, and expressed himself in writing grateful for the relief he had obtained.

Under most careful nursing by the sisters of the hospital, and the administration of iodide of potassium in large doses, he steadily improved. The tube was removed on July 16th, on the ninth day after the operation, to ascertain if he could breathe without it; but in less than five minutes breathing became so distressed that it had to be at once replaced. The tube was taken out on several occasions between the above-mentioned date and July 24th, but it was found that he could not remain long without it. On and after the 24th, however, the forty-fourth day after the operation, it was not found necessary to replace the tube, as his breathing continued quiet and easy without it. On September 8th, the wound had completely healed, and his voice had nearly recovered its former strength, and he was discharged from hospital.

There are two points in cases of laryngitis which frequently cause the surgeon much anxiety. The first is, to decide on the proper moment for surgical operation, when it has been determined to operate; as after each spasm there is temporary relief, and this may induce the surgeon to hope that the threatening symptoms of the disease have subsided, so that the need for the operation has passed away. Under these circumstances, the operation may be postponed till perhaps it is too late. The safest plan is no doubt to operate early. The second point is, to determine the proper time for the removal of the tube. This can only be settled by attention to the feelings of the patient, and observation of his power to respire without it.

## ON THE MANAGEMENT OF LABOUR AS FAR AS REGARDS THE PREVENTION OF HÆMORRHAGE AND SEPTICÆMIA.*

BY I. HARRINSON, F.R.C.S.,
Fellow of the Obstetrical Society.

IT was well remarked by a speaker in one of the great discussions which took place at a metropolitan Society, that it was needful to have a clear and distinct understanding of what they were talking about. The remark holds good in a debate on obstetrics, and fitly applies to our doings in its practice. It is a mistake, I contend, in the practice of obstetrics, to look upon it as a series of regulation-formulæ, to be treated after a set and recognised fashion, rather than as a natural process, modified as it may be, as it must be, and as it is, by varied accidental complications. We must act on general principles, founded on the anatomy and physiology of the parts concerned.

Up to the time of the establishment of the true action of the spinal marrow and of the reflex system by Dr. Marshall Hall, of their application to obstetrics by the late Dr. Tyler Smith, and of the splendid dissections and demonstrations of the uterine supply of nerves by Dr. Robert Lee, many of the phenomena of parturition were inexplicable, or their explanation was contradictory. The observations about to be made are founded on their teachings.

The uterus is a muscle of the involuntary class, of a non-striated character, the fibres of which, in the pains of labour, after remaining in a state of contraction for a brief period, relax; as is invariably the case in non-striated muscle, it being incapable of sustained effort, says Dr. Leishman. It has a peristaltic action of its own. It is connected with all the nerves from the medulla oblongata to the sacrum—cerebral, spinal, and sympathetic. The uterine group includes the nerves of the ovaria, Fallopian tubes, uterus, vagina, and the external parts of generation. Hence its sympathies and synergies are innumerable; they include affections of the head, breasts, stomach, suprarenal capsules, bladder, rectum, os and cervix uteri, and of the external parts; and may be direct or reflex—mainly reflex. "Thus, in parturition, the uterus may be excited in a reflex form by irritation of the mammary incident excitor nerves, the pubic and abdominal branches of the intercostals, the rectal, the gastric division of the pneumogastric, the ovarian nerves, and also by the nerves of the vagina and the os and cervix uteri. These act through the medium of the spinal marrow, the great organ of physical motion." (Dr. Tyler Smith).

It will not be contended, I take it for granted, that the uterus is an isolated organ, having no nervous connections or supply. If any doubt—and there are some who do—let him look at these beautiful plates of the dissections of Dr. Robert Lee. It will be admitted, also, that the vessels and nerves enlarge *pari passu* with the growth of the uterus during pregnancy.

An organ so endowed must have extensive susceptibilities, and be the recipient of a wide range of reflex impressions. Let us take an example or two. A nurse upset a well furnished clothes-horse on to the fire. The consequent blaze excited an immediate convulsion in a lady in the last pangs of labour. A lady was confined after an easy labour; but the uterus contracted and relaxed alternately for three hours afterwards. The hæmorrhage was alarming. At length, violent vomiting occurred; the stomach was unloaded of a basinful of boiled mutton and turnips—the dietetic ingestment of the previous evening; and then contraction firmly took place.

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* Read before the Reading Pathological Society.

The obstinate vomiting of pregnancy is, I believe, mostly dependent either on disease of the suprarenal capsules or on ulceration of the os and cervix uteri. The reflex action of an irritated nipple, a loaded rectum, a distended bladder, a vaginal examination, a hand on the sacrum, are familiar to all. Ulceration of the os and cervix uteri, the irritation caused by the various mechanical appliances to and in the uterus, the process of periodic and final uterine involution, etc., elicit a multitude of nervous expressions in various parts of the body as yet dimly recognised as regards their true source, and entirely misunderstood as regards any other.

Let us now clinically sketch a case of first labour. It may be presumed that the woman is married, of a proper age, her surroundings favourable, and that all her bodily functions are in good working order. We will grant that she has arrived at the full term of utero-gestation. Pains begin, at first slight, and then more severe. I need not hazard any conjecture on the causes which determine the commencement of pains at the completion of the term of utero-gestation; it is enough in this place to say that so it is appointed. It is, however, important to observe, and is never to be forgotten, that each pain is followed by an interval of rest. In spite of flattering first impressions, experience now dictates the negation that no adverse agencies, direct or indirect, are at work; that there is nothing in mind, body, or estate, operating injuriously—nothing inimical to uninterrupted progress, nothing likely to disturb the even course and finish of the coming trial. Have seduction, desertion, depression, fatalism, etc., any occupation to lower, preoccupy, spoil, divert, harass, the unfettered play of the nervous power, and cripple its undivided exercise? Let no stranger intrude; let the officiousness of friends be curtailed; and, above all, let the practitioner take care that he himself is not the bearer of any pestiferous agency.

All these preliminaries being duly considered and disposed of, let us fancy that in due time the head has been brought to, or nearly to, the perinæum, and there remains. Time is precious; thoughts of pressing engagements intrude themselves; the loss of a night's rest is imminent. The occasion is a tempting one to try something to rouse these tiresome efforts into something like a decent state of activity and progress. Ergot has an abiding place in most men's minds, and usually turns up uppermost. What indication could be clearer? A few good pains would do all that is needed. Ergot produces pains, and therefore ergot is just the thing required. Ergot of course is given. Probably no action is induced; possibly a violent, long-continuous one; but no further advance is effected. Let it not be forgotten that, for successful efforts, there must be a general consensus of conditions. Who has not observed how the patient, by a wondrous intuition, anticipates the coming struggle? Who so unobservant as not to know when that is approaching by the flow of lubricating fluid? In short, the woman instinctively prepares herself by position, by inspiration, by profound rest, and by silence.

How does the action of ergot accord with these conditions? What is its action? "The contractions and pains caused by ergot", says Pereira, "are distinguished from those of natural labour by their continuance. Scarcely an interval can be perceived between them, but a sensation is experienced of one continued forcing effort."

Nature beneficently ordains that the uterus shall fulfil its office by alternate pain and pause. Ergot obliterates the normal rhythm. Nature says a congeries of conditions is essential for the final effort. Ergot violates them all, invites irregular contraction and its consequences, and delivers the patient an easy prey to the immediate and ulterior probabilities of hæmorrhage and of septicæmia. In addition, let it not be forgotten that in primiparæ the parturient passage is unstretched, and not yet to the manner used.

In primiparæ, ergot may be useful, or rather used, in some cases, to save the time of the attendant, all other things being favourable; and, if it act and succeed, all may be well. It is equally evident, however, that if it succeed, the success will be suspicious; and, if it do not, it must be calamitous.

It may be asked, not unreasonably, by younger members, If ergot should not be used, what may? Tax voluntary and emotional effort. Draw on the rich fund of direct and reflex action. Initiate contractions by a lump of ice in the stomach; by frictions to the abdomen and spine; a stimulating injection into the rectum for one reason, or one of hot water for another; by a dig at the sacral plexus, or a pull at the perinæum, on the access of a pain; by the sudden application of cold, with a bellows if you please, to the sacrum; and by many other means yet to be found out. Try all or some of these; and, after them, the forceps.

We will now suppose that, by a grand effort without ergot, the head is born. There is no need of hurry. There is no necessity to seize it with both hands and drag the body into the world; let it alone. Bearing in mind what has just happened, and how it happened, the right hand must be placed on the bare abdomen of the mother, and gently carried over every available surface of the uterus, and repeated till contraction comes. It comes soon, and by it the shoulders and body are usually expelled.

The child, being now free to kick and cry, should be brought near to the edge of the bed, and the bedclothes put down between the mother and child, so as to cover the mother and expose the child. The hand should then again be carried to the abdomen, and gentle manipulations exercised, till not only angularities, but nodosities and even rugosities, are obliterated, and the uterus has become round and smooth.

The baby can now be attended to, separated, and delivered over to the nurse. This being done, the uterus must again be similarly attended to. After another short interval, the cord should be wound round the forefinger of the left hand; and at the same time the forefinger of the right hand run up the cord to the os uteri, and traction made. If the placenta be ready to come, it will come by a gentle effort. If the insertion of the cord or an edge of the placenta can be felt, then, by a combined action of traction by one finger and hooking with the other, the expulsion of the placenta is nicely assisted. The time occupied is generally under ten minutes. If the combined effort do not succeed, a little more time must be given, the uterus again stimulated, and the trial renewed.

After the placenta has come away, the uterus must again be tested as to its firmness and rotundity, and this twice again repeated, before the patient can be considered safe. In perfect contraction of the uterus is comprehended the safety of the patient, immediate and prospective. Up to this period, it is no part of the attendant's duty to leave the room; much less to adjourn to the drawing-room, to scatter congratulations all around, and, perhaps, to the health of the new-born stranger. Such customs are more honoured in the breach than in the observance.

This practice, simple as it is, may be managed in a different way by others. Some have the hardihood to affirm that the uterus should be grasped at the moment of the birth of the child, and the placenta forced down *vi et armis* and out by the same pain that expelled the child, or, at the longest, by the next. The practice seems to be founded on a mistake. What occurs when the hand is placed over the uterus? The slightest touch produces an immediate reflex action and a contraction of the uterus; and it is thus by a series of successions that the crooked uterus is made straight, and the rough places smooth. Thus it is that the placenta is readily brought down. On the contrary, if an untimely contraction be produced by forcible pressure, it follows, that a corresponding relaxation must ensue and danger come.

How does forcing down the placenta by one fell swoop agree either with Nature's method, or with the teachings of reflex physiology? Admitting that the pain which expels the child separates the placenta, surely it is more in accordance with Nature's doings that it should be expelled gradually and by gentle efforts. It is unpractical to suppose that the uterus should pass from extreme distension to extreme contraction without a rebound to the intermediate state of vacuity and of peril. Again, I am not prepared to say what changes precisely occur in the relative circulation of the placenta and the uterus after the birth of the child. It is quite certain that the cord pulsates for a short time afterwards, and that the uterus has at least to adapt itself to its altered contents.

If the waiting plan be adopted, the placenta may be retained for an indefinite time; and then instructions are given, even to women, to introduce the hand and remove it. This direction is given with the greatest coolness, as if it were an easy or a safe thing, particularly for a woman, to introduce the arm into the uterus and rifle it of its contents. Such advice can only be given in utter disregard of the peristaltic action of the uterus itself. Ergot, forcible extension of the placenta, introducing the hand to remove it, these three can only be regarded as practices of misleading efficacy, and as *membra disjecta* of the mechanical school. They must be reserved for cases alone of special exemption. In this counterblast, of course, the triumphs of cautious instrumentalism are not included.

Some practitioners, immediately after the birth of the child, think that their next duty is to separate it; and, whether the child cries or not, proceed to do so. Under the cover of the bedclothes, perchance the body should for a moment be exposed to cold, or for some other equally cogent or perhaps unknown reason, the separation is mysteriously accomplished. It is better to avoid such subtegumentary proceedings, involving as they do the expenditure of critical time and a risk of the mutilation of a penis or a finger; and also if it be wished to prevent that bane of infant well-doing, "atelectasis pulmonum".

It may be expected that something should be said about the binder. I have little to say, except in its condemnation, if used for the purpose of restraining uterine hæmorrhage. If applied when the uterus is well contracted, it is useless; if when relaxed, it will be injurious by covering over and concealing the source of danger. Its great use is as a surgical appliance in giving support to the relaxed abdominal parietes, securing their equable adaptation to the abdominal contents, and thus facilitating their contraction and timely involution. On this account, it is neither well nor fitting to pull the patient about, when quiet is so essential, to adapt the nicely made bandage. An easily applied slip is all that is needful for the first twenty-four hours.

My conviction is that the bandage should be continued for at least a month after each confinement, if we are anxious to preserve the normal relation of the axis of the uterus to that of the pelvis, and so prevent delay and danger at subsequent confinements; or if we desire to avoid the unseemly production of a pendulous belly. Let cases be stripped of the accidents, largely avoidable, which we have been considering, and how many remain to be dealt with? Only those unforeseen and unavoidable cases of peculiar hæmorrhage, dependent on idiosyncrasy, examples of which were so well and so courageously related by Mr. Crisp at our last meeting.

In such cases, it is not to be expected that remedies having a reflex operation should be of all avail; more immediate and direct means must be employed, as the hand to the internal surface and the introduction of various substances into the cavity of the uterus. I say introduction, not injection. When, in the induction of premature labour the injection of water alone has proved fatal, I think we should be cautious how we inject fluids which may prove fatal not only in that way, but by reason of their engendering septicæmic sequelæ. Besides, the styptic fluid needs only to be applied to the surface of the uterus, and should not permeate the sinuses.

It will have been seen that principles rather than practice, except in some of its more prominent bearings, have engaged our attention; that the aim has been to inquire how and by what agencies Nature manages the process of parturition, and to insist that she must be acknowledged, not ignored; assisted, not forced; unloosed, not fettered; supplemented, not supplanted—in her operations; and that physiological actions rather than mechanical expedients should be had recourse to and depended on, and to show that the glory of contingencies consists in their prevention; that the eternal law of labour and of rest should be borne in mind in all our doings, and also that the more violent the action and consequent exhaustion, greater will be the probability of prolonged rest and of undue relaxation; hence the occurrence in the greater degree of hæmorrhage, and in the lesser of imperfect contraction and subsequent septicæmia.

It may be objected that such a sketch is visionary and unreal, and that it refers to the occupants of a too happy land, and that in the hurry and bustle of this lower world accidents must needs come, and, therefore, it is folly to ignore, taboo, and discard the well used helps of obstetric necessities. All I contend for is that those helps should be studied from a different point of view; that the act of parturition should be looked on as a natural process, to be gently assisted by natural means, and not by any foreign to, and entirely subversive of, her teachings, and that general principles are applicable and adaptable to every emergency.

Let it be borne in mind that midwifery has not till very lately, and certainly not now generally, been studied in this way; that labour has been looked on as a mechanical act, to be completed as soon as commenced, and the sooner the better; that the effects of the nervous relations of the uterus are only just beginning to be perceived; and that in this direction, and from this source, our future remedies are to be sought and are to be found.

I am quite aware it may be said that the standard is placed much too high for such a common and everyday occurrence as that of parturition. Be it so. The object is the alleviation of pain and suffering; to aim higher is impossible; lower would be reprehensible.

My conviction is that, till the science and art of obstetrics are placed on a physiological and not on the prevailing mechanical basis, we shall continue to be the slaves of routine, and our patients the victims of fortuitous complications; and that then, and not till then, will the possibility of hæmorrhage be mainly prevented and the chances of septicæmia reduced to a minimum.

## RECENT PUERPERAL EPIDEMIC AT COVENTRY.

By M. A. FENTON, M.D.,
Medical Officer of Health for Coventry.

As the epidemic of puerperal fever from which Coventry has just suffered has excited some discussion as to the contagious nature of that disease, I think a short account of the epidemic may prove interesting. It is of importance, as it affords strong evidence in favour of the fever being extremely contagious. The first case occurred in November last. A woman, whose family was suffering from scarlet fever, was attacked by a mild form of the disease. A lying-in charity, which lends out to poor puerperal women bags of the linen requisite for such an occasion, and pays a midwife, and medical man, if required, for the patient, came into play in spreading the complaint. The bag of linen was returned to the matron, who placed it with another in a store. These bags were lent out again early in December, and both the women suffered from fever, one lightly, one very severely. There was no other source of infection. They were both attended by the midwife Ingram. The three following cases attended by Ingram on December 12th and 13th, were attacked with fever the day after delivery: two died on the fifth day, the third survived; but the medical man who was called to treat her carried the infection to the next parturient patient he attended, and this case proved fatal. Ingram's next case also proved fatal. She then (having received the coroner's warning) made arrangements with a medical man that she was to attend as usual, but not to deliver, or make vaginal examinations; she was to send for him when delivery was about to take place. This was done in one instance, the patient doing well; in the next case, the medical man disappointed her, and she delivered the woman herself. The day following, rigors issued in the fever which proved fatal. Ingram was then committed for manslaughter.

In connection with another lying-in charity, three cases of puerperal fever occurred. In the first instance, no apparent source of infection could be discovered; the woman was attacked on the second day, and died on the seventh day after confinement (December 1st). The linen belonging to the charity was returned, and six weeks afterwards was lent out again. The unfortunate woman receiving it was infected and died; and the midwife attending her infected the next case she attended, though not fatally. This midwife has also been prohibited from practice by the coroner. It may be a matter of doubt whether the coroner acted according to law in taking the course which he did; however, with the evidence before him, which I have stated above, I have no doubt it will be admitted that he acted very wisely, and I have to thank him for so doing, for he has stamped out an epidemic which I (as medical officer of health) found myself unable to cope with for want of power to take the steps which he did. The origin of the epidemic appears to me to be rather obscure. I have seen in our late epidemic of scarlet fever a woman who, for the first week after confinement, lay in the room with two malignant and fatal cases of that fever without hurt. Why, then, should the woman in this instance escape when another is infected? May there not be some meteorological conditions rendering the constitution more susceptible at one time than at another? There is another point of interest with regard to the mode of infection, viz., the only woman who escaped Ingram's fatal influence was one whose vagina she had not touched. Is it possible that this is the only channel through which the virus is conveyed?

## REMARKABLE CASE OF COMPLICATED PREGNANCY: MISCARRIAGE AT SIX MONTHS.

By FREDERICK C. GRANT ELLERTON, L.R.C.P.Ed., Lindley, Huddersfield.

On July 18th, I was called to see Mrs. K., aged 34, the mother of six children. I found both the legs and feet œdematous, and somewhat elastic, the œdema apparently of active dropsy. The abdomen was in size between a six and seven months' pregnancy, and the symptoms indicated generally a subacute febrile condition. There was no disease of the heart. About a fortnight before, Mrs. K. got a chill, when heated and perspiring, after which the œdema first came on. The rapid increase in the size of the abdomen, especially during the last two days, with the gradually increasing swelling of the legs and thighs, caused her to seek medical advice. She thought herself now about five and a half months gone, and had felt the child at times distinctly. The urine did not contain albumen, but the fæces were unhealthy, and the portal system was engorged. Diuretics and hydragogue aperients were given, under the use of which the œdematous condition of the legs began to subside in three or four days; but it was remarkable, as this diminished, and at length disappeared entirely, that the size of the abdomen continued to increase to that of pregnancy at full term, attended with much dyspnœa and pains at the sides. Fomentations, linseed-meal poultices, and sinapisms, afforded some relief. On the 26th, Dr. Scott of Huddersfield saw the case with me. A large square of spongio-piline, twenty by sixteen inches, steeped in a strong hot decoction of fresh digitalis leaves, was continuously applied to the abdomen for two or three days, but without mitigating the symptoms. The size of the abdomen was now considerably larger than that of full pregnancy. The dyspnœa was most distressing, and respiration was easy only in the sitting posture, with the legs down. Large doses of bitartrate of potash, with digitalis, were being taken at this time, when about 10 P.M. of the 29th, pains like those of labour came on, and, in half an hour after, the membranes giving way, a sudden gush of several quarts of red-coloured fluid took place, with immense relief.

On being sent for, I found the child's head presenting, with the os fully dilated. The pains being inefficient, a dose of ergot was given, and about 11.30 a six months' female child was expelled dead, though it had been felt alive during the day. On removing it, I found the alæ nasi wanting, and a deficiency in the anterior part of the superior maxillary bones, forming, with the nasal cavity, an irregular aperture, about an inch in diameter. Some small fragments of bone, as though broken off, were found here at its margin, while some loose skin, which had a torn appearance, was hanging from its sides. Turning to the mother, as a pain came on, I examined, expecting to feel the placenta descending, instead of which there was a firm smooth substance; and, finding the abdomen still very large, I thought it the breech of a second child presenting. I was not left long in suspense; one or two pains sufficing to bring away a large sarcomatous tumour of the colour of the skin, of an oblong cylindrical form, smooth surface, with rounded extremities, about nine inches long, and four and a half inches in transverse diameter, and weighing at least four or five pounds. Puzzled, at first, to account for its being there loose, on turning it over and over, to find its point of attachment, I discovered at one extremity an uneven torn looking surface, corresponding in size to the apertures in the child's face. The difficulty was at once solved; the presence of two or three minute pieces of bone, which were embedded in this part, making it evident that here it had been attached to the face, and forcibly torn off during the expulsion of the child. The abdomen still remaining unusually large, and the placenta not coming away, I first repeated the ergot to insure firm contraction, and then used moderate traction on the cord, which, being a thin one, soon gave way. Expecting something unusual, I placed the right hand on the abdomen, and, though there was no hæmorrhage, on introducing the left, I found the uterus occupied by a placenta of enormous size, to reach the full extent of which the hand had to enter a large constricted portion of the fundus, where it was extensively, but by no means firmly adherent. The difficulty was, that from its soft consistence it was so easily torn, that there was some trouble in removing it entire; its size also rendering it scarcely possible to grasp and sweep it out at once. It was very gratifying to find that the uterus followed it down closely, and by degrees contracted to its usual dimensions; the right hand all the while being kept on the abdomen, and contraction for some time after maintained by compression, dipping each hand alternately in cold water. The placenta completely filled an ordinary sized chamber-vessel, being remarkably soft, spongy, and readily breaking up under the finger, with about three inches of the cord left attached. A firm pad and bandage completed this singular case. There was no subsequent hæmorrhage, nor any œdema remaining in any part. Her recovery was very satisfactory.

The fœtus having presented with the front towards the sacrum, the tumour would lie in the uterus, before its detachment, parallel to the child's abdomen, and pressure would thus be made on the iliac veins, causing the hydrometra and œdema of the lower extremities.

The rapid subsidence of the œdema, as the uterus filled, would appear to be in consequence of this pressure being removed, as the tumour and fœtus were floated up out of the pelvis, and not altogether, as was supposed, the result of the remedies employed. As to the cause of the immense size and fragile texture of the placenta, I will leave it to those more experienced than myself in the pathology of the uterus, to offer a suggestion or to explain.

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A VERY CLOSE SHAVE.—At the annual meeting of the Stockton-on-Tees Dispensary, it appeared that the income for the past year was £199 0s. 7d., and the expenditure £199 0s. 6d.

# SURGICAL MEMORANDA.

## THE POLYPUS KNIFE-HOOK.

As the communication from Mr. Buller to the BRITISH MEDICAL JOURNAL, which has been sent to me by Mr. Buller for perusal, and that of Dr. A. P. Whittell to me, a copy of which is subjoined, sufficiently answer the article on the polypus knife-hook from Mr. Lennox Browne, which appeared in last week's issue, I need not take up the space of the JOURNAL by any further remarks of mine upon the subject.

I am glad to learn that Mr. Lennox Browne has found the instrument so useful, and will have pleasure, should he call upon me here, in showing him a modification of the hook, consisting of placing the cutting hook at a different angle to the handle from that which he saw in Dr. Whittell's possession, and which enables the operator to remove growths arising from the tympanic cavity, or granulations on the membrane, to which the cutting edge of the hook he has used cannot be applied, or only in an exceptionally large meatus.

W. LAIDLAW PURVES, 7, Hanover Street.

(Copy.)

"L. Purves, Esq., London.

"Dear Sir,—Your note of the 5th instant has just come to hand, and I hasten to comply with your request. The polypus hook which Mr. Weiss made for me was made following your suggestion, and I consider it a valuable addition to aural surgical instruments. I showed the knife to Mr. Browne (who used it very successfully on a case of aural polypus), saying that it was probably the first of the kind made, but that it was made after your suggestion.

"Believe me, very truly yours, "A. P. WHITTELL.

"9, Rue Gay Lussac, Paris, Feb. 6th, 1875."

## THE POLYPUS KNIFE-HOOK.

HAVING seen in last week's JOURNAL a statement made by Mr. Lennox Browne, which seems to call in question Mr. Purves's claim to the invention of the polypus knife-hook, I beg to state that I was present with Drs. Frank and Whittell when the proposition was made by Mr. Purves to use such an instrument, and that Dr. Frank only mentioned having used an instrument constructed on the same principle for the operation for strabismus, during the discussion which followed Dr. Purves's proposition. I have Dr. Frank's authority for saying that he lays no claim whatever to having suggested the idea to Mr. Purves.

F. BULLER, House-Surgeon Royal Ophthalmic
Hospital, Moorfields.

# CLINICAL MEMORANDA.

## TEMPERATURE IN PHTHISIS.

I HAD the advantage (thanks to the courtesy of Dr. Gilbart Smith) of hearing Dr. C. T. Williams's paper at the Royal Medical and Chirurgical Society. I wish to ask attention to a sentence in his after-speech. It is, I believe, correctly reported in the JOURNAL as follows: "The thermometer might sometimes detect the formation of tubercle before physical signs did; but, on the other hand, tubercle might form without any rise or fall of temperature." This being the case, may we look to Dr. Williams for some further expression of opinion as to the average frequency and character of the latter class of cases? There is room for clearer knowledge on the subject. The conclusions of Dr. Ringer's able pamphlet may be briefly stated in three of his propositions. 1. "There is probably a daily elevation of temperature in all cases when deposition of tubercle is taking place in any organs." 6. "By means of temperature (rise) we can, in many instances, diagnose tuberculisation long before physical signs are sufficient." 8. "It is probable that by means of the temperature (non-rise) we can conclude the deposition of tubercle has ceased." Dr. Ringer's exceptional tubercular cases are of meningitis. In the above extracts he uses guarded expressions; but at page 41 (2nd edition), we read: "Admitting an elevation of temperature in all cases of tuberculosis and catarrhal pneumonia, it follows that if the temperature be normal, we may conclude that the patient is free from these diseases." I need not say that this is a point of vital importance in daily practice. My own opinion has been largely formed by Dr. Ringer's writings, corroborated as they are by my own results. Will Dr. Williams favour us with additional evidence, either affirmative or negative? The sentence quoted from his speech is, *pro tanto*, a statement in the negative, for he was referring only to tubercle in lung, and to its forming stage. The reader of the joint work of the Drs. Williams on *Pulmonary Consumption* will be aware that in it the subject of diagnosis by temperature is barely mentioned.

EDWARD MACKEY, M.D.

# REPORTS
OF
# MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

## MIDDLESEX HOSPITAL.

### CASE OF FRACTURE OF THE BASE OF THE SKULL, WITH ALMOST COMPLETE ABSENCE OF SYMPTOMS.

(Under the care of Mr. GEORGE LAWSON.)

[FOR the notes of these cases, we are indebted to Mr. Fenn, the Senior House-Surgeon.]

The following case is remarkable on account of the slight symptoms produced by very extensive injuries of the skull and brain; or rather on account of the absence of symptoms, for the patient was already the subject of chronic epilepsy, whilst his restlessness and insomnia were no more than might have been expected as the result of alcoholic poisoning. At the time of his admission, Mr. Fenn, the house-surgeon, suspected fracture of the skull, but the patient stated so positively that he had often been as bad before, and the progress of the case appeared so fully to substantiate his statement, that this first diagnosis was given up, as is clearly shown by the subsequent treatment; it is, however, highly improbable that any amount of care could have led to a favourable termination of the case. No information could be obtained as to how he received his injuries.

William S., aged 42, was brought to the hospital by the police at 2 A.M., on January 1st; he had been found lying insensible in the street. On admission, he could be roused partially by loud speaking, but could not be induced to give his name and address. The only signs of injury were a slight bruise on the right side of the head and slight hæmorrhage from the left ear; shortly after his admission, he had a succession of epileptic fits. In the course of the day, he gradually recovered his consciousness; but, on January 2nd, he became delirious, and manifested all the usual symptoms of delirium tremens—insomnia, violent delirium, with constant restlessness and incessant talking; he was accordingly removed into a ward by himself, and ordered full doses of opium. As this, however, produced no effect, he was, on the following day, ordered to have fifteen grains of chloral and twenty of bromide of potassium every three hours; after the third dose, he slept comfortably for five or six hours, and awoke perfectly rational, said he felt quite well, and insisted on getting up and dressing himself. On the next day, the 5th, he had another series of epileptic fits, and these continued to occur daily until he died, very unexpectedly, in a fit, on the 12th. During the whole of this week, until the day of his death, he was up and about the ward daily, and the only thing he complained of was wakefulness; he never slept except after a dose of chloral and bromide of potassium, and then only for a few hours.

The following remarkable history was obtained, partly from the patient himself and partly from his wife. He was one of a family of eleven children; of these, five died young; of five boys who reached manhood, one had since died from the effects of drink, and three out of the remaining four are excessive drinkers; they have each an annuity, and do no work, but pass their lives in a state of constant intemperance; his only sister does not drink. His father, now seventy-five years of age, is an habitual drunkard, and has been twice placed in confinement on account of insanity induced by drink.

As to the patient himself, his wife stated that she had been married to him ten years; he was a drinking man when she married him, was drunk on the wedding-day, and continued so for four or five days afterwards Ever since then, he had, at intervals of two or three months, given himself up to a regular drinking bout, lasting from three to five weeks, during which time he would be constantly drunk; these always culminated in an attack of "the horrors", *i.e.*, delirium tremens, at the close of which he usually had a succession of epileptic fits; these gradually passed off in a few days, and he resumed his usual health. Then came a short period of strict sobriety, soon followed by a relapse into intemperance. Lately, the intervals between the drinking bouts had become shorter; during last year, he had four of them, each followed by an attack of delirium tremens, and by a recurrence of the epileptic fits.

*Necropsy.*—On reflecting the scalp, a quantity of black blood was found effused in the substance of the right temporal muscle; there was also a blood-clot of considerable size between the right temporal bone and the dura mater, and blood also beneath the pia mater on the temporo-sphenoidal lobes, right and left, and in the occipital region; the cortical substance of the brain was lacerated at these points; the clots were firm and closely adherent to the bones and membranes—evidently not very recent. A linear fracture was found traversing the whole base of the skull, passing from the temporal portion of the temporal bone on one side almost directly across to about the same point on the other, through the petrous part of the temporal bone, the foramen lacerum medium and the body of the sphenoid bone. When the top of the skull was removed, the facial bones were quite loose and movable on the back of the head like a hinge. There was some congestion of the lungs, but the other organs were tolerably healthy.

### CHILD CHOKED BY A CRUST: TRACHEOTOMY: DEATH.

(Under the care of Mr. CAMPBELL DE MORGAN.)

THE explanation of this case evidently is that the crust did not enter the larynx, but became impacted for a time in the pharynx, or at the entrance of the œsophagus, and thus caused secondary spasm of the glottis. The existence of a "tubercular" cavity in the apex of the lung of so young a child is also worthy of notice.

A fairly nourished and healthy looking child, twelve months old, was brought to the hospital, at 2 P.M., on December 13th, 1874, by her mother, who stated that, except for a slight cough, the child had previously enjoyed good health. Only a few minutes before, she had been lying on the floor, as well as usual, with a crust in her hand, when she was observed to have suddenly changed colour and to be gasping for breath; the crust had disappeared. The mother picked her up and hurried at once to the hospital.

On admission, the child was apparently dead, the surface of the body was cool, the face and lips livid, respiration had ceased, and no pulse could be felt at the wrist. Tracheotomy was at once performed by Mr. Fenn, the house-surgeon; and, after artificial respiration by Silvester's method had been kept up for a short time, the child began to breathe again fairly well and easily, and the natural colour returned to her lips and cheeks. Before inserting the tube, a probe was passed upwards into the glottis, but no foreign body could be felt.

The child continued comfortable during the day, except when the tube became partially obstructed by mucus, and wiping this out gently with a feather at once relieved the dyspnœa. Towards evening, there was a further improvement, and the child was able to swallow milk without difficulty.

Next morning, it was noted that she had slept quietly during most of the night and took her milk easily; the tube was removed, cleaned, and replaced.

In the course of the day, however, the little patient became feverish, and her breathing much accelerated. On auscultation, it was found that there was less breathing over the left lung than the right; towards evening, the dyspnœa became urgent, the child rapidly sank, and died about 11 P.M.

*Necropsy.*—On removing the larynx and lungs together, the former was found to be healthy, and there was no obstruction to the entrance of air. There were signs of acute capillary bronchitis in both lungs; the left was becoming hepatised from pneumonia, and at its apex was a cavity filled with puriform fluid and surrounded by tubercular deposit. There was considerable enlargement of the bronchial glands near the bifurcation of the trachea. The abdominal organs were healthy.

## SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.

### WOUND OF THE LEFT FEMORAL ARTERY: LIGATURE ABOVE AND BELOW THE WOUND, AND OF THE PROFUNDA: DEATH.

(Under the care of Mr. ARTHUR JACKSON.)

A. B., AGED 53, was admitted on November 11th, 1874, pulseless, and faint from loss of blood. There was a small wound two inches below Poupart's ligament, in the left thigh, over the femoral artery, caused by a knife which had slipped as he was using it. There was no hæmorrhage when he was admitted, but there was abundant evidence of his having lost a large quantity of blood. He was taken to bed, and endeavours were made to cause him to rally.

In the evening, ten hours after the accident, his pulse was a good one; he was conscious, and complained of no pain. He was paralysed on his right side; was in a weak state of health; and had retention of urine, which had come on since the accident. Examination of the thigh revealed a small pulsating tumour behind the wound, which was completely closed up. The pulsation was entirely arrested by pressure over the femoral artery as it passed out of the pelvis. There was distinct pulsation in both tibials at the ankle-joint.

November 14th. He had gone on much the same; the tumour had not become much larger, but the pulsation in it was more marked; the integument over the tumour appeared thinner. There was, and ever had been, pulsation in both tibials. The tumour was laid open with a view to ligaturing the artery above and below the wound. A large gaping wound was found in the anterior surface of the femoral artery, and with much difficulty ligatures were applied above and below it. A large branch interfered with the proper application of the upper ligature, which had to be applied above it. Instead of the hæmorrhage ceasing, a fierce gush of blood followed the application of the ligature, and it was found that blood was regurgitating freely from the profunda artery, which opened into the artery immediately behind the wound between the two ligatures. The profunda artery was then tied, and all bleeding ceased.

November 21st. He died, having sunk gradually from exhaustion due to the loss of blood and his paralysed condition. The foot was warm to the end; there was no evidence of gangrene, and the wound appeared healthy. There was no pulsation in either tibial.

Examination of the artery showed that the internal coagulum had formed thoroughly. A thorough examination of the body was not allowed.

Guthrie, in his *Commentaries on Surgery*, p. 273, suggests the possibility of this accident happening, but does not appear to have seen such a case. He is evidently of opinion that the profunda artery would not bleed at the time of the operation.

# REVIEWS AND NOTICES.

### THE TRUE ACTION AND PHYSIOLOGICAL RESULTS OF ALCOHOL. By T. P. LUCAS, L.R.C.P.Ed. London: 1874.

IN this little work, Dr. LUCAS proposes a new theory of the action of alcohol. He thinks that all medicines produce their effects by acting upon the cerebro-spinal or on the sympathetic system of nerves. Those agents which determine the former to act are *pure stimulants;* and the latter, narcotics. Alcohol is a stimulant in all its doses; but, during its passage through the body, the whole or a large part of it splits up into carbonic acid and water, and to the retention of the carbonic acid in the blood he attributes the narcotic effects of the alcohol, since this agent acts upon the sympathetic system of nerves. Dr. Lucas cannot imagine that a small dose of alcohol can produce stimulation, while a larger dose produces depression. "To affirm that alcohol *stimulates* and then depresses a nerve, is surely", he says, "utter nonsense, or mere dogmatic assertion." It will probably serve no useful purpose to remind a gentleman who is so extremely self-satisfied as Dr. Lucas, that, as a matter of fact, a small current of galvanism increases the irritability of a nerve, that a stronger decreases it, and that a still stronger annihilates the irritability for a time, and all this occurs without the intervention of carbonic acid; and we cannot help thinking, Dr. Lucas notwithstanding, that the assertion that a small current of galvanism increases the irritability of a nerve, while a strong current annihilates it, is as much nonsense as, and no more so than, the assertion that a small dose of alcohol stimulates nervous tissue, while a large dose destroys its irritability, or narcotises. The reader will find no lack of new theories upon other subjects in this book. The results obtained by Dr. Magnan of Paris by absinthe is thus explained. The alcohol acts upon the origin of the pneumogastric nerve, and the active principle of the absinthe on the terminations of the same nerves in the stomach. "The currents caused by the severe stimulants to the extremities of the nerve would", according to Dr. Lucas, "meet, and together produce epileptic symptoms". We have also a new application of the germ-theory of fermentation. The effect of alcohol upon the liver and intestinal canal is such, that "the bile so eliminated is not reabsorbed in a natural quantum, or, if reabsorbed, only acts as a depressant, and by affording *germs* of fermentation as a source of mischief to the blood, and to the system generally".

In another place, a piece of information is volunteered which is new to most of us. "The more depressed the vital powers are", he says, "the more slow the generation of pus; and, therefore, the longer must nature be in accomplishing the purpose for which pus is generated." We shall leave these new doctrines to the judgment of the reader. We may, however, be permitted to express a hope that, whenever Dr. Lucas favours the profession with a new edition of his work, instead of boasting, as he does in his present preface, that he could only devote a few months to his essay (which, by the way, was sent in for the Hastings Gold Medal last year), he will be able to say, that he has given the subject the most careful attention for many years, and that he has at least endeavoured to understand and to do justice to the views of others; in that event, he may be able to produce a book which will be really worth reading.

### REPORT OF THE SANITARY COMMISSIONER FOR MADRAS, 1873.

THOSE who are interested in the progress of sanitation in India always look with interest for Dr. CORNISH'S Reports, for, as a rule, they contain within reasonable limits a large amount of well digested information. The year 1873 seems to have been a healthy one in Southern India; the abnormal rainfall of 1872, while it seems to have influenced the production of malarious fevers amongst the native population, appears to have had little effect in this respect on the well-protected European soldier. We ask the attention of anti-vaccination fanatics and their supporters, in and out of Parliament, to the following fact. Small-pox was widely diffused, and fatal throughout the native population; but, in the European army, carefully protected by vaccination, there were only six cases and one death.

There was an outbreak of enteric fever at Cannamore, the cause of which was investigated by Dr. Cornish and Deputy Surgeon-General Massy; so far as we can judge, from Dr. Cornish's Report, without any positive result. We regard this part of the Report as unsatisfactory. Dr. Cornish admits that the barracks and surroundings were not perfect, and he says that suggestions were made for remedying "the more obvious of the sanitary defects observable". On this we would remark, that we have a right to look for something more than this from a sanitary commissioner. It is easy to see the "more obvious" sanitary defects of barracks and their surroundings; but when two such important sanitary officers as a deputy surgeon-general of a division of the army, and the sanitary commissioner of the Presidency, are sent to investigate the cause of an outbreak of enteric fever, we think that a more searching inquiry was called for, and that the less "obvious" defects in all probability required remedying, perhaps, more than those seen on the surface. We are surprised, also, at the slight way in which Dr. Cornish writes about the uncovered wells exposed to fæcal defilement; and we can only say that, in an inquiry directed to such a purpose as this in this country, so suspicious a fact would not have been lightly regarded. We have understood that Dr. Massy, who was associated with Dr. Cornish in this investigation, is not satisfied with the manner in which Dr. Cornish has presented the facts in this Report.

We notice with regret that dysentery has been more fatal during the past year under notice than it was twelve years ago. In 1873, there were 32 deaths out of 1038 cases treated; a mortality exceeding 3 per cent. As usual, Secunderabad, of dysenteric notoriety, furnished more than one-half of the fatal cases. Twelve years ago, when practitioners in Southern India returned to the practice of administering ipecacuanha in full doses, the mortality fell from seven to two per cent. of those treated; and Dr. Cornish suspects, we fear with reason, that in the constant succession of medical officers new to India, the indisputable power of this remedy is to some extent overlooked. If this be so, the sooner the attention of administrative medical officers is called to the fact the better. If there be any want of due appreciation of the remedial power of ipecacuanha in dysentery, it must be among the older officers going to India late in life; for it is certain that this vital part of tropical therapeutics is pressed on the attention of young medical officers in the army medical school with sufficient earnestness.

Dr. Cornish dwells also on the fact, that hepatic abscess diminishes in proportion to the success with which acute dysentery is dealt with in its early stages. This is indisputably true, and those whom it concerns should keep it constantly in mind. The total number of troops invalided from the Madras Presidency was 717; of these, 150 were considered unfit for further service, while 567 were sent home for change of climate. The main causes were dysentery 121 cases, debility 124, hepatitis 95, phthisis 83, secondary syphilis 40, rheumatism 32, diseases of heart and blood-vessels, 74 cases. The ratio per 1000 of strength was, for final discharge 13.32, for change of climate 49.99, being the largest numbers invalided for the last named purpose since 1860.

In the appendix to the Report, there is an interesting paper on the alleged improvement in the value for assurance purposes of European life in India. Dr. Cornish's investigation, so far as it goes, supports the opinion put forth by Dr. Mouat and Lord Sandhurst on general grounds, that the value of life in India has increased and is increasing. Instead of 69 per 1000 for all India, the death-rate in the European army is now in the three Presidencies 28 per 1000, while, as regards Bombay and Madras, it is 22 per 1000. In the civil service of the Madras Presidency, the mortality has fallen in the last twelve years from 14.1 per 1000 to 11 per 1000. In the Madras medical service, the mortality rate for the last twelve years has been very low, viz., 6.4 per *mille* for the ages below 30; from 30 to 40, the mortality stands at 15 per *mille;* and from 40 to 50 it is less than for the earlier decennial period, being only 10.5 per *mille*. The mortality rate in the staff corps for the last twelve years has been 18.04 per 1000. Dr. Cornish adds, "there can be no question but that the official classes in India have been much less liable to die from cholera, fevers, and dysentery of late years. As regards the first of these, the hygienic conditions have improved; and, in regard to the two latter diseases, medical treatment has advanced and materially diminished the risks of life."

# SELECTIONS FROM JOURNALS.

## MIDWIFERY AND DISEASES OF WOMEN.

Hot Water Injections in Uterine Diseases.—Dr. T. A. Emmet, in an article contributed to the *New York Medical Journal*, July, 1874, says that the prolonged use of hot water vaginal injections is followed by tonic contraction of the arterioles, thus bringing about an approach to healthy action—the immediate effect of heat being dilatation, the secondary contraction. He recommends, as the best method of obtaining the contractile effect, that the woman be placed on her back, with the hips elevated by a properly shaped bed-pan under her, and that a gallon or more of water at 98 deg. Fahr., or higher temperature, be slowly injected into the vagina with a Davidson's syringe. The mucous membrane becomes blanched, and the size of the canal is diminished, just as if a strong astringent had been applied. With the hips elevated, the vagina will retain a large quantity of the water, which also, by its weight, distends every portion of the canal, so that it will come into contact with the entire mucous membrane, under which the capillaries lie. The vessels of the cervix and body of the uterus pass along the sulcus on each side of the vagina, and their branches encircle the canal in a most complex network. The vessels of the fundus, through the veins of which the blood passes by the liver back into the general circulation, anastomose with those below. Thus, the whole pelvic circulation may be influenced, directly or indirectly, through the vagina. We can so diminish the supply of blood as not only to check congestion, but we can literally starve out an inflammation. Dr. Emmet states that, from his own observation, several injections a day at 100 deg. to 106 deg. Fahr. will avert an attack of cellulitis, if early used and persevered in, with the aid of rest and anodynes. These injections also exercise a most beneficial effect upon the reflex system, by allaying local irritation. He knows no better means for removing the nervousness and sleeplessness of hysterical women than prolonged hot water injections. To receive permanent benefit from their use, they must be continued once a day, preferably at bedtime, until the patient's health is restored. He thinks the patient cannot administer them properly herself—no arrangement can take the place of an intelligent nurse. As the patient improves in health, the quantity of water can be diminished, and the temperature lowered, until the injections are discontinued from daily use; but for some time they should be employed for a few days after each menstrual period.

Injection of Hot Water as a Means of Arresting Uterine Hæmorrhage.—Dr. Windelband of Berlin writes in the *Allgemeine Medicinische Central-Zeitung* for January 27th, that his attention was called by the perusal of an article by an American practitioner, to the effect of injections of hot water as a means of arresting hæmorrhage from the uterus. In a case of abortion with alarming hæmorrhage, for the restraint of which ergot and cold water injections had failed, Dr. Windelband injected water at about 100 deg. Fahr. Within a short time, or rather at the moment of entrance of the fluid, such energetic contraction of the uterus took place, that the ovum, which could but just be felt within the open os uteri, was ejected with its membranes from the uterus in a quarter of an hour. For some days, he repeated the injections when there was any indication of bleeding, and afterwards continued them at a lukewarm temperature until involution of the uterus was complete. He says that he has used injections of hot water with the best results in a number of cases which have occurred in his practice during the last year; including twenty-one cases of abortion, two cases of severe hæmorrhage from placenta prævia, cases of hæmorrhage attending fibroid and other tumours of the uterus, cases of carcinoma, of *post partum* hæmorrhage, of profuse menstruation, etc. He is convinced that the hot water exerts a far more energetic action in the muscular structure of the uterus, than cold water, either alone or with astringent remedies in solution. He makes the injections with an ordinary uterine douche, the water having a temperature varying from 95 to 100 deg. Fahr.; and has never found any disadvantageous results.

Nitrite of Amyl and Belladonna in Dysmenorrhœa.—Dr. Mary Putnam Jacobi, at the meeting of the New York Medical Journal and Library Association, November 27th, 1874, read a paper on this subject, detailing three cases of severe spasmodic dysmenorrhœa to illustrate the method of operation of these remedies. The argument in support of this treatment was founded upon data furnished by the second case, viz. : (1) vomiting, pallor of skin, cold hands and feet ; (2) extraordinary peristaltic action of the intestines ; and (3) spasmodic pain in the uterus. All of these pointed to one element, that of spasmodic contraction of blood-vessels. The so-called sympathy between the uterus and the stomach, and between the stomach and brain, were considered in their dependence and interdependence with reference to vomiting. Reasoning from the experiments of Schiff and others, it was believed that the vomiting of pregnancy, of sea-sickness, and of many cases analogous in character, was due to anæmia of the brain, producing spasmodic contraction of the blood-vessels at its base. It was also argued that anæmia of the intestines produces increased peristalsis, due to spasmodic contraction of blood-vessels. The conditions in which a hollow muscular organ can contract in the state of vacuity are : After direct irritation (1) of its nerves ; (2) of its muscular fibre ; and (3) after changes in its circulation. Six experiments upon rabbits were detailed. The abdomen was opened, the intestines drawn out and carefully protected in a bag of oiled silk immersed in a vessel of warm water ; the uterus and abdominal aorta were exposed. The aorta was ligated ; several peristaltic waves ran down the rectum, but never in a contrary direction. Contraction of the uterus occurred, and was distinctly visible at the middle third of the organ. Upon removing the ligature, the contractions ceased. The conclusion drawn from the experiments was that tonic uterine contractions may be excited by occlusion of the aorta, and that such contractions continue from one to four minutes after compression has been removed. Clonic contractions also occurred, after the type of contractions of masses of smooth muscular fibre. The bearing of these experiments upon the treatment of spasmodic dysmenorrhœa, is that the pain is dependent upon tonic and clonic contractions of the uterus. These in turn are due to changes in the circulation of the uterine walls. If the change of the blood-vessels pass to an irritation, spasmodic contraction must take place, and uterine contractions will be determined by local anæmia. Spasmodic contraction of blood-vessels resulting from irritation of vaso-motor nerves is the cause of the pain of spasmodic dysmenorrhœa. It is upon these considerations that the remedies suggested are used. The secondary effect of belladonna is dilatation of the blood-vessels. It is to be administered, therefore, for several days previous to the occurrence of menstruation, so as to obtain its secondary effects. Nitrite of amyl is used to relax blood-vessels, in accordance with its admitted physiological action ; and, therefore, it is administered (by inhalation, two or three drops *pro re natâ)* when pains came on. In one case, a single drop of amyl was all that was required. This method of treatment is, of course, more especially adapted to cases of spasmodic dysmenorrhœa ; but it has been found, both in the experience of the author of the paper and in that of others, that great relief may be afforded, even in those cases in which the dysmenorrhœa depended upon displacements, constriction of the cervix, etc. Dr. Sell remarked that he had been in the habit of administering amyl (one-drop doses with one drachm of peppermint water, repeated every half hour) by the mouth, and had obtained just as good results as when the remedy had been inhaled. However, he had used the nitrite of amyl in only one case of dysmenorrhœa, and in that case the pain was completely relieved.—*New York Medical Record*, January 2nd, 1875.

## MEDICINE.

Cold Baths in Cerebral Rheumatism.—In the *Journal de Thérapeutique*, No. 22, 1874, M. Raynaud reports the case of a very strong, vigorous, and sober man, aged 32, who was attacked by rheumatism affecting many of the joints. Two days afterwards the pains left him entirely, but very serious cerebral symptoms came on ; and in two days, when M. Raynaud saw the patient, the pulse was 120 and the rectal temperature 104.9 Fahr. M. Raynaud bled him to more than two pounds, but the temperature and pulse still remained high. M. Raynaud, therefore, ordered cold baths. One a little above 60 deg. Fahr., was ordered to be given, at 11.28 A.M., to last half an hour. When the patient left the bath, his temperature had fallen to 100 deg. Fahr., his pulse to 76, and consciousness, which had been lost, seemed returning. At 3.30 P.M., the temperature rose to 101.66 Fahr. Another half-hour's bath was ordered, during which the exhaustion was considerable. After the bath, the rectal temperature was 97.5 Fahr. At 8.30 P.M., the temperature reached 100.4 deg. Fahr. Another bath was given, after which the rectal temperature was 98.8 deg. At 11 P.M., consciousness returned, and the patient passed the night in quiet sleep. On the succeeding day, three cold baths were given, and were followed by a similar lowering of the temperature. At the end of this day's treatment, the patient had regained his consciousness; asked for drink, and slept quietly. On the third day, he had two baths, and a final bath on the fourth day. From that time, the temperature never exceeded 99.14 deg. Fahr., even in the evening, and convalescence set in decidedly. The cerebral symptoms in this case must be attributed in this case to that meningitic form of cerebral rheumatism characterised by the advent of delirium and coma. But the appearance of the meningitic form, in the author's opinion, is purely symptomatic; for it cannot be supposed that an attack of meningitis could be instantly influenced by a cold bath.

## COLUMN FOR THE CURIOUS.

THE WHIPPING-POST AND DUCKING-STOOL.—In consulting an old surgical book in the library of the Medical Society, I find the following tale.—"One Thomas Leddle, the late apprentice, writes to his master, John Martin, surgeon being written on the door, at his house in Hatton Garden, on the left hand, beyond the chappel, turning in from Holborn, May 1708.—A man of good reputation in this town (Gosport) happened to suffer a certain (as he thought modest) woman to lodge in his house, who, for a few nights (for want of present conveniency elsewhere), lay with his son, a very harmless, silly lad, about the age of eight or nine years; the woman, in the night, drew the child several times into the place of her husband. In three or four days' time after, the child, by his crying when he made water, gave cause for inspection, and there was visible inflammation of the organ, and a painted shirt. The lad at first bore examination without any manner of confession for some time, because he was obliged to secresie; but (as is usual), when he began to speak to the purpose, was as free as above reserved. 'Twas plain how the matter was; but, for more satisfaction and proof, the woman was searched, which gave a fatal blow to all her excuses, for she was sentenced to the whipping-post, where she had justice tipped her very severly, and from thence to the ducking-stool, when she just escaped alive." Can any of your readers tell me if this was the sort of punishment formerly meted out to women who misconducted themselves? Who were the parties who passed the sentence and "tipped" this justice?—WILLIAM ACTON.

EMBALMING.—The following will, no doubt, be read with some interest, as an addition to the notice published in the JOURNAL. In Rymer's *Fœdera*, vol. i, will be found a letter from the Keeper of the King's wardrobe, to Sir Ralph de Stoke, Clerk of the Great Wardrobe, stating that Richard de Montpelier, the King's Spicer (Espicer), was going to London on account of the King's illness, and desiring that every facility might be afforded him to procure and make up the medicines — "Propter infirmatem domini regis per ordinationem Magister Nicolans de Tynwyck." Richard de Montpelier's little bill for this illness and subsequent embalmment amounted to £134:16:4, a considerable sum in those days. Amongst other curious items will be found the following, viz.:

| | |
|---|---|
| Pro emplastris cironeis . . . . . . . . . . | £ 4 : — : — |
| Item pro terebintine distillato . . . . . . . | — : 40 : — |
| Item pro uno emplastro pro collo regis cum ladano et ambras orientalis . . . . . . . . | — : 60 : — |
| Item pro vj malis granatis . . . . . . . . . | — : 60 : — |
| Item pro sex unciis de balsamo ad corpus domini regis unguendum . . . . . . . . | 13 : — : — |
| Item pro musci uncia iiij ad ponendum in membris regis . . . . . . . . . . . . . | — : 60 : — |

The late Mr. G. J. Squibb, who wrote on this subject nearly a quarter of a century ago, states a curious fact with relation to the embalming of Edward the First, which will prove that Master Nicolas of Tyngwycke, Master Peter, and Richard of Montpelier, the Espicer or Apothecary, did their duty well; for, about fifty years ago, the tomb of Edward was opened, and the body found entire. A zealous antiquarian, Sir J. Ayscough, was induced to taste the *pickle*, or fluid in which the royal body was preserved, and, even then, more than five hundred years after the embalmment, it showed traces of the spices used by Richard of Montpelier.

## BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1875.

SUBSCRIPTIONS to the Association for 1875 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

# BRITISH MEDICAL JOURNAL.

### SATURDAY, FEBRUARY 13TH, 1875.

## THE NEW NAVAL MEDICAL WARRANT.

WE find ourselves in the enviable position of being able to congratulate our profession in the Navy on the Royal Warrant signed on February 4th, which has assigned to the qualified practitioner who devotes himself to service in the Royal Navy the position, which is unquestioned in civil life, of equality with the clergy and those who adopt the profession of instruction of the rising generation in their service. This we accept as the corollary of the Medical Act of 1858, which prevents the State from employing in its service any other than legally qualified practitioners. That principle being once made the law of the land, it has proved but a futile and unavailing attempt to delay, if not to prevent, its logical development. Young medical men, on entering the Navy, are placed of right in their proper position; and this is a point gained, which must act beneficially on the service at large, as much as on the medical branch of it. We would that, on this occasion, the Admiralty had gracefully conceded in full, instead of in part, the privilege of retiring after twenty years *on the half-pay earned*. We fear that this will remain the blot of the Warrant of 1875, as it was that of the Warrant of 1866.

Another point for congratulation is, that those who have worked faithfully to the last, and have gained the honours of the service, are placed, on their retirement, in a position of comfort and independence that will enable them to show such examples of professional success as will, more than anything else, induce those who have entered the service to work on cheerfully and zealously to attain to similar rank and position. Henceforth this will, we trust, prevent the lamentable display, so common of late, of efforts, *per fas aut nefas*, to escape from the irksome trials of a protracted life at sea. The present Government has done well in reversing the error of the last Naval Administration in disregarding entirely the claims of our profession on this point; but, in reducing the period of service below that which exists in the Army, we have no doubt that the generosity of the present Administration will intuitively guide them in doing justice to those who are injured by this decision in their established prospects of the future.

These we have good reason to regard as the sum of the gains in the direction of the representations made by the deputation from the Committee of the British Medical Association, which waited on the First Lord in June last. We must, however, point out that many of the representations made there do not bear any fruit in the present Warrant. These may be summed up under the one comprehensive head of "the substantive equalities of relative rank", both while serving on board ship and in such positions on shore as the necessities of the service may require; viz., contingent allowances of every kind, and the recognition of the claims of widows and fatherless children. On these important points, we are, however, advised that it is within the authority of the Admiralty of itself to effect the required changes, independently of Royal Warrants; and we shall anxiously look to the Admiralty circular which must necessarily soon appear, to learn that these have not been disregarded in their deliberations. The medical profession has in this instance given a fresh proof of its power in vindicating its rights, and has obtained consideration; and on that fact, among others, we rely to prevent the repetition of all those former practices that undermined the value of previous concessions made to medical officers. The naval authorities have deemed it wise to endeavour to unite the sister services in their infancy. While at the top of the ladder, they have contrasted them, in making the headship a thing apart from the active service, and in shortening the career of the highest grades. Although the provisions now made have not the elements of finality in them, yet they are a long step in the right direction: probably some years may elapse before another is made. But we can now confidently recommend the students of the day, who have a predilection for a sea-life, no longer to abstain from accepting the terms now offered, which have at least the effect of removing all obstacles from the threshold of their career.

## ARTISANS' DWELLINGS BILL.

Mr. Cross's proposed Bill for the improvement of the dwellings of the working classes in large towns may be considered as a fairly moderate measure; for, while he insists on the rights of the poor to be decently housed, he does not ignore vested interests or the rights of property. Fever-dens must be demolished, but equitable compensation will be allowed to the owners, who will still retain their right to rebuild tenements, but under such moderate supervision as shall ensure suitable sanitary requirements.

In asking permission to introduce the Bill, the Home Secretary gave the result of careful study and close observation of the poorer class of dwellings in the various large towns of the kingdom. From these observations he deduced the trite conclusion, that what the houses of the people were, the people themselves would be found to be.

Notwithstanding all that had been done by private enterprise and public legislation under the Act of the member for Finsbury (Mr. McCullagh Torrens), and the Bill which enabled corporations to give up lands and borrow money for the purpose of building houses for the working classes, accommodation had only been provided for 30,000, whilst the population had been increasing at the rate of 40,000 *per annum*. Something, therefore, must be done to remedy this evil. The State had a right to interfere in sanitary matters. Politically speaking, health was wealth; and it was not only the present generation that suffered from bad physical surroundings, but the stamina of future generations, and also the waste incurred in connection with gaols, lunatic asylums, and places of that kind, in addition to the loss caused by sickness and death. When the death-rate varied from 22½ or 24 per thousand in a healthy district to 38, 67, and even 70 in overcrowded courts and alleys of large towns, it was evident that something was wrong. If Government could put a stop to such a great waste of energy and life, it was their duty to do so.

The injury arose in a great measure from overcrowding. In St. Giles's, there were not fewer than seventy streets without any open central thoroughfare, to which scarcely a breath of air could enter. The condition of the houses was such, that the walls were actually ingrained with disease. No amount of money could make such dwellings healthy, and the only practical way of dealing with such houses, was to pull them down. Some of these dwellings were built on saturated ground, from which arose deadly miasmata.

In Liverpool, Glasgow, and Edinburgh, great improvements had been made by opening up these narrow courts and alleys, and letting in the light and air; and, by driving a large street through an unhealthy district, and by reselling the adjacent property at a profit, they lightened the burden to the ratepayers. The full benefit of these measures could only be felt after a lapse of time, although the decrease of serious offences had been already considerable. The class of houses, however, which had been built, was not in all cases equal to what was expected; and it was necessary that, when houses were allowed to be pulled down, due sanitary precautions should be taken, in order that those which were built in their place should not relapse into the condition of the old ones.

The measure proposed to remedy these evils, was intended to deal at first only with those towns which had a population of 2,500. The Act could not be carried out by private individuals. In London, the City authorities would be responsible; the Board of Works for the metropolis; and the respective Town Councils for each large town. It was not intended to give Town Authorities the opportunity of building showy streets. The working of the Act, therefore, would be entrusted to the medical officer, who would be bound to report upon any district which he might deem unhealthy, and whether the prevalence of disease was attributable to the bad condition of the houses. The Local Authority, on receipt of such report, would satisfy themselves of its correctness, and devise the remedy, by exercising their compulsory power of purchase, and by providing for so many of the poor inhabitants who would be removed. Important sanitary reforms would thus be effected, the population properly housed, and the whole character of a locality altered satisfactorily.

The Government did not propose to give power to take property without parliamentary sanction. In London, the scheme for compulsory purchase must be submitted for approval to the Home Secretary, if found desirable. He would pass the measure through the House, and thus avoid the enormous expense of a private Bill. A similar plan would be adopted for boroughs by the President of the Local Government Board; but it was not intended to interfere with the action of the local authorities in any way. The value of the property taken would be determined by the English Lands Clauses Act, except when arbitration was agreed upon; and the owner would have the right to appeal to the law in cases where he felt his interests had been unfairly dealt with. Powers would be given to the corporations to let, lease, or deal with the land thus acquired, and ample borrowing powers would be conferred upon them; but the buildings themselves were to be erected by private persons.

The foregoing contains the substance of the Home Secretary's proposed Bill, which must be regarded as a sound and judicious measure, from which much may be hoped, if it be not spoilt in passing through the Lords. Mr. Cross is wise enough not to expect too much from it at first. The evil it was intended to remedy has been the work of generations, and the labour will be one of time; and, although the ratepayers will probably in the end finally be more than recouped, it will at present be a work of great expense.

The most obvious objection to the Bill was at once made by Mr. Kay-Shuttleworth, who thought that the provision of the Act seemed to hinge on the action of the medical officers, who received their appointments at the hands of vestrymen, who were frequently the owners of property against which the medical men would have to report. That objection will have to be very seriously considered. Vestrymen and members of Local Boards are frequently great offenders against sanitary laws, and a medical officer desiring to do his duty in this matter must occasionally be sorely beset. Some power of appeal must, therefore, be given by which the medical officer will be protected, and by which also inhabitants who feel that the report of the medical officer falls short of their just expectations may obtain a reversion of the report. A power of appeal and revision is, in fact, urgently needed. Moreover, the machinery to put the medical officer in motion is too cumbrous. Six householders have been found to be too many in previous Bills; twenty is certainly too many for the present purpose. Again: the mode of defining areas is defective in this Bill.

The Bill is capable of a good deal of improvement in many ways; and of this the opportunity will be afforded in committee; but, on the whole, it is a wise, well considered measure, and one which will, we trust, pass into law.

## THE QUARTERLY RETURN OF THE REGISTRAR-GENERAL.

During the three months ending September 30th, 1874, the registered number of persons married in the United Kingdom was 119,424, giving an annual marriage-rate of 14.6 per 1,000 persons living. In England, the rate was 16.4 per 1.000, and was slightly below the average. A decrease of marriages was especially marked in the counties of Cornwall, Suffolk, Warwick, Leicester, Cumberland, and Monmouth; and there was a considerable increase in Herefordshire, Lincolnshire, Durham, and South Wales. The rate varied considerably, from 10.6 per 1,000 in Suffolk to 19.1 in Northumberland; it was high among the mining populations of the northern counties, and was lower than usual in most of the agricultural counties.

During the quarter that ended on December 31st, the births of 275,754 children were registered in the United Kingdom; the rate being 33.8 per 1,000. In England, the birth-rate for the quarter was 35.6 per 1,000, a higher rate than has prevailed in any preceding corresponding quarter since civil registration was established in 1837. The rates in the agricultural and mining counties showed the usual wide divergence; it was only 26.9 in Dorsetshire, 28.0 in Herefordshire, and 30.1 in Cornwall, whereas it was so high as 45.8 in the county of Durham. In the eighteen largest English towns, the rate was 2.4 in excess of the rate in all England. It was so low as 22.6 and 23.6 in Bath and Cheltenham, and as high as 47.9 in Wigan and Gateshead.

During the quarter that ended on December 31st, the deaths of 186,947 persons of both sexes were registered in the United Kingdom, and the death-rate was 22.9 per 1,000. In England, 142,084 deaths were recorded, equal to an annual rate of 23.8 per 1,000, which considerably exceeded the rate in the last quarter either of 1872 or 1873, was 1.6 per 1,000 above the average, and, compared with the last quarter of 1873, showed an increase of 9 per cent., due in great measure to the effect of the low temperature during the latter part of November and throughout December. The death-rate was lowest, 17.5 and 18.8, in the south-eastern and south-western counties, and highest, 27.6 and 29.6, in Yorkshire, and in Lancashire and Cheshire. Amongst the thirteen and a half millions of persons residing in the chief towns of England and Wales, the annual death-rate last quarter averaged 26.7; while in the remaining, or rural population of about ten millions, the death-rate was not more than 19.9. These rates exceeded the average by 1.9 and 1.3 per 1,000 respectively. The general urban rate exceeded the rural rate by 6.8 per 1,000; in other words, the deaths of 23,382 persons occurred in the town districts who would have survived if the death-rate had not exceeded that which prevailed in the rural districts.

In the eighteen largest English towns, the death-rate exceeded the general urban rate by 1.6 per 1,000, and ranged from 19.2 and 24.8 in Portsmouth and Bristol, to 32.9 and 38.0, respectively, in Manchester and Liverpool; the death-rate from the seven principal zymotic diseases ranged from 1.5 per 1,000 in Bristol to 10.4 in Liverpool; the proportion of deaths under one year to births registered, was only 113 per 1,000 in Portsmouth, whereas it was 247 in Liverpool; and the annual death-rate per 1,000 among persons aged upwards of sixty years, varied from 83.9 in Wolverhampton to 162.8 in Liverpool. The death-rate was low, 16.2 in Rochester and Chatham, and 16.7 both in Dover and Devonport; high at Gateshead, where it was 32.1, Ashton-under-Lyne and Preston each 33.1, Carlisle 37.9, and highest, 39.6, in Dudley. The high rate in Carlisle was due to the remarkable fatality of zymotic diseases. Infant mortality in urban and rural populations showed the usual wide divergence; and was again highest in Leicestershire. As the excess of deaths last quarter was principally due to the long period of low temperature in November and December, it is natural to find that the rate of mortality among elderly persons was unusually high. The deaths of 36,115 persons, aged sixty and upwards, were recorded, equal to an annual rate of 81.1 per 1,000 persons estimated to be living at those ages. During the first five weeks of last quarter, the annual death-rate among persons aged over sixty years, averaged 62.5 per 1,000 in London, whereas, during the last five weeks of the year, the rate was so high as 141.7. Those living in towns, especially in Salford and Liverpool, suffered from the cold more severely than rural populations. Of the deaths registered during the quarter, 21,601 were referred to the seven principal zymotic diseases; equal to an annual rate of 3.6 per 1,000, against 2.9 and 3.2 in the two preceding corresponding quarters. This increase was entirely due to the fatal prevalence of scarlet fever. The excessive fatality of these diseases was principally confined to urban populations; the rate was so high as 6.1 in the counties of Lancashire and Cheshire, and was 7.9 in Hull, 9.3 in Dudley, 10.4 in Liverpool, and 17.3 in Carlisle. Scarlet fever caused 8,562 deaths, a higher number than in any quarter since the fourth of 1870, when 11,746 were returned. The deaths from the disease appeared to be declining in December; it may, therefore, be hoped, that the crisis of the present epidemic is over. A high rate of deaths from fever prevailed in Lancashire during the quarter, and was due in great measure to the epidemic of typhoid fever in Over-Darwen, from which 127 deaths were registered. The fatal cases of diphtheria were excessive; especially in the South-Eastern Registration Division.

The natural increase of population in the United Kingdom, produced by the excess of births over deaths during the quarter, was 88,807; and in England that increase was 70,283. Cold weather prevailed from October 2nd to the 9th; then the weather was warm for forty-two days, viz., from October 10th to November 21st, when commenced the cold period of forty-two days with which the quarter ended. During these forty-two days the mean temperature of the air at Greenwich was 35.5 degs., or 6.6 degs. below the average. The rainfall of the quarter was 7.2 inches, and 0.2 inches above the average. "The prices of wheat, potatoes, meat, and coals, fell considerably."

"The returns of the year 1874 are now complete; the mortality had been low through winter, spring, and summer; so, notwithstanding the autumn losses, the mortality of the year was at the average rate; the birth-rate was higher than it had ever been before." "Lancashire still remains remarkable for its high mortality. Over-Darwen offers an illustration of some of its sanitary defects, to which the natives appear to be accustomed and reconciled. Improvement would soon be apparent, if the same admirable skill, which has hitherto been expended on cotton-yarn, and other manufactures, could be devoted everywhere to the production of healthy dwellings. Can this county yield no leaders in such a beneficent movement?"

Dr. Pyle has been placed on the Commission of the Peace for the borough of Sunderland.

Dr. Bateman of Norwich has been elected "Membre Associé" of the Société Médico-Physiologique de Paris.

The Hunterian Oration will be delivered this day (Saturday), at 3 o'clock, by Mr. Le Gros Clark, F.R.S., in the theatre of the Royal College of Surgeons.

We are sorry to hear that Mr. W. Smith, senior surgeon to the Manchester Infirmary, and Professor of General Anatomy and Physiology at Owens College, died suddenly on Wednesday last of heart-disease.

It will be seen that the library of the late Dr. Lankester is announced for sale on Tuesday, February 16th, and the two following days, by Messrs. Puttick and Simpson.

WE are requested to state that, at the meeting of the Clinical Society, which will take place this evening (Friday), the newly elected President, Sir William Jenner, will deliver his inaugural address. It will be remembered that, at the time of the last meeting, Sir William Jenner was prevented from doing this by being detained at Osborne in attendance upon Prince Leopold.

AT the tercentenary anniversary of the University of Leyden this week, the honorary degree of Doctor of Medicine was conferred on Mr. Darwin, Dr. Bunsen, and Mr. Spencer Wells. An honorary degree was also conferred on Dr. Olding.

THE Lord Chancellor has added the names of Dr. James Coombs, ex-Mayor, and Mr. Moses Rogers, retired Deputy Inspector-General of Hospitals, to the Commission of the Peace for the Borough of Bedford.

THE inhabitants of Manchester have set on foot a movement for establishing a hospital for consumption and diseases of the throat, on a similar basis to that of the Consumption Hospital at Brompton, the patients contributing towards the funds in accordance with their means. The scheme has been taken up with spirit by the "Manchester men".

### THE HAMPSTEAD HOSPITAL.

THE President of the Local Government Board received this week, at Gwydyr House, a deputation from the Willesden Local Board, who wished to protest against the alternative scheme suggested to the Metropolitan Asylums Board, of erecting their hospital for contagious diseases in Mill Lane, Edgware Road, on the borders of the Willesden parish, instead of the Hampstead site. In answer to the objections set forth by the deputation, Mr. Sclater-Booth said that he had not yet heard whether the Asylums Board intended to take up the Willesden scheme or not.

### THE QUARTERLY RETURNS OF MARRIAGES.

WE heartily concur in recommending to the notice of the Registrar-General, the suggestion contained in an article in the *Times*, that the returns of marriages for each quarter should be published coincidently with the returns of births and deaths for the same quarter. There exists apparently no cause for the delay in the publication of the marriages solemnised, which cannot be easily rectified; since the registration of a marriage forms almost an integral part of the ceremony. The advantage to be gained by the collection of the vital statistics for each quarter in one and the same publication, are manifest; and "the general working of the Register Office is so good, that the defects of the present arrangement are rendered prominent by contrast."

### CHLOROFORM DEATH: RESUSCITATION BY NÉLATON'S METHOD.

DR. FREUZAL reports (*Progrès Médical*, January 30th) a case in which a child, apparently dead from the administration of chloroform, was recalled to life by inversion and suspension by the feet, and forced movements of the chest. The case forms an interesting pendant to those related at length in our columns recently by Dr. J. Marion Sims and Sir J. Rose Cormack. The lips and face were discoloured, and there was neither heart-action, pulsation, nor respiration. The effect of inversion was very rapid, and markedly effective.

### EXPERIMENTS ON ANIMALS.

THE Society for the Prevention of Cruelty to Animals have made an application to the various medical schools and colleges asking that "Mr. Colam and two other persons", be admitted as "mute spectators" of any "vivisections which may be practised for the purpose of research or instruction". The Royal Medical and Chirurgical Society has formally declined "the presence or interference of unqualified witnesses"; and this, we imagine, is likely to be the general course. If the Society for the Prevention of Cruelty to Animals cannot trust physiologists and physicians to report faithfully their own proceedings, it is a little surprising that they should expect medical bodies to consent to have their proceedings publicly reported and interpreted for them by Mr. Colam and his companions. If truthfulness, intelligence, and humanity, have really fled from the bosoms of medical men and medical societies, the presence, as "mute spectators", of Mr. Colam and his companions would be a very insufficient remedy; of their qualifications as reporters on such a subject, it is unnecessary to speak.

### RECENT URBAN MORTALITY.

DURING last week, 5,889 births, and 3,896 deaths, were registered in London and twenty other large towns of the United Kingdom. The mortality from all causes was at the average rate of 26 deaths annually in every 1,000 persons living. The rate was 21 in Edinburgh, 32 in Glasgow, and 31 in Dublin. Of the eighteen largest English towns, Bristol had the lowest death-rate of 20 per 1,000; the rate was 30 per 1,000 in Salford, in Wolverhampton 31, Oldham 32, Manchester, 33, Birmingham, 34, and Nottingham, 35. The deaths from zymotic diseases were 5.8 in Birmingham, where scarlet fever and whooping-cough caused 28 deaths; and 7.4 in Hull, where 16 deaths were due to scarlet fever. In London, 2,585 births, and 1,552 deaths, were registered; the former were 68 above, the latter, 109 below the average. The death-rate was 24. The seven principal zymotic diseases caused 144 deaths, which were as many as 112 below the average; the number from each disease being also below the average. The fatal prevalence of scarlet fever continues to decline, and the Asylum District Small-pox Hospital at Homerton, which has recently been used solely for scarlet fever patients, is now empty; the two District Fever Hospitals containing only 116 cases on the 6th instant. The deaths referred to diseases of the respiratory organs, which in the five preceding weeks had steadily declined from 897 to 409, rose last week to 429, and exceeded the weekly average by 28. In outer London, the death-rate from all causes, and for the seven principal zymotic diseases, was 19.2 and 1.8 per 1,000 respectively, against 23.5 and 2.2 in inner London. The mean temperature of the air during the week, at Greenwich, was 36 deg., or 2.8 deg. below the average. Rain fell on Saturday to the amount of 0.4 of an inch.

### PROFESSOR PARKER'S LECTURES.

PROFESSOR PARKER will commence his course of eighteen lectures on the structure and development of the Skull, on Monday next, in the theatre of the Royal College of Surgeons. The following is his programme: 1. Introductory; 2. Skull of Lancelet; 3. Skull of Menobranchus; 4. Skull of Frogs and Toads; 5. Skull of Snakes and Lizards; 6. Skull of Turtles and Crocodiles; 7. Skull of Birds (*Ratitæ*); 8. Skull of Birds (*Carinatæ*: 1. Schizognathæ); 9. Skull of Birds (*Carinatæ*: 2. Desmognathæ); 10. Skull of Birds (*Carinatæ*: 3. Ægithognathæ); 11. Skull of Birds (*Carinatæ*: 4. Saurognathæ); 12, 13, 14. Skull of Pig; 15, 16. Skull of other Mammalia Placentalia; 17. Skull of Mammalia non Placentalia; 18. Summary and Conclusion.

### A CASE FOR MEDICAL LEGISLATION.

THE *Newcastle Daily Chronicle*, of the 30th ult., reports a case which ought not to pass without notice. On the 30th of December, 1874, at Spennymoor, near Durham, a middle-aged man, named William Thompson, met with a compound fracture of his right leg in consequence of the falling upon it of a part of the machinery at a colliery. He was seen by Mr. Heffernan without delay, the fracture was set, and the leg put up in splints. In the evening, he was again visited by Mr. Heffernan, and all was going on as well as could be expected. Next day, in Mr. Heffernan's absence, the patient was seen by his assistant, who found the bones displaced. He telegraphed for instructions to Mr. Heffernan, and was desired to ask Mr. Wagstaff of Byers Green to see the case with him. When that gentleman arrived, the patient's friends refused to allow him to see the limb, the patient having expressed a wish that another person should look to his broken leg, while they might, if they liked, treat his body. Upon this, Mr. Wagstaff and Mr. Heffernan's assistant left, and saw the patient no more. The person who had been called in to supersede them was a Mr. Robert Curry master mason and bone-setter. He said that mortification was beginning in the leg, and, as the patient was in a very bad state, he advised that a doctor should be sent for "to attend to the body". Accordingly, "Dr." Thompson of Tudhoe Grange was called in. He is a doctor of medicine of the Eclectic Medical College, Pennsylvania. He is not on the English *Register*, and does not purport to be. "He was asked to prescribe for the body, in order to strengthen the system." He did not look at the leg, as he was told that Mr. Curry had set it. He attended the patient each day till January 20th, on which day the man died. "Dr." Thompson gave it as his opinion that "the cause of death was hæmorrhage. The bleeding arose from a rupture of one of the tibial arteries. He saw the tibial bones projecting, and called Mr. Curry's attention to them". An inquest was held on the 29th ult., when the particulars that we have mentioned came to light. The verdict of the jury cannot be considered at all satisfactory. They simply decided "that deceased had his leg broken by the falling of the shell-board of a drum, and that death resulted from hæmorrhage". But no effort appears to have been made to arrest the hæmorrhage. Bleeding after a compound fracture is a common enough case, and every surgeon knows how to deal with it. To allow the patient to die without making vigorous efforts to stop the flow of blood is highly culpable. But here no effort of any sort appears to have been made. Probably the bone-setter and the Pennsylvanian doctor were alike ignorant of the rules which should have guided them in such an emergency; and to their ignorance the patient was sacrificed. Mr. Brignal, solicitor, of Durham, who represented Mr. Heffernan at the inquest, did good service by trying to show the character of "Dr." Thompson's qualifications. But it is evident that, notwithstanding the doubtful character of his diploma, he has a considerable hold on the people of the district. When a doubt was expressed as to the extent of his experience, he answered: "You only just have to take a survey round Spennymoor, and you'll soon find out." And, again, "If I have any illegal standing in England, why don't they prosecute me at law?" Why, indeed! Simply because the Medical Act is not so stringent as is desirable in the public interest. There are many parts of the country, especially in the mining and manufacturing districts, where the ignorant people are liable to fall into the hands of non-qualified practitioners. It is high time that we should have an amended Medical Act.

## GILCHRIST LECTURES AT LEEDS.

DR. W. B. CARPENTER, F.R.S., gave the first lecture of the Gilchrist Educational Course on Friday, February 5th, on Ocean Circulation, and its Influence on Climate and Animal Life. The Chairman, Mr. J. I. Ikin, President of the Leeds Philosophical and Literary Society, delivered the following introductory remarks.

"I am much obliged to the Executive Committee for inviting me to take the chair on the present occasion; and it gives me sincere pleasure to do so, especially as a natural philosopher, physiologist, and anatomist of such eminence as Dr. Carpenter is about to lecture. The purport of the Gilchrist Educational Trust has been, I believe, explained in this hall on a former occasion; therefore I will not detain you on the subject, except to refer you to the prospectus of the lectures about to be delivered. The course is a highly interesting one, and cannot fail to be attractive and instructive; and I trust its value will be adequately appreciated by those for whose special instruction it is intended. The Gilchrist trustees are conferring an educational boon of no light character on the inhabitants of Leeds, and the same advantages are to be extended elsewhere. The present course is, I believe, only the second that has been given; and I trust it will be appreciated, as was the first in this town last year. Perhaps I may be allowed to state that to myself, as a member of the medical profession, and formerly a lecturer on Anatomy and Physiology in the Leeds Medical School, it affords me peculiar pleasure to have this opportunity of bearing my public testimony to the debt of gratitude due from the medical profession, as well from physiologists and naturalists and scientific men generally, to the untiring researches and lucid observations of Dr. Carpenter. I am not going to flatter or use fulsome language to my old fellow-student, as I know this would be as distasteful to him as it is foreign to my own disposition: but it does so happen I am in a position, from my own pursuits, to speak with confidence, if not intimate knowledge, regarding the scientific labours of your lecturer of to-night; and I merely state the facts to you. Such an example as Dr. Carpenter's successful scientific career furnishes ought to stimulate the young disciples of natural science to diligent study, and induce them to seize every opportunity of availing themselves of educational advantages like those afforded by the Gilchrist Lectures, and the instruction given by this and similar institutions. Dr. Carpenter's work on the *Principles of Physiology, Human and Comparative*, and his *Manual on Physiology*, are text-books to the scientific and medical student of the utmost value and interest. For the last thirty years, he has been our leading teacher; and I do not hesitate to affirm that there is no lecturer on anatomy and physiology in the United Kingdom that has not availed himself of his works. For myself, I candidly admit, his treatises, along with those of our mutual preceptors, Professors Sharpey and Quain, were of the greatest use, and laid the foundation of any physiological knowledge I ever attained. At the present day, no student, with the repeated revisions, new editions, and additions, that he has made to his works, can possess more instructive guides. But, as most of you may know, or ought to know, his scientific labours have not been confined to physiology. His work on the *Microscope and its Revelations* is one of the best books on the subject; and, to show how his foresight, or rather foreknowledge, has been displayed, many years ago, when minute structural and microscopic anatomy was in its infancy, Dr. Carpenter took the trouble to visit the leading provincial medical schools throughout England, in order to demonstrate to the various lecturers and students the exact structure and functions of the various minute textures of the human body, and the composition of the blood and other elementary fluids. His paper on Vital and Physical Forces in the *Philosophical Transactions* appeared in 1850. He was early enrolled a Member of the Royal Society (about 1840), and contributed papers on the Foraminifera, and a number of valuable articles in the *Cyclopædia of Anatomy and Physiology*; viz., Nutrition, Secretion, Sleep, Smell, Taste, Touch, Varieties of Mankind, etc.; again, in the *Philosophical Transactions*, a paper on the Structure and Development of *Antedon Rosaceus;* and later still, in the same renowned publication, reports on Deep-Sea Researches, and on his present subject, Ocean Circulation, and its Influence on Climate. His address when President of the British Association for the Advancement of Science, and his numerous papers and speeches before that learned body, have rendered him one of our greatest living authorities on most branches of natural science; and he has had conferred upon him numerous foreign distinctions of a learned character; so that, when you hear him, you hear an authority on the subject on which he treats, and I congratulate you and the intelligent classes of Leeds that you have an opportunity afforded that it would be absolute folly to miss. One further remark I cannot refrain from making; that is, the happy, clear, and interesting style he has of communicating knowledge, and of explaining many hitherto ill-understood and wonderful natural phenomena. Dr. Carpenter has had large and varied opportunities of observing and recording the secrets of Nature. I must just refer to the prospectus, and will then call upon Dr. Carpenter to favour us with the first Gilchrist Lecture of the second session in Leeds."

## MANCHESTER MEDICAL SOCIETY.

THE annual meeting of the Manchester Medical Society was held on January 13th, and the following are the office-bearers for 1875:—*President:* Dr. Morgan. *Vice-Presidents:* Dr. Borchardt; Dr. Lloyd Roberts; Dr. Ransome; Mr. Windsor. *Secretary:* Mr. Walter Whitehead. *Librarian:* Mr. Cullingworth. *Treasurer:* Dr. Thorburn. *Committee:* Dr. Bird; Dr. Dreschfeld; Mr. Ewart; Mr. Galt; Dr. Glascott; Dr. Hardie; Mr. Jones; Mr. Knowles; Dr. Leech; Dr. Little; Mr. Lund; Dr. W. Roberts. *Auditors:* Mr. Coathupe: Mr. Mann.

## THE LADIES' SANITARY ASSOCIATION.

THE Ladies' Sanitary Association, 22, Berners Street, Oxford Street, has just issued a tract, entitled "The Doctor's Bill", which is intended to recommend Provident Dispensaries as the best means of supplying the medical wants of the working classes. It is cast in the form of a dialogue, and brings out the main points of the provident system in a way which is likely to make them intelligible to the humbler classes, both in towns and villages. Those who are setting on foot provident medical institutions, and those who are anxious to give a wider scope to such as already exist, will probably find this little tract very useful for distribution.

### FATAL HÆMORRHAGE FROM WOUND OF THE PALMAR ARCH.

AN old man, sixty years of age, was recently brought to the Middlesex Hospital, quite dead and much blanched. His friends stated that he had been sitting with them all the evening in his usual health, when he had occasion to go into the back yard; after some time, as he did not return, some of the family went to look for him, and found him lying dead on the ground in a pool of blood. The only injury he had received was a cut, scarcely three-quarters of an inch long, on the palm of one hand, at the base of the little and ring fingers; the arteries to the contiguous sides of these fingers had been partially divided close to their origin from the superficial palmar arch. The old man appears to have stumbled in the dark, and, falling forward on his hands, the cut was inflicted by a piece of a broken bottle.

### TRANSPORT OF THE SICK AND WOUNDED.

DR. RUSSELL, who has written the Report upon Fire-arms, Appliances of War, etc., shown in the Vienna Exhibition, gives a description of a French military hospital railway train, constructed on the plan of Baron Mundy, at the cost of the Société de Secours aux Blessés. The train consists of eight waggons, which are fitted up, one for the surgeons, one for cooking, one for provisions, one for hospital stores, and four for the sick and wounded. The report goes on to state that it is difficult to conceive anything more ingenious and perfect than the way in which these carriages are fitted. This is especially the case with the surgeons' carriage. It has four compartments, each with an arm-chair, which can be converted into a bed, a washing-stand, reading-lamp, writing-desk, chair, etc. The waggon is warmed by a stove, and there is every convenience within it, so that the inmates need not leave it for a moment. All the waggons are well ventilated and protected against dust and rain. The surgeon can pass from end to end of the train while it is in motion. In each carriage for the patients there are ten beds, and conveniences easy of access but outside the carriage. Litter or common bedsteads can be placed in the carriage, which can be cleaned without disturbing the patients. In peace time, the carriage can be used as a common goods-van. On war breaking out, the van can carry troops or provisions to the front; and, after discharging these, can be quickly and easily fitted up as an ambulance. The Russians contributed an ambulance for four men, two lying on the floor and two slung above, to which was awarded a medal of merit. An ambulance-tent, on Col. Leschine's system, also found much favour with the commissioners. Instead of canvas or jute, Col. Leschine uses laths strung together, overlapping each other like Venetian blinds. The ridge is of canvas. The frames are of iron, four in number. Its merits are as follows: the soldiers themselves can construct the material; it can be rolled up, and occupies little space; it is twice as durable as linen or canvas; pine, the cheapest, lightest, and least subject to atmospheric influences of ordinary woods, can be used. It can be packed immediately afterwards. The construction is simple, and the tent can be easily put together, taken to pieces, and transported.

### THE PHARMACY OF 1874.

THE *Chemist and Druggist* briefly enumerates some of the principal pharmaceutical novelties of the past year, as follows. Boldo is probably the latest candidate for notice. The leaves are used on account of the aromatic oil they contain. The alkaloid discovered has been called boldine by Claude Verne and M. Bourgoin, the joint discoverers. The tree is indigenous to the New World; the leaves are covered on their surface with small glands. In South America, the plant is a popular remedy against syphilis and diseases of the liver. The essential oil is contained in cells, which are met with in nearly every part. The oil-vessels are perfectly spherical and of large diameter. The volatile oil is the most abundant product, as much as two per cent. having been frequently obtained, and is a mixture of various bodies. The preparations used are (1) alcoholic extract; (2) aqueous extract; (3) essential oil; (4) tincture; (5) wine made with Madeira; (6) syrup; (7) elixir. The leaves and flower-stems are alone employed. The dose of the wine is one tablespoonful to a wineglassful once or twice a-day. Vomiting is induced by too large doses. Professor Kolbe has succeeded in producing artificial salicylic acid from carbolic acid by the joint action of carbonic anhydride and sodium. Its antiseptic and physiological properties were found to be remarkable. 1. Fresh meat rubbed with the acid kept for a week, though exposed to the air. Many similar experiments were successful. 2. Solution of amygdalin mixed with emulsion of sweet almonds developed no smell of bitter almonds if some salicylic acid were added. 3. Salicylic acid added to beer in the proportion of 1 to 1000 prevented the formation of fungoid growth. 4. Fresh urine was divided into two portions, to one of which salicylic acid was added, while the other was left untouched. After three days the latter was putrid; and the former, protected by the acid, was still clear and free from ammoniacal odour. Dr. Tilbury Fox has explained his views of what should be the physical characters of calamine powder, distinct from "the old-fashioned dirty red gritty powder of the shops". The following should be its properties; colour—very pale salmon, or pale flesh-colour; texture—an impalpable powder; constitution—genuine. It is prepared only by incineration, levigation, and subsidence. Mr. J. Morris Broad suggests the use of equal parts by measure of glycerin and water instead of syrup, in the manufacture of the syrups of the phosphates. Mr. H. C. Baildon of Edinburgh claims an official place for rhamnus frangula in pharmacy. It possesses admirable laxative qualities, without the griping effects of senna. It appears, according to Mr. Giles, to have tonic and aromatic qualities which stimulate the muscular action of the bowels, as distinguished from the cathartic influence produced by irritating purgatives. It has answered well in counteracting habitual constipation. The barks of the younger trunks and of the larger branches of the indigenous shrub are gathered in the spring. This kind should alone be used, as the bark taken from the thick part of the trunk is entirely different. That obtained from the quill-bark yields a decoction pleasant to the taste, and with a slight flavour of almond, or prussic acid. Half an ounce is directed to be added to a a pint of water, and the decoction boiled down to half a pint. Three tablespoonfuls are a dose. Jaborandi has been tried at the Hospital Beaujon in Paris. Dr. S. Coutinho of Pernambuco is the discoverer, and he has handed it over to Professor Gubler to make experiments. An infusion of leaves and twigs in warm water (dose half an ounce) produces violent perspiration and remarkably increased salivation.

## SCOTLAND.

### THE CONTAGIOUS DISEASES ACTS.

A MEETING of those favourable to the total repeal of the Contagious Diseases Acts was recently held in Edinburgh, to hear an address by the Right Hon. J. Stansfeld; which, however, met with but very partial success, the hall being not more than half filled. The majority of the audience were females. The lecturer disposed of the subject in the usual way, asserting that, "in his opinion, the Acts in question could not fail to be hygienically a mistake, as he could not believe that any statutes which transgressed the higher moral law could, in the long run, promote physical health"; and a good deal more to the same purpose.

### HOSPITAL FOR INCURABLES, EDINBURGH.

THE Committee of Managers of the fund for a Hospital for Incurables, in behalf of which vigorous efforts have lately been made, have lost no time in making use of the funds collected at the recently held great bazaar and elsewhere. A temporary building has been found, and is to be opened, under the name of the Edinburgh Hospital for Incurables, for the reception of patients, on February 15th. It consists of a a house or houses in Salisbury Road, a pleasant locality in the southern suburbs of the city, and is expected to accommodate between twenty and thirty persons. A number of things left unsold at the bazaar were disposed of last week, and the whole amount realised from that source was increased to £5,730 odd, a very handsome sum to raise by such means; while the expenses have, it is understood, been found to be considerably less than was at first expected. Applications for admission, accompanied by the necessary medical certificates, are to be made at once by those desiring to obtain the benefits of the institution.

### THE STATUES OF SIMPSON AND LIVINGSTONE.

THE question of suitable sites for the statues of Sir James Simpson and Livingstone, which are shortly to be set up in some public place, came under the consideration of the Edinburgh Town Council at its last meeting. As regards the Simpson statue, a majority were opposed to the proposal to place it in St. Andrew's Square, and the general feeling was in favour of the site in the East Princes Street Gardens, near the Scott monument, and to its western side. The Livingstone statue, it was at first suggested, should be placed where the four lamps now stand at the top of the Waverley Bridge; but, on further consideration, another spot in the gardens, to the east of the Scott monument, was selected as in every way more desirable.

### HIGH DEATH-RATE IN KILMARNOCK.

THE town of Kilmarnock, in Ayrshire, has just achieved a most unenviable notoriety, in consequence of its most remarkable death-rate. During last month, no fewer than 104 deaths have been registered in that borough, the largest in any month since the Registration Act came into operation, showing a mortality of 52 per 1,000. The principal cause of death was scarlatina, of which there were twenty-one fatal cases, against thirty in December. Curiously enough, the number of births during the month was 109, the highest yet recorded in a month.

### LEGACIES.

THE charitable and educational institutions of Edinburgh have recently come in for very handsome legacies under the will of the late Robert Marshall, of the firm of Marshall and Aitken, tailors, who died on the 19th of last month, at a very advanced age. Among other bequests, he left £500 to the Royal Infirmary, £100 to the Children's Hospital, £150 to the Royal Public Dispensary, £500 to the University to found a Marshall Bursary, £300 to the Life Boat Institution, and numerous other sums, amounting altogether to £3,650, to various missions, societies for indigent gentlewomen and governesses, the Maternity Hospital, and other charitable undertakings, of which the name in Edinburgh is legion. The residue of the estate, which, after providing for private legacies, will amount to upwards of £20,000, the trustees are directed to "dispose and apply towards the promotion of such charitable institutions or purposes, in relieving aged or indigent individuals, or in promoting of education through schools and colleges in Scotland, as they shall determine on as worthy of such aid"; the whole to be distributed in sums not exceeding £200 at any one time.

## IRELAND.

AT a late meeting of the Thurles Board of Guardians, the salary of Dr. Quinlan, medical officer of Borrisoleigh Dispensary, was increased by £20 *per annum*.

SCARLET fever, according to the late returns of the Registrar-General, is decreasing considerably in Dublin. In the week ending January 30th, there were only four deaths registered from that affection, and six the week preceding.

### STEWART INSTITUTION FOR IMBECILES.

THE annual meeting of the friends of this charitable institution took place last week in the Molesworth Hall, Dublin, the chair being occupied by Lord James Butler. The annual report shows that the institution is making satisfactory progress, the subscriptions being increased by £146 6s. 6d., and donations were received amounting to £2,709 6s. 9d. In the latter sum is included a donation of £1,000 by the late Mr. Alexander Findlater of Dublin, and a bequest of £500 from the same gentleman. At the close of the year, there were forty-one children in the institution; of these, fourteen were free pupils elected by the subscribers, eight paid the full cost, and nineteen paid a portion of their maintenance. As a proof of the good that kindness, proper food, medical attendance, and systematic and properly applied instruction, has on this class of people, the most wretched and pitiable that can exist, we may mention that, of these forty-one children, seven can assist themselves in a limited way, twelve are capable of learning a trade, twenty-five attend the drilling class, nine work in the garden, fifteen assist in cleaning shoes, eleven act as messengers, sixteen assist in household work, six attend the sewing-class, five are instructed in arithmetic, two are learning to read, three read well, fifteen assist in dressing children, six work in the mat shop, five in the tailor's shop, twelve can speak well, and ten indistinctly. At the meeting, several articles made by the inmates, such as mats, baskets, clothing, bookmarkers, etc., were exhibited, and reflected great credit on the inmates, and on the medical superintendent of the institution.

### BELFAST GENERAL HOSPITAL.

AT a quarterly meeting of the committee of management of this institution, held on last Saturday, it was announced that Her Majesty had, on the recommendation of the Duke of Abercorn, granted a royal charter for the hospital, and which the committee expect to receive in a few weeks.

### MORTALITY AFTER AMPUTATION.

AT a recent meeting of the Surgical Society of Ireland, Professor Macnamara is reported to have said:

> It is most remarkable that there should exist so great a contrast between the mortality after capital amputations in England and that which followed similar operations in Ireland. I have performed a great many capital amputations, and I never lost a patient; and I appeal to the experienced surgeons present whether it is not the fact that death after amputations in Ireland is the exception. In England, however, we read of the deaths being one in three or four. The Vice-President of the College, who has had a large experience, tells me he scarcely ever remembers seeing a death after amputation.

The statement is exceedingly interesting; and we may venture to ask Mr. Macnamara to favour us and his surgical brethren in England, by putting us in possession of the series of figures on which it is founded. The relatively greater mortality after operations which is experienced in the Paris hospitals, as compared with the English, was attributed by an eminent French surgeon to the fact that the English patients possessed the "chair chirurgicale"—that is, a kind of flesh which healed easily—while French patients did not. No doubt, our colleagues in Dublin will be able to give us some more satisfactory explanations than that. Mr. Callender has of late, in the lectures which we published, given the figures of his practice in St. Bartholomew's Hospital, and the methods by which he has succeeded in obtaining a rather long series of singularly favourable results after amputation. Will Mr. Macnamara and his colleagues oblige us similarly with the unbroken records of the results of series of operations in the Dublin hospitals, with a note of the methods and principles of treatment?

## SCIENTIFIC GRANTS OF THE BRITISH MEDICAL ASSOCIATION.

AT the last meeting of the Committee of Council of the British Medical Association, the following grants were made:—Mr. Hicks, Cambridge—Researches on Alcohol, £50; Dr. P. M. Braidwood and Mr. Francis Vacher, Birkenhead—The Life History of Contagion, £15; Dr. R. Caton, Liverpool—The Natural Electric Currents of the Brain, £20; Dr. J. M. Fothergill, London—The Effect of Certain Agents upon the Circulation, £10; Dr. McKendrick and Mr. James Dewar, Edinburgh—Physiological Action of Chinoline and Pyridine Compounds, £25; Dr. Mahomed, London—The Pathology of Albuminuria, £20; Dr. Munro, Cupar Fife—An Antidote for Chloroform, £5; Dr. W. H. Spencer, Clifton, Bristol—The Action of Uranium Salts in Diabetes, £20. The grants in all amount to £165. Certain other applications have been referred to a Subcommittee, with power to appropriate the balance of the sum of £200 voted, if the particulars furnished by the applicants are satisfactory.

## MEDICAL ADVERTISING.

We have not received any letters for publication on the article published last week on this important subject; but, from the indications contained in one or two private letters which lie before us, we conclude that the purport of the article has been by some readers misapprehended. It does not appear to us easily open to such misapprehension. Nevertheless, we desire to point out that the object expressly stated was not to imply blame of individuals, but, on the contrary, to point out that, without their knowledge, and probably under circumstances of which they would all disapprove, public use has been made of their names in a mode of advertising which is held to be professionally objectionable. We asked for some expression of their disapproval of that mode of using their names, because, without that expression, it did not, and does not, appear clear that such advertising would not be repeated, if not with the use of their names, still with the use of the names of others of similar standing. Until such public expression of disapproval in some form is made, it seems evident that there is nothing to prevent a repetition of the circumstances to which we called attention. The fact that individuals disapprove of the use which has been made of their names, affords only the more emphatic condemnation of the system by which their names can be so used; it is the propriety of the system only which we question. That was, we thought, very apparent in the text of the article.

Its object, however, was not confined to blaming the system of advertising in newspapers medical articles and books intended only for professional edification; it extended to the provision of a remedy by the discussion and, if approved, the adoption of a general rule, that in future no medical books and articles be advertised in daily papers, or placarded in places of public resort. That, as we stated, is the prevalent rule on the Continent, and it is one which might, it was suggested, with great advantage be adopted here. The fact that such advertisements have recently been employed for trade purposes, parading the names of eminent men without their knowledge, seems to us to give point to the requirement. The intimation from those gentlemen that they do disapprove of the use so made of their names would undoubtedly assist in preventing the repetition of it, and would help to lay the basis of a future agreement on the subject; but we by no means imply that they are bound to give any public expression of their approval or disapproval of the use made of their names, or of the propositions which we have based upon it. If they do so, it will, we think, assist in the final solution of the question, What shall the rule be in future as to the advertisement of medical books and articles by publishers and others? Shall they continue to be advertised in newspapers, and placarded at railway stations, or not? If they are not disposed to express any public opinion on the subject, we shall still continue to endeavour, with the general assistance of the profession, to arrive at some more satisfactory conclusion than is afforded by the existing state of things. We feel sure that, in any case, we shall have their best wishes. The question is entirely one of principle, and we repeat that we have no intention to treat it, directly or indirectly, absolutely or inferentially, except as one of principle.

# SPECIAL CORRESPONDENCE.

## BIRMINGHAM.

[FROM OUR OWN CORRESPONDENT.]

*Founding of the Birmingham Medical Institute.—Health of the Town.—Sanitary Teaching.—Disinfection.—The Board of Guardians.—The Lying-in Charity Report.—The Children's Hospital Annual Meeting.*

One of the most important chapters in local medical history was commenced last week at a meeting of the profession called to form a Medical Institute. For many years, our great want has been a *locus in quo*—a professional public building—and with it a worthy reference-library. The late Dr. Evans left, in the hands of trustees, a large sum of money which had been offered to him in the form of a testimonial, and which his own liberality raised to £1,000, to be applied towards a medical library. More recently, the Rev. Charles Ingleby, son of an eminent local practitioner, having left a large sum of money to be divided amongst the institutions of Birmingham, the Evans' trustees with wise forethought incorporated themselves under the Companies Act, and made application for a donation to carry out the objects of their Association; and they received, through Mr. Wragge, the liberal offer of £5,000 under certain conditions. These conditions required the raising of a separate fund for building and other purposes, the Ingleby Fund to be then available for maintenance. The number of trustees named by Dr. Evans was seven; and these, with six other gentlemen, formed the original members of the Institute, as follows: Dr. Fletcher, Dr. Heslop, Dr. Russell, Dr. Wade, Dr. Fleming, Mr. Crompton, Mr. Baker, Mr. Berry, Mr. Bindley, Mr. Middlemore, Mr. F. Jordan, Mr. T. Evans, and Mr. G. H. Evans (Honorary Secretary). These names were appended to the circular calling the meeting, the object of which was to place the project on a broad and liberal basis, and to secure the support and co-operation of the whole body of the profession. The chair was taken by Dr. Fletcher, who moved the following resolution, which was seconded by Mr. F. Jordan, "That this meeting is of opinion that the Birmingham Medical Institute is well adapted to meet a most pressing want, and to prove of the greatest value and importance, as well to the members of the medical profession in Birmingham and the district as to the public, and pledges itself to use every effort to promote the success of the undertaking". A resolution naming one guinea as the annual subscription was proposed by Dr. Johnston, seconded by Dr. Harrison, and carried; and a further resolution, naming a committee to act with the original committee in the election of members, was proposed by Mr. Gamgee, and seconded by Mr. Manley. Dr. Heslop having taken the chair, cordial thanks were voted to Dr. Fletcher, and to Mr. T. Evans, who had given able legal advice. The amount of money already subscribed towards the building fund amounts to about £2,000, including no fewer than twelve subscriptions of £100 each from members of the profession, and seven of £50. Gentlemen outside the profession have also subscribed liberally.

The death-rate of the town is exceptionally high. Scarlatina has been lately the most fatal zymotic, then variola and pertussis; erysipelas has been prevalent in various quarters, and rather bad in the hospitals.

The Sanitary Conference has been fully reported in your columns. Knowledge in the same direction has been further promoted by a donation (anonymous) of £3,000 to Saltley Training College, to found a Laws of Health Teachers' Trust, providing for the delivery of lectures to future teachers, with money prizes for proficiency, the prize-winners to continue to teach the subject to their own classes. Sanitary lectures are also being delivered. Dr. Corfield has given a popular lecture on fever; Dr. Hill on healthy homes; and Mrs. Bracey and Miss Kenrick have continued their excellent teachings to women. Handbills also are circulated by the authorities, and a sanitary "census" has been completed under the following headings: Number of houses in each ward; number of persons in family; number of lodgers; houses with through ventilation (front and back door); houses with windows at the top (?); water-supply, whether from tap, pump, or *nil*.

The medical officer of health has been instructed to visit Nottingham and Manchester, to inspect their disinfecting apparatus. The "Ransom" apparatus, as in use at Nottingham, has been decided upon. There is at present no public disinfecting oven, but there is a good one in use at the Queen's Hospital.

We regret that Mr. John Clay should have been obliged to resign the chairmanship of the Dispensary Committee of the Board of Guardians, and not only that office, but the office of Guardian also. We consider this a public loss; at the same time, we confess we do not see how Mr. Clay could continue to work with such men as are amongst the present members of the Board. The parish medical officers applied for an increase of salary on the grounds of increased cost of living, increased work, and change in its character involving loss. Mr. Clay ably supported this very desirable motion, and, on its rude negation, resigned office.

At the annual meeting of the Birmingham Lying-in Charity, statistics were adduced showing the year's mortality as 1 in 252; average of seven years, 1 in 461. The carefully prepared and favourable statistics of last year had elicited the warm approval of Miss Nightingale; and, *à propos* of them, she had quoted the following remark of a medical man unnamed—"Although accoucheurs winced under castigation, they have mended their ways; so there will be smaller mortality in time to come." The chairman of the charity (Mr. Goodman) naturally compared with some satisfaction the above averages to the numbers lately given by Dr. M. Duncan (1 in 120), and stated that their own statistics were equally calculated to include thirty days after confinement. The chairman of the meeting (Mr. Chamberlain) observed that the very satisfactory statistics perfectly justified the steps which were taken amidst some opposition several years ago, to do away with an in-patient department, and give aid only, as at present, to women at home. One of the officers of the charity (Mr. Tait) had, however, written to the local paper to take exception to the remark quoted from Miss Nightingale's letter, and also to the conclusions drawn from the statistics; laying stress upon the fact that unmarried woman are excluded from attendance, and that bad cases are transferred to the general dispensary.

At the annual meeting of the Children's Hospital, it was reported that the Committee had reduced the number of beds from fifty-eight to forty-four, in order to prevent crowding; also, that the fever-wards had been closed for three months' disinfection. The building of extra waiting-rooms and the appointment of an additional medical officer, were suggested. The President, the Marquis of Hertford, in the course of his Address, observed, "That he had been over kindred institutions, such as the Children's Hospital in London, and others, and he could honestly say that it was impossible for matters to be better arranged than they were in the Birmingham Children's Hospital." At a meeting of the Committee of Election held to-day, Dr. Flamank Marshall was elected extra acting physician to the hospital.

# REPORTS OF SOCIETIES.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, FEBRUARY 9TH, 1875.

C. J. B. WILLIAMS, M.D., F.R.S., President, in the Chair.

*Experiments on Animals.*—The following correspondence was read by Dr. Symes Thompson, one of the Secretaries.

1. "Royal Society for the Prevention of Cruelty to Animals, 29th Jan., 1875.

"Sir,—On Monday last, a memorial signed by many distinguished persons, was presented by an influential deputation to the Committee of this Society, supported by papers, which allege that experiments on living animals are frequently, if not regularly, performed at the various schools of medicine and physiology, hospitals, and other similar institutions of London, for the purpose of discovery, of demonstration, or of illustration.

"A special Committee has been appointed to deliberate on the statements and proposals of the said memorial and papers. I am desired by such Committee to ask you to be good enough to do them the great favour of permitting me, with two other gentlemen, to be present as mute spectators on the occasions alluded to when operations on living animals are appointed to be performed at your institution, in order that we may report the proceedings to them.

"The Committee trust you will appreciate the nature of this application, which they think it their duty to make, instead of resorting to other usual modes of acquiring information.—I have the honour to be, Sir, your obedient servant, "JOHN COLAM, *Secretary.*

"To E. S. Thompson, Esq., M.D., Hon. Sec. Royal Medical and Chirurgical Society."

2. "Royal Medical and Chirurgical Society, 53, Berners Street, W., Feb. 9th, 1875.

"Sir,—We are directed by the Council of the Royal Medical and Chirurgical Society to inform you, that the Society is not at present engaged in contemplating any experiment involving vivisections.

"We are requested also to add, that if the Society should undertake any further scientific investigations, rendering such processes necessary, they would certainly decline the presence or interference of any unqualified witnesses.—We are, Sir, faithfully yours,

"E. SYMES THOMPSON, M.D., } *Hon. Secs.*, Roy. Med.
"J. COOPER FORSTER, } and Chir. Society.

"To the Secretary of the Society for the Prevention of Cruelty to Animals."

No discussion took place; but the reading of the Council's reply was received with marks of approbation by the members present.

*Hypospadias and Epispadias.*—Mr. JOHN WOOD exhibited some cases of hypospadias and epispadias, on which he had operated. Two of the cases of hypospadias were boys, who had been unable to pass urine in the erect position, but were obliged to crouch down. The stream passed backwards. Having previously, in other cases, tried various plans with unsatisfactory results, he adopted in these cases a plan which he had found successful in two other patients some time ago. It consisted in making a hole in the prepuce, through which the glans was made to protrude—the operation being somewhat the reverse of that of Nélaton for epispadias. At first, he did not realise the difficulty of properly adjusting the parts; but he succeeded by making a broad flap and turning the skin inwards to the urethra. The prepuce was utilised for the formation of a channel for the urine. In one of the cases, there was a *cul-de-sac* apparently representing the fossa navicularis, with the urethral opening behind it. This he slit up so as to form a continuous channel. In the case of epispadias, there was want of retention of urine; but this defect had been quite overcome by first operating by Nélaton's method, and then performing two subsequent operations for completing the channel.

### ON THE TREATMENT OF FISTULOUS OPENINGS BY DILATATION. BY WM. MURRAY, M.D., OF NEWCASTLE-ON-TYNE.

THE author had been induced to try the effect of dilating sinuses by tangle-tents, because of the contraction which sometimes follows their use, on the principle that the lymph which is effused by the inflammation of rapidly dilated tissues will sometimes close a sinus by its subsequent contraction. The treatment was tried in a case of fæcal fistula at the umbilicus; and, after two or three dilatations, a barrier of lymph was effused which, by its contraction, closed the opening. In a case of fistula in the cheek, the same success was rapidly obtained. In a curious case of fistula of the urethra, the canal was closed after one or two dilations, other surgical treatment having completely failed. In ordinary sinuses connected with strumous glands, good results were obtained by dilating, so as to let out curdy matters, and by setting up adhesive inflammation. The author asked surgeons to test the treatment in other cases, and suggested the use of tents for opening up sinuses connected with diseased bones and foreign bodies. By so doing, the parts might be explored, and the offending substance might be removed without cutting.

Mr. JOHN WOOD would not detract from the merit of originality in the paper; but the proposal to dilate a sinus leading to dead bone was carried out long ago by Nélaton, by means of a piece of gentian-root, in Garibaldi's case. *A priori*, the plan described by Dr. Murray would scarcely recommend itself to surgeons, as its principle was to dilate an opening in order to close it. The plan had been followed in Wutzer's operation for the radical cure of hernia, and had been found to fail. He would not, however, absolutely condemn it without further evidence.

### ON THE DIAGNOSTIC VALUE OF THE ILIO-FEMORAL TRIANGLE IN CASES OF INJURY TO THE HIP, MORE PARTICULARLY OF IMPACTED FRACTURE. BY THOMAS BRYANT, F.R.C.S.

THE triangle which the author described as the ilio-femoral, was formed between the ilium and the great trochanter of the femur. One side of it, AB, was drawn from the anterior superior spinous process of the ilium, A, to the top of the trochanter major, B; the second, AC, was drawn from the anterior superior spinous process of the ilium directly downwards to the horizontal plane of the recumbent body; and the third, CB, the base of the triangle, was drawn at right angles to AC, and fell upon the line AB when it touched the great trochanter. To this line the author's observations referred. He said that the line AB corresponded in the normal condition of the hip-joint to Nélaton's test line for dislocation of the head of the thigh-bone backwards, and he regarded the line of the triangle described (CB) to be the test-line for fractures or shortening of the neck of the thigh-bone. He stated that after repeated proofs he could confidently assert that, whilst in a healthy subject the ilio-femoral triangles of the two sides were exactly similar in all cases of injury to the hips, in which shortening of the neck of the thigh-bone existed, the amount of shortening could readily and accurately be made out on comparing the bases of the triangles of the two sides. In impacted fracture, where on the sound side the base of the triangle would, in the adult, measure its average normal length of two and a half inches, on the affected or injured side, it would measure from half an inch to more than one inch less. These measurements were taken with the patient in the horizontal position, the pelvis straight, and the two femora parallel. The author illustrated his paper by quoting half a dozen cases of impacted fracture, in which by the test-line the shortening in the neck of the thigh-bone was readily made out; and concluded by pointing out the value of such simple and certain means of making out whether any shortening of the neck of the thigh-bone exists after an injury, preventing any undue manipulation of the hip-joint in cases of impacted fracture or other obscure injuries to the joint. He then passed on to point out how fallacies in the test might be met with; but, as they were quite exceptional in practice, he thought that they could in no way tend to diminish the value of the test line as a means of diagnosis in hip-joint injuries. The paper was illustrated with drawings and a diagram.

Mr. G. POLLOCK asked whether Mr. Bryant did not find equally good results from the old plan of measuring from the anterior superior spinous process to the patella. The plan proposed was, however, so mathematically correct that it might be an useful aid in diagnosis.—Mr. THOMAS SMITH said that it had to be proved that the plan of measurement described by Mr. Bryant could be applied to all bodies. It would be difficult, in a corpulent elderly person, to estimate the position of the trochanter. He had recently been engaged in making measurements on the dead subject; and had found that accuracy could be obtained only by driving a bradawl into the bone. He would prefer the measurement from the anterior superior spine of the ilium (which is readily recognisable) to the external malleolus. The line proposed to be dropped from the spine of the ilium might not be vertical; and it might be difficult to find the position of the trochanter.—Mr. Barwell spoke of the difficulty of obtaining a perpendicular line on a rounded surface. It was not only necessary to observe that the line AC was perpendicular, but there was a difficulty in drawing BC at a right angle to it. The measurement from the spine of the ilium to the malleolus was a great guide to diagnosis. The amount of shortening would be better determined by stretching a tape from the anterior superior spine to the great trochanter than by Mr. Bryant's lines. This plan might be applied in cases of fractures and dislocation. Not unfrequently fractures occurred in thigh-bones which were not accurately alike on both sides, as in old persons who had had rickets. All difficulties here, however, would be removed by measuring through Nélaton's line, rather than from the anterior superior spinous process of the malleolus.—Mr. John Wood recognised the importance of the measurement of the base of the triangle as recommended by Mr. Bryant; and he thought a measurement of the kind better than Nélaton's line. He measured, however, from the crest of the ilium to the trochanter; at the same time, in stout females with loose flabby tissue, he combined with it measurement according to the old plan.—Mr. Maunder thought that the diagnosis of impacted fracture of the neck of the thigh-bone was well established and very easy. Its signs were negative rather than positive. The limb remained still capable of some motion—which was not the case in dislocation and fracture; but a great point was that, in consequence of the bone being driven into the trochanter, the mass of bone could be felt with the fingers.—Mr. W. Adams thought the plan of measurement described by Mr. Bryant likely to be useful in the diagnosis of chronic disease and congenital dislocation of the hip-joint in children. He had used a somewhat similar method, by making dotted lines over the parts.—Mr. Callender said that the late Mr. Stanley took great interest in measurements, especially in fractures of the thigh-bone. He used to measure between the different parts by using a flat surface—such as an ordinary prescription board—as the fixed point, in such a way as to ascertain not only the amount of shortening but of lateral depression.—Mr. Bryant said that he would not have brought the plan before the Society unless he had been convinced of its superiority, both in thin and in fat subjects. He did not use a plumb-line, but measured with tape. The plan was especially useful in determining the shortening of bone without subjecting the patient to unnecessary manipulation.

## HARVEIAN SOCIETY OF LONDON.

Thursday, February 4th, 1875.

W. H. Broadbent, M.D., President, in the Chair.

*Cerebral Complications of Typhoid Fever in Children.*—Dr. W. H. Day read a paper on the cerebral complications of typhoid fever in children. He said that the frequency of diseases of the nervous system in early life, and the dangers which attend their course when they occur as the sequel of disturbance in the vascular system, give them an importance which cannot be over-estimated, and invite our attention to the grave consequences that might follow a false or imperfect diagnosis. The nervous system derives its strength and vigour from a due supply of healthy blood; and, if this be in any way changed or disorganised by the fever-process, it becomes excited, depressed, or in some way unstrung. Thus it is that, independent of the febrile condition, morbid sensations, nervous prostration, and those mental phenomena of which we daily see the effect rather than the cause, are of such common occurrence. The author cited two cases of cerebral complication occurring in the course of typhoid fever, in which the *post mortem* appearances gave a perfectly healthy state of the brain and its membranes. He related two other cases in which he believed that the inflammatory process played some part in the changes that were observed in the brain—changes independent of the tubercular cachexia, and where no such deposit could be found in any organ of the body. It was impossible to enumerate any symptoms as diagnostic of the degree of cerebral congestion that might be present in any given case. The state of the brain and its membranes bore no approximate relation to the symptoms. The author considered that meningitis uncomplicated with the tubercular cachexia occurred now and then in typhoid fever, in rare and exceptional cases. Setting aside the injurious effect which the circulation of poisoned blood at an elevated temperature must have on the nervous centres, there seemed no satisfactory reason why the cerebral changes should be restricted to congestion of the vessels or simple vascularity of the membranes. The author endorsed the statement of other observers, that we cannot, in certain obscure cases, separate a form of typhoid in young children, characterised by a distinctly remittent type, from cerebral meningitis. If the symptoms be mixed up together in various degrees, the diagnosis between the two affections is often impossible. There were few greater or more perplexing difficulties in the practice of medicine. The author commented on the dangers of hasty induction and rash conclusions, and pointed out the risk of setting down the vomiting and cerebral symptoms to the typhoid state, whilst the brain might have been slowly and imperceptibly going wrong, and was, perhaps, the primary source of trouble.—A discussion followed, in which the President, Dr. Symes Thompson, Dr. Cleveland, Mr. Cripps, Dr. Lawrence, Dr. de G. Griffith, Dr. Farquharson, and Dr. Easton, took part.

# CORRESPONDENCE.

## THE NEW NAVAL MEDICAL WARRANT.

Sir,—*Bis dat qui cito dat* is an adage well known and appreciated in the profession. The Naval Medical Warrant received Her Majesty's signature on the 4th, and appeared in the *Gazette* of the 6th. No time was, therefore, lost in making known its provisions. Nothing but commendation can be expressed for the very liberal manner in which it has dealt with the various matters that have received attention; and, if some disappointment is felt that the full-pay has not been readjusted, it must not be inferred that the department is ungrateful for the very many and substantial benefits it confers. Mr. Ward Hunt and his colleagues deserve the thanks of the profession, and it can now with truth and justice be stated that the medical service of the Royal Navy is one which offers advantages to the young medical officer that he will with difficulty find elsewhere. It is with a feeling of satisfaction that one can conscientiously advise our younger brethren to join. A young man now enters the service with a befitting rank, exceedingly good pay, and every requisite to make him feel that he is in the position of a gentleman. It remains entirely with himself how he will turn to proper advantage the very liberal concessions that have been made.

One word, in conclusion, as to the part played by the Association and your Journal throughout the struggle. We all feel, had it not been for the powerful assistance we derived from our professional brethren, who so kindly espoused our cause and made their voice heard, we might long have remained unemancipated; and it is to be hoped that naval medical officers will never forget what is due to the British Medical Association during the eventful years 1874-75.

I am, etc., A Naval Medical Officer.

⁂ The above is from a distinguished member of the service. We beg to thank others who have forwarded to us very warm and generous expressions of acknowledgment, on behalf of themselves and their fellows, for the zealous and successful efforts of the Parliamentary Committee of the Association and the Journal in their behalf. As, however, these letters must not, by the rules of the service, be signed by their authors, we think it unnecessary to publish them, although highly appreciating their tenour.

## THE ABUSE OF HOSPITALS.

Sir,—Mr. Wordsworth's suggestion, that the British Medical Association, in its corporate capacity, should be requested to consider the subject of hospital abuse, is identical with that which was made by Mr. Fairlie Clarke in your columns a few weeks ago, and which has given rise to the memorial which he and I are now promoting. That memorial you kindly published *in extenso* on the 2nd ultimo, and you have since been good enough to print the names of those who have signed it. These signatures now amount to nearly two hundred, including those of many leading members of the profession in London and the provinces. We propose to keep the list open until April, and shall be glad to receive the names of any gentlemen who wish to support the movement. Your obedient servant,

Alfred Meadows.

27, George Street, Hanover Square.

## PROFESSIONAL FEES.

SIR,—If anything were wanted to prove the necessity for a British Medical Association, it would be the course taken by the Councils of the Colleges of Surgeons and Physicians with respect to the fees to which the Fellows and Members are entitled, or which they may justly claim, for professional services to the public.

Nothing like authority can be quoted by any Fellow of any College to prove the justice of a disputed claim, or even to inform a professional brother, or an interested patient, what is considered to be a fair and proper, or usual, fee for any ordinary or extraordinary service. It has come to be generally known that the fee of a consulting physician or surgeon in London is one guinea for a visit, two guineas for a consultation with another practitioner; and that journeys to a distance are calculated at one guinea a mile by road, or two-thirds of a guinea a mile by railway. But no one thanks the Colleges, or any College Council, for this. It was an arrangement made by a few leading men—a small association—and ratified by general assent of their cotemporaries and successors. But even now it is only partially known to the public, not very perfectly understood by country practitioners, and, in any case of doubt or dispute, is quite unsupported by any official authority. It is a mere matter of custom.

The Colleges, or the councils elected to manage the affairs of the Colleges, have hitherto treated the question with sublime indifference; have left those who elect them without help or guidance; and it is to our Association alone, and to its Branches, that our members can look for any aid in case of doubt or difficulty. Happily, all the machinery is prepared by our constitution for the settlement of this or any other question of medical ethics or etiquette. London, Edinburgh, and Dublin are fully represented in the Association, while in the provinces there are district Branches sufficiently near to avoid any error in the appreciation of local conditions. The Shropshire Ethical Branch has issued a "tariff" for consideration, and for the guidance of general practitioners, as distinguished from consultants; and, as the best mode of arriving at a more general acceptance of some such scale of fees for general practitioners, and a more uniform scale for consulting physicians and operating surgeons, the Branch sent copies of the tariff to the presidents of the Colleges in England, Scotland, and Ireland, for submission to the respective councils. The result is, that nothing can be expected of the Colleges, and that we must trust to *ourselves*.

It is certainly high time that each of our Branches and the United Association should enter upon this important question. If it be so difficult that the College councils are anxious to shirk responsibility, so much the stronger is the reason why individual members should not be left without guidance to their own resources. If it be impossible to construct, as all must allow, an *uniform* scale of fees for all members of a College, for consulting and family practitioners, for town and country, for seniors and juniors, and for rich and poor patients; if it be also very difficult to define how variations in any scale of fees can be admitted with perfect justice,—the answer is, that difficulties are better met by conjoint than by individual action. No practitioner can be, or ought to be, indifferent to fair and just reward for honourable service; and it would be extremely convenient if he could point to some authoritative schedule to meet any question of excessive or inconsistent demand upon a patient, or any attempt to lower the standard of professional remuneration in any town or district.

Beginning with London, and with consulting physicians and operating surgeons, here it is certainly high time that several modifications of time-honoured custom which have of late years been more or less generally accepted should be fully considered and made known. A double fee for first visits of patients at the residence of the consultant; for any visit out of his own house, or beyond some fixed distance from it; for visits within a suburban radius of ten miles, as distinguished from larger railway journeys; for time detained in the country, or at a patient's house, or in law courts,—are all subjects equally important both to surgeon and to physician. To the surgeon, the fees for operations, for those who administer anæsthetics and otherwise assist at the operation, and for the attendance after operation, are now left very much to the judgment of individuals. There is a sort of loose understanding that, for the great capital operations attended with risk to life (ovariotomy, lithotomy, the greater amputations and resections), one hundred guineas is a proper average fee; while half that fee is sufficient for herniotomy, removal of a breast, ligature of an artery, or a minor amputation. Ophthalmic surgeons have made one hundred guineas the usual fee for extracting a cataract, fifty for iridectomy, twenty-five for strabismus, and so on, with more or less variation, according to the standing of the surgeon and the means of the patient. But there is nothing like any general accord as to the fees for assistants, or for attendance after operation. The utmost diversity obtains in these details, to the embarrassment of practitioners and the bewilderment of the public. It is high time that something like a general settlement should be arrived at; and we commend the attempt to the consideration of each of our Branches, as preliminary to a general debate of the whole Association—the Medical Parliament.

I am, sir, yours faithfully, F.R.C.S.

## CORONERS' FEES AND ARMY SURGEONS.

SIR,—I beg you will do me the favour of publishing the following facts. On January 2nd, I had to attend and give evidence in the case of a soldier, who had met his death in a sudden manner. The distance I had to go was over a mile. Everything went on smoothly, and the coroner, some days afterwards, called on me very kindly, and paid me my fee of £1 1s. The coroner, by the bye, is a lawyer. In the *Dover Telegraph* of the 3rd instant, I see that the Town Council has disallowed the fee, and ordered it to be deducted from the coroner's expenses. Is this either just or legal? Does it not show a spirit of meanness? Surely, as a medical man holding three English diplomas, I am as worthy of my hire as any other labourer in the profession. I lost a whole afternoon through the inquest. I may add, that the man met his death out of hospital. Supposing that the man had died in hospital, and a fee had been refused to me, accompanied by the statement, that I was not entitled to one, because the hospital was a public one (I have heard of this answer being given to an army surgeon), I would say it is not a public hospital, as the sick soldiers themselves are all under stoppages, and, to a *very great* extent, pay towards the hospital expenses. The question is a very important one, not only for army medical officers, but for all members of our profession. If a civil surgeon had seen the man first, his fee would have been allowed, and why should not mine? Of course, as in India, where Courts of Inquests are held by military officers, I should not be entitled to a fee; but, in this case, I had to attend and give evidence by order of the coroner; I had to walk more than a mile to the Court, and wait of course some time before I was called upon to give my evidence. The coroner, who I believe has held office for some years, and is a lawyer, gives me a fee; the Dover Town Council repudiates the coroner's act. Can you tell me if the council or coroner be right?

Your obedient servant, JOHN G. RANDALL,
Dover, Feb. 6th, 1875. L.R.C.P.Lond., Surgeon, A.M.D.

## THE CONTAGIOUS DISEASES ACTS.

SIR,—As Dr. Parkes challenges me by name to reply to his articles, I accept the challenge, and will first take his letter of December 19th, 1874.

*Decrease of Disease before the Acts acknowledged by Dr. Parkes, and his Explanation.*—He himself acknowledges without reserve the great fall in disease before the Acts came into operation; and he attributes it to the reduction of numbers in the Army, by which means the bad rowdy men were got rid of, and the moral character of the Army was, therefore, improved by the removal of a bad element. I have not the slightest disposition to quarrel with him on this point. I attributed the reduction of disease to the elevation of the Army, morally and physically, by the introduction of various new moral and sanitary agencies, "and by others" not specified. He specifies one of the "others" as the chief agent; viz., the removal of a bad element from the Army, by which its general character was left in a higher state than before. I accept his aid cheerfully in showing that it was not the Acts, but the improved character of the soldiers, which caused the great reduction in venereal diseases before the Acts were passed.

*Increase of Disease subsequent to the Acts acknowledged by Dr. Parkes, and his Explanation.*—Dr. Parkes attributes the rise in disease subsequent to the Acts to the increase of the Army in consequence of the German war, which caused the admission of numerous recruits, who always bring an increase of disease, owing to their running riot for a time after their enlistment; and he gives his first table in his December letter to illustrate this. If he will take the trouble to work out the figures, he will find that, of the seven years from 1866 to 1872 inclusive, given in his table, there is only one year—viz., 1869—which corresponds even approximately with his explanation; and, in his table in his letter of January 23rd of this year, there is no relation whatever between the amount of disease and the number of new recruits. So far, therefore, as his own figures go, they fail to afford any proof of his theory; and the opponents of the Acts are still left to attribute the increase of disease to the belief of the soldiers and sailors "that the

Acts were passed to supply them with clean girls". (Report of Royal Commission, sec. 55.)

*Failure of the Acts in Gonorrhœa.*—If I wished for a short and conclusive statement on this head, I should turn to Dr. Parkes's first table, December 19th, 1874, from which I learn that gonorrhœa fell in a steady unbroken course from 149.4 per 1,000 in 1859 to 8.4 per 1,000 in 1866—*i. e.*, more than one-third, in the entire Army, before the Acts were passed; whilst the ratio rose immediately and rapidly during the next three years following the Acts, and is higher at the present time than it was before the Act was passed, the average of the last six years being nearly a twelfth higher than before the Act was passed; so that, whilst gonorrhœa fell steadily above one-third in eight years before the Act, it has risen nearly one-twelfth since it was passed.

*Fall in Primary Venereal Sores.*—It is impossible at present to arrive at a conclusion as to the amount of the disease in the various stations before and since the Acts were in operation (and therefore to judge of their influence), in consequence of the absence of the necessary information in the Army Health Reports for 1860 to 1864. The fatal objections to clubbing "the stations under the Acts" together, and "those not under the Acts", are fully shown in my "statement" to the Home Secretary; and, as those objections have not yet been answered, it is useless to discuss the question on that basis. In the JOURNAL of November 28th, 1874, you, in turn, objected to the mode of comparing them which I had adopted in the "statement", which showed a result against the protected stations, instead of in their favour. The only method that I can now see, which is not open to objection on one side or the other, is to take each of the stations separately, and compare the ratios of disease in it before the Act was in operation in it with the ratios afterwards; and this plan I am engaged in carrying out. In order to obtain the necessary authentic information for the years 1860, '61, '62, and '63, which is not contained in the Army Reports, I have applied to the War Office; and I will pledge myself to furnish you with the results, whether favourable or unfavourable.

*Dr. Parkes's last Letter: Experience of the Royal Engineers at Chatham.*—I might decline to take any notice of this, as it is again unauthenticated information obtained from a private source, which I can neither check nor verify; but I will not decline his challenge on this ground. Now, what does his table show? First, that primary syphilis was reduced in six years above 33 per 1,000, or one-third of its whole amount, in the regiment, before the Acts were in force; and that gonorrhœa also was reduced 57.6 per 1,000, or rather more than one-third, in the same period. Then comes a period of three years in which a new sanitary agency—viz., the Contagious Diseases Act—is in *partial* operation; and what is its effect? Primary syphilis immediately rises 8 per 1,000; next year, it rises 16 per 1,000 more; and, although there was a fall the last year, the average of the three years is 7 per 1,000 higher than before the new sanitary agent was introduced. Gonorrhœa also rose slightly the first year; the next year, it rose 30 per 1,000 more; and the average of the three years in this disease also was 14 per 1,000 higher than before the partial operation of the Acts. If the Acts are to claim the credit of reduction of disease, they must also bear the blame of increase, when they are thus invoked by their friends.

But, lastly, the Acts are in *full* operation for five years; and with what result? The first year, the ratio of primary syphilis fell from 63 to 44 per 1,000—surely a most satisfactory proof of the beneficial sanitary effect of the Acts. But the next year it rose to 71, and the following year to 76, per 1,000; that is, 13 per 1,000 higher than before the Act was in full operation. Now, again, if the Act is to have the credit of reducing disease, it must bear the blame of increasing it; for it is the veriest begging the question to say that, when there is an improvement, it is due to the sanitary operation of the Acts, but, when there is an increase of disease, it is owing to something else, and the Acts have nothing to do with it. But at length, in the fourth year, the ratio begins to fall again, and continues to do so in the fifth year, at the end of which the ratio still remained higher than at the end of the first year of the full operation of the Acts. No wonder, then, that a new agency should be thought necessary, when three years of partial operation had resulted in an increased average of disease, and four years of full operation had left disease higher than it found it. And so now the War Office issued an order imposing a penalty on men who were diseased, and disease now suddenly drops down nearly one-half. It is to the credit of Dr. Parkes's candour, and it raises the discussion above a mere party contest, that he does not hide this new preventive agency, but candidly acknowledges that this sudden drop from 44.6 to 23.7 per 1,000 "may be due to concealment of disease, and may be an apparent and not a real diminution of disease", though "this is a point upon which he has no means of judging".

This new Army regulation introduces, however, a new and most important element into the discussion, and will prevent any fair comparison between the sanitary state of the Army previously to the middle of 1873 (the date of the new regulation) and subsequently to that period. For the new regulation shows that the Acts are no longer relied upon by the Army authorities, unless they are backed up by punishment upon the men, which form no part of the enactments in the Acts. And the changes of disease in the Army from the middle of 1873 must be attributed, not to the Acts for reducing disease amongst the women, and therefore indirectly amongst the men, but to the Acts *plus* direct penalties upon men when they contract disease. Indefinite concealment of disease must henceforth be looked for, and an apparent reduction to a deceptive extent, that is simply incapable of estimation.

And now, what is the total of this matter? Primary syphilis had fallen before the Act from 108.3 to 74.8 per 1,000, or one-third of its amount in six years, *i. e.*, above 5 per 1,000 yearly. After three years of partial, and five years of full, operation of the Acts, the average of the last five years* (the most favourable period) is 58.7 per 1,000, or a fall in eight years of only 16 per 1,000, *i. e.*, only 2 per 1,000 yearly below the point to which disease had fallen before the Act was introduced, or 34.5 per 1,000 below the average of the six years not under the Acts.

In gonorrhœa, the results are not more favourable; for, under the partial operation of the Act for three years, the average rose considerably above the point to which it had fallen before the Act was in force; though, in the five years of full operation, the average was 25 per 1,000 below that point. That is to say, in six years not under the Acts, this disease fell 57 per 1,000; and in eight years under their more or less complete operation it fell only 25 per 1,000, *i. e.*, nearly 10 per 1,000 yearly before the Acts, and only 3 per 1,000 yearly under them.

Dr. Parkes concludes his letter as follows: "I would now ask Dr. Nevins to look at all the Army statistics, and say what more is wanted to prove to him that these Acts have conferred a most signal benefit upon the Army and the country which pays it." I have done so, and will give him the result, not from isolated regiments of my own choosing, and statistics which he cannot check, but from the Army and Navy official reports.

*Army: Home*—

Admissions for syphilis and gonorrhœa per 1,000 in 1861 ... 262.09
,, ,, ,, 1866 ... 200.35

61.64

That is, a fall of 61.64 per 1,000 in six years, or 10.3 *per annum*.

Admissions for syphilis and gonorrhœa per 1,000 in 1866 ... 200.35
,, ,, (after the Acts) in 1872 ... 191.95

8.40

That is, a fall of 8.4 per 1,000 in six years, or 1.4 *per annum* instead of 10.3.

Secondary syphilis, the only real proof of any important disease amongst what are vaguely called "primary venereal sores", has increased since the Act. In 1866, it was 23.39 per 1,000; in 1872, it was 24.26 per 1,000.

Invaliding also has risen from 1 per 10,000 in 1866 to 1.55 in 1872.

*Navy: Home Station.*—The admissions per 1,000 for syphilis and gonorrhœa have risen from 89.5 in 1866 to 126.7 in 1872, a rise of nearly one-half in six years; the constantly sick have risen from 8.6 to 9.6; the invalided have more than doubled—*i. e.*, 1.03 per 1,000 in 1866, and 2.22 per 1,000 in 1872.

In the *Mediterranean Station*, including Malta, Gibraltar, and the Piræus, gonorrhœa has doubled; and primary syphilis has nearly doubled since 1866.

Before the Acts, both syphilis and gonorrhœa were rapidly and steadily on the decline; the "syphilitic group" (*i. e.*, primary, secondary, and bubo, see Army Report, 1861, page 11) had fallen, without a break, from 209.8 per 1,000 in 1861 to 136.9 in 1866, or one-third. The "gonorrhœal group" (*i. e.*, gonorrhœa, swelled testicle, and stricture) had fallen, in the same period, from 144 per 1,000 to 119, or one-sixth. The constantly sick in the syphilitic group fell from 15.95 in 1861 to 10.67 in 1866, or one-third; and in the gonorrhœal group from 7.5 to 5.4, or nearly one-third also. I am not able to compare these figures with the state of things in 1872, because secondary syphilis and bubo are excluded from the table in the Army Report for 1872, page 10; but that table shows that the constantly sick from primary syphilis had only fallen from 5.09 in 1868 to 4.56 in 1872; or a fall of only one-twelfth in five years since the Acts, instead of a fall of one-third in six years before the Acts; or one-sixtieth *per annum* instead of one-eighteenth.

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* I have left the sixth year out of consideration, because the introduction of penalties upon diseased soldiers introduces a new agent, that invalidates all inferences after its adoption.

And now, I ask Dr. Parkes, in his own words, "to look at *all* the Army statistics", and I must add the Navy statistics also, and the Metropolitan Police statistics, about the increase of disease and mortality amongst the registered prostitutes, and say what proof the Acts can show of reduction of disease superior, or even approaching, to what was taking place before their introduction. Gonorrhœa increased; secondary syphilis increased; invaliding increased; primary syphilis nearly doubled in the Mediterranean, and checked in its fall at home; and the reduction in the constantly sick also checked in its fall. And all this since 1866, the date of the beneficent and salutary Contagious Diseases Acts.—I am, Sir, yours faithfully,

J. Birkbeck Nevins, M.D.Lond.

Liverpool, January 30th, 1875.

# ASSOCIATION INTELLIGENCE.

## NORTH WALES BRANCH.

The intermediate meeting of this Branch will be held at the Castle Hotel, Conway, on Tuesday, February 16th, at 12.30 p.m.; Thos. E. Jones, Esq., President, in the Chair.

Dinner at 3.30 p.m.

T. Eyton Jones, *Honorary Secretary, pro tem.*

Wrexham, January 19th, 1875.

## BATH AND BRISTOL BRANCH.

The fourth ordinary meeting of this Branch will be held at the York House, Bath, on Thursday, February 18th, at 7.15 p.m.; F. Mason, Esq., President.

R. S. Fowler,
E. C. Board, } *Honorary Secretaries.*

Bath, February 1st, 1875.

## SOUTHERN BRANCH: EAST DORSET DISTRICT.

A general meeting of this District will be held at the London Hotel, Poole, on Thursday, February 18th, at 1.30 p.m.; H. D. Ellis, Esq., President, in the Chair.

*Business.*—1. To promote combined action with the Bournemouth and West Dorset Districts.

2. To elect officers for the present year.

3. To appoint the number, places, and times of meetings during the year, and the amount of annual subscription.

Dinner at 4 p.m., at the London Hotel; charge, 5s., exclusive of wine.

C. H. Watts Parkinson, *Hon. Sec.*

Wimborne, January 31st, 1875.

## METROPOLITAN COUNTIES BRANCH.

An ordinary meeting of this Branch will be held at the rooms of the Medical Society of London, 11, Chandos Street, Cavendish Square, on Friday, February 19th, at 8 p.m., when Dr. Lockhart Clarke, F.R.S., will read a paper on Cases of Paralysis.

Alexander Henry,
Robert Farquharson, } *Hon. Secretaries.*

February 1st, 1875.

# PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

## ENTERIC FEVER AND MILK-INFECTION.

Milk is reported to have been the vehicle by means of which another outbreak of enteric fever has been caused. According to a report presented by Dr. G. C. Pirie to the Dundee Police Commissioners, it appears hat, at the latter end of October last, a limited, but somewhat severe and fatal, outbreak of this disease appeared in Dundee. Some of those attacked were well-to-do persons, others were poor; they all used the general town water-supply from Monikie, against which no suspicion can well be raised; and, though in some of the houses affected means were found by which foul and sewer-air could enter the dwellings, yet this condition was evidently not sufficiently uniform to account for an epidemic which had occurred suddenly in one single district of he town. There was, however, one circumstance in common to all he patients; they all procured their milk-supply from the same dairy, and, on inquiry, it was found that, between the months of August and December, four of the persons residing in the dairy had suffered from enteric fever. The milk-store opened into the apartment used by the sick during the earlier attacks; but it was not until a fortnight after this arrangement had been discontinued that the general outbreak commenced; and, from this circumstance, viewed in connection with some previous experience, we may perhaps infer that the contagium of this disease is not, as a rule, easily transmitted to milk by means of the atmosphere of the sick room. The contents of the well, which was in general use for all dairy purposes, was submitted to chemical analysis, and it was found to be contaminated with the "products of decomposing organic matter of the nature of sewage". This water had, however, long been in use, and, with a view of explaining how the specific infection of enteric fever can have gained access to it, Dr. Pirie points out that, though the soil around the well had for an indefinite period been fouled by soakage from dung-heaps in its immediate neighbourhood, it was not until about October last that the fæcal evacuations of the sick, which had been thrown upon these dung-heaps, could have been carried by percolation into the soil surrounding the well. Up to the date of the report, at least nineteen persons had been attacked, and four had died. The well was immediately closed, and it is to be hoped that this step, associated with other precautionary measures, will stamp out the disease. It would have been interesting if, in addition to the above information, the report had stated the number of persons or of families using this milk, and the proportion of them attacked with the disease.

## ENTERIC FEVER AT NEWQUAY, CORNWALL.

In presenting his annual report on the sanitary condition of Newquay to the urban authority, Mr. W. Moorman gives an account of a severe outbreak of enteric fever, which had resulted in upwards of fifty attacks among the residents of that watering place, in addition to others which had appeared amongst visitors, and which had become developed in distant parts of the country. The disease first manifested itself in the families of two washerwomen, who had been washing the soiled bed-linen of persons suffering from "fever". The exact type of the fever under which these persons were labouring appears unfortunately to have been somewhat doubtful; on the one hand, it is alleged to have been scarlet fever, and, on the other, it is stated that there are good grounds for believing it to have been enteric fever. If the latter supposition be correct, the outbreak is interesting, as affording another instance of the propagation of enteric fever by means of linen soiled with the specifically diseased evacuations of a previous patient. But, if the bed-linen had in reality been used and soiled by scarlet fever patients, and it had subsequently been the means of conveying and distributing enteric fever, it can only have done so in the manner in which ordinary excreta, in common with organic matters, and especially sewage in a state of decomposition, are believed to be capable of developing the contagium of this fever by those who hold the pythogenic theory of its origin. To discuss the subject would be to open up the whole dispute between those who contend that enteric fever, like small-pox, is maintained solely by self-propagation, and those who maintain that there is evidence to show that the disease can arise without the necessity of an antecedent case. In this instance, however, there appear certain grounds for believing that the outbreak was due to importation, and that it was not an instance of spontaneous generation.

## WATER-CLOSETS IN DUNDEE.

A lengthened discussion took place at a recent meeting of the Dundee Police Commission, as to whether plans for building should be sanctioned, in which the water-closets were so situated that they could not be efficiently ventilated and lighted. It appears, that in Dundee, water-closets are at times situated within a foot or two of the beds in which people sleep, and that they also occupy the centre of dwellings. When it is remembered that every water-closet is provided with a pipe which enables sewer-air to pass up to the water-trapping, it must be obvious that such situations as those referred to are eminently unfitted for these closets. Light to insure perfect cleanliness, and efficient ventilation to prevent foul air from entering the houses, are conditions essential to a properly constructed water-closet; and wherever it is possible the closet should be separated from the house by a lobby which is provided with cross ventilation by means of windows.

Vaccination.—Mr. Edward Marshall of Mitcham has received £14 11s. as his fourth gratuity from the Local Government Board as Public Vaccinator.

## REGISTRATION OF DEATH.

SIR,—A case occurred a few days since which shows a great defect in the law of death-registration, if it have been correctly laid down for my information. I received a parish order to visit a poor woman who was said to be vomiting blood: the order was dated 5.45 P.M. I was told she had been doing so very frequently, and, as I saw, very profusely, ever since the woman who was with her had arrived, which was at twelve at noon on the same day. No information could be obtained as to how much longer it had been going on. Directions were given to send directly to my house, which was not three hundred yards distant, for medicines. This was not done for an hour. I heard nothing more till the next morning, when I was told, on calling, that the hæmorrhage, which had ceased when I saw her, had returned some time after I had left, and that she had died before nine the same evening, having had something like a fit.

The following morning, the nurse came for a certificate of the death, which I refused, believing that the woman had not been sufficiently attended to, and that an inquest or inquiry of some sort was necessary. Hearing nothing from the Registrar or Coroner for three days, I called on the former, and found that the death had been registered without any certificate from me. The Registrar had called on the Coroner, and had given him the version of the tale which he had received from the nurse, without thinking it necessary to obtain any verification of it. On expostulating with him, he informed me that it was in no way his duty to pay any visit to the locality of the death, and that he was under a penalty not to refuse to register any death of which he received information. Surely here must be some mistake. I understood him to say that it was not a part of his duty to acquaint the Coroner with the circumstances of a doubtful death. Believing that registration could not be effected without either a certificate or an inquiry why one was not given, I had myself taken no steps in the matter, expecting to hear from one or other of the two officers. But is it necessary that medical men should do this? I can see a good reason (here, at least) why they should not. And is not an inquest as necessary in a case of neglect as in one of poison or suicide? INCERTUS.

# MILITARY AND NAVAL MEDICAL SERVICES.

IT is rumoured, says the *Army and Navy Gazette*, in well-informed circles, that a new Army Hospital Corps Warrant will become necessary, owing to the very general objection on the part of medical officers to the reimposition upon them of the charge of stores and equipment, from which they were relieved upon the recommendation of the late Lord Herbert's Committee, in order that they might have more time to devote to the higher duties of the profession.

ARMY MEDICAL SERVICE.—The following medical candidates were successful at both the London and Netley examinations, having passed through a course of instruction at the Army Medical School, Netley, February 1875.

| | | |
|---|---|---|
| 1. | Harrison, C. E. | 5645 |
| 2. | Wellings, B. W. | 5175 |
| 3. | Forrester, J. S. | 4095 |
| 4. | Smith, R. | 4035 |
| 5. | Trevor, F. W. | 3955 |
| 6. | Mullane, T. | 3948 |
| 7. | Scott, H. | 3785 |
| 8. | Campbell, W. | 3755 |
| 9. | Gardner, R. H. | 3680 |
| 10. | M'Gann, J. | 3678 |
| 11. | Powell, J. | 3660 |
| 12. | Carter, S. H. | 3490 |
| 13. | May, W. A. | 3447 |
| 14. | Bourke, G. D. | 3427 |
| 15. | Gardner, H. G. | 3367 |
| 16. | Hoysted, J. | 2996 |

NAVAL MEDICAL SERVICE.—The following medical candidates were successful at both the London and Netley examinations, having passed through a course of instruction at the Army Medical School, Netley, February 1875.

| | | |
|---|---|---|
| 1. | O'Connor, D. W. | 4113 |
| 2. | Russell, A. W. | 3595 |
| 3. | O'Callaghan, J. | 3467 |
| 4. | Breton, W. E. | 3215 |
| 5. | Bourke, M. E. | 2717 |
| 6. | Whately, G. F. | 2447 |

MOVEMENTS OF ARMY MEDICAL OFFICERS.—Surgeon-Major W. A. Smith, M.D., in medical charge, 2nd Regiment Light Cavalry, has obtained leave, on furlough and medical certificate, to Europe for two years.—Surgeon J. Lloyd has obtained leave to Europe, on furlough and medical certificate, in anticipation of the furlough which will be granted to him by the government of his own Presidency.—Surgeon-Major G. B. F. Arden, who is at home on leave from Bermuda, has been posted for duty to the 68th brigade Department at Galway.—Surgeon Owen has resumed his duty with the 50th Regiment.—Surgeon W. G. Routtledge has been ordered to do duty with the 2nd Battalion 21st Fusiliers at Aldershot, until further orders.

## THE PRINCIPAL CIVIL MEDICAL OFFICER IN CEYLON.

THE very important post of principal civil medical officer in Ceylon, which has been vacant for some time, has been lately filled up by the appointment thereto of Dr. William Raymond Kynsey, Surgeon, Army Medical Department, now on the staff of the Royal Victoria Hospital, Netley, and one of the members of the British Medical Association. Dr. Kynsey joined the Army Medical Department in 1863, and reference to the Blue Book of that year shows that he was placed within one of the head of the list of a very large number of competitors. He has since served with distinction in Ceylon, the field of his future labours, and lately on the Gold Coast during the Ashanti campaign, having accompanied the 42nd Highlanders on the march into the interior, and was present at the capture and destruction of Coomassie. Dr. Kynsey has shared in common with the other medical officers who were present during the late campaign on the Gold Coast the non-bestowal of the honours and rewards liberally showered on their more fortunate, so-called, "combatant", brother officers for living through this so aptly named "doctors' war", and it is, therefore, with real pleasure we find the merits of one, at least, of these medical officers, recognised and rewarded even in this very indirect manner. The importance of this post will be understood when we remember that Ceylon is an island nearly as large as Ireland, with a population of over 2,000,000. The post of chief adviser to the Colonial Government in all things sanitary and medical is, therefore, one of great responsibility, and we believe that Lord Carnarvon has acted most wisely in choosing one who possesses at the same time the special hygienic knowledge so well taught at the army medical school and duly acted on in the army, and the practical experience in tropical diseases, acquired only by serving in the countries in which they are endemic. Dr. Kynsey is fortunate in being adviser to a gentleman of such exceptional ability as Mr. Gregory, the present Governor of Ceylon, for we too often find that, while the needful advice in sanitary matters is to be had, the representatives of Government are either incapable of appreciating its value, or too careless to carry out the necessary measures.

## SOME PRACTICAL GRIEVANCES OF MEDICAL OFFICERS ATTACHED TO REGIMENTS.

A CORRESPONDENT, at present stationed in South Africa, calls our attention to several practical grievances which result from the views taken regarding the position and claims of army medical officers attached to regiments. These grievances, which press especially upon married officers with families, he thinks have not been sufficiently noticed.

In the first place, a discrepancy between the *Army Circular* of March 1st, 1873, and that of August 1st, 1870, on the subject of the issue of fuel and light, leads to a considerable loss to the medical officer who has attained to the relative rank of a lieutenant-colonel. The former circular states that relative rank shall regulate choice of quarters, rates of lodging money, fuel and light, etc.; but the latter circular only provides for one lieutenant-colonel in a regiment; viz., the lieutenant-colonel commanding. A second lieutenant-colonel in a regiment, whether holding that rank by brevet or otherwise, gets only the allowances of a major or "field officer". A medical officer who has gained by promotion the relative rank of a lieutenant-colonel, though only *attached* to a regiment, at once becomes classed as a regimental officer, and, from being placed in the regimental list, gets no more allowance of fuel and light than he did before his promotion when ranking as a major. The injustice of this rule is all the more marked, because another surgeon-major of the same relative rank, if not attached to a regiment, draws the allowances laid down for a lieutenant-colonel. The difference represents a considerable sum of money in the course of a year, and is one of no little importance to a medical officer with a family. There can be no doubt that this grievance is a real one. It arises from an anomaly to which attention has been frequently called in our columns, and which ought to be swept away. The Control authorities consider the medical officers of the Army sometimes as regimental officers, sometimes as staff or departmental officers, just as a saving of money will be effected by one or other view. A rule ought to be laid down once for all, defining the exact position of the army medical officers in regard to all rates of allowances, and the officers should be so classified, that no double interpretation could be possibly admitted with regard to the emoluments to which their various ranks entitle them.

Another practical grievance to which our correspondent invites our attention is, that, while the Army regulations lay down the rule that "relative rank shall carry all precedence and advantages attaching to the corresponding military rank", with the exception of military command, and while the authorities persist in regarding a medical officer attached to a regiment as a regimental officer, and consequently compel him to join in every regimental expense, yet his title to the precedence due to his relative rank is systematically ignored, exen in the smallest particulars. When it suits a purpose, he is a regimental officer; when it does not suit for him to be so, he is no longer a member of the corps. No position is assigned to him at mess entertainments, no reference is made to him in regimental matters, yet he must contribute to the expenses of the regimental band and mess, and join in all other regimental outlay, according to his rank. Civilian guests are especially at a loss to understand the position of an officer whom they see wearing the uniform of a regiment, with the lace and other distinguishing marks of a major or lieutenant-colonel, and yet without any place being assigned to him among his brother officers. Were the medical officer, our correspondent remarks, to be recognised as a departmental officer, and to wear a departmental uniform, the distinction between him and the other officers would be better appreciated, and the anomaly to some extent removed. Still the negation of all position and precedence must remain a source of mortification, especially while the medical officer is compelled to contribute so largely as he is at present required to do to regimental expenses. Our correspondent suggests that medical officers attached to regiments should be honorary members of the regimental messes, on the same basis as all other honorary members of corps and departments whose officers it is customary to make honorary members of military messes. He shows that the expenses in a regiment are much greater than they are generally supposed to be, and that, though some of the contributions and subscriptions included in them are stated to be voluntary, they are really only nominally so; for no one can refrain from complying with the usages of the Service, and joining in what the other officers with whom he is associated do in these respects, without exposing himself to an amount of contumely which few who value the esteem and good opinion of others will dare to incur. We have frequently remarked on the incongruity and unfairness of regulations, or customs, by whatever name they may be called, through which, on the one hand, a medical officer is disowned as a member of a regiment in all that touches his *amour propre* and self-respect; but, on the other hand, is fully acknowledged to be such in all matters that touch his pocket; and we can only now express our astonishment that such a disregard of common justice is permitted to continue. Obviously, the medical officer should either cease to pay to support the regimental *prestige* and credit, or, if compelled to pay, he should have the same voice in its affairs as any other officer, and should enjoy all the precedence and privileges due to his particular rank in the Service.

We have so recently commented upon some of the other grievances which our correspondent mentions in his communication, that we think it unnecessary to advert to them in the present remarks.

## THE NEW NAVAL MEDICAL WARRANT.

THE following Order in Council has been issued.

At the Court at Osborne House, Isle of Wight, the 4th day of February, 1875. Present: The Queen's Most Excellent Majesty in Council.

Whereas there was this day read at the Board a memorial from the Right Honourable the Lords Commissioners of the Admiralty, dated the 1st of February 1875, in the words following:

"Whereas we have had under our consideration the position of the medical officers of your Majesty's Navy, and whereas we are of opinion that it will be for the benefit of your Majesty's service that the following regulations shall be established, we beg to submit them most humbly for your Majesty's approval:

"1. That surgeons on entry shall have the same relative rank as paymasters, chief engineers, and naval instructors—namely, shall rank with lieutenants under eight years seniority, and shall have uniform corresponding to such relative rank.

"2. That staff-surgeons shall be denominated 'fleet-surgeons', and staff-surgeons second class, simply staff-surgeons; the distinction in rank between these two grades to be denoted by a small difference in the uniform.

"3. That inspectors-general shall be compulsorily retired at the age of sixty on £2 per day, provided they shall have completed the period of service now required to entitle them to the maximum half-pay of their rank.

"4. That deputy inspectors-general shall be compulsorily retired at sixty, if in the first six of their rank, at 33s. per day, others at 30s. per diem, provided that they shall have completed the period of service now required to entitle them to the maximum half-pay of their rank.

"5. That fleet-surgeons and staff surgeons shall be placed on the same scale of retirement as chaplains and naval instructors, secretaries, paymasters; that is, the maximum to be £450 per year instead of £400.

"6. That any fleet-surgeon shall have the option of retiring after twenty years' full pay service in all ranks at 15s. per day, and after twenty-five years' service at 21s., subject in each case to our approval; but that of those now on the list, no more than ten shall retire under this clause in each year (the officers having the option according to seniority) unless we should approve (with the consent of the Lords Commissioners of your Majesty's Treasury), of a large number so retiring.

"7. That of the medical officers to be hereafter entered, all shall have the option of so retiring, subject to our approval in each case; and we beg leave to represent to your Majesty that the Lords Commissioners of your Majesty's Treasury have signified their concurrence in the proposed arrangements."

Her Majesty having taken the said memorial into consideration, was pleased, by and with the advice of her Privy Council, to approve of what is therein proposed. And the Right Honourable the Lords Commissioners of the Admiralty are to give the necessary directions herein accordingly.

ARTHUR HELPS.

## THE ARMY MEDICAL SERVICE.

SIR,—I think it must be admitted that the first effort of the department to unify itself is rather a failure. Concession after concession is an admission that there was something impracticable in the early attempt. As all seem to agree that the regimental hospital is unsuitable to time of war, I doubt whether the authorities are prepared to recommend the restoration of the medical officers to regiments on their former footing, as suggested by Surgeon-General Mouat in his excellent pamphlet. If they be not fully prepared to endorse his recommendations, I would suggest that the brigade-system as regards hospitals should be the unit on which to organise and distribute the medical department. Although I propose to attach two surgeons to each regiment of infantry and cavalry, I would not restore the surgeon-major to a regimental position. Wherever there is a hospital (call it "station hospital" in small garrisons; "brigade hospital" in larger garrisons; and where there is a "general hospital", subdivide it by brigades), I would locate a surgeon-major. I do not think the admixture of sick should take place to a greater extent than by brigades. This would get over a difficulty which now exists in large hospitals of mixing up infantry, cavalry, artillery, and departmental corps. It would further facilitate the visiting of corps by brigadier-generals, regimental officers, and officers commanding or belonging to corps; and mitigate the complaint now made by these officers that "they cannot find their own men". The surgeon-major in charge should be assisted in the treatment of the sick by one of the regimental surgeons of each regiment. The other regimental surgeon would perform the duties appertaining to the regiment. A brigade staff of warrant and non-commissioned officers of the Army Hospital Corps should, with *and under* the surgeon-major, form the permanent staff of the hospital. The orderlies should be regimental. Whatever dress be decided on, medical officers, warrant and non-commissioned officers, and orderlies, should wear a distinguishing badge; and none yet designed is, in my opinion, more suitable than the Geneva cross.

I am, etc., SURGEON-MAJOR.

# OBITUARY.

## ALEXANDER McFIE SMITH, M.D., GOVAN, GLASGOW.

THE village of Govan, which now constitutes the south-west suburb of Glasgow, has recently been deprived by death of two of its most important public men. The Rev. Dr. Leishman, father of Professor Leishman of Glasgow, after having fulfilled the duties of Parish Minister for upwards of fifty years, died at a ripe old age, beloved and respected by all his parishioners and the whole community. A week or two prior to his death, Dr. Smith, the medical man holding the most important practice, died after a short and rather obscure illness. Dr. Smith was a native of Glasgow, and pursued his studies in its medical school. After passing through a lengthened curriculum, and acting as resident clerk in the medical and surgical departments of the Royal Infirmary, he took the degree of M.D. in the University of St. Andrews in 1850, and the Diploma of Surgeon in Edinburgh. Soon after receiving his qualifications, by the advice of the late Dr. Lawrie of Glasgow, he commenced practice in Govan, and soon acquired the confidence of those around. Shortly after he settled there, the district around began to be developed in an unprecedented manner. The shipbuilding yards of Napier, Elder, and many others, drew round them an immense population of the mechanic class; while the fewing grounds of Ibrox towards the country were soon covered with villas, crescents, and terraces, in which many of the wealthy merchants and engineers, especially those having works on the south side of the town, resided. Dr. Smith's practice soon became both extensive and lucrative, and he was justly esteemed, both by his patients and professional brethren, for his great sagacity and his thoroughly upright and honourable conduct. Dr. Smith never applied for nor obtained any public appointment, but was received, not only as the medical attendant, but the confidential adviser of the families who placed themselves under his charge.

For some years past, Dr. Smith had not been in robust health, though no well defined disease was present. He was in the habit of leaving his practice in autumn, when many of the families in his neighbourhood were absent at country or coast. In these holidays, he frequently went abroad, and travelled in Switzerland, Italy, Norway, etc., and always came back invigorated by the change.

Five or six weeks before his death, he had a very violent attack of hemicrania and toothache, for which he had some decayed tooth-stumps removed by the advice of the surgeon he consulted. This produced a partial and temporary relief, so that he was able to go to the Island of Arran, where his family were residing. The pain returning, however, he came back to Glasgow, accompanied by his wife. Some chest-symptoms having been discovered by Dr. Gardner of Govan, who for the time was taking charge of his practice, Professor Gairdner was asked to see him, and, along with Dr. George Buchanan, visited him till the end. Rapid and unaccountable sinking soon came on, accompanied by pain in the head and general uneasiness. He could neither take opium nor stimulants. Two days before his death, an eruption, closely resembling that of typhoid fever, showed itself, and from that time he never rallied.

Dr. Smith, who was in comfortable circumstances, died in the prime of life, about 48 years of age, leaving a wife and five children.

### JOHN TROTTER, M.D., DURHAM.

AFTER a long and useful professional career, Dr. Trotter died lately at his residence in Old Elvet, Durham, at the advanced age of 79. The family of Trotter, according to Burke, "is of great antiquity in the county of Durham". So far back as the fourteenth century, the family were settled at Byers Green. The late Dr. Trotter was the eldest son of John Trotter, Esq., who, at the time of the threatenend French invasion of this country, raised and equipped at his own expense and commanded a troop of yeomanry. He was also Major-Commandant of the Darlington Volunteers, and lived to his 90th year. Dr. Trotter was married to Mariannie, eldest daughter of the late Rev. John Fawcett, M.A., of Newton Hall, near Durham, by whom he had a large family, the eldest of whom is Mr. John William Trotter, senior surgeon in the Coldstream Guards. Dr. Trotter chose the medical profession, and, in the year 1819, he became a graduate of Edinburgh University; after which he settled in Durham. His reputation stood very high as a physician. For upwards of half a century he was the principal member of the medical staff of the Durham Infirmary, subsequently the County Hospital, but, in July 1871, he resigned the position of physician, owing to his great age. On his retirement, the governors presented him with an illuminated address, expressing, in most feeling language their high respect and warm attachment, and their sentiments of gratitude, on their own part and on behalf of every supporter of the hospital, as well as of the afflicted whose sufferings he had mitigated and removed. In 1861, the University of Durham conferred upon him the honorary degree of M.D. In accordance with an expressed wish of the deceased, the funeral was of a private character, those present consisting, for the most part, of the members of Dr. Trotter's family, his professional brethren, and a number of the city tradesmen.

## MEDICO-PARLIAMENTARY.

### *HOUSE OF COMMONS.—Monday, February 8th*, 1875.

*The Factory System in India.*—Mr. ANDERSON asked the Under Secretary of State for India if he was aware that an extensive factory system was growing up in India, without any Government supervision for the protection and health of the women and children employed; whether his attention had been drawn to statements that these women and children are systematically worked for sixteen hours a day, and in many cases even including Sundays; and whether the Indian Government would adopt some such factory legislation as existed in this country for the prevention of such evils before they attained greater proportions.—Lord G. HAMILTON said that communications on the subject had been held with the Indian authorities. Major Moore, who was connected with the presidency of Bombay, in which the greater part of the women and children to whom the question referred were employed, had informed the Government that the hours of labour were long. A dispatch had been directed to the Governor of Bombay on the subject. Representations had been made to the Secretary of State for India respecting the evil effects of the present system, and the subject was receiving careful attention.

*Dwellings of the Working Classes.*—Mr. Secretary CROSS, in asking leave to introduce a Bill for facilitating the improvement of the dwellings of the working classes, explained that it was purely sanitary, and that he proposed to confine it in the first instance to the metropolis and the large towns of England. The authorities who would have to carry it out were the Corporation in the City of London, the Metropolitan Board of Works in the rest of the metropolis, and the town councils in the large towns. It would be put in motion by the medical officers of health, who would report to the authorities when a place was an unhealthy district. An improvement scheme would then be prepared and submitted to the Home Secretary, who, if he sanctioned it, would pass it as a provisionial order through Parliament, and to save expense. Powers would be given to acquire land, the value of which would be fixed by arbitration. The corporation or town council, however, were not to be the builders, but facilities would be given to private persons to supply the money required, and there was a large amount of floating capital which would be employed in this way but for the want of compulsory powers to acquire land. It was not intended to mix up the plan in any sense with the borough rate, from which it would be kept entirely separate.—Mr. KAY SHUTTLEWORTH expressed a hope that a sufficient time would elapse before the second reading for a consideration of its provisions. The whole measure seemed to depend on the action of the medical officers, and he trusted that they would be placed in a position of greater independence than that which they now occupied. With respect to the action of the local authorities, the right hon. gentleman had not stated what restrictions they would have the power of placing on those who might build on the sites provided under the Act.—Sir S. WATERLOW congratulated the right hon. gentleman on the measure which he had introduced. He feared that if the origination were to depend upon the medical officers, there must be some external power to stimulate them to action. He knew that in many large vestries and local bodies the members would exercise their power over the medical officers to prevent proceedings which would affect their pockets. —Mr. WADDY had doubts as to the wisdom of placing the origination of the work in the medical officers, as they were appointed by the vestries, who would desire to save money, even at the expense of the poor. If the work were to be done in any way by private effort, he was afraid that there would be more attention to the rate of dividend than the welfare of the poor. If the Bill did not contain within its "ambit" powers over existing dwellings (and that without altering their structure), a great part of the evil they wished to remedy would be untouched. He hoped to see a clause in the Bill by which every landlord should be compelled to provide proper water-supply and accommodation for every single tenancy in each building.—Mr. CROSS, after a few words in defence of medical officers, expressed a hope that the House would read the Bill a second time on Monday next, with the understanding that some little time would elapse before it went into committee.—Leave was then given to bring in the Bill.

*Universities of Scotland.*—Mr. COWPER-TEMPLE obtained leave to bring in a Bill to remove doubts as to the power of the Universities of Scotland to admit women as students, and to grant degrees to women.

*The Contagious Diseases Acts.*—Mr. H. RICHARD, in the absence of Sir H. Johnstone, obtained leave to bring in a Bill to repeal the Contagious Diseases Acts, 1864, 1866, 1868, and 1869.

*Labourers' Dwellings in Ireland.*—Mr. BRUEN obtained leave to bring in a Bill to encourage the erection and improvement of dwellings for agricultural labourers in Ireland.

*Coroners in Ireland.*—Mr. VANCE obtained leave to bring in a Bill to regulate the office of coroner in Ireland.

*Labourers' Dwellings in Scotland.*—Mr. FORDYCE obtained leave to bring in a Bill to facilitate the erection of labourers' cottages and farm-buildings in Scotland.

### *Tuesday, February 9th.*

*Lighting, Paving, and Cleansing of the Metropolis.*—Sir W. FRASER moved a resolution to the effect that the condition of the metropolis as regarded lighting, paving, and cleansing, demanded legislation.—After discussion, the motion was withdrawn, after Mr. Secretary CROSS had thrown out an invitation to the mover to arrange his ideas in the form of a Bill.

*Infanticide.*—Mr. CHARLEY brought in a Bill to amend the law relating to infanticide.

*Notices of Motion.*—The following notices have been given. Mr. Sclater-Booth: Bill for consolidating and amending the Acts relating to Public Health in England (Thursday, February 11th). Mr. Sclater-Booth: Bill to repeal the Adulteration of Food Acts, and to make better provision for the sale of Food and Drugs in a pure state (Friday, February 12th). Colonel Beresford: Bill for improving the Supply of Water to the Metropolis (Friday, March 5th).

# MEDICAL NEWS.

Royal College of Surgeons of England.—The following members of the College, having undergone the necessary examinations, were admitted Licentiates in Midwifery at a meeting of the Board, on February 4th.

Messrs. William Hardman, M.B. & C.M.Edin. and L.S.A., Blackpool, Lancashire, diploma of membership dated July 28th, 1870 (of University College and Middlesex Hospitals); George Herbert Lilley, Ware, Herts, May 20th, 1874 (of University College); George Albert Hamerton, L.S.A., Infirmary, Lambeth, July 23rd, 1874 (of St. Thomas's Hospital); and Charles Morgan Jones, Aberdare, South Wales, July 29th, 1874 (of St. Thomas's Hospital).

Two candidates having failed to acquit themselves to the satisfaction of the Board, were referred to their studies.

Queen's University in Ireland.—At the annual conferring of Degrees of this University, held in St. Patrick's Hall, Dublin Castle, on Wednesday, October 14th, 1874, Sir Dominic Corrigan, Bart., M.D., Vice-Chancellor, conferred the following Degrees in Medicine and Surgery. [The names of the successful candidates given in the lists at page 192 of the Journal for August 8th, were announced at the same time.]

Allen, James F. (C), M.D., C.M., Midwifery Diploma.
Balbirnie, Hugh de V. (B), M.D., C.M.
Beamish, Robert T., M.D. (C), C.M.
Blackall, John J. (C), M.D.
Browne, David Graham, B.A., M.D. (B), Midwifery Diploma.
Clapp, Albert J., M.D. (C), C.M.
Colthurst, Ludlow T., B.A. (C), M.D., Midwifery Diploma.
Campbell, Arthur R. (B), M.D. (Upper Pass Division).
Crofts, James, M.D. (C), C.M.
Daly, Maurice C., B.A. (C), M.D., C.M., Midwifery Diploma.
Drury, Richard J., B.A., M.D. (G), Midwifery Diploma.
Frazer, R. Johnson, B.A (G), M.D. (1st Honour Class), C.M., Midw. Dipl.
Graham, William (B), M.D.
Greany, John P., M.D. (C), C.M.
Guthrie, James (B), M.D.
Hamill, J. Wilson, M.D. (B), C.M., Midwifery Dipl.
Henry, Joseph (G), M.D. (2nd Honour Class).
Jennings, William (C), M.D., C.M., Midwifery Diploma.
Le Grand, William J. (C), M.D. (1st Honour Class), C.M., Midwifery Dipl.
Lyons, William J. B. (B), M.D.
McClure, Harry (B), M.D., C.M., Midwifery Diploma.
Marks, (Charles F. (G), M.D.
Martin, Samuel E., M.A. (B), M.D.
Neville, Thomas (C), M.D., C.M., Midwifery Diploma.
Parker, Joseph (B), M.D. (2nd Honour Class), C.M.
Planner, Charles J. (B), M.D. (1st Honour Class).
Pollock, Norman (B), M.D., C.M.
Ross, James (B), M.D.
Ryan, Michael R. (C), M.D., C.M.
Speer, William S. (B), M.D., C.M., Midwifery Diploma.
Tidbury, Robert, M.D. (C), C.M.
Warren, John M. (G,), M.D.

The following candidates were also reported as having passed the Second University Examination in Medicine, October 1874.

*First Honour Class:* Richard Francis Starkie (C), John Jagoe Welply (C), Arthur A Woods (B). *Second Honour Class:* Gilbert Kirker (B), Wm. M'Geagh (B) *Upper Pass Division:* Charles Henry Bennett (C), Francis Conolly (G), Wm. Corry (B), John Davies, Hugh Latimer Donovan (C), Richard Jennings (C), Edward J. Kennedy (C), Robert M'Iver (B), Charles Magill (B), Patrick Joseph O'Sullivan (G), Turner W. Pooler, Henry Tomkins, Francis Henry Walmesley (B). *Also Passed:* William Allen (G), Robert Allen Brannigan (B), Daniel Burdon (C), William Crofts (C), James Carroll Daly (C), Arthur Derham (C), John Dunbar Dickson (G and B), John T. Dillon (C), John Stephen Dobbyn (G), Justin F. Donovan (C), Robert E. Donovan (C), Michael Dundon (C), Robert Eccles, M.A. (B), Chas. J. Fahie (C), John Curten Harnett (C), Denis Harrington, Wm. Hayes (C), Wm. John Irvine (B), Robert J. Kennedy (C), William Leonard (G), George Stanley Murray, John Richard Oliver (C), Michael U. O'Sullivan (C), Robert H. Robinson, Wm. John Stevenson (B), David Taylor (B), John Fredk. Wales, B.A. (B), Archibald Wallace (B), John Wilson (C).

The following were reported as having passed the First University Examination in Medicine, October 1874.

*Second Honour Class:* Michael Joseph M'Carthy (C). *Upper Pass Division:* Samuel Alexander (B), Samuel Bateman (B), Henry C. Brannigan (B), John R. Galvin (C), Charles Graham (B), Jeremiah Mullane (C). *Also Passed:* William Henry Bracken (B), John Cahill (C), Thomas Paterson Delvin (B), Jas. A. Gordon (B and G), Robt. J. Hamill (B), James Palmer Hanrahan (C), John Leonard (C), Henry M'Cormick (G), Thomas Frederick M'Fecce (B), Henry M. Madden (C), James Matthews (B), John Wesley Megarry (B), Thomas Newburgh (C), Daniel O'Connor (C), Henry O'Neill (B), Gervace Robert Percy (B), Samuel Phillips (C), J. C. Greatrakes Sandiford (C), John Sheedy (C), Wm. John Sprott (B), John Edward Walsh (C).

*Exhibitions Awarded at the Second University Examination in Medicine.*—John J. Whelpley (C), first; £20 a year for two years. Arthur A. Woods (B), second; £15 a year for two years.

In the above lists (B) signifies Queen's College, Belfast; (C), Queen's College, Cork; and (G), Queen's College, Galway.

## MEDICAL VACANCIES.

The following vacancies are announced:—

ABBEYLEIX UNION—Apothecary.
ALDERBURY UNION—Medical Officer for the Fourth District and the Workhouse.
ARMY MEDICAL DEPARTMENT—Surgeons. Applications to be made to the Director-General of the Army Medical Department.
ASHTON-UNDER-LYNE UNION—Medical Officer for No. 3 District.
BARONY PAROCHIAL HOSPITAL, Barnhill, Glasgow—Dispenser.
BECKETT HOSPITAL AND DISPENSARY, Barnsley — House-Surgeon. Salary, £140 per annum, with furnished rooms, gas and coals.
BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN—Resident Medical Officer. Salary, £80 per annum, with board, washing, and attendance. Applications to he sent in not later than March 3rd.
DERBYSHIRE GENERAL INFIRMARY—Assistant House-Surgeon. Board, lodging, and washing, but no salary. Applications to Secretary.
DOWNHAM UNION—Medical Officer for No. 6 District.
EMSWORTH—Certifying Factory Surgeon.
ESSEX LUNATIC ASYLUM—Second Assistant Medical Officer and Dispenser. Salary, £100 per annum, with board, lodging, and washing.
FLAX MILLS FRIENDLY SOCIETY—Medical Officer. Salary, £110 per annum. Applications to A. M'Keeman, 7, Hunston Square, Johnstone, N.B.
FULHAM UNION—Medical Officer for the Fifth District.
GRANTHAM UNION — Medical Officer for the Ropsley District. Salary, £26 : 10 per annum.
HARDINGSTONE UNION—Medical Officer for the Brafield District. Salary, £45 per annum.
HARRIS, Parochial Board of—Surgeon. Salary, £66 per annum, including vaccination and medicine for the poor. The gentleman elected will get £90 per annum for attending the ratepayers and cottars within South Harris. Applications to be made to the Chairman of the Parochial Board of Harris.
HEADINGTON UNION—Medical Officer for the Wheatley District. Salary, £70 per annum.
HENDON UNION—Medical Officer for the Willesden District. Salary, £40 per annum.
INDIAN MEDICAL SERVICE—Twenty appointments as Surgeon. Examination in February 1875.
KENMARE UNION—Medical Officer for the Kilgarvan Dispensary District. Salary, £100 per annum, and fees, with £20 per annum as Sanitary Officer. Applications to be sent in on or before the 18th instant.
KILBURN DISPENSARY—Assistant Resident Medical Officer. Salary, £80 per annum, with apartments.
KILLALA UNION—Medical Officer for the Workhouse, and the Killala Dispensary District. Salary, £50 and £110 per annum, respectively, and fees. Applications to be made on or before the 20th instant.
LLANELLY UNION—Medical Officer and Public Vaccinator for the Kidwelly Union. Salary, £20 per annum, and fees. Applications to be sent in on or before the 17th instant.
MILFORD UNION, co. Donegal—Medical Officer for the Ramelton Dispensary District. Salary, £100 per annum, and fees.
MORVEN, Parish of, Argyleshire—Medical Officer. Salary, £100 per annum. Applications to H. A. Fraser, Morven, N.B.
NORTH WALES COUNTIES LUNATIC ASYLUM—Assistant Medical Officer. Salary, £100 per annum, with board, washing, and lodging. Applications to be made on or before February 17th.
REDDITCH and DISTRICT MEDICAL ASSOCIATION—Medical Officer. Salary, £150 per annum, with fees and unfurnished house.
ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road—Physician. Applications to be made on or before February 15th.
ROYAL INFIRMARY FOR WOMEN and CHILDREN, Waterloo Bridge Road—Physician.
SAFFRON WALDEN UNION — Medical Officer for the Seventh District. Salary, £86 per annum.
ST. LUKE'S HOSPITAL FOR LUNATICS—Second Clinical Assistant. Board and furnished apartments.
SALOP INFIRMARY—Assistant House-Surgeon.
SEAMEN'S HOSPITAL—House-Physician. Salary, £120 per annum, with furnished rooms and attendance. Applications on or before the 22nd instant.
SOUTH ESSEX DISPENSARY—Surgeon.
TYNEMOUTH UNION—Vaccination Officer.
ULVERSTONE UNION—Medical Officer for the Hawkshead District. Salary, £20 per annum.
UNIVERSITY COLLEGE HOSPITAL—Resident Medical Officer. Applications not later than February 13th.
UNIVERSITY OF EDINBURGH—Additional Examiner in Medicine.
WEST WARD UNION—Medical Officer for the Patterdale District.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.*

### BIRTH.

Norton.—On January 28th, at 8, Redcliff Hill, Bristol, the wife of *John Alexander Norton, M.B., of a son.

### MARRIAGES.

Havard—Rowlands. On February 10th, at Cardiff, by the Rev. H. Oliver, B.A., Newport, Monmouthshire, David Havard, L.R.C.P., etc.. of Newport, Pembrokeshire, to Julia Anna, the eldest daughter of John Rowlands, Esq., Penrhyn Villa, St. Andrew's Crescent, Cardiff.

Powel—Stevens.—On February 2nd, at Lyonshall Church, Kington, Hereford, by the Rev. W. Winstone, uncle to the bride, assisted by the Rev. Mr. Green, Vicar of the Parish, Evan Powel, L.R.C.P., of Senny Bridge, Brecon, to Alethea Barton Stevens, of Lyonshall.—No cards.

### DEATHS.

*White, Frederick Blundstone, M.D., formerly Assistant-Surgeon 73rd Regiment, and Physician to Tetbury Dispensary, at Tetbury, in his 83rd year, on February 4th.

*Kennedy, Angus, M.R.C.S., Surgeon to South Essex Dispensary, and Certifying Factory Surgeon, at Stratford Hall, Essex, aged 70, on February 7th.

## OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY ......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1 30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.

FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1 30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

## MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Royal College of Surgeons, 4 P.M. Mr. W. K. Parker, "On the Structure and Development of the Skull".—Medical Society of London, 8.30 P.M. Dr. S. O. Hahershon, "On some Obscure Cases of Abdominal Disease"; Dr. Drysdale, "On the Antecedents and Treatment of Tertiary Syphilis"; Mr. Spencer Watson, "On Obstructions of Lacrymal Sac and Nasal Duct".

TUESDAY.—Pathological Society of London, 8.30 P.M. Mr. Cripps: Fatty Degeneration of Muscles of Thigh. Dr. Greenfield: Contraction of Coronary Arteries. Dr. Greenfield: Obstruction of Renal Artery. Dr. Greenfield: Fibroid Disease of the Heart. Mr. Butlin: Fatty Tumour removed in course of Herniotomy. Dr. Barlow: Aneurism of the Heart. Mr. Hulke: Specimen of Epithelioma. Mr. Marsh: Malignant Disease of Testis. Dr. Douglas Powell: Aneurism of Aorta. Mr. Barwell: Myeloid Sarcoma of Humerus. Mr. Godlee: Blood-Cyst in Sarcoma. Dr. Dowse: Congenital Deformity of Clavicles (living specimen).

WEDNESDAY.—Royal College of Surgeons, 4 P.M. Mr. W. K. Parker, "On the Structure and Development of the Skull".

FRIDAY.—Royal College of Surgeons, 4 P.M. Mr. W. K. Parker, "On the Structure and Development of the Skull".—Medical Microscopical Society, 8 P.M. Dr. W. B. Woodman, "On a Natural Method of Mounting certain Microscopic Specimens".

## NOTICES TO CORRESPONDENTS.

Correspondents not answered, are requested to look to the Notices to Correspondents of the following week.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

Authors desiring reprints of their articles published in the Journal, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

We cannot undertake to return Manuscripts not used.

Communications respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the Journal, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

M.D. (Carlisle).—Consult the Roll of the College of Physicians by Dr. Munk. Charles, Duke of Richmond, who died in 1750, was a Fellow of the College.

### Enteric Fever.

Sir,—Enteric fever has recently appeared in a house whose well is in close proximity to an old and hitherto forgotten drain, which runs from a neighbouring churchyard, in which was interred, two or three months ago, a person who died of enteric fever. In the absence of any other recent case, is it (1) probable pollution of well-water from the churchyard was the cause of the outbreak? If so, can any of your readers say (2) how long the churchyard-drainage will be capable of causing the specific fever? The soil is a heavy marl. (3) May not the individual body (which was brought from a distance) be the cause of the appearance of the fever? If so, here is another strong argument in favour of cremation. From time to time, during many years, apparently sporadic cases of enteric fever have occurred in the immediate vicinity of the house mentioned. (4) Is it not likely the churchyard-drain furnished the poison?—I am, sir, your obedient servant,

February 8th, 1875. Sanitas.

A Card.—"35, Coleherne Road, Redcliffe Square. Medical advice, by a physician, every morning before 9 o'clock (Saturday excepted). Fee, one shilling, including medicine. 35, Coleherne Road, Redcliffe Square, West Brompton."—On turning to the *Medical Directory*, we find this to be the address of a Mr. Charles Richard Cutmore, M.R.C.S.Eng. and L.M.

Correspondents are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

### Royal College of Surgeons of England.

The following were the questions on surgical anatomy and the principles and practice of surgery submitted to the candidates at the written examination for the diploma of membership of the Royal College of Surgeons, on 22nd January. Candidates were required to answer at least four (including one of the first two) out of the six questions. 1. Describe the operation of tying the external iliac artery, and state how the collateral circulation would be established. 2. What muscles may act to displace the fragments in fracture of the lower jaw, in various parts of the bone? 3. Describe the structure of, and mode of healing by, granulations. 4. What symptoms, before operating, would lead you to conclude that the contents of a hernial sac are in a state of gangrene? and what treatment would you adopt in such a case? 5. When the radius of the ulna is broken alone, at what part of the bone, in either case, does the fracture usually occur? State the reason why these particular fractures happen, and how you would treat them. 6 Enumerate the several causes of retention of urine in the male, and describe the means you would adopt in each case for its relief. The following were the questions the following day on the Principles and Practice of Medicine: 1. Describe a case of typhoid fever, giving the incubation, the various stages of the disease, the process which goes on in the intestines, together with the modes of death, and the treatment. 2. Define and illustrate the following terms—puerile respiration, bronchophony, pectoriloquy, ægophony, fine crepitation, sibilant râles, cracked pot sound, metallic tinkling, dulness on percussion. 3. Mention some of the principal causes of vomiting, and the remedies you would use to arrest it. Write two of the prescriptions in full.

Obstetrician (Falmouth).—In the *Englishwoman's Journal* for March 1862, Dr. Gregory of Boston, United States, informs us that on a tombstone in a churchyard of the city of Charlestown appears the following, showing that bishops exercised the prerogative. "Here lyes interred the body of Mrs. Elizabeth Phillips, wife to Mr. John Phillips, who was born in Westminster, in Great Britain, and commissioned by John, Lord Bishop of London, in the year 1718, to the office of a midwife, and came to this country in the year 1719: by the blessing of God, has brought into this world above 3,000 children. Died May 6th, 1761, aged 76 years." The Archbishop of Canterbury has the power of granting the degree of M.D., but the title so obtained is not registerable.

### The King and Queen's College of Physicians, Ireland.

Sir,—As one of the licentiates of the King and Queen's College of Physicians, Dublin, I must enter my protest against the course taken by the dissentients to the proposed new charter, and the statement that they "object on behalf of the 1,200 licentiates". My own belief is that the new charter will benefit the institution, and those who possess the license at present who are excluded in most instances from hospital appointments; formerly fellows and *licentiates* of a college could hold an office connected with an institution of this kind; but of late years the rules have been altered to "Fellows or Members of a College of Physicians". I have reason to believe that nearly all the licentiates are favourable to the new charter, as it would reinstate them to that position they held before the other colleges thought fit to institute the grade of member, and constituted their license as of third-rate worth. From yours obediently,

L.K.Q.C.P. of Nine Years' Standing.

Dr. Davis,—The name of "Dr. Forsyth Brown", recently convicted of an indecent assault, cannot be found in either of the Medical Directories, the *Medical Register*, or *Calendar of the College of Surgeons*.

### Contagion of Puerperal Fever.

Sir,—The letter of your correspondent "Obstetricus", in the Journal of January 23rd, seems to be of such vital importance to the interests of the profession, that I have been surprised at its not receiving more attention than it has hitherto done. If your columns were opened to a discussion on this all-important subject, I believe an immense amount of good would result to the profession.

Surgeons from time to time cause inquests to be held on women who have died of puerperal pyæmia, after having been attended in their confinements by midwives; and, at the inquest, generally inform the coroner and jury that it is not safe for any person (surgeon or midwife) to attend a labour for periods of time varying from one to three months after having attended a case of puerperal fever, as it is by such agency that the disease is spread.

I consider, in the interests of the profession, that by such unqualified statements, a great harm is being constantly done to the profession. I have in my time attended some hundreds of cases of labour; and, on the whole, have lost very few mothers. In fact, I have attended as many as four hundred consecutive cases without losing a single mother.

On beginning practice for myself in this locality, my good fortune seemed to leave me, as I lost at intervals one case from scarlet fever, one case from small-pox, and finally, in October last, one from puerperal pyæmia; and again, in November, one from the same cause in the same street. In this last case, I did not deliver. I had examined the case, and found everything all right; and, on my again going, I found the child born, and the placenta came away most easily. This happened about the time that one of the inquest cases I have before mentioned appeared in the paper.

I was persecuted by the friends of the deceased. I was told I had given her the disease; that it was said in the paper that no surgeon should attend a case for three months after having had a fatal case. I was threatened with an inquest. Women who had engaged me to attend them were warned not to employ me; that if I attended them, they would surely die. I hope it is unnecessary for me to state that I took every possible precaution to prevent myself from carrying the disease about with me. But as I knew an abstinence of three months would simply have ruined me, and would not in my mind have made my attendance upon future cases any safer than an abstinence for three weeks, I resumed practice at the end of fourteen days, having previously destroyed some articles of my clothing, and having had the rest carefully disinfected; and am thankful to say that I have not had a case since. Had it not been for the inquest-case, I feel satisfied that the minds of my patients would never have been imbued with the notion that I conveyed the fever to the deceased. Hoping to hear the opinions of experienced practitioners on the subject, I am, sir, yours truly,

February 1875. Junior.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

### REDDITCH MEDICAL ASSOCIATION.

SIR,—I am indebted to a gentleman in London for a copy of your paper a week after date of issue, and my attention is called to an editorial article on the "Redditch and District Medical Aid Association." Permit me to say I am a member of one of the friendly societies at Redditch, and have been so for more than twenty-three years, and early in March last was appointed one of three delegates to attend an united committee of the different societies (called by circular), to consider "the unsatisfactory working of the medical department", and also "what steps can be taken to place this very important department in all sick benefit societies on a more satisfactory basis." The question did not originate with me, nor with the society to which I belong.

I was requested to act as secretary, after two others had been proposed and had declined. Seeing the extent of the dissatisfaction, and feeling the importance of the question, I consented. I have had no pecuniary interest in the matter, at least in the way of receipt, and do not know that I shall have.

After six months' inquiry, an account of their deliberations, and the "better system" they recommended, as a remedy, was published in the *Redditch Indicator*, and the *Bromsgrove, Droitwich, and Redditch Messenger*, where we innocently thought such information would be most needed. The directors think that if you had been furnished with this information, which, in justice to yourself and to them, you ought to have been by the person who sent you the communication upon which the most objectionable parts of the article are based, your article would have been considerably modified. The directors wish me to say that there is but one medical gentleman in Redditch of any standing, as to time; that he alone deserves and receives the general respect of the members they represent; but, having a large private practice, he cannot meet their united requirements.

The handbills were not circulated until some time after the conclusions of the united committee had been made known by the means above referred to. They were found to be a necessity, in consequence of the numerous applications for information upon the subject, and they contain no statement in the way of inducement to persons to become members that is not carried out by similar associations by even smaller payments. I enclose report of one at Worcester for 1873, not having a later one. The junior members pay one shilling yearly, and, by looking at the balance-sheet, you will see that they had then a handsome balance in hand. We had been there; had consulted with the medical gentleman, secretary, and some of the members, and ascertained that the association gave satisfaction to all parties; and it accomplishes all that is stated in our handbills. Another object of the handbills was to ascertain to a certainty whether a sufficient number of members could be obtained to justify us in engaging a medical gentleman; and if the directors had not been satisfied, they would not have advertised for one. As far as our experience and knowledge go, such a thing as friendly societies failing to meet the claims of their medical adviser is unknown. The other strictures have certainly some weight as *à priori* argument, but facts are decidedly against them. When new clubs are formed, the general, almost universal, rule in our district is, that at some time after their formation, the services of a medical gentleman are engaged without any examination; afterwards candidates have to be examined. When a member of any society changes his medical man, he does so without examination. When associations like ours are formed, no examination is required; from those who join afterwards it is. We have a slight suspicion that any medical man would find it a little inconvenient to examine between two thousand and three thousand members in a few days, and attend to his other professional duties as well. The names of the managers will appear in due time and form, according to the custom of similar associations, printed with the report and statement of accounts; before that time it would be a waste of time and money to print them. I am directed to say that the managers will feel a pleasure in forwarding you their names if you desire it; but having held their meetings for eleven months, and being well known at Redditch, they cannot see that such a course could serve any useful purpose. It may be a misfortune that they are not "high-class"; but the societies they represent have always met their medical engagements, and will not enter into one with the gentleman they may appoint without giving him a satisfactory guarantee.

Trusting you will insert this in your next issue, and thereby remove the erroneous impressions the article would convey, I am, Sir, your obedient servant,

WILLIAM ASTON, Secretary to Association.

Redditch, Feb. 9th, 1875.

Ir. SYMPSON.—The famous epigram on George the Third's physicians is an example of the advantage of rhyme; the wit lying in the metrical form, and in the form only.

"The King employed three doctors daily—
Willis, Heberden, and Baillie—
All exceedingly skilful men,
Baillie, Willis, Heberden;
But doubtful which most sure to kill is
Baillie, Heberden, or Willis.

### CLUB-PAYMENTS.

ir,—I am glad to see the letter of Dr. Fox in the JOURNAL of Saturday last, drawing attention to the inability of the medical men at Trowbridge to carry an advance in club-payments. We have a professional brother in this neighbourhood, whose antecedents, I believe, date from Trowbridge, who is a hindrance to our obtaining a better payment. The West Somerset Branch has lately considered the question of club payments, and has decided that 4s. per annum should be the minimum. Acting on this, my friend Mr. Nash and I addressed a joint letter to the medical men of the neighbourhood, asking them to help us in enforcing it. All but one of those addressed replied in most favourable terms. That one not only neglected to reply, but we were soon surprised to find our club-members were made aware of our contemplated action by some of them informing us that we were going to resign unless we obtained the advance, and that he had offered to take them at the old rate. At the next quarterly meeting of our club, a copy of our letter was sent by him, with an offer of his services. With such professional men about us, we are powerless, and must go on at 7½d. a member per quarter, or retire in favour of our opponent. Surely the matter lies with ourselves; and, as long as we are willing to make ourselves so cheap, the public will take every advantage of us.

I am, sir, your obedient servant, HUGH P. OLIVEY.

North Curry, Taunton, February 10th, 1875.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, twelve o'clock.

### CONVALESCENT HOSPITALS FOR SCARLATINA AND OTHER INFECTIOUS DISEASES.

SIR,—Allow me to offer a few remarks on the establishment of hospitals for infectious diseases. From what I observe, compulsory measures are unpalatable to the public, and it would be deemed harsh to remove sick children from their homes. It certainly would afflict me to have my children taken away, though they might be ill of scarlatina or variola. If hospitals be built for infectious diseases, there should be no compulsion employed in filling them. It appears to me that seclusion for long periods in convalescent establishments would be much better calculated to limit the spread of scarlatina, because it is during the period of convalescence that individuals move about freely, shedding the cuticle, and poisoning every place to which they may go; and parents would readily consent to the removal of their children to such establishments. With convalescent hospitals, and with parochial or district disinfecting houses for the purification of bedding and garments, scarlatina and variola would become manageable.—I am, sir, your obedient servant,

Rochester, Feb. 6th, 1875. FREDK. J. BROWN, M.D.

SIR,—Would any of your correspondents who are connected with Foresters' clubs kindly inform me if it is their custom to charge a fee for the examination of candidates prior to admission? I am, etc., H. P. OLIVEY.

North Curry, Taunton, February 10th, 1875.

### THE GRESHAM LECTURES.

SIR,—Your correspondent "Civis Londinensis", in drawing attention to my Gresham Lecture on Catching Cold, holds me responsible for a report of it which appeared in one of the daily papers. It is my duty, as Gresham Professor, to give such lectures on medicine as can be "understanded of the people". The lectures are freely open to the public. Newspaper reporters are, therefore, at liberty to publish any part which they may think suited to their readers; and a single sentence has more than once been taken as a text for a newspaper article. It has thus come about that, in the notices of my recent lecture in the daily papers, the theoretical and scientific portions have been omitted, and the more practical points have been enlarged upon, without those careful directions as to the discriminating use of drugs and other remedial means which I always deem it necessary to give.

Your correspondent remarks, "The Gresham Lectures used to be dignified, able productions, delivered in Latin". He is mistaken if he supposes they were ever delivered in Latin alone. When this was the language employed by men of science, it was the will of the founder that lectures should be delivered in English also. There can be no loss of dignity in explaining the principles of science in the Queen's English. In the attempt to lessen the ignorance which prevails as to the structure and functions of the body in health and disease, and the broad principles of hygiene and therapeutics, I venture to think that I am consulting the spirit of Sir Thomas Gresham's will, as well as the spirit of the age; while the large audiences that assemble to hear the English lectures sufficiently indicate that they are appreciated by the citizens of London. I am, etc.,

February 10th, 1875. E. SYMES THOMPSON.

### MEDICAL DEGREES AND TITLES.

SIR,—Judging from the tenour of the correspondence which has been carried on for some time past in the columns of the BRITISH MEDICAL JOURNAL on the above subject, I do not think that the profession is capable of treating the question of medical titles impartially; and I am the more inclined to adhere to this conclusion when I reflect on the conduct of the London College of Physicians some years ago. This body could not decide whether their Licentiates were physicians or not, and they submitted the question to Sir Roundell Palmer, who decided that their Licentiates were physicians. There is yet, however, another question to be considered—viz., whether Licentiates are entitled to the prefix of "Dr."; and I can see no means by which this can be settled conclusively, except by submitting the question to the most eminent counsel in the three divisions of the kingdom. For this purpose, it would be necessary for those Licentiates who take any interest in the matter, to form a committee to prepare a case for submission to three of our best lawyers, and to accept their decision, whatever that might be—defraying the expenses, of course, by subscription, towards which the writer of this letter would be glad to subscribe a couple of guineas.

So far as I can discern, a physician is decidedly entitled to the prefix of Dr., and, in assuming it, does not, in my opinion, violate the provisions of the Medical Act. At the same time, I believe that the several bodies who first instituted the Licentiateship did not intend the Doctorate to be extended to them. It is all very well for medical authorities to assert that they never intended their Licentiates to assume the Doctorate; at the same time, they willingly seek the aid of the law in determining questions of internal administration for them. If, therefore, they believe in the law when it "suits their book", they must also believe in it when it happens to be inconvenient for them. It is not the fault of Licentiates that there should be so much confusion about medical titles. To illustrate this more fully, I may observe that there are at present four grades of physicians—viz., the Licentiate, the Member, the Fellow, and the M.D. Now, to my mind it seems strange that if the public have a guarantee that the Licentiate is skilled in physic, there should be any use for the other three. Would it not be much better to make the supposed higher grades honorary titles? or, better still, to knock them all into one, rendering them only available to those who had done something towards the advancement of science?

Again, there is a notion prevalent that the Doctorate is much coveted by physicians. This I do not believe, as a rule; and when it is coveted, it is in self-defence. The general practitioner often finds by experience, when it is too late, that, however much his services may be appreciated, he sometimes meets with disappointment when the public show a preference for the man who is in possession of most letters. Here is where the shoe really pinches. The M.D. who can use the prefix "Dr.", confidently expects the public to consider him an abler man than his neighbour who can only aspire to "Mr."; and the latter is jealous, especially when he is doubly qualified, that he is struggling under a disadvantage; for how can he display his skill if it be prejudged to be inferior to that of another equally untried? I once lost an appointment worth £800 a year through not being M.D.; and when I practised in England, I found it an intolerable nuisance to be without the L.S.A., which in that country, ten years ago, seemed to be the most important qualification. If there were but one qualification all this injustice would cease, and the most deserving men would be more likely to get the best appointments. The profession itself is also much to blame in causing discontent. If those at the head of the profession were to speak to and address their *confrères* as "Surgeon ——", in contradistinction to "Dr. ——", the public would not be so ready to remark, as has often been done in my presence, "Oh, he is only a 'Mr.'; he is not a Doctor at all."

The gentleman who asked if he were a "tinker", spoiled his letter by doing so; and your Maidstone correspondent erred in wishing things to remain as they are. This is bad policy; and if he had not probably made some good local hit, he would find that "without a solid independence no man can be happy, or even honest". To your correspondent "M.D.Edin.", who has forgotten his "Latin", and would "require brushing up" in other matters, I would say that, on his own showing, there is *primâ facie* evidence that the M.D. degree of some of our most famous Universities is no guarantee that the holders thereof are men of great learning, but rather substantiates the fact, that the majority of their alumni forget most of that which they did know.—I have the honour to be, sir, your obedient servant,

Scotus.

January 1875.

Sir,—Touching the question of medical titles, which have been discussed in your Journal lately, I beg to quote a case illustrating the injustice of a medical practitioner styling himself "Dr." on his door, he being L.R.C.P.Edin., 1859. On a tablet erected in the public street, to be read by all, his name appears with the initials M.D. after it, thus giving to the public that he is not only Dr., but also M.D. I shall leave the profession to form an opinion of this flagrant case of—to say the least of it—gross misrepresentation: and remain, sir, yours obediently,

M.B. & C.M.Edin.

Janary 1875.

Sir,—A letter in the Journal of the 16th instant, by "An Associate of Twenty-five years' Standing", concerning the M.D., mentions the *purchased honour;* and for one who writes as well as he does, to suppose the honour is not always purchased, as well as every other medical or surgical qualification, is rather curious; but perhaps he means obtained *merely* by purchase, as the F.R.C.S. is by old surgeons. Ten years ago I desired to dispense with dispensing, and cast about me for an M.D. To me, in active practice, nothing British was to be got, so I sought foreign aid. I wrote to Erlangen, received the following reply, with which I complied.

"Erlangen, April 25th, 1864.

"Sir,—The alone sure course which you must follow, in order to become Doctor of Medicine of our University in the alone quite honorable and valuable mode, is to pay a visit to Erlangen, and to undergo a just examination, after having produced authentical proofs of medical and general respectability. Your medical diplomas and any other testimonials at every time and completed in 1-3 days; moreover, a treatise on any medical subject in manuscript is desired. The fees amount only £20 sterling.—Faithfully yours, Dr. J. M. Leupoldt, Dean of the Faculty of Medicine."

My examiners were six in number, the professors at that time of the requisite subjects. The examination extended over three days, and I obtained the "purchased honour".—Yours, etc.,

M.D.Erlangen, M.R.C.S. & L.S.A.

Sir,—It will really be a relief when this useless controversy is settled, or when at least you come to the conclusion to refuse the admission to your columns of any further expression of opinion on the subject. The only matter for congratulation connected with the affair is, that such nonsense is not paraded before the public eye, but is confined to a professional paper; otherwise, the object that all should have at heart—the raising of our common profession to a higher level, socially and otherwise, than it it occupies at present, and the making of ourselves more worthy of it—would certainly not be furthered by the present *mêlée;* and, after all, one will ask, *Cui bono?* Does any one imagine that a L.K.Q.C.P. will not call himself Dr. if he prefer it? (many do not). He, however, considers himself entitled to do so, legally and otherwise: so does his College, and states so. What does it, therefore, matter if M.D. think otherwise? All men in the profession know exactly the value of each title and degree; and it provokes a smile to hear a common platform claimed for such widely different qualifications as the London, Oxford, Cambridge, and Dublin degrees on the one hand, and the Aberdeen, St. Andrew's, and Glasgow on the other. We can only presume that the M.D. who informed us the other day that he was entitled by his degree to be considered a "professor or teacher", has suffered in consequence of "too much learning". Before he can impress other men with the great importance which he attaches to the letters M.D., he must induce his brethren to remove them from their shop-windows, as it ill consorts with men of such high pretensions to be engaged in trade. He will then be doing some real service to his profession, which I think would probably be questionable should he betake himself to profession duties.—I am, etc.,

A Member.

February 1875.

Sir,—With your permission, I would place the "titles" first, because it is evident, from the tone assumed by the majority of your correspondents, that ambition is the foundation, and pride the fabric, of this fanciful controversy. But away with both, and at the footstool of calm judgment let the matter be viewed. Let antiquity and our hoary-headed sires speak while the children sit still and learn; learn in particular that to be an M.D. is one thing, but to be worthy of it is another. I fear with the elasticity of the times there is growing an equally elastic state of conscience, and an enervated state of intellect that has become eloquent under the guise of words—resplendent bubbles and commonplace wit. I presume the fact of antiquity rapidly disappearing before endless innovations is but a significant sign and alarming indication, in this our day, of wholesale departure from first principles. Who and what was St. Luke? I wonder if the principles of Messrs. Mill and Bradlaugh are yet as rampant amongst the members of the medical profession as the flippant assumption of titles on the one hand, and the arrogant possession of them on the other. If so, my question is needless, since it will be demanded, "Prove that ever such a man existed!" Nevertheless, I for one believe, upon the highest authority, that there lived such a man, and further, that he was a physician, who, judging by his writings, was equal to, if not excelling, in mental capabilities, quick perception, and knowledge of human nature in general, the teachers and exemplars of medicine and divinity in the present day. Yet where did he matriculate? where his Alma Mater? and what the qualifications entitling him to practise? Anyhow, two things are clear from his case: that the title of physician has the ring and approval of antiquity, and that the title was not indiscriminately conferred—hence to the present day we have the "consulting-physician" as the public ideal of the learned, the experienced, and the good. Physician, therefore, in the abstract, implies more than a mere physician's qualification; and as a man must be a physician before he can be called a consulting-physician, and cannot be a physician without the learning and experience of patient observation, it is clear that titles are mere legal plumes—"bones of contention", as we see at present. It is fair, however, to suppose that the various titles now in use signify more than an empty sound; but it is decidedly unfair to argue that the haughty M.D. has either antiquity or learning to put him above a real physician, whose name implies his calling, and is full of honour and dignity—so full, indeed, that I am surprised that he should lay claim to the somewhat rough-and-ready, but most meaningless and indefinite, term "Dr." Let us cultivate the true qualifications, therefore, and leave the public to call us what they like; and surely my brother will be gracious enough to recognise in me the former qualification, whilst if my superior knowledge of the arts and sciences merit for me a special title, he will be only too glad to profit by my experience therein, as I, no doubt, will profit by his larger experience in the art of healing.

Finally, and in a word, we want to hear less of titles and more of experience; and let the man who is physician in reality as well as in name (if he boast at all), boast of antiquity, charity, experience, learning, and veneration: and let him who swaggers under the—shall I say matrimonial ensign, or gaudy legal plume called M.D.?—boast, not so much of his school and university, as of the stern fact that he "beareth not the root, but the root him".

I enclose my card, and beg to remain, sir, your humble servant, Medicus.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Gazette; The Western Daily Press; The Manchester Guardian; The Ulster Advertiser; The Sussex Coast Mercury; The Broad Arrow; The Surrey Advertiser; The Bedale and Northallerton Times; The Hackney Express; The Liverpool Porcupine; The Scotsman; The Liverpool Mercury; The Glasgow Herald; The Stroud News and Gloucestershire Advertiser; The Bradford Observer; The Morpeth Herald; The Portsmouth Times; The Western Daily Press: The York Herald; The Sheffield Evening Star; The Brighton Guardian; The Sussex Daily News; The Wrexham Advertiser; The Newton Directory; The Sussex Coast News; The Berkshire Chronicle; The Hull News; The Southern Times; The Worthing Intelligence; The Hampshire Telegraph and Sussex Chronicle; The Sheffield Daily Telegraph; The Hereford Times; The High Peak News; The Brighton Daily News; The Bath Argus; The Pembrokeshire Herald; The West Briton and Cornwall Advertiser; The Glasgow Herald; The British Mail; The Indian Medical Gazette; The West Country Lantern; the Ripon Gazette; The Airdrie Advertiser; The Manchester Courier; The Wolverhampton Chronicle; The Cork Constitution; The Sheffield and Rotherham Independent; The Liverpool Daily Post; The Redruth Times; etc.

COMMUNICATIONS LETTERS, etc. have been received from:—

Dr. Lauder Brunton, London; Dr. Smart, Haslar; Mr. W. F. Clarke, London; Dr. Markheim, London; Dr. Spencer, Clifton; Dr. T. C. Brown, London; Dr. James Donaldson, Glasgow; Dr. R. J. Lee, London; Mr. Evan Powel, Sunny Bridge, Brecon; Dr. D. T. T. Maunsell, Dublin; Dr. T. W. Grimshaw, Dublin; Mr. Neville Hart, London; Dr. F. T. Bond, Gloucester; Dr. J. W. Langmore, London; Dr. J. J. Charles, Belfast; Mr. I. Harrinson, Reading; Dr. Finlayson, Glasgow; Dr. J. M. Fothergill, London; Dr. Joseph Bell, Edinburgh; Dr. J. W. Moore, Dublin; Dr. George Johnson, London; Dr. Bradbury, Cambridge; Mr. T. H. Bartleet, Birmingham; Dr. Edis, London; Mr. T. Holmes, London; Dr. B. W. Foster, Birmingham; Mr. Eastes, London; Dr. Burdon Sanderson, London; Dr. E. R. Townsend, Cork; Mr. F. C. G. Ellerton, Lindley; Mr. Robert L. Bayley, Stourbridge: Mr. J. I. Ikin, Leeds; Dr. S. J. Smith, Aston, Birmingham; Mr. Annandale, Edinburgh; Dr. Steele, Liverpool; M.D.Edin.; Mr. Spencer Wells, London; Dr. Byrom Bramwell, Newcastle-upon-Tyne; Dr. Campbell Black, Glasgow; Our Edinburgh Correspondent; Mr. J. G. Randall, Dover; Dr. Strange, Hampstead; M.R.C.S.Eng.; Dr. Mickle, Kirklington; Dr. Sadler, Hampstead; Dr. Farquharson, London; Dr. J. Coombs, Bedford; Dr. Murray Lindsay, Mickleover; Mr. Holthouse, London; Mr. Jones, Manchester; Our Birmingham Correspondent: Mr. Thos. G. Copestake, Derby; Dr. George Elliott, Hull; Mr. W. Whitehead, Manchester; Mr. Geo. Dobson, Netley; Dr. Stanley Haynes, Malvern; Mr. Thos. Little, Monaghan; Dr. Alfred Meadows, London; Mr. J. W. Groves, London; Student of Medicine, Merthyr Tydvil; Mr. William Aston, Redditch; Mr. James Weaver, Longton; Dr. M. A. Fenton, Coventry; the Director-General of the Medical Department of the Admiralty; Dr. F. F. Quin, London; Our Glasgow Correspondent; M. A. L.; The Secretary of Apothecaries' Hall; The Registrar-General of England; The Registrar-General of Ireland; Mr. T. M. Stone, London; The Registrar of the Medical Society of London; Dr. J. M. Strachan, Dollar; Dr. A. Duke, Rugby; Mr. F. D. White, London; Mr. J. Arthur Kerr, Preston; Dr. Pyle, Sunderland; Mr. H. P. Olivey, Taunton; Mr. Howell Rees, Cwmamman; Mr. Ernest White, London; Dr. Farquharson, London; Dr. M. Foster, Cambridge; Dr. Symes Thompson, London; Mr. T. W. Bogg, Louth; Mr. W. Miller, Poole; The Director-General of the Army Medical Department; The Secretary of the Medical Society of London; Dr. D. Maclagan, Edinburgh; Dr. A. Sheen, Cardiff; Dr. A. Lochée, Canterbury; Mr. J. Wilson, Stockton-on-Tees; Dr. E. J. Hughes, Colwyn; Our Dublin Correspondent; Dr. Keith, Edinburgh; Dr. Lowe, Lynn; Dr. R. Cooper, Hyde; Mr. R. Anderson, Dudley; Dr. Spencer, Clifton; Dr. W. H. Day, London; Dr. Parsons, Dover; Mr. Jas. Hall, Preston; Dr. J. M. Duncan, Edinburgh; Mr. G. W. Glenny, Barking; Mr. G. Southam, Manchester; Dr. A. R. Simpson, Edinburgh; Dr. C. Muirhead, Edinburgh; Dr. A. J. Alliott, Stotfold, Baldock; Dr. R. M. Cunningham, Edinburgh; Mr. R. Saundby, Edinburgh; Dr. White, Southport; Mr. J. Wilson, Stockton-on-Tees; Mr. J. Morris, Brighton; Mr. Slack, Peterborough; Mr. Nettleship, London; Dr. J. W. Black, London; Dr. A. Fraser, Aberdeen; Dr. Falconer, Bath; Dr. J. Batty Tuke, Edinburgh; etc.

## BOOKS, etc., RECEIVED.

Cremation of the Dead. By W. Eassie, C.E. London: Smith, Elder, and Co. 1875.
Commentary on the British Pharmacopœia. By W. G. Smith, M.D. London: Smith, Elder, and Co. 1874.
The Curative Effects of Baths and Waters. By Dr. Braun. Abridged Translation by H. Weber, M.D. London: Smith, Elder, and Co. 1874.

# AN ADDRESS
ON THE
# ETIOLOGY OF ACUTE SPECIFIC DISEASES.

*Delivered before the Clinical Society of London, on Friday, February 12th, 1875.*

By SIR WILLIAM JENNER, Bart., K.C.B., M.D., F.R.S.,
Physician in Ordinary to Her Majesty the Queen, and to H.R.H. the Prince of Wales; Physician to University College Hospital; President of the Society; etc.

GENTLEMEN,—Nothing but a most imperative duty could have prevented me from presiding at the last meeting of the Society. Now that I have the pleasure of taking this chair, I desire first to thank you for the honour you did me when you elected me your President. The Presidentship of the Clinical Society is, in my estimation, one of the highest honours that can be conferred on a physician. It was not until after I had accepted the nomination that I realised the fact that former Presidents had inaugurated the Session with an address; and, when I realised this, conscious of my own inability for properly discharging that duty, I felt misgivings as to the wisdom of having accepted the honour. I trust to your kindness to-night to overlook my deficiencies.

The Clinical Society was founded for "the cultivation and promotion of the study of practical medicine and surgery by the collection of the reports of cases, especially of such as bear upon undetermined questions in pathology or therapeutics"—a very wide field of inquiry; for, as far as my knowledge extends, there is no disease, even the most common, respecting which there are not undetermined questions in regard to its pathology and its treatment. There is not a single disease, however common, respecting which it can be said that its etiology is quite determined; and no report of a case can clinically be complete, the etiology of which is not given. There is no disease, respecting which it can be said that the symptoms which mark its very outset and its course, the symptoms which mark its decline, the symptoms which enable us to tell at the outset what will be its course, the effects which follow after the disease has apparently ended, and the influence which pre-existing conditions of health and disease, as well as that which drugs and other therapeutic agents exert on its progress, termination, and sequelæ are perfectly known. Regarding all these points in every disease, even the most common, there are undetermined questions. Many of these questions admit of answer; many of them ought to be answered; and that many of them are not answered, is, I think, discreditable to us as a profession. Medicine has made very great progress; and, if it were my aim to-night to illustrate that progress, I could find ample material for doing so. Medicine has made great progress; few sciences have made more; but, still, in regard of every disease, in reference to every one of the points I have mentioned, we are wanting facts—facts which could and ought to be supplied; and it is in the hope that my words may stimulate the Fellows of the Society to assist in the collection of these facts, that I would to-night illustrate our present deficiencies rather than dwell on our past performances.

Let me illustrate my meaning first by a reference to one or two points in regard of the etiology of a class of the commonest and best studied of acute diseases—I mean the acute specific diseases. In reference to these, one may say that they are all contagious; that is, from some part of the sick something is given off which can, when properly applied, excite the same disease in another, and which can excite no other disease. Little is known of what this *something* is; and yet it is most important for the prevention, and even for the treatment, of these diseases that we should know. Little is known of those conditions of system which render this something sufficient to the production of the disease in one person, while in another it is inert. For example, at a certain time one of these diseases is what is called epidemic. Scarcely a person who has not had it and is exposed to the emanations of the sick escapes taking it. On another occasion, the disease is not epidemic, and then many, with equal degrees of exposure, escape. Measles was not epidemic in a certain town at the time to which I am about to refer. A child came from school, having just recovered from measles. The family consisted of sixteen persons, eight of whom were children, and one only took the disease. Another family at the same period contained nine children. One contracted measles at school, and returned home; only two of the eight suffered; all of them being freely exposed to the poison.

Among the questions which are asked and ought to be answered are: What are the conditions which favour outbreaks of epidemics? Are they atmospheric? And, if so, are they conditions existing at the time of the outbreak, or are they conditions dependent on pre-existing atmospheric conditions? Or are the conditions that favour the outbreak of an epidemic states of health of the population, the consequence of coexisting or pre-existing atmospheric or other conditions? Although some of these questions, it may be thought, refer to subjects outside the scope of clinical medicine, some certainly are within that scope.

As a good illustration of the influence of pre-existing individual conditions in regard of susceptibility to contagious poisons, I may refer to the well known fact of the intimate relation between the state of the system left after measles and the susceptibility to the poison of whooping-cough. The individual who has just suffered from one of these diseases is, as is well known, prone in a remarkable degree to take the other. That is to say, after the occurrence in an individual of one or other of these diseases, a very small dose of the poison of the other disease is sufficient to produce the development of that disease. And, as bearing on this subject, I may refer to Dr. Aitken's paper on the influence of the previous residence in Bulgaria on the health of the troops in the Crimea.

One point respecting the etiology of these acute diseases has recently been brought before the profession and the public in rather strong language, the question; namely, whether these diseases can arise spontaneously. A controversy has lately—I was going to say raged—about the mode of origin of typhoid fever, and it well illustrates at the same time our ignorance, the difficulty of ascertaining facts, and the danger of reasoning upon insufficient facts, on an insufficient number of facts, on insufficiently observed facts, and the unwisdom of drawing general conclusions from facts which bear only on one side of a question. It is said by some that typhoid fever is undoubtedly contagious; it is said that, being contagious, it can never originate *de novo*. That is to say, as it can be proved in some cases to have its origin in the entrance of the emanations of the sick into the previously supposed healthy, it can never arise in any other way. On the other side, while admitting that the disease may be spread by the emanations from those suffering from the disease, it is said that the admixture of sewage decomposing animal excreta, with fluids used for drinking purposes, although no typhoid excreta are present, will produce typhoid fever *de novo*; that is to say, in those that drink the fluid; and it is said that the inhalation of sewer-gas is sufficient itself to produce in persons previously healthy typhoid fever *de novo*. Before considering briefly some of the arguments that may be adduced in support of any of these statements, I may say that, to my mind, from the known facts, the question should be held to be still *sub judice*, and that it is only to be solved by the combined efforts of those who can investigate the origin of typhoid fever when it occurs as an epidemic or in the form of severe local outbreak, and of those practitioners who, being engaged in private practice in country districts, can examine into and report on the solitary cases occurring under circumstances favourable for excluding fallacies. It is rarely that solitary cases can be satisfactorily investigated in towns; and it is because this important question can only thus be solved, that I desire to impress on the members of this Society the importance of reporting every solitary case which can throw light on the question. We have already had, and, no doubt, shall have, many more ably described epidemics, severe local outbreaks, and local outbreaks on a smaller scale. We shall have these traced to their origin by men of the highest order of intellect and the largest possible experience. We have had such reported now in numerous cases; and, as the points that still require elucidating in these local outbreaks become better known, these men will be sure to discover the missing links; but no investigation of such local outbreaks can answer completely the question which I say is still *sub judice*; and, therefore it is, that those who see the solitary cases must report their personal experience, if we are to have the question definitely and indisputably answered. I know how difficult it is for men engaged in large private practice to hunt out all the facts bearing on the origin of a single case; but, when they consider of what immense importance it is to the public and to the scientific advancement of our profession, I trust that some of them will be willing to sacrifice a little time for the general good.

One general assumption made by those who advocate the sole origin of typhoid fever by contagion, requires special consideration. This general assumption is this, that no admittedly contagious disease ever originates in any other way than by contact with the emanations from the sick; and therefore that typhoid fever, spreading by contagion—a mode of spread which I think is now pretty generally admitted by all those who have studied the question—can be spread in no other way. This general assumption is as yet wanting in such proof as conveys conviction to my mind; and I cannot help thinking that it is wanting in such proof as should convey conviction to any unprejudiced mind, accustomed to investigate questions of this nature. My own prejudices are greatly in favour of the specific origin of this in common with all contagious diseases. I have long advocated the specific differences, and held that each had its specific cause; that is, a cause which is unable to produce any other acute specific disease; and if each could, in every case, be referred to emanations from those previously sick of the same disease, it would greatly strengthen the general views I have long held and advocated. I am prejudiced, therefore, in favour of this opinion. I hope it is true; but then I must say that, at this moment, the weight of evidence and of argument is rather on the other side. When an admittedly contagious disease is epidemic, it is evident that facts to elucidate the question of its spontaneous origin cannot be collected. There is so much of the special poison in the locality, that no one can be sure that he has not in some way exposed himself to its influence. But, when the disease is no longer epidemic, when isolated cases occur, then it is that, if a disease never originated *de novo*, we ought—I will not say in every case, but in the majority of cases—if we inquire carefully, to be able to trace back the apparently spontaneous case to its source. Of small-pox, the most contagious of all diseases, I do not hesitate to say, notwithstanding Dr. Budd's assertion to the contrary, that the large majority of solitary cases can be traced with due care each to its probable source; and when a case has been imported into a locality previously free from the disease, new cases almost invariably spring up in its vicinity; so that the contagious origin is proved first, by tracing the case to its source; and, secondly, by the new cases which spring up from the first isolated case. Small-pox is eminently contagious; and not only so, but from the vast proportion of instances in which we can trace isolated cases to their source, from the rarity of the cases in which it is impossible to trace the probable origin to contagion, we may fairly conclude that small-pox never originates *de novo*.

But now let us pass to the other end of the scale of undoubtedly contagious diseases, namely, diphtheria and erysipelas. I mean erysipelas of the head and face, the acute specific disease of which erysipelatous inflammation of the throat and face, beginning usually from the bridge of the nose, is the anatomical character; a disease which is attended with definite symptoms, sometimes before the eruption, and sometimes accompanying the eruption, as are the acute specific diseases. Of the contagious nature of diphtheria and erysipelas, I think there can be no more doubt than there is of the contagious nature of small-pox. They are not so contagious; but they are both contagious. They are not as contagious, for it is more common for the healthy, exposed to the emanations from the sick, to escape from these diseases, than it is for those exposed to the effluvia of small-pox to escape small-pox. Now, while in regard of small-pox, it is the exception not to be able to trace the source of the contagion; in diphtheria, it is comparatively rarely that the first case, even of several, can be traced back to contagion. In regard to erysipelas of the head and face also, undoubtedly, as I say, contagious, it is the exception to be able to trace the case to contagion. Now, it is evident that the more contagious a disease—that is, the less the quantity of poison needed, the shorter the time of exposure to the poison necessary, and the less preparation required in the system of the individual receiving the poison—the less frequently, *à priori*, should we expect that the disease should be traced back to its primary source; while, with the diseases of this class which are the least contagious, which require for their spread a longer exposure or more decided doses of the poison, or the administration of the poison in a particular way by a special channel, we should expect that, in every new case—if every new case were due to exposure to emanations from the sick of the same disease—we should the more easily be able to trace them to their original source, the more easily should the parent case be discoverable. But we know that it is not so; for those which are the most contagious are the most commonly traceable to their origin, and those which are the least contagious can the least frequently be proved to have originated in contagion; and we are driven thus, it seems to me, towards the opinion that erysipelas frequently, and diphtheria not uncommonly, originate *de novo*.

Typhoid fever, like diphtheria and erysipelas, holds a low position in regard to its contagious quality. It rarely spreads, excepting when the excreta from the sick are administered by a particular channel. I have never known a case removed from its place of origin to give the disease to the inmates of a house into which it was removed, unless there were a communication between the source of the drinking fluid and the bowel excreta of the patient. Last autumn, ten young men, students at Oxford, went to stay in the same house in Cornwall. After a short residence, each returned to his own house, and seven sickened with typhoid fever. These young men evidently contracted the disease in the house in Cornwall. A highly contagious disease, in the ordinary sense of the word, ought to have been the focus from which other cases should have sprung. Had eight young men suffering from small-pox or scarlet fever been distributed into eight houses, I do not hesitate to say that some of the inmates of those houses would have suffered from small-pox or scarlet fever, as the case might be. I have never known a case of small-pox admitted by accident into the hospital to which I have the honour of being physician, without some one or more persons contracting the disease. When formerly I was physician to the Fever Hospital, I took my clinical class to the hospital for the purpose of showing them fever in its various stages on a large scale. Now, while I never knew a student to contract typhoid fever there, it so happened that on one occasion there was a case of small-pox in an outer ward of the hospital—a ward of very large dimensions. While no student took, on any occasion, either typhoid or typhus fever, one on that special occasion took small-pox; and on another occasion, there being several cases of scarlet fever in the ward, one took scarlet fever. But in the case of these young men from Oxford, who were distributed into separate houses, not one conveyed the disease to any inmate of the house to which he was removed. That typhoid fever can spread from one person to another without the swallowing of the excreta, if the person be exposed to the concentrated emanations from the sick frequently and for a considerable time, there can be no doubt. I have twice known students contract the disease who were diligently taking the temperature of the patients sick of typhoid fever, before the registering thermometer was in use, and therefore were obliged on each occasion to put the head many times daily into the bed of the patient. And I doubt not that most of those present could add to the number of these young martyrs to science.

Still typhoid fever has such limited power of propagating itself that the poison must be in large doses, or long breathed, or taken into the stomach, to produce the disease. Therefore I say that the disease ought, in the majority of cases, especially in country places and isolated houses, to be able to be traced to its source, if the source be in every case the excreta or emanations of those suffering from the disease. But, in fact, its origin has not hitherto been able to be traced to pre-existing cases in a very large proportion of the solitary cases observed. But not only do numerous cases occur in which typhoid fever is not traceable to exposure to emanations or excreta from the sick with typhoid fever—that is, to contagion—but there are a sufficient number of cases to render it *probable* that the admixture of sewage not typhoid with drinking water may produce the disease *de novo*; and most of us must have met with cases in which the breathing of greatly diluted sewer-gas continuously for some time, especially at night, has seemed to be able to produce typhoid fever *de novo*. But new cases, sceptically scrutinised and carefully recorded, are required to settle this question. It is only in exceptional instances that cases free from all possible, at least from all probable, sources of error can come under notice; and such cases can only be seen, as I have said, in private practice, especially country practice; and it is for this reason that I especially dwell on the subject to-night, my desire being to urge the careful observation and reporting of these isolated cases.

The following case serves to illustrate the difficulties which beset inquiries such as this. A young lady was under my care with typhoid fever. She had been for some months an invalid, and was so placed that all probable sources of the communication of the disease from the outside could be excluded. She resided in a completely detached villa. She was confined to her own room. There were few inmates of the house, and those were entirely devoted to her service. She had lived in the house about two years, and during that time no one had suffered from typhoid fever. On the floor on which she slept and lived at the time, there was a water-closet well ventilated, used only by two or three persons in perfect health. Now, this young lady was the only person who never left the floor, that is to say, she was day and night breathing air on this floor. A sewer-gas odour was detected, and, on taking up the floor, it was found that there was a crack in the soil-pipe of the water-closet just below the seat, in such a position that the gas escaping from the soil-pipe at this part would find its way between the joints and the boards of the floor, and thus pass into the rooms on this floor. It is true this young lady had received a few visitors in her bedroom, and it is possible, it may be said, that some of them were the subjects of typhoid fever. But the persons who visited her were all well known, and there was no ground for thinking that any one of them suffered before or after from typhoid fever. Again, the drains of the house opened into the drain of the town, on the outskirts of which the villa is situated; but, then, the drains were trapped and the traps were new and efficient. It is only by the multiplication of solitary cases that proof on the one side or on the other can be obtained.

With reference to these three contagious diseases which are unable to be traced, in many cases, to pre-existing cases of the same disease, that is, typhoid fever, diphtheria, and erysipelas, there are three points worthy of notice. First, they are more liable than the most contagious, as small-pox, measles, and scarlet fever, to recur in the same individual. Secondly, when not referable to contagion, each is pretty constantly referred to a particular and the same cause; for example, diphtheria to exposure to cold; erysipelas to exposure to cold when the exposed person was depressed from fatigue, mental or moral causes, fasting, etc.; typhoid fever to foul gaseous emanations or contaminated water. Thirdly, certain primary constitutions seem more prone than others to suffer from these less contagious diseases. All people seem to be susceptible to scarlet fever, to measles, and small-pox, when exposed to the poisons, but these three diseases occur in certain constitutions especially. We are all acquainted, I am sure, with families that exhibit these proclivities. I have known diphtheria, for example, occur in four members of a family at long intervals of time, and in localities widely separated—one in London, one at Brighton, one at Scarborough, and one at some other place in the country. Now, when we consider the infrequency, comparatively speaking, of diphtheria, such a fact as this shows on the part of the members of the family a great primary constitutional proclivity to the disease. I have known six out of seven males of a family to suffer from typhoid fever, no two of the cases occurring within less than two years' interval, and no two at localities within less than fifty miles of each other, while in the same family one only of the same number of females suffered from typhoid fever. Here, again, there must have been a great proclivity to typhoid fever on the part of the males of the family. I do not say, nor do I think, that the arguments and facts able to be adduced in favour of the origin *de novo* of the contagious diseases are conclusive; but I do say, and I do maintain, that they are strong enough to make us pause before we accept the theory advocated by Dr. Wm. Budd, and to which Professor Tyndall has lent the weight of his great name, a weight which would, however, be greater on the point in question, if he had himself studied the subject on which he has, I am sorry to say, addressed the public in a strain calculated to check unprejudiced individual inquiry.

What I have said on the etiology of the acute specific diseases shows how much has yet to be proved, how hard is the work to be performed ere the opinions entertained on the subject can be converted into knowledge. I will not dwell longer on the etiology of the acute specific diseases, but I must allude briefly to the condition of the individual which precedes the establishment, in many cases, of chronic organic disease. We are apt to pay too little attention, to attribute too little importance to the general—to use a very barbarous expression—"out-of-healthedness"—which is so common in previously healthy persons from overwork, from anxiety, from overfeeding, from overstimulation short of so-called intemperance, from want of food, from bad air, from deficiency of exercise, from deficiency of stimulus, to "out of healthedness" in which the patient refuses to admit that he is ill, although he is a little, as he says, out of sorts, and only seeks advice because his friends notice that he does not look well and urge him to consult a physician. This condition cannot be studied in hospitals. Those only who are engaged in family practice can trace the origin, can watch the course, can estimate the effects of this condition in all its bearings. For myself, I have been long satisfied that a very large proportion of the subjects of organic diseases, tubercular, malignant, and degenerative, using those words in their widest sense, are mistaken when they attribute the symptoms of imperfect health, from which they have long suffered, to incipient local disease, and for not detecting which they too often blame their first medical attendant. The deteriorated general nutrition to which I have referred as mere "out-of-healthedness" was the cause of their sense of want of perfect health; and, ultimately, this imperfect general nutrition of every part of the body culminated in the extreme malnutrition of that part or organ which natural constitution or accidental circumstance had rendered less able to resist organic change.

As to the symptoms which mark the very outset of a disease, in illustration of my position that there is not a disease respecting the symptoms at the outset of which we are not wanting recorded facts, I may refer again to that much studied disease, typhoid fever. In Wunderlich's excellent work, is the following statement. "We may exclude typhoid fever when, between the fourth and sixth day, in a child or adult under middle age, the temperature never reaches 103.1"; and indeed, he says, if it fail to do so two or three times. It is impossible not to see that this conclusion is based, as are other of his statements, on cases admitted into hospital; and every one who has enjoyed much experience in private practice would, I think, be disposed to temper this law with so many exceptions that, as a law, it would hardly exist; yet, in proof of the existence of these numerous exceptions, recorded facts are wanting.

With reference to our lack of recorded facts as to the course of common diseases, I shall only mention one disease concerning which I thought two facts quite certain; but, on talking to others, I heard doubts expressed as to the truth of those facts, and I soon found that the observations on record were not detailed with sufficient precision to justify me in drawing the conclusion which, if the supposed facts be real facts, flows from them.

Does emaciation make rapid or steady advance when an external organ, unneeded for life or health, as the breast, is the seat of scirrhous cancer, when the appetite is good, and there is neither ulceration nor discharge? If it be that this steady loss of flesh occurs when the breast is the subject of scirrhous cancer, does it take place without any elevation of temperature? Had there been recorded facts to answer these two questions in the affirmative, then it seemed to me that this important conclusion would follow. In the process of nutrition, there are three factors—namely, the cells of the body generally, the nerves that regulate their functions, and the material out of which tissue is to be formed. It is clear that atrophy of the body generally, like atrophy of a part, may be due either to excess of waste, or to deficient supply of new material; but, if there be no elevation of temperature, there can be no rapid waste of the whole body; and, as we know that in cancer there is no disturbance of the nerve-function of the body generally, and as the cells of the body generally are healthy in structure, then we should have to hold that the emaciation must be due to the third factor in nutrition—namely, the blood. I mention all this, not as affording any clue to the pathology of cancer, which would be out of place here, but as illustrating the want of facts, of accurately observed and carefully recorded facts, in relation to the course of one of the commonest of diseases.

Time will not permit me even briefly to illustrate our lack of knowledge in regard to the other headings to which I have referred; but, before concluding, I must direct your attention to two or three points bearing on our knowledge of the treatment of disease. It does seem to me to be again, I may say, discreditable to us as a profession, that so common diseases as rheumatism and whooping-cough—each, so far as we know, uniform in its pathology—should have for their cure so many drugs. For the good service able to be rendered by each of these drugs, men of high position, of great power of observation, of unquestioned honesty of purpose, have vouched in the most emphatic manner; and yet no one of these drugs is found by the profession, speaking generally, to yield unequivocally favourable results; while the precise recorded observations of one of the distinguished men who have filled this chair, and his colleague Dr. Sutton, have thrown so much doubt on the value of some of the remedies which have enjoyed the highest reputation for the cure of rheumatism, that a re-examination of all these so-called curative remedies is imperatively called for. The difficulties in the way of advances in true therapeutic knowledge are very great; but are the difficulties insuperable which stop the way to our ascertaining the real value of the cures for acute rheumatism or for whooping-cough? Could not an unprejudiced examination of the effects of all the remedies hitherto propounded by men of repute, purporting to have tangible evidence in their favour for acute rheumatism and for whooping-cough, be undertaken on a large and decisive scale? There are two kinds of evidence to be adduced in favour of the value of any drug on the course and termination of a disease. One is the evidence afforded by individual cases observed separately, all the special points of which can be weighed at the bedside by the practitioner—weighed, it is true, rapidly, and perhaps roughly, but still weighed: for example, the age, the sex, the habit, the constitution, the presence or absence of complication, of concurrent or pre-existing ailments, of all the surroundings, etc. Every remedy must be, as a final court of appeal, put through this trial; and, if time be given to dispel the illusions of fashion, and to allow the weight of great names to be reduced to their true standard, it is pretty certain that the verdict is correct.

What may be called incomplete diagnosis has often led to erroneous generalisation in regard to treatment, identity of symptoms being confounded with identity of pathological conditions. The late Sir Benjamin Brodie had great confidence in the bichloride of mercury in the treatment of paraplegia; and he, and others following his example, prescribed it indiscriminately in cases of paraplegia. He saw it cure syphilitic paraplegia; and, not knowing that the particular case he was treating was syphilitic in nature, he regarded bichloride of mercury as the remedy for every case of loss of power in the lower extremities. Other members of the profession tried the effect of bichloride of mercury in paraplegia; and, if it happened that they gave it in two or three cases of syphilitic paraplegia, they too expressed the greatest confidence in bichloride of mercury as a cure for paraplegia. But others happened to give it in succession to two or three cases not syphilitic in nature, and they declared it to be useless, or worse than useless, as a cure for paraplegia.

One mode, then, of estimating the value of therapeutic agents, may be called the individual; and, in testing the value of particular modes of treatment, members of this Society generally may assist. The other mode of estimating the value of therapeutic agents may be called the analytical; that is to say, we test the worth of the drugs by the analysis of a large number of carefully observed and recorded cases. For cases thus collected to be compared, they must be numerous enough to afford a sufficient number more or less identical in regard of age, etc. Researches of this kind can only be conducted in hospitals; and I think, for the purpose of collecting such cases in sufficient number, for the purpose of directing attention to special comparable facts, committees might be formed from members of this Society; and, were this done with due care, every member of the Society might aid in obtaining valuable, because real, therapeutic knowledge. And the testing clinically the value of the several remedies proposed by great authorities for the cure of acute rheumatism and of whooping-cough seem to me to be objects worthy of such a committee, and the questions involved seem to me to be those that such a committee might in time definitely answer.

Excuse me yet a little while, whilst I speak of the treatment of a special class of diseases. When any acute specific disease is epidemic, the educated public call loudly for a cure, and too often, I think, the members of our profession call out as loudly "Eureka!" Now, to me it seems that there are no grounds for expecting that a cure will ever be found for diseases of this class; that is to say, for expecting that a drug or medicinal agent will be discovered capable of arresting the progress of the organic changes which, set in motion by a special cause, following each other in definite and ascertained order, constitute what we call an acute specific disease; for, in place of being diseased actions, these several organic changes, the evidence of which we call symptoms, are, so far as our present knowledge extends, processes, the first of which being called into action by some external cause (for example, the poison of the disease), are essential for the restoration of the intimate organic changes to the order and intensity which constitute health. I may illustrate my meaning thus. Each of these diseases may be likened to a single fit of ague. We administer drugs to prevent the recurrence of the fit, but we do not cure the fit itself. The cold stage having commenced and attained a certain intensity, the hot and sweating stages are essential to the restoration of the balance of health. So with small-pox. By vaccination we prevent its occurrence; but, when the first of the phenomena—which, following each other in certain and definite order, constitute small-pox—occurs, we know that there is no road to health but by the sequence of changes, the symptoms of which mark the several stages of the disease; and it is to my mind very questionable whether, if it were possible by administration of a drug to arrest the essential changes which constitute any one of these stages, health would be the result. What is true of small-pox in this particular, seems to me to be equally true of all acute specific diseases; and when I read the list of cures for cholera which swarm in the columns of the press at the first inroad of an epidemic of that disease, I should smile, did I not know that a column of cures for cholera in a leading newspaper may be the death-warrant of numbers. Although the science of medicine can never hope for a cure for any one of these diseases, it can prevent death from all, and it is time that the public, and not the profession only, had correctly appreciated what medicine can and what it cannot be expected to do, in this class of diseases. Nor would medicine as a practical science fail in public estimation, or the physician be less highly esteemed, were the public instructed in the matter rationally. At one time, the chemist was valued especially, because it was supposed that, by his aid, baser metals could be transmuted into gold—"baser", as they were foolishly called; and day and night he sought for that "power of projection", as it was called, by which the transmutation could be at once effected. Faith in this transmutation, faith in the discovery of this powder of projection is exploded; but is the chemist less highly valued, his aid less earnestly sought? No. The work he can do is of more worth than the work it was fancied he could do. So with the physician; he cannot transmute by a special drug the sequence of processes which we call an attack of cholera into the sequence of processes which we call health, any more than the chemist can transmute iron into gold. The "certain cure for cholera" and the "powder of projection" of the alchemist are alike apocryphal; the dreams of a prescientific age, or the base attempts of charlatans and quacks to prey on those whose minds are yet in the prescientific stage of development; that is to say, on the ignorant and the credulous. The public must learn that the true, the real in regard of the relation of medicine to these diseases is as different and as superior to the fancied as is chemistry to alchemy, or natural science to the black art. Medicine teaches us how to prevent in many of the acute specific diseases the first of those processes, the sum and sequence of which constitute the disease; and, when the first of that sequence has commenced, the physician, though he must reprobate the folly of those who cry out for a drug which will stay the sequence of processes which are in reality steps to health, does not stand helplessly by and leave the patient to his fate; but, by the judicious application of the rules of art, so moderates the necessary disturbances of formation, that they shall eventuate, when the last of the series of restorative processes is over, in health in place of death. The physician in such cases may be likened to the physicist who, although he cannot prevent the discharge from the electric-laden cloud, can yet save the threatened tower by conducting the lightning-flash harmlessly to the earth.

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# LECTURE

ON

# COMPARATIVE PHARMACOLOGY AND THERAPEUTICS.

*Being part of an Address delivered at the Manchester Club of Aberdeen Medical Graduates.*

By JAMES ROSS, M.D., Waterfoot, near Manchester.

The physician has to do primarily with functions, and, secondarily, with structure; and it may be thought that molecular physics, including chemistry, has made such rapid strides of late years that it will afford, along with physiology, as secure a basis for his treatment as molar physics along with morphology does for that of the surgeon. But this is not the case. The effects produced upon organisms of all kinds by bodies in mass, is much better ascertained than those produced by the molecules of substances circulating in the fluids of the body. And this lack of knowledge of the effects produced by the molecules of substances which gain entrance into the circulation, constitutes the greatest gap in our knowledge of the sciences which form the immediate basis of treatment. But even this gap is being rapidly filled up. I am not an old member of the profession, yet my text-book on the subject which treats of drugs and of their actions, which was a closely printed octavo volume of about 800 pages, and which was full of all sorts of information respecting the drugs themselves, gave only the most scanty information with regard to their action upon the body. The only information which it contained with regard to the action of such a commonly used and useful drug as bicarbonate of potash was, that it was "antacid, antilithic, diuretic, and resolvent", and it gave no fuller information with regard to the action of any other drug. Things are somewhat mended since then. We have such works on Materia Medica as that of Nothnagel in Germany, Rabuteau in France, Dr. Wood, jun., in America, Dr. Sydney Ringer, and a first instalment of a work by Dr. Charles Phillips in this country. I have not yet seen Dr. Wood's work, but I am told that it is very accurate, and contains a vast amount of information respecting the action of drugs. I can, however, speak from a personal acquaintance of the other works which I have mentioned, and I must say that each and all of them are immensely superior to the treatises which were in existence during my student days. But, notwithstanding these works, much requires to be done before a scientific basis is given to drug-treatment. In every department of knowledge, the systematic application of the comparative method is that which has given the most valuable results to the scientific workers of the present day. The science of comparative anatomy, or more correctly of comparative morphology, has been constituted within the memories of many living; while the foundations of comparative physiology, comparative psychology, and comparative philology, have been laid by our own contemporaries; and even now comparative theology is pressing itself upon our notice. And, to give a scientific basis to drug treatment, we must found the science of comparative pharmacology. We want to discover a general body of formulæ, which shall be true not simply respecting the action of drugs upon this or upon that organism, but respecting their action upon all organisms whatsoever. And if our facts were fitly arranged for the application of the comparative method, many such formulæ could be readily obtained; indeed, a glimpse may be got of a few of these formulæ even with our present arrangement of the facts. Take, for instance, any one agent, such as ethyl-alcohol, and compare its action upon different organisms. Alcoho checks the movements of protozoa like the amœbæ, and kills them without producing any other symptom. Leaving out of account its action upon vegetables, not because it is important, but because so little is known respecting the action of drugs generally upon them, let us administer it to an animal a little higher in the scale than the protozoa. When it is given to one of the articulata, for instance, there are no marked contrasts between the action it produces upon various parts of the body. It kills by an almost simultaneous suspension of all the functions. When, however, it is administered to one of the vertebrata, the effects produced, both simultaneous and successive, are very varied and multiplied, and the multiplication and variety of effects reaches its height in man. The effects produced upon the human organism need not be described in detail. The experiments which we ourselves are carrying on with this agent at present, sufficiently demonstrate that its effects upon us are more multiplied and varied, in one word, more heterogeneous than the simple homogeneous effect it produces upon amœbæ; although I make no doubt that, if we carry our experiments sufficiently far, alcohol can check our movements as it does those of the protozoa. But as we proceed from the lower to the higher organisms, not only do the effects produced become more heterogeneous but they become more special. This is as true of other agents as of alcohol; but, in the case of the latter, the special effects produced upon the nervous system are so pronounced as to obscure its other effects. To account for this speciality of effect, it has been assumed, that alcohol has a special affinity for nervous tissue, but there is no reason to make this assumption. Alcohol is a very indifferent substance, having chemical affinities of narrow range; and, since it enters into no strong chemical unions without the body, there is no reason to believe that it will exhibit strong affinities within the body. And, moreover, it checks the amœboid movements of the white blood-corpuscles and the movements of the cilia of the bronchial mucous membrane, showing that much of its action is independent of the nervous system. Various reasons might be given to explain why an agent, which acts indifferently upon all tissues, should yet produce a more special action upon one part of the body than upon another; but a few of these must suffice. It is probable that no agent can act until it comes into contact with the protoplasm of the tissues; and, in some tissue, the intercellular substance is so dense, that even a diffusible agent like alcohol would take a long time in gaining access to the protoplasm, while it would gain ready access to the protoplasm of such a delicate structure as that of the nervous tissue. And, from the nature of the function of nervous tissue, a very slight interference with its structure will produce a large and manifest effect upon function; while a very considerable interference with the structure of passive tissues, like bone and tendon, and even most mucous membranes, will produce a very inappreciable effect. And, again, the more freely an organ is supplied with blood, the greater the proportion in which an indifferent substance, like alcohol, circulating in the blood, will be supplied to it; hence an organ performing a very active function will have a greater amount supplied to it than one performing a less active function. These considerations show that, as we proceed from the lower organisms to the higher, not only does the action of an agent become more heterogeneous, but also more special, even if the agent itself is a perfectly indifferent substance, acting in a similar manner upon all living tissues whatsoever.

I have already spoken of the value of embryological studies, and I will now show that such studies tend to throw a considerable amount of light upon the action of medicines. The embryo-cell is almost homogeneous in form and chemical composition, but, when developmental changes begin after fertilisation, this condition soon gives place to a heterogeneous arrangement of parts, which is accompanied by a heterogeneous disposition of chemical elements. Some of the salts of lime become deposited in one part, those of iron in another, and phosphorus in a third. There is no occasion to believe that each of these elements had a special affinity for the tissue on which it has become deposited. The specialisation of structure in each of these tissues has been preceded and caused by specialisation of function. When, however, a specialisation of function has produced a modification of structure, a capacity for performing the function becomes developed in the tissue, and this reacts upon the function, and renders a further specialisation of it possible, which, in its turn, produces a further modification of structure. And, accompanying this modification of tissue, there is a corresponding modification of chemical constitution or of composition, or of both; the differentiation of chemical composition being slight when the differentiation of function is slight, and profound when the differentiation of function is great. There can be no doubt that the deposition of phosphorus, and of the salts of lime, iron, and other elements, which are not found in ordinary albumen, was a necessary condition of the differentiations which result from the action and reaction between structure and function; but it is not necessary for us to assume that each of these elements had originally a special affinity for the tissue in which it is found. When, however, differentiations of chemical composition have once been produced, they will lead to specialisations of chemical action, if heterogeneous agents are introduced into the blood. Like will gather to like, and when an agent cannot find its like, it will select that part of the body which is most similar to it.[*] In this way we find that the compounds of the chemical agents, which have massive atoms, act principally upon the dense parts of the body; whilst those of the least massive atoms, act upon the parts of the body which have a delicate structure, such as muscle and brain, and probably also upon the blood. We know that the salts of iodine, mercury, silver, lead, and of the metals generally, act upon the bones, tendons, and cellular tissue; those of potash and soda upon muscle; those of carbon and the gaseous elements, principally upon nervous tissue. This also explains why the compounds of the elements, having massive atoms, are eliminated by the bowels, those of the elements, with atoms of medium mass, by the kidneys, and volatile substances principally by the lungs, and partly by the skin.

The embryological law, which was first formulated by Von Baer, may be modified so as to be applicable to the action of medicines. The law is that, in its earliest stage, every organism has the greatest number of characters, in common with all other organisms, in their earliest stages; that, at a stage somewhat later, its structure is like the structures displayed at corresponding phases, by a less extensive multitude of organisms; that, at each subsequent stage, traits are acquired which successively distinguish the developing embryo from groups of embryo which it still resembles; and that thus the class of similar forms is finally narrowed to the species of which it is a member.[†] This law, which is true of structures, is equally true of functions, and the likenesses and unlikenesses which it asserts respecting the structures of organisms during their development, are also true respecting the reactions of these organisms to the action of drugs. The law may be modified in the following way. The action of any drug upon an organism in its earliest stage is similar to its action upon all other organisms in their earliest stages; its action upon the same organ at a somewhat later stage of development, is similar to that which it produces at corresponding phases upon a less extensive multitude of organisms; at each subsequent stage, peculiarities of action become manifest, which successively distinguish that produced upon the developing embryo from that produced upon groups of embryo, which it still resembles; and, lastly, the action produced upon the organism displays peculiarities which narrows the similarity to that produced upon the species of which it is a member.

Our facts might also be arranged so as to facilitate a comparison of the effects produced not by one agent upon different organisms, but by different agents upon one organism. The embryological law, already noticed, taught us that the actions produced upon different organisms are similar when the organisms are similar, less similar when the fundamental likenesses between the organisms are less, and only remotely similar when the likenesses between the organisms are small. We now come to the obverse of this law. The actions produced upon similar organisms by different agents, are similar when the agents themselves are similar in chemical and physical properties, and the likenesses between the actions become less and less as the agents become removed from each other in their fundamental properties.*

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[*] When I gave expression to this law, I was not then aware that M. Coze of Strasbourg had anticipated me by upwards of thirty years. He draws the following conclusions from his experiments. 1. That volatile substances introduced into the system have a tendency to be eliminated by those organs which, in a physiological state, secrete gases or vapours—the lung and skin, for example. 2. That substances which contain principles the same as those which naturally form part of a secretion are eliminated by the organs which furnish this secretion. 3. That substances which enter into the composition of an organ, when given as medicines, are carried to that organ. 4. That among the substances which do not naturally enter into the composition of the solids or fluids of the animal system, there are some whose action obey what may be called their general chemical character; thus acid substances are eliminated by acid secretions. (See *American Journal of Medical Science*, April 1843, p. 438.)

Nor was I aware then that M. Gubler has recently enunciated a similar law. He maintains that—1. Substances, when absorbed, tend towards their similars or analogues; 2. When a substance cannot meet with its similar or analogue, it must be eliminated; 3. It is eliminated by the channel in which it meets with similar bodies. (See the *London Medical Record*, December 23rd, 1874.)

[†] In the text, I have availed myself of Mr. Herbert Spencer's expression of this law (*Principles of Biology*, vol. i, p. 142). Von Baer's laws are the following.

"1. Dass das Gemeinsame einer grössern Thiergruppe sich früher im Embryo bildet, als das Besondere.

"2. Aus dem Allgemeinsten der Formverhältnisse bildet sich das weniger Allgemeine und so fort, bis endlich das Speciellste auftritt.

"3. Jeder Embryo einer bestimmten Thierform, anstatt die andern bestimmten Formen zu durchlaufen, scheidet sich vielmehr von ihnen.

"4. Im Grunde ist also nie der Embryo einer höhern Thierform einer andern Thierform gleich, sondern nur seinem Embryo." (*Ueber Entwickelungsgeschichte der Thiere, Beobachtung und Reflexion*, von Dr. Karl Ernst v. Baer, Erster Theil, 1828, s. 224).

These laws, however, when separated from the discussion which precedes and follows their enunciation in Von Baer's work, do not give a complete embodiment to the conceptions intended to be conveyed; but the laws are of more than passing interest, since they are the germs from which sprang much of what is characteristic of the philosophy of Mr. Herbert Spencer.

At the meeting of the British Medical Association this year, at Norwich, I proposed, in a paper "On the Action of Mercury", two laws of the action of medicines. The first is that, other things being equal, the more massive the atom of the element the more definite and local will be the action of its compounds; and the second that, other things being equal, the greater the molecular mobility of an agent, the more general and diffused will be its action.† These laws frequently coincide, yet the one is not the converse of the other. Mercury, for instance, is an element with massive atoms, hence the action of its compound should be local and specific; but it possesses great molecular mobility, since it volatilises at ordinary temperatures, hence it should exercise a wide and diffused action upon an organism. Reference to observed facts shows that, although the action of mercurial compounds is specific, yet it is of wide extent. In the light of these laws, the experiments of my friend and old fellow-student Dr. McKendrick of Edinburgh, in association with Mr. Dewar, upon the chinoline and pyridine series of bases, possess the utmost significance. These compounds could, at one time, only be obtained by distilling natural alkaloids, such as strychnine and quinine, with caustic potash; but chemists now form them from coal-tar.

Mr. Dewar, who is the chemist, forms the compound, and submits it to Dr. McKendrick, who determines its physiological action. Chinoline, which has a composition of $C^{9} H^{7} N$, and boiling point of 238°, has an action somewhat similar to that of chloral; but, as we ascend in the scale, the action upon the sensory part of the encephalon is becoming less marked, and that upon the motor centres more manifest, until the higher members of the series ($C^{16} H^{21} N$, with boiling point above 300°) produce death by convulsions and subsequent paralysis, not unlike the action of strychnine. As the molecule of the agents is becoming more massive, the action is becoming more special and local; the higher part of the brain being left unaffected at first, then the lower ganglia, until at last we have almost the pure action on the cord itself.

It would be interesting and instructive to make comparative experiments upon the action of the alcohols to see if they conform to a similar law.‡ The little we know of the action of different alcohols gives indications that such is the case.

The action of methyl is more diffusible than that of ethyl-alcohol. Nothing much is known respecting the action of propyl-alcohol; but Scotchmen know that when a man gets drunk upon new raw whiskey, which contains a considerable percentage of amyl-alcohol, the effect differs considerably from that of drunkenness from more or less pure ethyl-alcohol. There is less blunting of the intellectual faculties, and a more profound disturbance of the lower emotions, such as rage and jealousy, and I think I am right in saying that a poisonous quantity of such a compound is apt to produce convulsions. It is very probable that the difference which Dr. Magnan of Paris has shown to exist between the action of absinthe and that of ordinary spirits is one of this kind, and depending upon the presence in absinthe of an alcohol with a higher chemical composition than that of ethyl-alcohol. A comparison of the action of the various alcohols suggests to the mind the operation of another law. The monatomic saturated alcohols are poisons, the diatomic alcohols or glycols are less poisonous, the triatomic alcohols or glycerines have a still less effect, and when we come to the tetratomic, pentatomic, and hexatomic alcohols, we obtain substances which are either inert or are foods. This may be an example of the law that, other things being equal, the more heterogeneous a substance is to the body, the greater will be its effect. The hexatomic alcohols or glucocides are homogeneous with the body, and, therefore, will act as foods; while the monatomic alcohols are both physically and chemically more heterogeneous to the body than any of the intermediate alcohols. The reason why the hexatomic alcohols act as foods while the alcohols with saturated radicals act as poisons, is probably that the former are less stable than the latter, and consequently undergo with readiness transformations within the body, whereby force of some kind is evolved. A more or less parallel fact may be noticed with respect to inorganic substances. The elements which are classed as irritants are, as a rule, either univalent or bivalent; while the substances called tonics are generally either trivalent or some higher degree of atomicity. This law has a sufficient number of exceptions to show that the irritant or tonic properties must depend upon other conditions than the atomicity of the agents. Another law is that, other things being equal, the greater the molecular mobility of an agent, the sooner it gains entrance into the body through the absorbing surfaces, and the sooner it is eliminated. This law explains why nitrous oxide gas acts more rapidly, but more evanescently, than ether, and ether than chloroform, and chloroform than chloral. Closely related to, although not the converse of, this law is the one, that the compounds of the elements with massive atoms are relatively long in gaining entrance into the circulation through the absorbing surfaces, and are correspondingly long in being eliminated; and when the agents form, like the metallic salts, stable compounds with albumen, the length of time before they are eliminated is much increased. Another law is that, other things being equal, in binary compounds both elements are represented in the effect produced, but the action of the heavier atomed element will predominate. Take, for instance, chloride of potassium, bromide of potassium, and iodide of potassium. In the first, the action of both elements is represented, but that of the potassium predominates; in the second, the action of the bromine predominates, but when an animal is poisoned by bromide of potassium, the action of a potash salt upon the heart is apparent; while, in the third, the action of the iodine largely predominates. The action of this law may be traced through compounds of a higher grade than the binary. When, however, an agent produces a very energetic effect, such as hydrocyanic acid, it makes its influence predominate even in composition with the more massive atomed elements. We can promise a rich harvest to any one who will have the patience to differentiate by experiment the physiological action of the various chemical groups of organic compounds, and who will then contrast with each other the actions of the groups themselves; such as that of the hydro-carbons, alcohols, ethers, acids, aldehydes, ketones, amines, and amides, and passing through the remarkable bases which I have already mentioned—the chinoline and pyridine series—to the natural alkaloids.

These laws belong to a general science of pharmacology. They are as true of the action of medicines upon all organisms, especially all animal organisms, as they are of their action upon man. They are, however, too remote from practice to be of much immediate use. More specific laws must be discovered before a great effect is produced upon practice; and, to do this, we must proceed in a systematic manner with the arrangement of our facts. We must first of all possess a descriptive pharmacology, which must be freed as much as possible from all hypothesis. I think myself that, if we were to arrange all the facts known respecting the action of medicines upon different organisms in tables similar to the plan adopted by Mr. Herbert Spencer for arranging sociological facts, a great deal might be done in a few years to reduce the actions of medicines to a complete systematic form, which would afford a good scientific basis for the treatment of disease by drugs.

I must now bring these remarks to a close. I have already trespassed much too long upon your patience; but, before sitting down, I will endeavour to enforce one or two practical rules with regard to teaching. It is evident that no student can acquire a real knowledge of all the subjects I have mentioned in four years. In making a choice of subjects for his study, we must fall back upon the rule I have already laid down. He must have a minute and accurate knowledge of the subjects which immediately underlie practice; and the teachers of the subjects which bear only remotely upon practice should be careful not to burden the student's mind with too many details. It is perfectly possible for a student to have a good grasp of the fundamental principles of botany, zoology, and even chemistry, without the mind being burdened by a too minute recital of facts. And, if this rule be necessary for the teacher, it is doubly necessary for the examiner. It would be a great pity to reject a student who is well qualified to make a sound practitioner because he cannot tell the natural family of the castor-oil plant.

The only other remark I would make with respect to teaching is, that the student should be brought as much as possible, and as early as possible, into contact with Nature for himself. He must be taught to be independent of teachers. A medical man is, before all, a man of action, and he should not be a passive recipient of the sayings and doings of others; but he should be encouraged to employ himself actively in the study of science. A man must first woo Nature before he endeavours to master her in her erring moods. Hence, a student should spend much of his time in the dissecting-room, the museum, the chemical and physiological laboratory, and, above all, in the dispensary and the medical and surgical wards and *post mortem* room of a good hospital. And you will permit me to say that no university medical school in the present day can overlook, without committing suicide, the necessity of establishing a physiological laboratory, and including pathological anatomy in its official curriculum of study.

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* In connection with this law, I ought to mention the names of Drs. W. H. Broadbent, Crum Brown, and Thomas Fraser, in this country, and Jolyet and Cahours on the Continent. (See the *London Medical Record*, Dec. 23rd, 1874, p. 809.)

† Rabuteau has recently enunciated the law, that metals are more active, physiologically, according as their atomic weights are higher or their specific heats are lower. The metals rubidium, tungsten, and molydenum are exceptions to the law. The monatomic metalloids are governed by a law which is the reverse of this. The differences between this law and mine are sufficiently obvious not to require pointing out. (*London Medical Record*, Dec. 23rd, 1874.)

‡ Dr. Benjamin Ward Richardson has drawn attention to the fact, that the number of atoms of carbon contained in an alcohol appears to serve as an index to its activity, as may be seen by comparing the respective activities of ethyl and amyl alcohol. (See *London Medical Record*, December 23rd, p. 810.)

## ON THE CONDITIONS OF EFFICIENT DISINFECTION AND ON SOME NEW FORMS OF DISINFECTANT.

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THERE are probably few subjects connected with practical hygiene with regard to which more confusion exists in the minds both of the medical profession and the public, than that of disinfection; there are certainly no sanitary appliances upon which more money is wasted, or more confidence falsely placed, than on the so-called disinfectants which are generally employed. Antiseption, or the arrest of putrefaction—a purely temporary process, and even simple deodorisation, or the chemical neutralisation of its results, are confounded with biolysis, or the permanent destruction of life. Nay, more; the mere fact that certain bodies emit powerful odours is assumed to indicate that those odours themselves possess the power of arresting the spread of infection. Unfortunately, the facility with which a little cheap and very disagreeably smelling powder can be scattered about an infected house, or over the mouth of a drain, is too apt to generate, in the minds both of sanitary authorities and of private individuals, an unfounded confidence in its virtues, which too often leads to a disregard of other measures which are of far more real importance, thus producing results from which the community at large suffer. For this state of things medical men are in a large degree responsible. A disinfectant, especially one which has a good strong smell, like a drug with a good strong taste, is an ally which practitioners often have not the courage to discard, even though they may have strong doubts as to the value of its aid. It represents to the patient an amount of potentiality which is measured by the effect it produces on his organs of sense, and offers to him a sort of material guarantee that "something is being done". Under these circumstances it is, perhaps, not strange that so offensive a body as carbolic acid should still enjoy a large popularity, in spite of the incontestable evidence which has been adduced as to its untrustworthiness as a disinfectant in the way in which it is mostly used; nor, on the other hand, that a liquid, whose deodorant action is so evident both to the eye and nose, as is that of a solution of the alkaline permanganates, should have acquired a reputation as a true disinfectant, to which it has no claims whatever. Of the immense importance of really efficient disinfection, where it is practicable, no one can have any doubt; and in proportion as this conviction is strong, so should be the effort to use, for the purpose, those agencies whose action shows them to be most reliable.

To employ worthless or even feeble instruments, where more trenchant ones are at our service, is to needlessly play into the hands of disease; nor do we less so, when we attempt to use even effective weapons for a service which they cannot perform. If disinfection be worth undertaking at all, it should be done as thoroughly as is practicable; anything like half measures, where whole ones can be conveniently employed, should be actively discouraged, and any attempt to accomplish impossibilities should be rigorously eschewed. In order to have a clear idea of what can and what cannot be done in this direction, it will be well to briefly consider what objects we should have in view when we practise the process of disinfection.

We have the strongest possible reason for believing that certain specific diseases are produced mainly, if not exclusively, by the introduction from without into the bodies of healthy persons of material particles communicated from the bodies of persons suffering under those diseases. The object of all efficient disinfection is, if possible, to destroy the vitality of these particles altogether, or, if it fail in this, to so effectually neutralise it that it shall be arrested sufficiently long to allow these sources of infection to be removed by natural (atmospheric dispersion) or artificial (water-carriage or absorption into the earth) means from the immediate vicinity of the healthy. Whether these particles be of the nature of germs, having an independent life of their own, and developing like seeds or ova when introduced into an appropriate soil; or whether they be merely fragments of diseased tissue or portions of diseased secretions, which act upon the healthy fluids of the body in a somewhat analogous way to that of a piece of rennet on milk; or whether, lastly, they be independent, free-moving organisms (contagion-bacteria of Traube), generated either spontaneously or by implantation in the fluids of the sick person, which possess the power of making their way into the fluids of the healthy, and there, by their multiplication, setting up the specific disease, we cannot positively say. Probably all of these hypotheses have a justification in fact, each one of them representing the mode of diffusion of one or more special forms of infectious disease. What is equally probable is that some, if not all, of these material sources of infection partake more or less intimately in their composition of that albuminoid character which all primitive forms of life exhibit. And what is still more probable is that, if these sources of infection be independent organisms, they grow and multiply most readily in albuminoid fluids, and that, even where these organisms are not themselves directly destroyed, their vitality and activity are more or less completely arrested by agents, which render albumen physiologically inert, and cut off, as it were, the sources of their subsistence. In the words of Shylock:

> "We take their house when we do take the prop
> That doth sustain their house; we take their life
> When we do take the means whereby they live."

If, then, we seek to destroy the physiological activity of these infectious particles, there are only two ways in which we can hope to do so. The first of these is, by the employment of agents which effectually destroy all organic bodies; and, in so doing destroy, of course, their reproductive activity. Such agents are heat, and rapidly acting corrosive chemical agents, such as the strong mineral acids. Heat in the dry form can only be conveniently employed for disinfecting purposes by the aid of appliances specially constructed for the purpose, at some considerable expense, and with certain requisite precautions. It therefore is only fitted for use through the interposition of sanitary authorities or public institutions. But heat in the liquid form, in the shape of boiling water, can be readily applied to all washable articles, and if not absolutely destructive of all sources of infection, which is, perhaps, open to doubt, is at any rate a valuable adjunct to any form of chemical disinfection. The corrosive mineral acids, though available in certain limited conditions, as in hospitals and other similar institutions where they can be employed with due precaution for the disinfection of alvine evacuations, are, for obvious reasons, out of the question for general disinfecting purposes; and, though less rapidly, corrosive agents, such as chlorine and sulphurous acid, will probably, if applied for a sufficient length of time and in sufficient quantities, produce the same effect, there are practical difficulties in the way of doing so efficiently, which make them of little or no use, except perhaps when applied in a concentrated gaseous form, for disinfecting articles of clothing or other objects in a closed chamber. As ordinarily employed, in the liquid form (chloride of lime and calcic bisulphite), these agents are merely deodorants, or, at best, antiseptics, which rapidly lose their power, partly from oxydation and partly from volatilisation.

The second method consists in the use of agents which chemically coagulate albumen, and thus render it physiologically inert. The action of such agents is probably twofold: firstly, attacking such elementary organisms as are of an albuminoid character, and gradually destroying them; and, secondly, in so affecting albuminoid liquids, that they become unsuitable as a pabulum for such organisms. It is in this way, probably, that the high antiseptic power of albuminous coagulants is to be explained. As a matter of fact, it will be found that those bodies which have the highest power of preventing putrefaction, and with it the development of free-moving organisms, are mostly energetic coagulators of albumen. It is true, that the power of antiseption is not confined to coagulants, many organic bodies which exercise no apparent influence on albumen possessing it. But, taking the chief metallic salts which act as antiseptics, it will be found that their antiseptic and coagulant properties are closely proportionate.

Hence, then, it is before all things desirable, that any substance which is to be used for disinfecting purposes, should be an energetic coagulator of albumen, not only for the purpose of directly attacking infectious elements, but also of arresting putrefaction. But, though the effective coagulation of albumen is a first requisite in a perfect disinfectant; and, though it would, probably, be sufficient if we had only to deal with the disinfection of organic compounds which had not entered into putrefactive or fermenting decomposition, as a matter of fact, most of the compounds to which disinfectants have to be applied have already advanced to this stage; and it is important, for several reasons, that the results of this process, in the shape of various gaseous products, should be neutralised. This deodorising part of the disinfecting process is essentially a chemical one, and the most efficient of all deodorisers is unquestionably ozone, from the rapidity with which it attacks one of the invariable constituents of all putrefactive emanations, viz., hydrogen. Hence, all active ozonisers are active deodorants. A body may, however, act as a deodoriser without being an ozoniser at all; *e. g.*, metallic salts by their action on sulphuretted hydrogen, and acids and acid salts by their action on ammonia. Looking at the various matters to which a general disinfectant may require to be applied, it will be found in practice desirable that it should have as it were a double deodorising power; one to act on the more purely organic results of decomposition, and the other on sulphuretted hydrogen. For the first of these purposes ozone is, in every way, the most appropriate agent, and it would, of course, be equally applicable for the second of the above objects were there not practical difficulties in the way of employing it in sufficient intensity. For the effect even of a very intense dose of ozone is very soon exhausted on any organic liquid, and the rapidity of this exhaustion is no guarantee of the permanency of the deodorant effect; since organic elements to be attacked by it need not be in a state of decomposition at all, but only in one of unstable equilibrium. Hence, in the use of an ozonising agent, such as the permanganate of potassium, upon a complex organic mass in a state of decomposition, like fæces, the exhaustion of the disinfectant is complete at once, though the process of decomposition itself may not be even temporarily arrested. The process of disinfection is, therefore, under the different conditions in which it may be required, a complex one, and the results to be compassed are not to be obtained in the most satisfactory manner possible from any single agent. The prescription for a disinfectant, like that for a medicine, should be in most cases double, or even treble shotted, if it is to be effective under all circumstances. And even when we have carefully balanced its chemical ingredients with a view to their producing a maximum effect, we have not achieved the whole object in view; for, in addition to considerations of efficiency, are certain others of an economic and practical character which cannot be overlooked. It would not, probably, be difficult to name a dozen organic and inorganic bodies at least, which would be infallible disinfectants if they could be conveniently used, but which, either from their cost or on other grounds, are unavailable.

For these reasons, then, the composition of a disinfectant is a matter of some little difficulty. Its designer has to balance the greatest number of advantages against the least number of disadvantages, and the more completely he can do this, the more effectually will he attain the object he has in view. A few words will be sufficient to explain the practical conditions to be aimed at. In the first place, as those sources of infection which can be most readily dealt with are either presented to us in the liquid form, or can only be energetically attacked by liquid agents, our disinfectant should be either itself a liquid, or, if a solid, should be as largely soluble in water as possible. This condition indicates a fatal objection to the various forms of powders sold for disinfecting purposes, in which carbolic acid, itself an almost insoluble body, is combined with from eighty to ninety per cent. of entirely insoluble matter. Any one who will take the trouble to make a solution of these powders, and then to test the strength of that solution as an antiseptic, will soon convince himself of how little value it is. In the next place, for the reasons stated above, our disinfectant should act as energetically as possible upon albumen consistently with a due regard, amongst other things, for the economic conditions in which it is most likely to be required; *e. g.*, its action over clothes, closet-fittings, etc. This consideration excludes such bodies as the permanganates from the list of effective disinfectants, however useful they may be as deodorants.[*] To trust to such agents alone as disinfectants in cases of infectious disease is like firing blank cartridge at a tiger.

It may be well here to advert to the idea which seems to prevail somewhat extensively, that carbolic acid is a powerful coagulator of albumen, and that it is upon this property that its antiseptic powers depend. Carbolic acid is, it is true, a fair albuminous coagulant, but it is only when it is brought in contact in mass with an albuminous structure, such as a mucous membrane, or a raw wound. When mixed with a solution of albumen, it is, in consequence of its slight solubility in water, an extremely feeble coagulant, as any one may easily satisfy himself by pouring some of the liquid acid into a solution of egg-albumen in water, or into blood-serum. Even if violently agitated, so as to reduce the acid to an extreme state of comminution, coagulation is very imperfect, probably from each globule of the acid becoming at once coated with a pellicle of coagulated albumen, which prevents further action. If the antiseptic powers of carbolic acid are to be utilised at all (and for certain crude purposes it has some recommendations), it should be combined either with matters which are themselves soluble, or which will promote its solution, and which will, so far as is practicable, themselves exercise some influence on organic decomposition.[*]

Having acquired these properties for our disinfectant, we have to a large extent gained others which are very desirable. For instance, as has been before remarked, we shall find that in proportion to its efficacy as an albuminous coagulant, will be its power as an antiseptic. By a judicious selection of a coagulant, we may also obtain a body which shall act upon sulphuretted hydrogen and ammonia, two of the most offensive results of organic decomposition. Most antiseptics are deodorants, though it may be doubted whether in some cases the deodorisation is not more apparent than real, in consequence of the strong odour of the disinfectant masking that of decomposition. Ozone, as has been above observed, is the most effective of all deodorants—hence it is very desirable that an ozoniser of some kind should be combined with our disinfectant. The influence of carbolic acid as a deodorant is possibly —in part, at least—due to its evolving ozone whilst itself is undergoing oxydation: that of chlorine is also partially attributable to the same cause, from its decomposing action on water, though also in a large degree to its direct effect on hydrogenous gases. It may also be assumed that it is desirable that the ozonising influence of our disinfectant should be capable of being exerted not only in solution, but by atmospheric diffusion: and for purposes of mere deodorisation this is, no doubt, important. It would appear that, practically, this object can be most readily attained by the use of certain organic bodies, which in the act of diffusing a volatile aroma, more or less actively evolve either ozone or peroxide of hydrogen (Schönbein's antozone). The use of such bodies for purposes of deodorisation is not to be confounded with any attempt at real atmospheric disinfection. Such an attempt is, I believe, impracticable by any such means. There are, however, three ways in which there is a possibility of achieving such a result: the first, and by far the most effective, is thorough ventilation, which, by sweeping into the outer air, and thus largely diluting, as it were, the infectious elements, reduces *pro tanto* the chances of their prejudicial action, and is probably as beneficial to the sick person as it is to the healthy around him; the second, which is much more problematical, is the diffusion through the infected atmosphere of a corrosive gas, such as sulphurous acid; the third is the diffusion, in the form of spray, of an efficient liquid disinfectant, by means of which the atmosphere may, as it were, be thoroughly washed out.

Of these three methods, the first is obviously the only one which can be practised whilst the sick person occupies the infected room; and it is, in my opinion, ample both then and after convalescence, if combined with careful dusting, washing, and, so far as is possible, liquid disinfection of all surfaces and articles in the infected room.[†] A good sulphuring effectually deodorises the offensive atmosphere and articles in a sick room, but it is very doubtful whether it does any more. Of how little value the vapour of carbolic acid is for antiseptic purposes is shown by the fact that the decomposition of meat or other readily putrefiable bodies, suspended in an atmosphere of it, is scarcely appreciably retarded.

With the view of ascertaining the best practicable combination for ordinary disinfecting purposes, I have for some time been engaged in a series of experiments on the value of various bodies for disinfection, as evidenced by their power of arresting putrefaction, of retarding the development of free-moving organisms, and of neutralising the results of decomposition. The details of these inquiries I hope to publish hereafter, when some of them, which are not yet quite completed, are finished. It will be sufficient to say that they are generally coincident with, and confirmatory of, the results arrived at by Dr. John Dougall of Glasgow,[‡] in his lengthened and elaborate inquiries, and by Surgeon-Major O'Nial of the Army Medical Staff.[§] The result of these experiments has led me to the conclusion that a combination of the aluminic and cupric sulphates with the potassic dichromate (producing in effect a potential cupric dichromate) possesses antiseptic powers of the highest degree, and is, at the same time, a most energetic coagulator of albumen, as well as a good deodorant, so far as sulphuretted hydrogen and ammonia are concerned. With this inorganic triad I further combine (mechanically) a small quantity of terebene (one of the isomers of oil of turpentine), a body which seems to have attracted little or no attention.[‖] This body possesses remarkable deodorant properties which are apparently due to its being an active ozoniser, which latter property is of itself in all probability owing to terebene being a body in a state of very unstable equilibrium, and very prone to oxydation. The odour of terebene is far from being disagreeable; in mass it is somewhat terebinthinous, though quite distinct from that of turpentine, and is generally said to smell like oil of thyme or oil of cinnamon; but, when diffused through the air, in which condition it probably soon passes into incipient oxydation, it has an aroma quite peculiar, and not at all unlike that of fresh pine-wood, of the odour of which wood it is not at all improbable that terebene is the cause. At any rate, terebene possesses the same powers in a very active degree; and that it evolves ozone or else peroxide of hydrogen, may be shown by its producing the characteristic effect on tincture of guaiacum and blood-solution.

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[*] It is scarcely necessary to say anything of the worthlessness of such salts as calcic and sodic chlorides. As disinfectants—even as antiseptics—their action is very feeble, compared with that of numerous other available agents.

[*] To use liquid carbolic acid in quantity, as is generally done, is absurd waste: nineteen-twentieths of the acid are entirely thrown away in consequence of its slight solubility in water (about three per cent.)

[†] I have saturated with sulphurous acid gas solutions of decomposing organic liquids teeming with bacteria and vibriones, without apparently affecting them.

[‡] On Putrefiers and Antiseptics, *Glasgow Medical Journal*, 1872-73; also paper read at Social Science Meeting, 1874.

[§] *Army Medical Reports*, 1871.

[‖] The so-called "terebene" of the shops is a very different body; and, instead of being a substitution compound, is only an oxydised product of oil of turpentine.

It is not inappropriate, in connection with this fact, to note that attention has lately been drawn by several writers, especially by Dr. Day of Geelong, Australia, to the ozonising properties of pine-wood, and to its value as a material for the construction of hospitals for infectious disease. In fact, Dr. Day attributes to it disinfecting powers of a high order. That it possesses very efficient deodorising properties, is within the observation of any one who has noticed the effect which fresh pine sawdust has on offensive masses; but that it is in any true sense a disinfectant is, for the reasons given above, I think more than doubtful.

To the compound above described, I give the name of *cupralum*. For crude deodorising purposes, where the coarser results of decomposition, such as sulphuretted hydrogen and ammonia, have to be neutralised, I combine a mixture of the sulphates of iron and alumina, with a mixture of carbolic acid and terebene. To this compound, which will be found effective for a variety of purposes, such as the deodorisation of drains, cesspools, urinals, etc., I give the name *ferralum*.

# THE TEMPERATURE OF PHTHISIS.

By C. THEODORE WILLIAMS, M.D., F.R.C.P.,
Physician to the Hospital for Consumption, Brompton.

THE questions put to me on the temperature of phthisis by Dr. Edward Mackey, in the last number of the JOURNAL (February 13th), are of such importance, that I lose no time in replying to them, although I could have wished for a still larger accumulation of material than my 104 cases before I laid down definite laws on the subject.

Dr. Mackey asks for a further expression of opinion from me on the average frequency and character of the cases where tubercle forms without any rise or fall of temperature, and quotes some of Dr. Ringer's propositions: viz.: 1. There is probably a daily elevation of temperature in all cases where a deposition of tubercle is taking place in any organ; 6. By means of temperature (rise), we can in many instances diagnose tuberculisation long before physical signs were sufficient; 8. It is probable that, by means of the temperature (non-rise), we can conclude that the deposition of tubercle has ceased.

Of my patients, twenty-six were active first stage cases, in which no cavities existed, or any suppuration was proceeding, and the formation of tubercles was the only evident lesion. They thus, perhaps, afforded better opportunities of ascertaining the thermic phenomena accompanying tubercle formation than the more or less advanced cases to be found in a general hospital, and than Dr. Ringer's, in some of whom excavation had already taken place; for it is obviously of importance to exclude the phenomena of suppuration as far as possible.

In seventeen of the above twenty-six, a rise of temperature accompanied the formation of tubercle; the rise took place in the afternoon, invariably subsided at night, and was followed by normal or subnormal morning temperature. In some, the rise preceded the physical signs, in others it did not. In nine of the above cases (more than one-third), no rise was perceptible, though it was carefully watched for, the observations, as Dr. Mackey must have seen from my paper, being taken very frequently. In five out of the nine, subnormal temperatures prevailed, yet here the process of tuberculisation was traced day by day and step by step with the stethoscope; of these cases, two are narrated in my paper, one in which development of tubercle took place, and the other where a distinct extension of the tubercle-formation was detected.

These patients presented no striking clinical features, and their cases afterwards followed the course of chronic phthisis. The amount of consolidation seemed to bear no relation to the temperature. Five of the nine had one lung affected; four had both lungs involved. In one, active tuberculosis was taking place in both lungs. Some of the patients belonged to that category of cases where the early symptoms are so often mistaken for those of bronchitis, the tuberculosis being accompanied by wheeze and sonorous rhonchus, with frothy expectoration. All doubt as to the presence of consumptive disease was set at rest by the appearance of subclavicular or suprascapular dulness. Valuable evidence confirmatory of my cases, and exhibiting the frequency of low temperatures in early phthisis, will be found in Surgeon Nathaniel Alcock's very able essay on the Nature and Varieties of Destructive Lung-Disease included under the head of Pulmonary Consumption (*Army Medical Reports*, 1873). My large opportunities at the Brompton Hospital have enabled me to collect and analyse the greatest number (as far as I know) of temperature-records of phthisis; and I do not hesitate to affirm that their evidence is not in accordance with Dr. Ringer's first and eighth propositions, nor, again, with this paragraph: "Admitting an elevation of temperature in all cases of tuberculosis and catarrhal pneumonia, it follows that, if the temperature be normal, we may conclude the patient is free from these diseases." Dr. Ringer's cases were, I believe, fewer than my own, and by no means so free from complications; but I do not doubt that so competent an observer, if he had had the same field for watching early phthisis, would have arrived at much the same conclusions on this subject as myself.

The old idea, that the formation of tubercle is invariably accompanied by rise of temperature, is untenable; and the question arises, in cases where high temperature is present, whether it may not be caused by the presence of pneumonia set up by the tubercle rather than by the tuberculosis itself? If the whole temperature-course of phthisis, in all its forms and stages, be surveyed, it will be apparent that low temperatures are as much, if not more, a characteristic of the disease as high temperature; and, if Dr. Mackey require a temperature-test for tuberculosis, he will be more likely to find it in (1) the fall of temperature at night, (2) low records of the early morning; or, when a rise takes place, not in the fact of the rise, but in the period in which it takes place, viz., in the afternoon, and in the rapid fall of the temperature towards night.

As I have recently laid a considerable mass of evidence on the subject before the profession in my paper read at the Royal Medical and Chirurgical Society on January 26th, and as I am preparing another, dealing with the effects of various accompaniments of phthisis on the temperature, I will not trespass further on the space of the JOURNAL. The joint work on *Pulmonary Consumption* by my father and myself contains little mention of diagnosis by temperature; for, at the time of its publication, my results had not been obtained; but, in a future edition, the question will be duly discussed.

# PRELIMINARY NOTICE OF EXPERIMENTS ON THE PHYSIOLOGICAL ACTION OF JABORANDI.

By J. N. LANGLEY, B.A., St. John's College, Cambridge.

DR. FOSTER, having received from Dr. Ringer, through Mr. Martindale, a small quantity of the alcoholic tincture and glycerine solution of the alcoholic extract of jaborandi, placed the drug in my hands, and requested me to observe its physiological action. I have been able to make some observations, which are confessedly very incomplete; but I am induced to publish them, since they seem to have some interest, and because I shall be quite unable to resume them until after the close of the term, it being practically almost impossible for me to pursue any serious investigation while the class-teaching is going on.

1. *Effects on the General Nervous System.*—Injected beneath the skin of the frog, jaborandi causes tetanic convulsions not unlike those of strychnia. These continue when the brain has been removed, but do not appear after destruction of the spinal cord. The mechanism of their production is, therefore, not peripheral, but central and spinal. In two dogs which had previously been placed under the influence of morphia, and in two rabbits to which chloral had previously been given, no such convulsions were observed. The difference between the frog and the mammal may have been a question of dose. To settle this, further observations are necessary. I could find no *marked* effect on the irritability of the motor nerves or of the muscles; but on this point, also, I speak with reserve.

2. *Effects on the Circulation.*—In the dog (under morphia) and in the rabbit (under chloral), injection of jaborandi into the jugular vein was followed almost immediately by a distinct slowness of the pulse-rate. No initial quickening (Dr. Ringer observed quickening of the pulse in the human subject) was observed. This, again, may be a question of dose, and of rapidity of entrance into the circulation. The pulse was brought down to as much as one-third of its previous rate. The effect in the case of the rabbit came on very rapidly, soon reached a maximum, and then speedily diminished.

During the height of the effect, stimulation of the pneumogastric nerve produced the ordinary inhibitory results, the heart being brought to a diastolic standstill, and resuming its beat afterwards on the cessation of the stimulus.

In the frog, the slowness of the heart's beat was carried to actual stoppage, the heart remaining motionless and distended in diastole. While the animal was in this condition, the injection of atropine brought back the rhythmic beat.

We may infer from this, that the action of jaborandi (like physostigmin) in rendering the heart's beat slow, is through stimulation of the inhibitory fibres of the pneumogastric. The jaborandi, however, apparently, while exciting, does not rapidly exhaust the inhibitory fibres.

An attempt was made to recall in a frog, by the injection of jaborandi, the inhibitory power of the pneumogastric nerve, which had been suspended by the action of atropine. This, however, failed.

In the dog and the rabbit, this slowness of the pulse-rate was accompanied by a fall of blood-pressure, distinct, but not of any very great extent, coming on rapidly; in the case of one rabbit, causing a descent of the pressure-tracing almost imitating the effects of stimulation of the pneumogastric.

If the web of the frog's foot be examined while jaborandi is injected beneath the skin of the back, the arteries are seen to dilate, and the capillaries and veins to become full and red. The rapidity of the flow of blood, in spite of the dilatation, diminishes very considerably, so much so, that eventually a nearly complete, or even quite complete, stasis is observed over the greater part or whole of the web. This may be seen not only when the heart is at a standstill, but also when it is beating as rapidly as twenty times a minute. When the heart is revived by atropine, the stasis gives way, but only partially, and a very slow imperfect circulation is set up again. This same stasis was observed both when the sciatic nerve was left intact, and when it had previously been divided. Speaking under all reserve, and in view of future observations, I am very much inclined to believe that the stasis cannot be wholly due to the action of the jaborandi on the heart and vaso-motor nerves, but that a direct influence, of some kind or other, is exerted.

Injected into the jugular vein of a rabbit in which the sympathetic nerve of one side had been divided, jaborandi caused first of all a contraction of the vessels of the ear on the side where the nerve had been divided. This contraction was followed by a dilatation. A second injection caused a second contraction, succeeded again by dilatation. Under the full influence of jaborandi, stimulation of the divided sympathetic caused contraction of the vessels and pallor as usual.

After the injection of jaborandi, the vessels of the ear on the side on which the sympathetic was intact were dilated, but apparently not to the same extent as on the other side.

Paralysis of the normal vaso-motor influence does not, then, seem to be one of the most prominent characteristics of jaborandi.

The tracing of the blood-pressure was remarkable for the great flattening of the respiratory curves, a flattening which could not be explained by changes in the respiratory movements. This change in the respiratory curves, added to the bold pulse-curves of the slowly-beating heart, gave very distinct features to the tracing.

3. *Effects on Secreting Organs.*—In the dog and rabbit, very soon after the injection of jaborandi, a thick viscid mixture of mucus and saliva dropped from the mouth. A clear fluid ran from the eyes and nose. When a cannula was placed in the submaxillary duct, a flow of saliva, having the characters of chorda-saliva, took place very soon after the injection of jaborandi. The secretion speedily reached a maximum, and then declined. This excitation of the gland was but little, if at all, affected by previous division of the chorda tympani, and it was, therefore, peripheral in its mechanism. After the injection of jaborandi, electric stimulation of the chorda tympani caused an increased secretion, but quite out of proportion to the flow caused by a similar stimulation before injection. In fact, the jaborandi appeared rapidly to exhaust the gland.

In the frog, jaborandi caused a viscid secretion from the mouth and from the whole surface of the skin. Division of the sciatic produced no marked effect on the secretion from the skin of the leg; but this point also requires closer examination.

In the dog, there was found, after death, a large quantity of mucus in the trachea and bronchi, and a considerable amount of acid fluid in the stomach.

Jaborandi apparently increases the peristaltic action of the intestines, and in some way affects the urinary apparatus; but on these points, as also on its influence over the eye, the liver, and the secreting powers of the kidney, I have as yet been unable to make any precise observations.

In conclusion, I would point out that jaborandi in many points is similar in its action to physostigmin, but yet has distinct characters of its own; that its action on the heart may be regarded as indicative of the care with which it should be employed therapeutically for the sake of its other qualities; and that its effect on secreting tissues—for example, the skin—and its peculiar action on the general circulation, present physiological problems of very great interest. To these I hope to be able before long to return. Of course, an isolation of the active principle, or of the active principles—for there may be more than one—is much to be desired.

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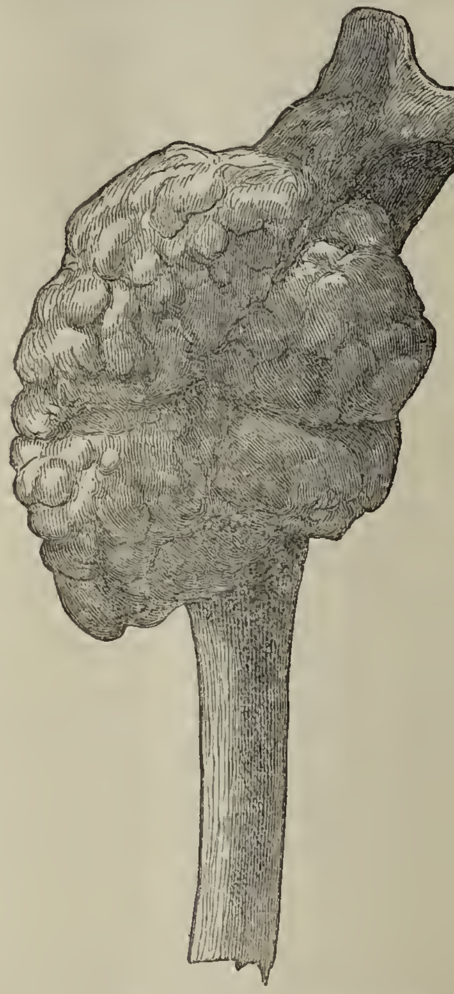
# EXCISION OF THE UPPER HALF OF THE FIBULA WITH A CARTILAGINOUS TUMOUR.

By THOMAS ANNANDALE, F.R.S.E.,
Surgeon to the Edinburgh Royal Infirmary, and Lecturer on Clinical Surgery.

A. D., AGED 30, was admitted under my care on March 17th, 1873. Four years before, the patient had a cartilaginous tumour removed from the upper part of the fibula; but none of the bone was taken away, the growth being simply torn from its attachment to it. The part remained well for about two years; but after this the growth returned, and continued gradually to increase in size.

An examination determined the existence of a tumour as large as an infant's head, firmly attached to, and evidently growing from, the upper half of the fibula. It was firm to the touch, somewhat lobulated, and projected principally inwards towards the popliteal space and calf of the leg. There was a cicatrix near the head of the fibula, the result, we were told, of the old operation. At first sight, amputation of the limb appeared to be the only method of successfully removing the tumour; but, after taking into consideration the nature of the growth and the site (the fibula) of its origin, I thought it might be possible to take it away thoroughly by excising the portion of bone from which it grew. The operation would necessitate the taking away of the entire upper half of the fibula; and two risks required to be avoided: (1) injury to the knee-joint in disarticulating the head of the bone; (2) injury to the popliteal vessels and nerves.



With these points in view, I undertook the operation on March 21st. The superficial aspect of the tumour was first exposed by a longitudinal incision about six inches long, made on the outer edge of the fibula, and by a shorter transverse one passing inwards across the calf at right angles to the centre of the first. Portions of several of the muscles were adherent to the growth, and required to be dissected off or cut across. The posterior tibial artery ran along a groove in the lower part of the growth; and, as it could not be separated, it was ligatured and divided. The posterior tibial nerve was dissected away from the tumour, and left uninjured. The fibula was now sawn through about its centre; and its upper half, together with the growth, being laid hold of, it was drawn outwards, so as to allow some of the deeper portions of the tumour to be easily separated, and disarticulation of the head of the bone accomplished, with the least risk of injury to the knee-joint. By this means, the entire growth was surely removed; and, the edges of the wound being brought together, antiseptic dressing was applied. The tumour, when examined, was found to be growing from a little more than the upper third of the fibula. It was a good example of the cartilaginous growth; and, when the adherent textures had been dissected from it and the portion of the fibula to which it was connected, it presented the appearance figured in the illustration. From the close connection of the tumour to the fibula, it was very evident that no operation short of the removal of this bone could have been successful in taking away the whole disease.

On the 23rd, it was reported that the patient's progress was most satisfactory. On April 2nd, the report was, that the wound was rapidly contracting, and the general health excellent. On April 27th, the patient rose for the first time, using crutches. On May 8th, he was able to walk round the ward without support. The wound was very nearly healed, and was quite superficial. On May 12th, the patient left the hospital with a most useful limb. He could move the knee-joint freely, and bear good weight upon the legs.

REMARKS.—The satisfactory result of this case is an addition to the successes of conservative surgery. The non-malignant nature of the tumour, the history of its exact place of origin, and the secondary part which the fibula takes in connection with the support of the leg, were the circumstances which encouraged me to operate in the present case. The discission of the fibula at an early stage of the operation was found to be a great assistance; for it permitted the tumour to be drawn away from deep and important structures, and thus diminished much the risk of injury to them during the deeper dissections.

## CLINICAL MEMORANDA.

### CASE OF POISONING BY HOMŒOPATHIC SOLUTION OF CAMPHOR.

THE case of camphor-poisoning related by Dr. George Johnson in the JOURNAL of the 6th instant, has induced me to look up my notes of a case that came under my observation about fourteen months ago.

Last winter, a young lady about twenty years of age, who generally enjoyed good health, while dressing about half-past seven to go out to an evening party, became very giddy and unwell. She went into the next room to her sister; said she felt very ill; threw her arms around her, and was immediately seized with strong convulsions. I was sent for; but, not being at home, she was seen by Mr. Armstrong. The convulsions had passed off. In about a quarter of an hour, there was free vomiting, and the patient remained unconscious for some time longer. I was requested by a second messenger to see her as soon as I came home. I did so a little before eleven. She complained at that time much of headache and giddiness, and was evidently confused. Her pulse was quick; skin moist. Her father told me down stairs that she had had an epileptic fit. I expressed my unwillingness to believe it was a case of epilepsy, until I failed to discover that it originated from some other cause. At the request of her parents, I visited her again in two hours—about half-past 1 A.M. Having had some sleep, she seemed more comfortable, and was decidedly clearer mentally. After much conversation and inquiry, which did not elicit anything of importance bearing on the illness, when I had almost despaired of gaining any further information, her mother told me that the only thing her daughter had taken that evening after dinner was a few drops of camphor while she was dressing, for a slight cold in the head; and "that of course", she added, "could not make her ill". I thereupon expressed a wish to see what remained. A half-ounce bottle was produced, more than half-full, labelled "homœopathic solution of camphor", with the name of a respectable firm. There was no intimation of the dangerous potency of the drug. It was bought, I was informed, because it was considered good for a cold; and many ladies took it for that reason. The lady said, moreover, that as it was a *homœopathic* preparation, she never doubted its being a safe one. I dropped fifteen drops (which was admitted by the patient to be about the quantity taken) into a tumbler with a wine-glassful of water, when a large deposit of camphor took place. The previous perusal of Dr. George Johnson's and Dr. Clifford Allbutt's striking and instructive cases of poisoning by this strong solution enabled me at once to assure the friends of the patient that it was a case of camphor-poisoning, and that there would be no recurrence of the attack if the dangerous medicine were at once discarded from domestic use.

It is worthy of remark, that, while chemists carefully label laudanum in small quantities "poison", they do not hesitate not only to sell a drug considerably more deadly in its character to anybody who asks for it without any intimation whatever as to dangerous properties, but rather mislead the public by using an adjective which, in former years at least, was associated with everything innocuous and absurd.

A. LEGAT, M.D., South Shields.

### POISONING BY HOMŒOPATHIC TINCTURE OF CAMPHOR.

READING, in the BRITISH MEDICAL JOURNAL of February 6th, Dr. George Johnson's statemant of cases showing the poisonous effects of the homœopathic solution of camphor, I was immediately reminded of one which occurred on the evening of Christmas-day. I was sent for to see a young man who had suddenly fallen down insensible. On reaching the house, he had recovered, and was seated on a chair, looking pale, and with a weak pulse. A small half-ounce bottle was shown me, labelled "mother tincture of camphor". He said he had been accustomed to apply two drops at a time into a decayed tooth for toothache; but, not finding relief, had repeated and increased the quantity several times on the present occasion, when suddenly, surrounded by a party of friends, he fell down insensible. Not being then aware of the strength of these homœopathic solutions, I attributed the effects to sudden fear lest he should have overdone the thing. After lying for some minutes unconscious, his friends told me he gradually came round. He had emptied the contents of the bottle. How much it contained, I cannot say. The young man was in good health, had walked two miles to visit his friends, and was going to walk back.

FREDERICK C. G. ELLERTON, Lindley, near Huddersfield.

### CHILL OR MALARIA.

THERE appears to be considerable difference of opinion just now as to the cause of ague, whether it is due to malaria or produced by a chill. I live between two tidal rivers, the Cuckmere and the Ouse (Sussex). The inhabitants of the villages on the eastern banks of these rivers are very subject to ague, especially in the spring; so much so, that two clergymen and several tenants of the farms are unable to live in their parishes. I was some time since on a visit to the Rector of Waldron, a parish fifteen miles from here, situated on high table land with a dry sandy soil. My friend informed me that he had never seen a case of indigenous ague, but that several of his parishioners go down into the valleys of those tidal rivers in August during the harvest month, return home perfectly well, but in the following spring many of them are attacked with ague. On the contrary, those who migrate to the hop-gardens of Kent to assist in hop-picking, although they go a month later, and are, in consequence, exposed to more cold and wet than the harvesters, escape scot free. These are, I think, conclusive proofs of the agency of malaria in the manufacture of intermittent diseases, and that the "chill theory" is fallacious.

T. F. SANGER, M.R.C.S., Alfriston and Seaford.

### CURIOUS CASE OF OVERLOOKED STRICTURE OF ŒSOPHAGUS, AND POSTPHARYNGEAL ABSCESS.

A WIDOW, advanced in years, poor, but far from destitute, was transferred to my care in July 1873, as an old standing case of debility, with a character for grumbling. The treatment adopted had been various, the most efficacious as tested by her complainings—allowance of extras from the parish. In 1872, I find her ordered mutton and cod-liver oil, and returned as having debility; and had I earlier books, we should find similar entries for ten years or more. When I visited her, she was sixty-three years of age; lean, sallow, with a somewhat full throat, and a tongue and pulse not calling for notice. She was full of complaints: amongst them, of her throat (pointing to the enlarged thyroid gland). I gave her "extras", and returned her "debility"; and sent her a *placebo* mixture. Matters ran on without any suspicion of her disease until about July 1874, when she began to complain of difficulty in swallowing. I directed her to drink some water in my presence, and she drank it far better than she would have led me to suppose she could; but yet, as it seemed to me, with an effort—

and so the fact of disease became established. But, whether the fault lay in some defect of nerve-supply, or in some growth or change within or outside the gullet, I could not, especially in the absence of an instrument with which to explore the œsophagus, decide. My opinion, however, inclined towards the first view—that the fault lay in the nerve-supply; and, moreover, from the way in which she drank the water, that she made the most of it. But the chronicity of her case, the character given her by my two predecessors, and my own experience of her, led me to take little or no interest in trying it further, and nothing new occurred until November 5th, when I was sent for urgently. I found her in bed. She told me she had been taken suddenly worse, and that now she was unable to swallow even a teaspoonful, and showed me that it was so. I tried to pass a small instrument down the gullet, but was unable even fairly to enter it. She lived by means of nutrient enemata until the 9th. At the *post mortem* examination, I found a large foul abscess behind the pharynx; and projecting from it, whilst intimately associated with the walls of the œsophagus on all sides, for a length of about two inches from the cricoid cartilage, a growth with all the apparent characteristics of a wart. I could not make out any passage through it, but there appeared to be a tortuous passage, not larger than a goose-quill, for more than half its length. The case is one which carries its own comments.

S. Wilson Hope, L.R.C.P., Petworth, Sussex.

# THERAPEUTIC MEMORANDA.

## THE USE OF COTTON-WOOL.

In the Journal of January 9th, is a letter headed "Fungus of the External Ear", in which a correspondent, "D. McD.", states, as the result of his personal experience, that cotton-wool produces irritation when introduced into the external auditory meatus. "D. McD." is not alone in this opinion, for Professor Gruber of Vienna also holds that cotton-wool is deleterious when used in cases where there is any discharge from the meatus. I have not his book on *Aural Surgery* at hand; but, to the best of my recollection, his theory is that irritation or even abscesses may be caused by retention of the fibres of the cotton-wool in the ear. On this account, at his *clinique* he always uses charpie instead. I am not aware whether he has tried unbleached lambs'-wool, which "D. McD." recommends, but remember Professor Gruber mentioning an American kind of wool, with long fibres, I think, which he once met with and found as advantageous as charpie. Apart from its essentially different structure, may not the grease contained in the unbleached lambs'-wool be, at least in part, the cause of its superiority to cotton-wool if this superiority be confirmed by experience? It would be of interest to hear the experience of any of the readers of the Journal on the relative merits of cotton-wool, unbleached lambs'-wool, and charpie for insertion into the auditory meatus when there is any discharge from that canal. I may add that Professor Politzer, another eminent Viennese aurist, uses cotton-wool at his *clinique*.

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## STRICTURE OF THE URETHRA AND ITS TREATMENT BY THE LAMINARIA BOUGIE.

It is generally acknowledged that the great objection to the use of the laminaria bougie as a dilator in cases of urethral stricture, is its tendency to expansion beyond the seat of obstruction, and consequent difficulty of withdrawal. Having, as others have done, used the laminaria bougie in several cases, I have feared, on the above grounds, to continue its use. To avoid the expansion of the laminaria, I have, during the last two years, treated it in various ways, by varnishing, etc., but without any satisfactory result. Within the last few months, my friend Mr. A. Cooper Key has devised a method by which this tendency to expansion can be entirely obviated. It is as follows. A small portion of the laminaria is first filed away, and then lapped with the finest black silk, which is so applied, as not only to present a perfectly smooth surface, but to prevent all risk of slipping off. This coating of silk is next varnished, and when dry the instrument is ready for use. The important point in applying it, is to take care that the coated portion of the instrument be passed through the stricture, so that it shall correspond to that portion of the urethra immediately behind it. I am fully aware that strictures may be gradually dilated by passing the laminaria bougie, step by step, through them; but I am inclined to believe that the former method of treatment is to be preferred. Having some cases under treatment, I trust soon to publish the results.—Samuel Lee, Savile Row.

# REPORTS
OF
# MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

## BETHLEM ROYAL HOSPITAL.

### REFUSAL TO TAKE FOOD, ASSOCIATED WITH SCIRRHOUS PYLORUS IN AN INSANE PATIENT.

(Under the care of Dr. Savage.)

Mary E., aged 32, single, a governess, had suffered from delusions, and been untidy and dirty for three months before admission to Bethlem. There was no history of insanity in her family. She had been well educated, and was of sober habits. She for a time talked incoherently; had a delusion that she had been married six times, and had had many children. She talked of cutting her throat, but never attempted to do it. For some three weeks before admission, she had been sleepy, and utterly regardless of what went on around her. She had had some vomiting, but made no complaint of pain.

On admission, she was in a most emaciated state; she had taken hardly any food for over a week. There was a peculiarly fœtid smell about her, that necessitated the "night watch" sitting outside the bedroom. Milk, beef-tea, and stimulants, were given by spoonsful every half hour, the patient being too weak to resist; for about forty-eight hours she retained the food taken, and was got up for an hour or two daily; but, as she gained strength she refused food, and what she was forced to take she vomited. The terrible fœtor passed off after a day or two. No tumour could be detected, though malignant disease was suspected. The patient lingered for eleven days, and then died.

*Post mortem*, a scirrhous ring around the pylorus was found; but the chief mass of disease was in the ileum and mesenteric glands, which were hard. In the ileum were several thick-walled ulcers of breaking down cancer.

Dr. Savage remarks that "we read of cancerous insanity when the brain is implicated in malignant disease. He objects to the term, as much as he would to such cases of the above being called specially cancerous insanity".

Dr. Savage also writes, "It seems to me to be too general to look for the symptoms of insanity in the brain alone, and also to look for all the causes—or the chief, at least—in the same organ. It is true, that we have cases of insanity in which the brain alone is found diseased; but we also have general states of degeneracy in which insanity appears as one symptom only of decay. To this last class belong some cases of senile insanity, and also some of general paralysis. Of still greater interest are those cases in which the mental symptoms are reflected from some other organ; thus, we have seen several cases in which the refusal of food has been due to some organic abdominal disease; of this class, the above case was a complete example. Many of our patients refuse food in consequence of inexplicable feelings in their digestive tracts; these sensations being uniform and constant, overrule all reason. It is not only in cases in which we find crass disease—as in our present example—that such feeling and such refusal of food occur, for we have had cases during the past year in which refusal of food was associated with the early dyspepsia of phthisis. These cases, which we have called 'reflected', differ from others that have one or more important organs affected, but in which the insanity depends rather on the cachexia than on the mental result of derived impressions. We shall hope to consider in future papers some other cases of insanity associated with cachexia."

## GLASGOW WESTERN INFIRMARY.

### TWO CASES OF DROPSY: QUESTION OF RENAL ORIGIN: DIFFICULTIES OF DIAGNOSIS.

(Under the care of Dr. Gairdner: reported by Dr. Finlayson.)

The two women whose cases are now reported were in the ward at the same time, and formed an instructive clinical study, as affording a contrast to each other, and also to other cases of dropsy of well marked renal origin. Although the exact lesions were not accurately determined, even on dismissal, the cases yielded so far to prolonged investigation, as to afford some valuable lessons to the clinical class.

Case I. *Œdema of Lower Limbs and Vomiting; Complexion Pallid; Urine Pale, of low Specific Gravity, but Non-Albuminous; Excessive Secretion of Urine, diminished at times, and once nearly suppressed under Severe Vomiting, attended with Cramp-like Spasms; Detection of Sar-*

*cinæ Ventriculi, and Signs of Dilated Stomach; Discussion of Diagnosis.*—Jessie M., admitted November 14th, 1874, was a domestic servant thirty-one years of age. She came in with a vague report of diseased kidneys; and, at a first look, many things certainly seemed to confirm this idea. She had, on admission, considerable œdema of the feet and legs, and some distension in the region of the stomach; her complexion was extremely pallid, she suffered from thirst, and she was very much troubled with vomiting. This occurred usually every day, once or oftener. No clear evidence could at first be obtained of ulceration or other serious affection of the stomach; the urine was alkaline, pale, of low specific gravity, and, although found to be free from albumen on admission, there still remained some suspicion of renal disease. The absence of albumen was confirmed by several subsequent testings, but Dr. Gairdner still thought the kidney might be at fault, and requested the urine to be measured. On November 30th, it was found, to our surprise, to amount to 109 ounces in the twenty-four hours; and, on the day following, to 125 ounces. The specific gravity was about 1011, and the colour pale. This large quantity of urine raised fresh doubts as to the soundness of the kidneys, and I directed the sister of the ward to collect various specimens at different hours of the day, to see if albumen appeared at any period of the twenty-four hours. This was done on several occasions, and revealed great differences in the colour and specific gravity of certain samples; some of them, especially after food, were high-coloured, turbid, and of good specific gravity (1020 or thereby); but the urine passed in the morning was always very pale, and of a specific gravity as low sometimes as 1007. No albumen, however, could be detected by the tests employed, viz., heat, and nitric acid in the cold; phosphates were usually precipitated on boiling, and occasionally urates were thrown down on the addition of nitric acid; and, in some of the specimens, the original turbidity of the urine prevented the reactions from being perfectly conclusive. Prolonged and repeated microscopic examination of the urinary sediment failed to detect tube-casts, or other renal derivatives. The quantity of urine varied somewhat. On December 12th, it was distinctly less abundant, only about 70 ounces in the twenty-four hours; and, at this same time it was noted, that the patient had not been so well, and that vomiting had occurred during the night. The vomited matter was preserved on December 16th, and found to consist of an abundant brownish-black pultaceous mass, highly acid, and containing numerous sarcinæ. This was the first of such vomiting since admission. On any previous occasion it was simply food which came up; she had, however, vomited black matter like this before, but no black motions from the bowels had been noticed; the bowels throughout were very costive. On this day, the quantity of urine noted was 32 ounces, on the day before 47 ounces, and on the day after 39 ounces. The specific gravity of these diminished quantities (*i.e.*, the specific gravity of the whole quantity for twenty-four hours) was considerably higher than those of the larger quantities before (1017 as compared with 1011). These facts are insisted on, for the view of the case now taken was, that the mischief was essentially and originally gastric; on January 5th, some corroboration of this was afforded by finding the stomach evidently dilated, and traceable by succussion over a very undue area. The present illness was said to be of three months' duration, but a similar illness had occurred three years ago, six months after the birth of a dead child. The slight improvement in the gastric symptoms which had continued, with intermissions, till Christmas, had now ceased, and, on January 7th, in the absence of the resident physician, one of the other assistants was summoned in the afternoon to see this patient, and found her somewhat cold and suffering from cramps, especially in the arms and legs; the fingers being bent in, but so far as could be judged, without any loss of consciousness. Under treatment by warmth to the extremities, etc., she quickly recovered, and seemed as well as usual at night. During this attack, she vomited much, and he patient attributed her relief chiefly to the vomiting. This attack of spasm or cramp came on in connection with a great diminution in he urinary secretion, to such an extent, that only four ounces had been passed in twenty-four hours of the day in question; but the quantity gradually came up again to the normal standard. This naturally suggested to the gentleman thus called (who was, of course, unacquainted with the case), the idea of uræmic poisoning, and perhaps, even, in full view of the facts, this cannot be absolutely excluded; the probability seems, however, rather to be that the cramps were directly connected with the gastric disorder, and that the diminution in the urine was due to the copious vomiting, seeing that this had been found to produce, or, at least, to be associated with, such a diminution on he former occasions referred to, although to a less extent. The alkalinity of the urine, and the acidity of the vomited matters, have long een known to be frequently associated. The œdema which was hiefly, if not exclusively, in the legs and feet, disappeared when the patient kept in bed, and was no doubt due to the anæmia resulting from impaired digestion. The copious urine was probably connected with the free quenching of the thirst of which she complained; this thirst, likewise, was probably a gastric symptom, but no details exist as to the amount of fluid she actually swallowed. The whole features of the case seemed thus ultimately to point to gastric disorder, although many of the facts appeared at the time extremely perplexing.

CASE II. *History of General Anasarca a few Months after Delivery; on Admission, Moderate Ascites with Œdema of the Abdominal and Thoracic Parietes, and Slight but Temporary Albuminuria with Tube-casts; Persistence of Dropsy without Albuminuria, or other discoverable cause; Subsequent Discovery of Enlargement and Induration of the Liver; Remarks on Diagnosis.*—The second patient, Mrs. B., aged 27, admitted December 17th, 1874, complained chiefly of abdominal dropsy; she had, clearly, some effusion into the peritoneum, and considerable œdema of the abdominal and thoracic parietes. Her urine was found on two separate occasions, immediately after admission, to be distinctly, although slightly, albuminous. The history of the case bore plainly that, after a confinement a year ago, her health had been impaired, and that, about May last, general dropsy, involving the feet, face, arms, and trunk, had appeared, and that this settled down latterly into the abdomen and chest-walls. On admission, no œdema could be demonstrated elsewhere; her skin was extremely dry. The renal character of the case thus indicated, seemed to be confirmed by the detection of a few tube-casts; these were mostly hyaline, but some contained renal epithelial cells, and some of these were fatty; a few compound granular corpuscles were also seen; in addition to these, and to some pavement and scaly epithelium, there were considerable numbers of white cells (apparently pus), and a great quantity of branching vegetable growths. Dr. Gairdner, while admitting that the few tube-casts indicated probably a renal origin for the albumen, thought that it might possibly be due wholly, or in part, to pus from the vagina, although no leucorrhœa was known of, and he suggested an examination of a sample drawn off by the catheter.

Thus far the case seemed essentially renal; albuminuria, tube-casts, peritoneal dropsy, and œdema of the parietes, along with a clear history of general anasarca previously, all pointed in this direction. No cardiac lesion was suggested in any way, and none could be made out. The size of the liver could not be determined by percussion, owing to the distension of the abdomen; but there had been no jaundice since she was a girl, and her habits were evidently extremely regular and temperate. She did not suffer from vomiting, and she had never passed blood at stool. The only obscure point was the unusually localised character of the dropsy if it were really renal.

Curiously enough, the very day (December 22nd) on which the sample was drawn off by the catheter, the urine had undergone a great change; the quantity had increased (not apparently from medicine), and the colour was paler; the specific gravity was 1012, but no trace of albumen could be made out on careful testing with nitric acid, and no tube-casts, pus, epithelium, or vegetable growths were found on microscopic examination; but the urine passed in the usual way that same day likewise failed to yield indications of albumen, so that this difference was not due to the use of the catheter. From this time, although frequently tested, albumen could not be detected in the urine; not unfrequently a precipitate of urates occurred on adding nitric acid, and, as a rule, a very marked colour (pink or purple) formed at the junction of the layer of nitric acid and the urine. The dropsy persisted, varying slightly in disposition in the parietes, being apparently influenced by position; and, if the patient were up much during the day, her feet became swollen, but only to a slight extent. The continued absence of albumen from the urine, and the disappearance of tube-casts from the sediment, although very sedulously searched for, seemed to throw doubt on the renal origin of the dropsy. Her own medical attendant had, moreover, in the early period of the illness, told her, she said, that she had some enlargement of the liver; and, about the same time, he had tested the urine, and, she understood, found it right. Her complexion, which was pallid, had also a dingy tinge suggestive of hepatic disorder, and the persistence of the local dropsy, out of proportion to any œdema elsewhere, raised suspicion of the liver.

On examining, in view of these facts, Professor Frerichs's cases of atrophy of the liver, in his well-known book, and Dr. Austin Flint's valuable article on Hydro-Peritoneum, in the *American Journal of Medical Sciences*, April 1863, it appeared to me that not a few real hepatic cases had presented in the early stages, more or less general anasarca and œdema, before the peritoneal dropsy supervened, and Dr. Gairdner, in his examination of this patient on January 13th, directed particular attention to the state of the liver. The abdomen was, perhaps, not so tense as on admission—at least, it measured an inch less (32½ instead of 33½ inches), and this, perhaps, favoured the examination of the parts; for he had now no difficulty in satisfying himself, by palpation, of a considerable projection of the liver downwards towards the umbilicus, and towards the left hypochondrium, the organ being felt partly in contact with the walls, and partly by impact through the fluid—at least, as low as about an inch above the umbilicus; and, in the left hypochondrium, at least two or three inches from the mesial line. The hand, likewise, was sensible of undue firmness and resistance in the organ, but no information could be obtained as to the character of the surface; the enlargement seemed also traceable by the hand, although less distinctly, into the right flank when the patient lay on this side; no definite statement could be made as to the spleen. These facts were sufficiently obvious to be verified by many of the class, after they were directed how to make the examination, by dipping the flat hand suddenly down upon the organ.

This examination seemed to stamp the case as essentially hepatic, and to give the renal element in it a secondary and transient place. The urine still continued free from albumen when tested by heat and nitric acid; and the ferrocyanide of potassium test, the carbolic acid test, and the picric acid test likewise failed. The testing of various samples at different hours of the day was carried out on January 21st. Out of seven samples passed at various hours, from early morning till late at night, a very faint trace of albumen was found only in two, by means of nitric acid after contact prolonged for several minutes, viz., a trace in that passed at 2.50 P.M. (about two hours after dinner), and a still fainter trace in the sample passed at 6 P.M. (an hour after tea), the intervening specimen at 4 P.M. being free. The specific gravity of these samples varied only slightly, 1017-1022. Portions of the sediments from the afternoon samples were removed (together) for subsequent microscopic examination; pus corpuscles, and epithelium from the vagina and bladder were found as before, and, after prolonged examination, I detected one or two hyaline tube-casts. The urine throughout the whole case was perhaps somewhat under the average quantity, 30 ounces, representing a rough estimate of the notes on the whole; the specific gravity was also rather under the average of normal urine, and the colour rather pale. The temperature throughout showed a complete absence of fever.

The case seemed at last intelligible on the supposition of some form of liver disease, attended with enlargement of the organ, giving rise to signs of local dropsy, and involving secondarily and temporarily the renal secretion, perhaps in part from pressure, perhaps from imperfect assimilation of the food.

# SELECTIONS FROM JOURNALS.

## THERAPEUTICS.

Subcutaneous Injections of Morphia. — Dr. Alling, after making numerous experiments on himself, reports in the *Alger Médicale*, No. 10, 1874, that local pain is equally soothed by subcutaneous injection of morphia at whatever point of the body it may be performed. For minor reasons, such as facility of making the puncture, etc., he chooses the internal part of the arm. He looks upon the use of the aqua laurocerasi as an excipient as particularly painful.

Petroleum-Oil as a Vermifuge.—Basing his practice on the fact that horticulturists and veterinary surgeons use petroleum-oil as a parasiticide, M. Perrin has tried injections of this substance as a remedy for oxyurides.. He gives it in doses of half a teaspoonful made into an emulsion, with 125 *grammes* of water, and the injection should be repeated many days in succession. M. Perrin proposes to treat lumbrici and tænia by capsules, containing 25 *centigrammes* (nearly 4 grains) of petroleum, of which ten or twelve should be taken in the course of the twenty-four hours. This substance, when taken in small doses, cannot bring on any unpleasant consequences, as two or three small glasses of it may be taken with impunity.—*Gazette des Hôpitaux*, August 11th, 1874.

Treatment of Rheumatism by Propylamine.—Löwer (*Deutsche Melstäräzzbl. Zeitschrift*, Heft ii, No. 74) has found propylamine very efficacious in acute articular rheumatism. Its action is manifested in a rapid fall of the temperature and pulse (even to as low as forty-eight beats), and a rapid decrease of the pain and swelling. A few hours after its administration, profuse sweats set in. The average duration of the disease in his cases was from four to eight days. He does not regard the simultaneous occurrence of heart-disease as a contraindication to the use of propylamine.—*Allgemeine Medicin. Central-Zeitung*, February 6th.

Treatment of Psoriasis.—Dr. Zimmerhaus employs, for the treatment of this affection, carbolic acid in the form of pills. Each pill contains three-fourths of a grain of carbolic acid. He begins by prescribing six daily, and increases successively to twenty pills in twenty-four hours. Cutaneous appearances generally disappear after four or at most seven weeks, of this treatment.—*Wiener Medizinische Presse*, No. 42, 1874.

On the Use of Cyanides in Acute Articular Rheumatism.—M. Luton of Rheims, in the *Bulletin Général de Thérapeutique*, highly recommends the use of the cyanides in the treatment of acute articular rheumatism. The two cyanides with which he has experimented are those of zinc and of potassium. The first is a white inodorous tasteless powder, insoluble in water, but probably soluble by the gastric juice. M. Luton administers it in average doses of 1½ grains daily, either in pills or held in suspension in some preparation of gum. The cyanide of potassium is more active; is administered in maximum doses of from 1½ to 2¼ grains, and preferably in pills on account of its disagreeable flavour. The pills should be silvered and kept in a stoppered bottle. The cyanide may be taken during or after meals, if there be any advantages in so doing. M. Luton reports many cases in support of the proposed medication. He affirms that, as a total result, it is certain that cyanides cure acute articular rheumatism in its fundamental form and its diverse transformations. They cure it by shortening the duration of the disease in a marked manner, and by diminishing the risks of the complications which are characteristic of this affection.

Subcutaneous Injection of Strychnia in Amaurosis and Amblyopia.—Dr. Hasket Derby extols (*Boston Medical and Surgical Journal*, November 5th) the efficacy of subcutaneous injection of strychnia in certain cases of amaurosis and amblyopia. He has found it particularly useful in cases of "amblyopia *ex abusu*", arising from the long-continued, excessive use of alcohol or tobacco. In this affection, the acuteness of vision slowly and regularly diminishes. There is no contraction of the visual field, no break in its continuity, but distant and near objects grow indistinct, as if enveloped in a thickening mist. Glasses are of no avail for distant objects, though convex lenses for a time sustain the failing powers of the eye for the near. Reading and writing finally become impossible. If the disease progress, blindness may ensue. There is no change in the external appearance of the eye. The ophthalmoscope alone reveals a change; at first, congestion, and, towards the end, atrophic degeneration, of the optic nerve. Dr. Derby has found that this amblyopia occurred 52 times among 6,602 patients, about .8 per cent. In hospital practice, he is satisfied that it occurs more frequently. Of his 52 cases, 16 proceeded from the use of tobacco alone, 5 from that of alcohol, 31 from both combined.

Combined Administration of Chloral, Morphia, and Atropia.—Dr. Roberts Bartholow of Cincinnati read (October 19th) before the New York Society of Neurology and Electrology, a paper on this subject. He finds that chloral differs from morphia, when injected subcutaneously, in the more decided systemic effects and the less local impression on the sentient nerves. As regards the systemic effects, the action of chloral is very much the same when administered hypodermically as by the stomach. The chief danger is an arrest of the respiratory movements. Chloral does not exert any chemical action on atropia when the two are held in solution together, for dilatation of the pupil of a cat takes place when the combined solution is instilled into the eye. Dilatation of the pupil also happens when they are administered hypodermically together. An apparent antagonism is observed as regards their action on the heart when the solutions of chloral and atropia are placed in contact with the heart of a frog when in position in the chest, after division of the medulla, or when the heart is removed. The action of the heart is found to continue much longer when a lethal dose of chloral is administered together with atropia. In rabbits, the same result is produced by the conjoined administration of the two agents. Atropia prolongs the chloral narcosis several hours in rabbits, and diminishes the sensibility to pain. In man, the excitant action of atropia hinders the occurrence of the chloral narcosis, but rather deepens the sopor when it at last supervenes. The effects of atropia last much longer, and are, apparently, in no way prevented by chloral. Morphia deepens in every way the effects of chloral. Dr. Bartholow found, in some experiments on himself, that many of the unpleasant effects of morphia are modified as regards the wakefulness but are not modified as regards the subsequent nausea, vomiting, vertigo, and constipation. When the two agents are administered conjointly, a much less quantity of chloral is necessary in order to produce sleep. These agents act much more happily when administered simultaneously. Chloral causes sleep, morphia relieves pain, and atropia prevents or lessens the depression in the respiratory and cardiac movements caused by the other two, whilst it contributes to their cerebral effects. The combination of chloral, morphia, and atropia, is adapted to cases of insomnia caused by pain, or in which chloral and morphia alone merely increase the cerebral excitement, as in hypochondria, puerperal mania, etc. This combination is also indicated in cases of fatty and irritable heart. When pain is to be relieved, chloral is not so serviceable alone as in combination with morphia and atropia. The local administration—the insertion of the medicament at the site of pain—is more effective than the merely systemic impression: especially in tic douloureux, sciatica, and coccydynia. The combination of a local irritant and benumber with a systemic anodyne is more curative than either used singly. In cases of *muscular spasm*, the author of the paper had obtained excellent results from the combined use of chloral, morphia, and atropia, and he especially called attention to the efficacy of these agents in the cramps of cholera. Many cases of spasmodic asthma and hay-fever had been benefited by their conjoint administration.—*New York Medical Record*, December 1st, 1874.

## MIDWIFERY AND DISEASES OF WOMEN.

**On the Influence of Syphilis on Pregnant Women, under various Modes of Treatment.**—Dr. F. Weber of St. Petersburg has published in the *Allgemeine Medicinische Central-Zeitung* for February 3rd and 6th, the results of his observations in 129 pregnant women suffering from syphilis admitted into the Obuchow hospital during the ten years 1863-73. Of these patients, 35 were treated only locally or not at all; 35 were submitted to treatment by inunction; in 23, inunction was combined with the internal use of iodine (iodide of potassium with tincture of iodine); 19 were treated by the internal use of a combination of iodide of potassium and corrosive sublimate; and in 17 cases iodide of potassium was the remedy used. He gives abundant statistical details, and sums up as follows. 1. In general, the course of pregnancy was interrupted in 25, or 20 per cent. of the cases; this proportion, however, may be reduced, when it is remembered that of the patients four had erysipelas of the head, one recurrent fever, and one exanthematous typhus. 2. Every method of treatment which interferes with the digestive system predisposes to untimely birth. 3. In the cases submitted to simple local treatment, there were 20 per cent. of premature births; in three, however (suffering from typhus and recurrent fevers, and from extensive formation of abscesses), violent fever appears to have been in part the cause of the untimely labour. 4. In pregnant women who were treated by inunction together with local remedies, there was no disturbance of the course of pregnancy. This confirms Professor Sigmund's conjecture, that the inunction treatment has no injurious influence on the course of pregnancy. 5. In women in whom inunction was either accompanied or followed by the internal use of iodine, the percentage of premature births was 37; this, however, may be reduced to 20 by deducting two severe cases of erysipelas of the head. 6. General treatment with a solution of iodide of potassium and perchloride of mercury was attended by 15 per cent. of premature births. 7. In cases treated by iodide of potassium, 42 per cent. of untimely births occurred. 8. The injurious action of general treatment did not in any way correspond to its duration, but much rather to its effects on the digestive organs. Hence general treatment should be interrupted on the first indication of indigestion in a pregnant woman. 9. The period of pregnancy at which general treatment is commenced appears to have no influence on the occurrence of premature labour. 10. The stage of development of the syphilis seems to be not without influence on the occurrence of untimely birth. 11. The puerperal period ran an abnormal course in 4 out of 14 cases treated locally, in 3 out of 8 treated by inunction and iodine, in 3 out of 4 treated by iodine and sublimate (one of these patients died), and in 4 out of 10 treated by iodide of potassium.

**Condition of the Uterus Five Weeks after Delivery.**—Dr. Wm. F. Jenks has examined the uterus five weeks after delivery; and he has given (*American Supplement to the Obstetrical Journal*, November 1874) an account of his investigations. He has been led to coincide with the opinion now held by some of the best histologists, that the reproduction of the muscular tissue is effected through the proliferation and division of connective tissue cells, forming thereby indifferent or embryonic cells, which subsequently develope into the unstriped muscular fibre. He has been able to find no evidence of the division of the nucleus of the fatily degenerated muscular cell, while it is contrary to the laws of reproduction to suppose that a cell, itself undergoing death by molecular fatty degeneration, should produce a new cell endowed with vitality. The parenchyma of the uterus submitted to him for examination was infiltrated with small round young cells, to which the name of embryonic or indifferent cells has been given, because they are impressed with the type of the tissue in which they are generated, and are capable of development into muscular, nervous or osseous tissue. On examining the internal muscular layers of the organ, the remains of the old hypertrophied muscular fibre were evident; the individual cells, however, were much diminished in size and filled with fatty granules; but nowhere else in the uterus was there a trace to be found of the former muscular structure; hence the inference is rendered probable, that the process of rejuvenation proceeds from within outwards, and approaches completion at or near the fifth week after parturition. That opinion coincides nearly with that of Heschl, who states that the fatty degeneration and absorption of the old muscular structure is not completed before, nor does it continue after, the eighth week. Priestley, in his treatise on the *Gravid Uterus*, writes that the colossal muscular fibres are not found after the third week, the middle coat now consisting of embryonic cells. Dr. Jenks believes that, during the time when this active process of involution is taking place, rest in bed for ten days or two weeks, and subsequently a careful return to any active exercise, are plainly indicated. In dispensary practice, where the patients are drawn from the poorer class, unable or unwilling to submit to restraint after confinement, by far the commonest form of uterine disease is subinvolution of the uterus after delivery or abortion, with its attending ills of displacements, and chronic catarrhal conditions of the mucous membrane. These depend for their existence on structural changes of the tissues, or rather on the arrest of certain changes which should take place, and which are not normally completed until the expiration of a month or more after delivery. In estimating the value of any mode of treatment of the puerperal woman, her condition six months or a year after her confinement must be the criterion, and not her general health a month after delivery. Even if this condition of subinvolution exist, the physical signs and symptoms are manifested only when the organ, engorged in consequence of a sluggish circulation—partly due to the implication of the muscular tissues of the blood-vessels in this arrested repair—sinks deeper into the cavity of the pelvis. The uterus usually becomes retroverted, inasmuch as it does not receive the proper support from the relaxed ligaments, vaginal walls, and perineal body; while the mucous membrane, owing to the passive congestion of the vascular system, passes into a state of chronic catarrh, and the accompanying disturbances, both local and sympathetic, slowly but surely develope themselves at a later period.

## SURGERY.

**A New Method of Operating on the Larynx.**—In an article in the *Centralblatt für Chirurgie*, No. 20, 1874, Eysell says that, in order to displace upwards tumours of little mobility, lying in the lower part of the larynx, a needle *(präparirnadel)* may be introduced in the middle line through the skin and membrane into the trachea, the tumour penetrated, and raised by depressing the handle of the needle. There is little or no hæmorrhage; and no reaction. In the same way, such tumours can be directly cut off by means of the needle used in tapping the tympanum; and adhesions of the vocal cords may be cut through. In an analogous manner, injections may be made with a Pravaz's syringe into laryngeal tumours.

**Multiple Neuroma successfully treated by Neurectomy.**—Kosinski relates in the *Centralblatt für Chirurgie*, No. 16, 1874, a case in which nodules lying in the corium were present on the posterior and outer surface of the right thigh as far as the lower third, and partly also on the buttock. They were round and oval in form, and varied in size from a pin's head to a hazel-nut; their number was about a hundred, and pressure on them produced radiating pains. In situation, they corresponded mostly to the inferior gluteal nerve; a few anterior ones, to the external cutaneous nerve. Internal remedies having been given without effect, the inferior gluteal nerve was divided as near to its central end as possible; the immediate result was the disappearance of sensibility in the affected part and in the swellings themselves. In some of them, especially those lying towards the anterior limit and the sciatic region, the tenderness was only diminished. While the wound was healing by suppuration, the tumours began to decrease; in four weeks, the larger ones were of only half their original size, and many of the smaller ones had altogether disappeared. Four months later, there was a still greater reduction in the size, with absence of pain, in the remaining portions.

## BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1875.

SUBSCRIPTIONS to the Association for 1875 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, FEBRUARY 20TH, 1875.

## THE ARTISANS' DWELLINGS BILL.

SEVERAL Bills for the improvement of the sanitary laws have already been laid before Parliament by Her Majesty's Government, one of which has reached our hands—viz., the Artisans' Dwellings Bill. The provisions contained in the Bill are in addition to previous legislation on the subject, so that we must consider it as supplemental to the Act for improving the dwellings of the poor which was passed in 1868, and is known as Torrens's Act; as well as to all other Acts, private or public, which have been previously passed. The chief defects of Torrens's Act are, (1) its cumbrous mode of procedure; (2) the want of compulsory power by the local authority to build on the ground rendered vacant by pulling down the injurious dwellings; and (3) the absence of compensation to the owner for the houses which have been destroyed. We shall, therefore, consider by the light afforded by previous legislation, firstly, the objections to this Bill; and, secondly, the amendments necessary to make it workable.

The Bill consists of three parts, containing twenty-two clauses, and a schedule of thirty-three clauses. The first part contains the provisions respecting unhealthy areas; the second, those ancillary to the improvement-scheme; and the third, the general provisions for the serving of notices, penalties, saving clauses, and definitions. The schedule refers to the deposit of plans, the appointment of auditor, the proceedings on arbitration, the payment of purchase-money, power of entry, appeal, and costs of arbitration.

The first clause contains only the title of the Act. The second states that the Act shall apply only to the metropolis and to the urban sanitary districts in England containing at the last census a population of twenty-five thousand and upwards; and that the local authority shall be the Commissioners of Sewers for the City, the Metropolitan Board of Works for the rest of the metropolis, and the sanitary authority of the place for extra-metropolitan districts. The first objection we have to make is to the limit here defined, because, unless it be proposed to introduce another Bill, we do not see why urban sanitary districts containing less than twenty-five thousand persons, and rural sanitary districts, should be left out. The reports and letters which have from time to time been published show that the cottages of our rural population are very often worse, if possible, than the dwellings of the poor in our urban districts.

Clause 3 states the reasons for which an official representation shall be made to the local authority that a district is unhealthy and requires improvement. This is a very important clause, and, unfortunately, does not carry out the statement made in the preamble, and limits very much the operation of the medical officer of health. In the preamble, it is stated that there are in certain portions of our cities and boroughs a great number of houses, courts, and alleys which, by reason of the want of light, air, ventilation, or of proper conveniences, or from other causes, are unfit for human habitation, and should, therefore, be pulled down and reconstructed. But, by Clause 3, the only reasons for which a medical officer of health can report an area to require reconstruction are, that diseases indicating a low condition of health prevail therein; and that the prevalence thereof may be "attributed to the closeness, narrowness, and bad arrangements of the streets and houses, or to one or more of such causes". There is no power given here, except to a certain extent by implication, to condemn houses which are unfit for habitation for want of necessaries of health recited in the preamble. We also have another strong objection to Clause 3; viz., that, if the local authority be not satisfied of the practicability of "applying a remedy, and of the sufficiency of their resources, and of the advantage to be derived by their district from the application of such remedy, and that an improvement-scheme ought to be made", they may put aside the report as so much waste paper. We need scarcely point out that any local authority desirous of evading the Act can readily do so in accordance with the terms of the Act itself, by assigning any one of the above mentioned reasons as an excuse for not taking action.

Clause 4 is one of great importance to a very large number of our profession, as by it metropolitan medical officers of health are required to make an official representation to their board or vestry, that an improvement scheme is required for certain parts of their district; and, in other places, the medical officer of health is to make a similar representation to the local authority which appointed him. Now, as medical officers of health are generally removable at the pleasure of the bodies appointing them, or are appointed every year, or for not more than three or five years, it is most unfair to make them take the initiative, without giving them any assistance in forming their opinion and dividing the responsibility. It is true, that medical officers have frequently shown great unselfishness and public spirit in carrying out the various sanitary acts; but it is almost too much to expect that they will expose themselves to attacks from the owners of small property sitting on their boards, for making the "representation" which is necessary to set the Act in operation. It is true that, if twenty or more ratepayers of the district complain to the medical officer of health of the unhealthiness of certain houses in his district, he is bound to report thereon; yet, practically, we know that this portion of the Act will be almost, if not quite, a dead letter.

By Clause 5, the local authority must prepare plans, showing the lands proposed to be taken; and this is important, as Clause 6 provides, that lands not included in the plan cannot be taken compulsorily. There is an important provision in this clause, that the local authority shall provide in their scheme "for the accommodation of as many persons of the working class as may be displaced" by the pulling down of the old houses. The new houses are to be erected in the same area as the old or in its vicinity, and proper sanitary arrangements provided. The words, "in the vicinity", might advantageously be made more elastic, as, in some cases, a cheaper and more healthy site might be found at a short distance from the old area.

The next clause provides for confirmation of the scheme by an application for the metropolis to a Secretary of State, and for other places to the Local Government Board, who shall direct a local inquiry to be held in the vicinity of the area reported on. If the report, after the inquiry, be satisfactory, the confirming authority may make a provisional order for the carrying out of the scheme, but this order is not to be of any validity unless it be confirmed by Act of Parliament. The confirming authority may also make an order for the allowance of all costs incurred in opposing the scheme, by the person or persons whose property is to be taken, and for the payment of all costs and expenses which they have themselves incurred, including that of the local inquiry, which are to be paid by the local authority. An arbitrator is to be appointed by Section 5 of the schedule, who has power under other sections to inquire into the value of the property taken, and to make his award, unless the parties shall agree as to price. If it be taken compulsorily, the value is to be based on the fair market value. If the parties be dissatisfied with the award of the arbitrator, the person owning the property, or the local authority if the property be of greater value than £500, may have the matter tried before a jury.

Now, is it likely that an Act fenced in with so many provisions for increasing expense, and great obstructions to the acquirement of the property by the local authority, can ever be of much practical benefit? Surely, there can be no necessity to obtain an Act of Parliament for compulsorily purchasing a property worth £500, or for appealing to a jury from the decision of the arbitrator for a similar amount and thus increasing enormously the expense, because it must be remembered that in every stage of the proceeding expenses of all kinds are incurred; and, as the value of the property is to be assessed upon the fair market value, the enormous rents obtained by letting separate rooms in unhealthy dwellings, unfit for habitation, would have to be taken into account in making an award.

There is one more important section of the Bill (No. 9) to which we must refer; and that is, that the Metropolitan Board of Works may, with the assent of a Secretary of State, appoint a qualified officer to make a "special inquiry" into the sanitary condition of any part of the metropolis. This is good, as far as it goes; but why should not the Board have power to appoint a medical officer permanently to make such an inquiry? Why should not a similar power be conferred on the Local Government Board for extra metropolitan districts?

There is no doubt that the Bill can be made very useful as supplementary to other prior legislation, provided that proper measures be adopted for removing the defects we have pointed out.

## MEDICAL TITLES.

If any apology were required for our returning to the subject of medical titles, it would be found in the large number of letters and communications which even yet continue to flow in upon us. It was not to be expected that our correspondents should all agree with us; yet, after a careful perusal of the communications upon the subject, we cannot say that our conclusions have been essentially modified. That the title of M.D. is the highest honour which an university has the power to grant in medicine; that those only who have, after a full curriculum extending over at least four winters, possessed themselves of the M.D. degree, are entitled to be styled doctors; that it is advisable to maintain, and even to elevate, the standard of examination for obtaining the degree; and that there is a great difference between the general term "doctor", as used by the public to designate medical men in general, and the assumption of such title by medical men themselves; such appeared to us, as they still appear, sound conclusions on the subject. And, further, as we felt strongly the hardship of excluding those who, from accident or other causes, had failed to take the degree in their student days, but who were willing to undergo later the trouble and expense necessary to obtain it, we suggested that, after proof was given that at least four winter sessions had been spent in the pursuit of medical science at a recognised school, such candidates should be admitted to examination by the universities, and should, if they passed the necessary examinations, have the degree conferred upon them. Such a course we thought, and still think, would preserve the rights of the existing graduates, who, at great cost in time, money, and labour, had obtained the university degree, while it would not arbitrarily exclude from the privileges of the degree gentlemen who had gone through a full curriculum, and who might prove themselves equal to the high standard of examination which, we think, should be maintained in order to its possession. It would serve the former purpose, because it would maintain the standard of qualification; and it would serve the latter, inasmuch as it is manifestly unfair to render irretrievable during the whole of after life a position which the accidents or necessities of youth had rendered it impossible to obtain then.

Many of our correspondents, we are glad to see, entirely concur in these views, while some of them concur in some but not in others. Perhaps that opinion on which agreement has been the least unanimous is the one in which we insist on a full curriculum of at least four winters at a recognised medical school before a candidate can obtain admission to the degree examination. But, while we respect the opinions of those who differ from us on this point, we would point out to them one or two reasons which seem to render it impossible that we should recede from it. First, then, we feel very strongly that the standard of qualification for the highest degree which the universities can grant should be maintained at the highest possible point; and no means are, in our opinion, so well calculated to effect this purpose as prolonged attention to the groundwork of professional knowledge during a time when few or no distractions are offered by those business considerations which it is difficult to exclude in after-life. And, secondly, the present holders of the degree might justly, we think, consider themselves aggrieved were admission to a position equal to theirs offered on easier terms than those by which they themselves attained it. We are not insensible to the many anomalies pertaining to the various modes of granting the degree, nor do we fail to recognise the differences which undoubtedly exist as regards the value of nominally the same degree in different cases. We are painfully aware of these anomalies, and feel as strongly as any of our correspondents the indignation with which they refer to the selling of the degree, on the one hand, or to the too easy admission of graduates to its honours, on the other. Any proposal, indeed, which should secure a more thorough examination both in professional and general knowledge, would meet with our hearty support. The quality of the theses required from graduates, we are glad to see, is being improved year by year, which to some extent, no doubt, meets the latter requirement; and there can be no doubt that the standard of general knowledge required is much higher than it used to be. These are both steps in the right direction, and we hope that before long further advances will be made in the same line. But, while this is so, and while we are anxious to see the standard of graduation attain the highest practicable level, we see no reason for excluding from the honours of the degree those gentlemen who have gone through a full medical curriculum, and are able to prove that they possess sufficient information to entitle them to obtain it. The necessity of having some fixed rules to guide us in coming to right conclusions on such a matter as the present is apparent. We have given our reasons for holding the opinions we do. We hope we have given them temperately and with due consideration for all. And if in doing so, we have had to differ from some of the members of the profession, we have done so with reluctance, and under a sense of public duty.

In conclusion, we sincerely trust that some public action may before long be taken, with the view of settling this vexed question. One of our correspondents has suggested that a meeting of the profession might be summoned in London, and a memorial to the universities adopted, which could be afterwards signed by members who were unable to attend the meeting; or the subject might be brought forward simultaneously in several of the Branches of this Association. Some such course would seem to be desirable, and we think the universities would most probably receive with great respect a communication bearing the signatures of any considerable proportion of the profession. In any case, some of the evils of the present systems of graduation are so clamant, that we should welcome any proposal which should offer to evolve some order from the confusion at present reigning over the whole subject of medical titles.

## THE VASO-MOTOR APPARATUS.

In an able series of lectures recently published, M. Vulpian has discussed, with great detail, the anatomy and functions of the vaso-motor apparatus of nerves—that *terra incognita* of physiology and medicine. M. Raymond, in the *Progrès Médical*, page 65, gives an interesting account of M. Vulpian's views, which will incite many to a study of his work. M. Vulpian, he says, gives clinical proofs of the influence exercised by the lesions of the great sympathetic nerve on the vascular system; he afterwards enters on the question of the vaso-dilator nerves. Calling to mind that the vessels are provided with muscular fibres, arranged in an annular form, and whose contraction can only occasion a diminution of the calibre of the vessel, M. Vulpian shows that experiment has taught a singular and incontestable fact, the existence of nerves whose excitation brings on dilatation of the vessels under their influence. These nerves, of which we owe the knowledge to Claude

Bernard, are named *vaso-dilators;* whilst the others have received the name of *vaso-constrictors.* M. Claude Bernard demonstrated this fact whilst repeating Ludwig's researches on the submaxillary gland. He demonstrated as to the anastomotic filament furnished to the lingual nerve by the chorda tympani, that the action of the lingual or of the glandular filaments which spring from this nerve is due, an action which consists in the arrest of the salivary secretion when the lingual is cut, and in the continuation of the secretion when the peripheric end of the cut lingual nerve is irritated; the chorda tympani is therefore a type of vaso-dilator nerves.

Claude Bernard has searched for the existence of other vaso-dilator nerves. It has seemed to him that the auriculo-temporal branch of the fifth nerve, which anastomoses with the facial, had a dilating action on the vessels of the ear, and the same was the case with the nervous filaments surrounding the carotid. Claude Bernard has further pointed out the pneumogastric as determining a dilatation of the vessels of the breast, a fact which is denied by M. Vulpian. The chorda tympani does not exercise its dilating action on the vessels of the submaxillary gland alone. M. Vulpian has demonstrated, by irrefutable experiments, that this action is extended to the vessels of the tongue.

Nerves described by M. Eckhard under the name of *nervi erigentes* are also vaso-dilators. They spring from the sacral plexus, and, with the pudic nerves, proceed to the corpus cavernosum. These latter have not any action with regard to erection, whilst the former produce it; it is probable that the irritation of the erector nerves reacts rather on the arterioles than on the areolæ of the corpus cavernosum. M. Goltz has lately endeavoured to show that the nervous centre of the erector nerves is situated in the lumbar region of the spinal cord.

Many hypotheses have been proposed to explain the action of the vaso-dilator nerves. Heidenhain's experiments have shown that atropia paralyses the action of the chorda tympani on the secretion of the submaxillary gland; and, on the contrary, leaves intact the influence of this nerve on the vessels of the gland. M. Vulpian thence concludes that there are secretory nerves; and, indeed, how can the results of this experiment be accounted for, if the existence of these secretory nerves be not admitted? These experiments annihilate the hypothesis of the attraction of blood by the tissues. Must we see, in the action of the vaso-dilators, a phenomenon like that known in physics under the name of *the interference of light?* must an inhibitory action be admitted? M. Vulpian has adopted this last view, always making the reserve, that the vaso-dilator nerves only act on the vascular tonus by their communication with the nervous ganglia which regulate the vaso-dilators.

The next question is, as to the origin of the vasor-motor nerves. They have their principal roots in the spinal cord; but their mode of origin is not precisely known, notwithstanding the opinion of M. Jacubowitch. It results, from this relation of the vaso-motors with the spinal cord, that lesion or irritation of the spinal cord must have a great influence on the nerves, and, consequently, on the vessels; this is indeed the case, and the partial lesions of the medulla give rise to vascular constrictions or dilatations in the parts in relation by their nerves with the region of the cord where the lesion exists, and each of these modifications results from an irritation, made evident either by a dilatation or a constriction, whence the variableness of the phenomena observed. It is now easy to understand how irritation practised on the surface of the body, for instance, acts by reflex action, passing by the spinal cord to the dilator or to the constrictor nerves. Here we find the explanation of a host of phenomena; for instance, of the reflex vascular dilatations invariably produced whenever the subcutaneous cellular tissue, the muscles, etc., are laid bare. It is a known fact, that these parts become the seat of a very evident congestion, and dilatation is not confined to the exposed region.

The opinion which has been adopted by a large number of physiologists, that there is only one vaso-motor centre, the medulla oblongata, is rejected by M. Vulpian on the ground of his experimental researches. In his opinion, there are a series of vaso-motor centres in the bulb, and specially in the spinal cord. If it be so, the question arises, whether the spinal cord and the medulla oblongata are the principal foci where the vaso motors originate, and the only ones. Experiment has proved that the sympathetic ganglia may also be the seat of origin of the vaso-motor nerves and centres of reflex actions for these same nerves.

M. Vulpian afterwards shows the existence of the vascular tonus—that state of semicontraction necessary to the small vessels, and which gives a certain elasticity to their muscular coats. With regard to the question as to the mechanism by which the spinal cord exercises its action on the heart and vessels, M. Vulpian takes up the history of the subject to the discovery of Ludwig and Thiry, and establishes a very important physiological part of the question; that is, with regard to the depressor nerves. It is now well known that the spinal cord acts on the heart by the medium of the vaso-dilator and vaso-constrictor nerves, by augmenting and diminishing the arterial tension. These facts lead him to study the influence of the vaso-motor nervous system on the pressure of the blood, on absorption, on erection, on reflex congestion, on erectile tumours, and finally on the glands. The action of the nerves on the glands puts the importance of the physiological action of the vaso-motors in full prominence, explains many hitherto unknown actions, and will probably throw light on many more. The studies contained in this volume relative to the action of the nerves on the secretions, on the stomach, intestines, kidneys, and liver, are proofs that these expectations are by no means unwarrantable.

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DR. GERVIS has been appointed Obstetric Physician and Lecturer upon Midwifery at St. Thomas's Hospital in succession to Dr. Barnes.

SIR W. STIRLING-MAXWELL has just issued a reproduction in lithograph, privately printed, of the celebrated anatomical plates of Vesalius, published at Venice in 1538, folio.

A STATUE of Dr. Wells, "the discoverer of anæsthesia", is to be cast in bronze, in one piece, and set up at Hartford, just as it comes from the mould.

AT the tercentenary anniversary of the University of Leyden, the honorary degree of Doctor of Medicine was conferred on Professor Bunsen of Heidelberg, and the degree of Doctor of Mathematics and Physics on Professors Brücke of Vienna, Gegenbauer of Heidelberg, von Siebold of Munich, and Traube of Berlin.

THE usual monthly meeting of the Medical Officers of Health will take place this (Saturday) evening, at the Scottish Corporation Hall, Crane Court, Fleet Street, when Dr. G. Ross will read a paper entitled "An Analysis of the Bill, introduced by the Home Secretary, for Facilitating the Improvement of the Dwellings of the Working Classes".

### THE SANITARY CONDITION OF THE UNIVERSITIES.

THERE is great public reason to desire that the question of the sanitary condition of our universities be not allowed to drop. There is good ground to fear, that there will be some more serious epidemic than there has yet been, if public opinion be not roused to the extreme importance of placing our young men at the universities in more favourable circumstances as regards health than they now enjoy. We have no accurate statistics to quote; but we are constantly being informed, that the men at Cambridge complain of being more or less ill. And now, we again hear, there is typhoid—the captain of one of the leading boat-clubs being reported to have been stricken with that disease. It would appear almost of less consequence that there should be an occasional sporadic case of severe illness and death; but what appears to us so grievous is, that without being ill enough to be laid up, or send for a doctor, the men with one accord—so far as our experience goes—complain of the depressing effects of the air at Cambridge. And how can it be otherwise, while they live over a cesspool extending all under and about the town? The drainage, as we have shown, is discharged in "the heart of the town" into the Cam, which is no more than a vast open sewer without any fall. We are told, by men who ought to know, that Oxford is as bad as Cambridge. When the authorities of these places are asked, they will probably answer, that the proportion of typhoid is not excessive; but they do not take into account the debilitating effect of a foul atmosphere, that does not necessarily result in that culminating effect. Our universities, instead of being models of sanitary arrangements, appear to be the very reverse. If they cannot find a proper outfall for their sewage, they had best adopt earth-closets, or the old-fashioned cesspool, with duly appointed scavengers. The matter appears to us one of great national importance, and affecting the best of the future generations of Englishmen. We hope that it will receive very early and serious attention.

### CREMATION.

THE Council of the Cremation Society have, we learn, made a tangible progress towards accomplishing their object. A piece of ground has been secured for the erection of a building in which the religious rites can be performed prior to the incinerating process. The estimated cost of the proposed building is £3,500, towards which £1,000 has been promised. Further subscriptions are requested. Every information will be given by the Secretary, Mr. W. Eassie, C.E., 1, Great Winchester Street, E.C.; and subscriptions will also be received by Sir Samuel Scott, Bart., and Co., Cavendish Square, London.

### INCREASE OF LUNACY.

A STARTLING statement was lately made at the meeting of the Manchester Board of Guardians by Mr. Macdonald, the clerk, in regard to the increase of pauper lunacy. In 1851, the number of lunatics in the workhouse and asylum was 231, and now there are no fewer than 625, or an increase of 170 per cent.; and this in spite of the fact that the population of the township had decreased to the extent of 13,000 persons during the last twenty-four years. The percentage of pauper lunatics to the entire population, it was said, had trebled, and the cost was proportionately great. In 1851, only £3,800 was paid for their maintenance, but now the ratepayers have to disburse annually the sum of £13,320. This shows an increase of 250 per cent. in cost, and a more serious item in the local relief expenditure it would be hard to find.

### THE MANAGEMENT OF HOSPITALS.

AT an adjourned meeting of the quarterly court of the Radcliffe Infirmary, held February 16th, the following motion was proposed by Dr. Rolleston, seconded by Edward Chapman, Esq., M.A., and carried *nemine contradicente.* That the Government be memorialised to the effect that it is expedient, in the interests of the efficient management of hospitals and infirmaries, to make it within the competence of the managing committee of any such institution, to avail themselves of the services and advice of the sanitary inspectors appointed to act from the Local Government Board, when they judge it to be necessary to do so.

### THE FEVER EPIDEMIC IN LONDON.

ACCORDING to the last returns from the pauper fever-hospitals of London, the fever epidemic among that class is diminishing; but it does not show a corresponding decrease among the other classes, for Dr. Broadbent, at the meeting of the Fever Hospital governors this week, reported that the classes of patients for whom the institution in the Liverpool Road, Islington, is now set apart—as tradesmen, servants, artisans, and the classes above them who require isolation—do not decrease in number. In the past year, 384 patients were admitted, nearly all of whom came in the last month of the year, and a very large number of these were admitted free; and while, on the one hand, the institution prevented the spread of these highly contagious diseases, it saved the respectable classes from having to face the alternative of treating the disease at home or sending their friends to pauper asylums. Dr. Buchanan and Dr. Thorne Thorne spoke of the urgent need which existed for an asylum of this character, which was for nearly seventy years the only fever hospital for all London; and in regard to the diminished income from subscriptions and donations pointed out at the meeting, it was explained that there had been a falling off since the establishment of the Sunday Hospital Fund, from which the institution, however, derived no benefit. The Earl of Devon was re-elected President, with thanks for his past services; Lord Derby, the Archbishop of Canterbury, the Bishops of London, Ripon, and Winchester, Lord Monteagle, Dean Stanley, and Sir William Jenner, were elected Vice-Presidents; Mr. Hugh Owen, honorary secretary; and Mr. T. H. Hills, Mr. Robinson, Mr. Dimsdale, Mr. F. W. Low, and other gentlemen were added to the committee.

### HUNTERIAN SOCIETY.

THE following gentlemen were elected on February 10th for the Session, 1875-76. *President:* W. Sedgwick Saunders, M.D. *Vice-Presidents:* R. U. Wallace, M.B.; E. Clapton, M.D.; H. Gervis, M.D., H. G. Sutton, M.B. *Treasurers and Trustees:* T. M. Daldy, M.D.; H. I. Fotherby, M.D. *Librarian:* P. L. Burchell, M.B. *Secretaries:* F. Gordon Brown, Esq.; Waren Tay, Esq. *Council:* J. E. Adams, Esq.; Robert Barnes, M.D.; F. M. Corner, Esq., F. Daldy, Esq.; R. Fowler, M.D.; J. Greenwood, M.D.; D. De Berdt Hovell, Esq.; J. McCarthy, M.B.; P. H. Pye-Smith, M.D.; W. Rivington, M.B., M.S.; A. H. Smee, Esq.; W. Toulmin, Esq. *Auditors for 1875:* J. E. Adams, Esq.; C. T. Blackman, Esq.; D. De Berdt Hovell, Esq.; W. Humphreys, Esq.

### THE STATISTICAL SOCIETY.

THE Council of the Statistical Society of London invite competition for an essay on "The State of the Dwellings of the Poor in the Rural Districts of England, with special regard to the Improvements that have taken place since the middle of the Eighteenth Century; and their Influence on the Health and Morals of the Inmates." The successful candidate will be awarded the Society's Howard Medal for the current year. The essays will be received until June 30th, and the medal awarded in November next. The competition is an open one. Full particulars of the conditions can be obtained of the Assistant-Secretary, 12, St. James's Square.

### JUBILEE OF A GERMAN PROFESSOR.

THE fiftieth anniversary of the appointment of Dr. Jüngken, professor of surgery in the University of Berlin, was celebrated on January 17th. His Majesty the Emperor conferred on him the star of the Order of the Crown of the second class. Unfortunately, the feeble health of Professor Jüngken prevented him from being present at the festivities in honour of the rare and interesting event.

### SUGGESTIONS ON DIPHTHERIA.

THE Public Health Association of New York have, in consequence of the prevalence of diphtheria in that city, taken the subject into consideration with a view of tracing the cause of the outbreak and of devising some remedy. The conclusions at which they arrived are the following. 1. When diphtheria had gained a foothold in any city or populous neighbourhood, it selects certain localities in which its persistence is specially marked; and its persistence, as shown by repeated outbreaks or continual prevalence, seems to hold an important relation to certain conditions of soil, drainage, and sanitary wants of dwellings, which admit of preventive measures. 2. The extension of the disease from one individual to another, and to entire households or families, and from family to family, and from place to place, are facts so well proved in the history of the disease, that the entire separation of the sick from the well—at least, of children sick with this disease from all others, should be regarded as a first-rate sanitary duty. 3. The immediate sanitary, as well as perfect medical care, of every family exposed to it, seems to be a duty required by every consideration of humanity and public health. 4. A complete and exact record of diphtheria as it prevails in any locality, is a duty of much importance to society; and that, for the purpose of promoting the successful discharge of this duty to society and the medical profession, the Public Health Association of the city of New York, respectfully submits the following resolution as embodying its views upon the subject: "That every board of health, every county and city medical society, and every practitioner of medicine in the State of New York, is most respectfully urged to cause a correct record to be prepared concerning the beginning, progress, local, domestic, and hygienic conditions under which this disease appears, progresses, and is brought under any degree of sanitary treatment."

### THE GERMAN ASSOCIATION OF NATURALISTS AND PHYSICIANS.

EXTENSIVE preparations are being made in Gratz for the reception of this learned body. The secretary, Professor Rollet, reported at a recent meeting of the reception committee that 20,000 gulden (£2,000) had already been raised. The Ministry of Instruction contributed half the sum, and the provincial council and the municipal council of Gratz each 500 gulden.

### THE PROVIDENT SYSTEM.

WE are informed that, in consequence of the trial of the partial provident system at the St. Marylebone General Dispensary, during the past six months proving a success, it was decided at a general meeting of Governors on the 10th instant, to make this principle permanent.

### SALICYLIC ACID.

ATTENTION has been directed recently to the antiseptic qualities of this product, which can now be produced by synthetic chemical processes. Salicylic acid is slightly yellow in colour, taking the form of very fine crystals, which are readily soluble in alcohol and ether, and in hot water, but not in cold water. The melting point is 318 degs. Fahr. If heated rapidly, it is resolved into carbonic and carbolic acids. Under slow heat, it sublimates without decomposition. The composition and the qualities of this acid led Professor Kolbe to infer, what has since been found true by Professors Knapp, Neugebauer, Thiersch, and others, that salicylic acid possesses valuable antiseptic qualities as a preventive of fermentation and putrefaction. In many respects, salicylic acid is, it is stated, preferable to carbolic acid, from its absence of smell and its not unpleasant taste. It is applicable for either external or internal use; in rather large doses, without injurious effects; and it has been employed beneficially in surgical cases. The great value of the acid will be its preservative effects on provisions of every description—a purpose to which carbolic acid is unsuited. Professor Neugebauer's experiments showed that a small quantity of salicylic acid was not only sufficient to prevent the second after fermentation of wine and consequent muddiness which this produced, but that it also prevented the formation of fungi in the casks. Professor Kolbe's experiments proved, that half a *gramme* of the acid was sufficient to check the fermentation produced by 5 *grammes* of yeast in a solution of 120 *grammes* of sugar dissolved in one *litre* of water. From these data, a fair estimate of the quantity to be used for the preservation of champagne, beer, and syrups, intended for exportation, can be formed. Another important use which Professor Kolbe suggests is its application to the prevention of decomposition of water on board-ship, by the addition of the acid in the proportion of 1 to 200,000, by covering the bung-hole of the casks with cotton-wool steeped in salicylic acid; the preservation would be effected by the filtration of the air. Provisions could also be preserved by the application of the acid on the surface. It was found that the process of curdling in milk was retarded for thirty-six hours, by the addition of 6.04 per cent. of salicylic acid. These effects were obtained from free salicylic acid, and not from any of its salts. Professor Kolbe suggests, also, that the acid is peculiarly adapted for use as a toilet requisite for dentifrices, and as a preventive of the disagreeable odour caused by fœtid perspiration, without producing any injurious effects. For the still more important purposes of surgical dressing, Professor Thiersch and Dr. Fehling, who have used it somewhat extensively, report that it arrests the smell of putrefaction without producing any appreciable inflammation; and that a solution of 1 part of salicylic acid, 3 of phosphate of soda, and 50 of water, will promote the growth of skin over granulating surfaces. In surgical operations, a spray of acid and water, in the proportion of 1 to 300, has been used, and the wound dressed with wadding soaked in the solution. In the lying-in hospital at Leipsic, salicylic acid is used instead of carbolic, in vaginal diseases, and for dressing puerperal ulcers. As the acid is soluble in fatty oils, it can be used, like carbolic acid, for Lister's bandages. Its use internally has been suggested for those diseases which are contracted from contagion. From personal experiment, Professor Kolbe found that he could take from 1 to 1.25 *grammes* of the acid daily, without the least inconvenience or disturbance to his general health. Further experiments are being made in Germany as to the properties of salicylic acid and its combinations. Messrs. Domeier and Co., of 3, Botolph Lane, are the agents for the United Kingdom, and will forward full particulars to anyone desiring further information.

### RELATION OF SEX TO MORTALITY FROM VARIOUS CAUSES.

FROM a statistical summary of the mortality in Berlin during the five years, 1869-1874, it appears that there is a certain constancy in the resistance to individual causes of death on the part of one or the other sex. In Berlin, there are more men than women; but the numbers of deaths in the two sexes, from infectious disease, was in the inverse ratio, being 9,193 men to 9,570 women. On the other hand, the male sex has furnished the majority of deaths from all other causes, with the exception of parasitic diseases and disorders of development and putrition. The deaths from diseases of the nervous system were 12,237 men and 9,822 women; from diseases of the respiratory organs, 18,818 men and 14,665 women.

### THE ABUSE OF HOSPITALS: MEMORIAL TO THE COMMITTEE OF COUNCIL OF THE BRITISH MEDICAL ASSOCIATION.

SINCE we last alluded to the memorial on the subject of the abuse of hospitals, which is now before the profession, the following names have been added to the list of signatures: Dr. Murchison, F.R.S., Mr. Spencer Wells, Mr. J. C. Wordsworth, Mr. Critchett, Dr. Burdon Sanderson, F.R.S., Mr. Henry Power, Dr. James E. Pollock, Dr. Clapton, Dr. Gustavus Murray, Dr. H. J. Sanderson, Mr. W. Adams, Mr. Jabez Hogg, Dr. Berkart, Dr. Morell Mackenzie, Mr. George Cowell, Mr. Nettleship, Dr. Percy Boulton, Dr. Arthur Ransome (Manchester), Mr. G. S. Madeley, Mr. Robert Hall, Mr. T. C. Beatty (Seaham Harbour), Mr. T. C. Beatty, Junr., Mr. Thomas Taylor, Mr. Hutchins Williams (Lee), Mr. Chattaway (Kingland), Dr. W. Haining (Chester), Dr. G. K. Poole (Anerley), Dr. S. T. Smyth (Forest Hill), Mr. Holderness (Huntingdon), Mr. John Manley (West Bromwich), Dr. John Johnston, Dr. Madden (Torquay), Dr. Macreight (Torquay), Dr. Paget Blake (Torquay), Mr. W. Pollard (Torquay), Mr. J. Pollard (Torquay), Dr. Spencer Thomson (Torquay), Dr. W. B. Dalby (Torquay), Mr. Edward Bean (Torquay), Mr. S. Rhind (Torquay), Mr. Paul Karkeek (Torquay), Dr. Thursfield (Leamington). The memorial we printed at length on January 2nd. Gentlemen who are desirous of signing it, are requested to communicate with Dr. Meadows, 27, George Street, Hanover Square, or with Mr. Fairlie Clarke, 12, Mansfield Street, Cavendish Square.

### THE CHARITY VOTING REFORM ASSOCIATION.

THIS Association held its first annual meeting on Thursday last, the 18th instant, under the presidency of Lord Lyttelton. The report states that a strong public feeling has been created in favour of the object in view, as is proved by the fact that the Association already numbers 2,736 members. Among these are the names of not a few of the leading philanthropists of the day, and we are glad to observe that the medical profession is well represented. In speaking of the various steps which are being taken to advance the desired reforms, the report mentions that "the committee is in course of issuing a form of memorial to the subscribers to the Medical Benevolent College, commencing with those who have joined this Association (upwards of 400 in number). This will give those who are with us an opportunity of praying the Council to make such alterations in their rules as will relieve candidates, as well as their relatives and friends, from the hardships to which they are exposed under the existing system."

### CORONERS.

Mr. R. Bailey Walker, in a paper recently read before the Manchester Statistical Society, alluded in strong terms to the importance of these officers. He said, "There can be no doubt that there are few more valuable public officers than coroners. They are, however, often an object of suspicion and dislike to local authorities, whose neglect of duty leads to much waste of life, and who, therefore, naturally object to a system of inquiry into the causes of death."

### JABORANDI.

Dr. Franz Riegel has lately administered this drug to several patients in the town hospital at Cologne, and has published an account of the results. The cases which he reports are ten in number, viz., exudation in the right pleura; chronic pneumonia, with acute nephritis; influenza (two cases); chronic muscular rheumatism (two cases); cirrhosis of the liver, with varicose veins in the leg, and chronic rheumatism; lead-colic (two cases); and convalescence from acute articular rheumatism. Dr. Riegel says that he thinks he does not go too far in asserting that jaborandi is an excellent diaphoretic and energetic sialagogue. Although it was in most of the cases difficult to produce sweating, even by the use of warm baths, etc., in every one the administration of the jaborandi was followed by abundant perspiration. To some of the patients, a hot bath was given, for the sake of comparison, some days before or after the jaborandi; and they declared that they preferred the jaborandi, on account of the less amount of inconvenience which attended its use. The sialagogue effect was distinctly present in eight of the cases; in two it was not observed; perhaps, however, Dr. Riegel suggests, there was an increased flow of saliva, but it was swallowed by the patients. (The two cases were, one of influenza, and one of chronic pneumonia.) There was no evidence of any notable increase of the bronchial secretion. The ingestion of the jaborandi was in no case followed by a great primary elevation of temperature, such as occurs when perspiration is induced by restricting the loss of heat. Observations, by means of the sphygmograph, were made on the pulse in two cases; from the results of which Dr. Riegel infers that jaborandi produces relaxation of the arteries, and increased power of the heart. As after-effects, hiccup and eructation were observed, sometimes also vomiting; these, perhaps, being consequences of swallowing the saliva. In two cases, slight *malaise* was produced; and in two there was some faintness, with transient *muscæ volitantes*, and disturbance of vision. There was frequently an increased desire to pass urine. All those after-effects were moderate in degree and soon passed off; so slight ndeed were they, that the patients always declared themselves ready for a repetition of the dose. The preparation used by Dr. Riegel was he powdered leaves, in packets weighing about a drachm, and marked as "One dose of Dr. Coutinho's jaborandi". In one case he divided he dose into two; in all the others he gave the whole quantity after nfusing it for a quarter of an hour. He promises to communicate the esults of further experiments which he is making. M. Vulpian finds hat the diaphoretic action of jaborandi is much reduced by the preious administration of atropia.

## SCOTLAND.

### DR. THOMSON OF DALKEITH.

We regret to have to record the loss of Dr. Thomson of Dalkeith, a well known and prominent member of the profession. Dr. Thomson, while enjoying an extensive practice in Dalkeith, kept up his connecon with Edinburgh and its institutions. He was a regular attendant the Societies, and during the years 1871 to 1873 filled the chair of resident of the Obstetrical Society. His many genial qualities had cured him a host of friends, who now regret his loss.

### MR. CROSS'S BILL AND HOUSE ERECTION IN GLASGOW.

Mr. Cross's Bill in Parliament for the Improvement of the Dwellings of the Working Classes is naturally exciting considerable interest in Glasgow. It is surely honourable to the enterprise and enlightenment of the city, that this general and Government measure is moulded on that obtained by Glasgow a considerable number of years ago. The preamble of the Government measure is copied almost word for word from the Glasgow City Improvement Bill. Of course, the peculiar circumstances of Glasgow rendered a measure of this kind more urgent than in any other of our large cities, but it is surely satisfactory to find that the far-sightedness of the authorities has thus, in a manner, gained the approval of the country at large. It is to be hoped that Mr. Cross's Bill will be extended to Scotland. In Glasgow, it would considerably facilitate the future action of the authorities, whose work in the improvement of the city is by no means completed. The application of the Act to Glasgow would be an advantage in two respects. In the first place, it would enable the city to borrow money at 3½ instead of 4 per cent., and this would be a saving of several thousands annually to the community. Then it would enable the city to deal much more directly with any parts of the city requiring interference, that is, without any special application to Parliament. While powers are thus being conferred, by means of which the evils of past generations are being in part remedied, it is beginning to be all the more felt, that there are no powers in existence to prevent the production of evils only less in degree at the present day. No authority in Glasgow seems to have any power to compel builders to leave spaces for air around the houses erected. When it is remembered that in Glasgow most of the houses are four storeys high, and that these are often built in the form of a square, facing four lines of street, so that within this deep square box the air can only stagnate, it is evident that the arrangements for ventilation must be exceedingly defective. But, added to this, the inside of the square is often filled up with a fresh building or buildings, so that the ventilation is still further prevented; and yet no authority seems able to hinder such a method of procedure. Dr. Russell, the medical officer of health, has lately published a paper which brings some of these points before us in the shape of actual figures. In this pamphlet, he states: "No one can comprehend the importance of this matter of house construction to the future of Glasgow, unless by placing clearly before his mind two facts: (1) the enormous number of dwelling-houses being erected from year to year—since 1866 no less than 26,794; and (2), above all, the small size of those houses. Actually, of those 26,794 built since 1866, 25 per cent. were houses of one apartment, and 50 per cent. houses of two apartments, leaving only 25 per cent. for all sizes above two apartments, and of these 18 per cent. were houses of three apartments. One cannot be too anxious or exacting concerning the ventilation and general arrangements of such clusters of small houses." The remedy for all this may be difficult to find. Some would seek for it in an extension of the powers of the Dean of Guild Court, a court to which the plans of all houses to be erected must be submitted. If this court had power to insist on certain spaces between houses, and precautions for thorough ventilation, much would be effected. But it is felt that at the bottom of all this overcrowding in Glasgow is the high figure to which the price of land has risen. No doubt, the action of the city improvement trust has had something to do with this, by displacing a considerable portion of the community, and rendering the demand for houses unnaturally great. So long as land in the centre of the city is sold at £30 per square yard, and even in the outskirts brings not less than £1, the tendency must be to erect houses covering as small a space as possible. It is beginning to be felt, that the only effectual method of remedying this is for the authorities to obtain the power of acquiring land to be held in trust for the community. This, if properly checked, will offer two very obvious advantages. The corporation would buy up, let us say, some tracts of land around the city, and, when the time came, they would be able to free or sell portions at a moderate figure, their object not being a pecuniary one. The builder would thus acquire ground at a price which would enable him to spread out his tenements. Then the authorities, as proprietors of the land, would be able to bargain with the builders as to the ground-plan of the buildings; they could require that free spaces should be left, and that thorough ventilation was kept in view. There is no doubt at all, that the minds of the intelligent citizens of Glasgow are coming round to some such view as this. It is only a pity, that while people are considering the evil is going on. We know of one suburban burgh near Glasgow, which is yet in great part to build, but in which buildings of the worst possible description are being run up, although the authorities would fain have it otherwise. They have no power, however, to interfere, except within narrow limits, and meanwhile the evil grows.

### THE WEATHER AND THE DEATH-RATE.

AT a meeting of the Scottish Meteorological Society held last week, an interesting paper was read by Dr. Arthur Mitchell, Commissioner in Lunacy, on the Effects of the Weather of the last three Months on the Death-Rate. His remarks principally applied to London, as it always yields the most suitable materials for inquiries of the kind, because of the great number of persons who live under substantially the same conditions of climate, while the published facts regarding it are fuller than the records of most other places. Moreover, the results yielded by other parts of the kingdom, both rural and urban, are very similar. The element of the weather he took into consideration was temperature, which was the one having the closest relation to the death-rate, and the one which, in the three past months, had exhibited special phenomena. The first three weeks of November oscillated now above and now below the mean temperature; but the last week showed a fall of 8.4 degrees below the average. This great depression was maintained over the whole of December, the last week showing a mean of 28.4 deg. Fahr., or 10 degrees below the average. In January, there was a considerable rise in the temperature, and the weather was warmer than average January weather by from 4.5 to 7 degrees. Such being the state of the temperature, what were the results upon the health of the population? Were any diseases specially frequent, and any ages specially affected? The death-rate generally was unusually high. Dr. Mitchell proceeded to show that certain diseases tended more than others to swell the mortality. Those which were usually most fatal in cold weather showed a high increased fatality. This was most marked in the diseases of the respiratory organs. Very striking is the inverse relation between temperature and the deaths from bronchitis. During these thirteen weeks, the deaths from this disease were 55 per cent. above the average. Pneumonia gave an increase of 32 per cent.; in this case, the effects are not so quickly seen as in bronchitis, and manifest themselves longer. Pleurisy, which in general is much less fatal than the other two, showed a higher percentage of increase on the nominal death-rate than any other disease--viz., 110 per cent. Deaths from asthma were also much increased—to as much as 60 per cent. above the average. Among other diseases, rheumatism, heart-disease, Bright's disease, and erysipelas, had their maximum during the last six weeks of 1874. Rheumatism showed an increase on the ordinary rate in these months of 94 per cent.; Bright's disease, 75 per cent.; erysipelas, 65 per cent.; and diseases of the heart, 27 per cent. The influence of low temperature on the fatality of these diseases is more marked than their general relation to weather would lead us to expect. In relation to phthisis, there are ordinarily two maxima of fatality: one in November; and the second, more marked, in March; and, though commonly looked upon as a pulmonary disease, it did not agree with the other pulmonary diseases mentioned in its behaviour with relation to temperature. This relation was preserved in the three months in question, for the increase of mortality from it was only 5 per cent. above its constant. It appears that dryness must be added as an attribute to cold to make it act most perniciously on the subjects of phthisis. Some researches made by Dr. Mitchell and Mr. Buchan showed, in relation to this disease, that, when tuberculosis kills by the lungs, the distribution of deaths over the year approaches that of other lung-diseases, but is distinct; when by the abdomen, the distribution of deaths is nearer to that of abdominal diseases, but here also has some distinctions. In relation to the question whether any diseases were uninfluenced by the cold weather of these months, he found some, but very few; and these were among those which are most fatal in the hottest months of the year—as, for instance, diarrhœa, which showed in these three months a decrease of 10 per cent. in its mortality. To the third question, as to the influence of the weather upon different ages, his answer would, he thought, excite general surprise. The young suffered little, the middle-aged considerably; but the old bore the great burden of the injury. Children below five years showed an increased mortality of only 6 per cent.; between twenty and forty, it rose to 15 per cent.; between forty and sixty, to 24 per cent.; over sixty, to 32 per cent. Thus, the general statement that the cold weather proved very fatal to the very young and very old, was only true of the latter. Summer is the most fatal time to children; great heat, not great cold. The reverse of this is true in adult life.

### A CENTENARIAN.

THE death of a centenarian is reported from Cambuslang parish, near Hamilton. The deceased was a widow, Mary Shearer, said to have reached the great age of 105 years. She was a person of vigorous intellect, and retained possession of all her faculties till within a few months of her death. Her descendants number over 170.

## IRELAND.

MR. MACDOWEL, at the recent examinations in the University of Dublin, gained first place both in the medical and surgical examinations for degrees; and, in accordance with a regulation of the Board, and as a recognition of merit, the surgical degree (Master in Surgery) was conferred on him *stipendiis condonatis*.

### DISEASED MEAT: SEVERE PENALTY.

A SAUSAGE-MAKER in Dublin last week, named Sothern, was prosecuted at the instance of the Public Health Committee for having in his possession a quantity of pork—about nine stone—so diseased as to be utterly unfit for human food. It was proved in evidence that the pig had been affected with scarlatina; and the presiding magistrate, it being a first offence, fined the delinquent in the full penalty of £20. If it had not been for the vigilance of the sanitary officers who seized the unsound food, most probably in a short time it would have been highly seasoned and sold as sausages to the poorer classes. No pecuniary punishment is too severe for an offender of this sort, and it may be doubted whether the penalty of a fine is the right one.

### COLLEGE OF PHYSICIANS: NEW CHARTER.

LAST week, a meeting of the College was called, and the following resolution passed: "That, if the charter be granted giving the College the power of instituting an Order of Members, it is the opinion of the College that any licentiate admitted before the granting of the charter, who may desire it, may be transferred to the Order of Members without additional expense." This resolution will probably remove the opposition of those licentiates who objected on principle to pay anything for being elected to the higher order.

### CHAIR OF CHEMISTRY, UNIVERSITY OF DUBLIN.

DR. J. EMERSON REYNOLDS has been appointed by the Board of Trinity College to this professorship, vacant by the resignation of Dr. Apjohn. The lectureship on Chemistry in the Royal College of Surgeons, which Dr. Reynolds held, and which he must now resign, will be filled up on March 18th, when the President, Vice-President, and Council will proceed, according to the provisions of the supplemental charter, to fill the vacancy. It is believed that Dr. Charles A. Cameron, City Analyst for Dublin, and Lecturer on Chemistry at the Ledwich School of Medicine, will be appointed in Dr. Reynolds's place.

## THE HUNTERIAN ORATION.

THE Hunterian Oration, now biennially delivered in the theatre of the Royal College of Surgeons, in memory of John Hunter, the founder of the collection bearing his name, was delivered on Saturday by Mr. Frederick Le Gros Clark, F.R.S., President of the College. This discourse does not appear to lose any portion of its attractiveness, judging from the very large attendance assembled to do homage to the memory of Hunter, and to show their respect to the orator.

The large portrait of Hunter, considered the *chef d'œuvre* of Sir Joshua Reynolds, had been brought from the Council-room, was suspended in front of the audience, and subsequently alluded to by Mr. Clark, who, after paying a short but eloquent tribute to the memories of some of the most distinguished members of the College who had passed away since the last oration—Partridge, Jordan, Bishop, Cutcliffe, Turner, Wormald, Wyatt, Cutler, Swan, Martin, and Kiernan—men who, in the words of the founders of the oration, "have contributed by their labours to the improvement or extension of chirurgical science"—proceeded to address his audience to the following effect.

After a few observations as to our indebtedness to Hunter for exemplifying, in all his pursuits, the true spirit of our greatest of modern philosophers, he said he did not suppose that Hunter had studied Bacon, and yet there never was a more faithful exponent of the inductive method of reasoning than Hunter. His perception of its value in the investigation of the works and laws of Nature was intuitive; his foundations were broad and deep; and caution and vigour were conjointly exercised in raising his superstructure. Every line he wrote, every preparation he made, attest its truth. After acknowledging the services of all those engaged in the onerous trust of the vast collection, Mr. Clark briefly referred to an important matter which for a considerable time past had occupied the earnest attention of the Council, adding that the present was a crisis in the existence of the College. Through good report and evil report, the College had advanced to eminence and to usefulness commensurate with its prosperity, and was now about to surrender an independent agency it had long exercised, to co-operate with other public bodies in constituting an Examining Board for a qualification to practise. He sincerely trusted that this arrangement might realise all that was expected of it; for the past history of the College and its early struggles for independence, its noble aspirations, its great achievements, were most dear to him. Who should forecast its future history, when that independence was gone? Whatever it might be, the College would need the support of all holding the diploma, and claim the chivalrous exercise of their franchise by the constituents of an institution which, in its traditions and as a home and nursery of scientific surgery, was second to none in the world.

Mr. Clark showed how much Hunter's writings had influenced the labours of his successors in the development of surgery, by raising it from an empirical handicraft to a scientific art; for he exemplified, in a way and degree which had never before been attempted, the natural association, the necessary alliance, between physiology, pathology, and the treatment of disease; and might justly claim, by his logical demonstration of this relation, to have stimulated the cultivators of medical as well as of surgical practice to seek for a more just interpretation of the phenomena of disease, and thus to conduct its management on more enlightened principles. The truly philosophic example of Hunter was the highest and most lasting title he had established to our recognition of the wide-spread service he had rendered to the medical profession in all its branches. After speaking on the phenomena of disease, the attendant signs and symptoms, and changes in type of disease, the orator proceeded to dwell more fully on surgical diseases, paying well-merited tributes to Mr. Hilton, a former President of the College, for his philosophical essay on the *Influence of Physiological and Mechanical Rest in the Treatment of Surgical Diseases*, and to ex-Presidents Sir William Fergusson and Mr. Hancock for their work in conservative surgery in saving limbs by excision of the diseased joints, Mr. Clark proceeded to point out that, in Hunter's time, but little was known with exactness either as regards the functions, the minute structure, or the morbid changes in organs or tissues; but organic chemistry, the microscope, and carefully conducted experiments, had placed within reach a vast amount of ascertained facts, to which our therapeutic mastery over disease bore but a modest proportion. Indeed, it was since Hunter exemplified the close alliance between these sister sciences, and their true relation to practical medicine, that some of our most distinguished surgeons had gained their legitimate laurels by their joint cultivation. A more conspicuous illustration of this was afforded by the teaching and published writings of Sir James Paget, the senior Vice-President of the College.

Mr. Clark afterwards discussed a subject which had occupied much of the attention of the medical corporations throughout the United Kingdom—viz., education—adding that the prejudices and the obstacles to the diffusion of practical knowledge which Hunter had to combat were not yet extinct, and that teaching was not entirely blameless in the matter. He freely and thankfully admitted the beneficent change which had been wrought of late years in the character of medical teaching generally, and in the moral tone and preliminary education of students. Yet the system of instruction was not perfect; indeed, it might be questioned whether the efforts to make it so had not overreached their mark in the invention of facilities for learning, and to the prejudice of the students' best interests in after-life. It seemed as if the hurried competitive life now being led were uncongenial to reflection. It was impossible for those whose duty it was to test the attainments of students to ignore the fact that knowledge was acquired too often without reflection; that even the more intelligent were sometimes satisfied to store their minds with facts, without seeking for an explanation of them. Mr. Clark was, he said, jealous of the artistic illustrations which were scattered broadcast through anatomical and surgical text-books; for he feared that their abuse too often lured the student into the fatal error of believing that he could thus acquire that which should be learned only in the dissecting-room and by the bedside. What would John Hunter, whose life was spent in intercourse with Nature, have said to this? The prepared College dissections were copied to facilitate their recognition; selected museum-specimens were studied that they might be identified; written questions were stored for the instruction of future candidates for the diploma, as if this were the *Ultima Thule* of their aspirations or responsibilities. Suggestive writing, personal dissection, and even clinical teaching, had not the popularity which was accorded to exhaustive or dictatorial instruction, because the latter saved the learner the trouble of reflecting on what he was taught, of seeking for a meaning in what he witnessed, of pondering on the relation between cause and effect.

Possibly the time allowed for study was not commensurate with the extent and variety of the information now required of candidates for a medical degree; possibly the student preferred that method of learning which cost him the smallest expenditure of time and energy, and yielded the readiest return in his success at his examinations. Whatever the explanation might be, the result too often was a quickened memory, but an otherwise undisciplined intellect; and, as a natural sequence, where such was the case, in the responsibilities of practice, the frail reed of precedent was leaned upon, because the sustaining resource of sound principles had never been properly appreciated, for the learner had not cultivated the habit of thinking for himself. In making this observation, Mr. Clark directed the attention of his audience to the well known and truthful portrait before them (that by Reynolds of Hunter, before alluded to), and asked, Was meditation a trouble to him it represented? There was no difficulty in crediting the exclamation attributed to Hunter, "It is a pleasure to me to think".

In conclusion, Mr. Clark, in speaking of the late Bishop of Winchester, a trustee of the Hunterian Collection, observed that "he was indefatigable with the indefatigability which has been called one of the truest signs of genius". Such words were spoken with equal propriety over the mortal remains of an eminent divine, whose sudden death was a shock that vibrated through the length and breadth of the land; and in this characteristic, evinced and exercised in such different spheres of labour, and with tendencies and acquired tastes in which there were few other points of contact, there was a near resemblance between John Hunter and Samuel Wilberforce. And, in the close of their long day of toil, they were alike; for, "when the night came upon them, it was as with the sun of the tropics; there was no twilight". The interest taken by the late trustee in the museum, and his frequent presence on these commemorative occasions, would justify this passing tribute to the memory of one whose character endeared him to all who knew him, and of whom, as an accomplished Christian gentlemen, Englishmen were justly proud.

> "Great deeds cannot die;
> They, with the sun and moon, renew their light
> For ever, blessing those that look on them."

But pre-eminently was John Hunter's life imbued and characterised by a love of Truth". It was the "mystic altar" before which he ever knelt, the energising impulse which determined and regulated his every aim and purpose, the guiding star of his existence; and it is also the most precious legacy he has left to us, who delight to honour him, or desire to emulate his virtues, and to tread, however humbly, in the footprints of his fame.

## THE TREATMENT OF HABITUAL DRUNKARDS.

### REPORT OF THE COMMITTEE OF THE BIRMINGHAM AND MIDLAND COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

We are requested to publish the following report, to which we invite the attention of the Branches.

Your Committee, appointed in October last "to consider the best means of furthering legislation for the care and restraint of Habitual Drunkards", having held several meetings, and having put themselves into communication with members of Parliament interested in the subject, have come to the conclusion, that the best steps to be taken at the present stage are to present a petition from the profession at large to the House of Commons, and to send a deputation of the British Medical Association to the Home Secretary.

With this end in view, they have drawn up a circular, with the intention that it should be forwarded to the secretaries of all the Branches of the Association.

At the last meeting held by the Committee, the following resolution was moved by Dr. Russell and seconded by Mr. West, and carried unanimously; viz.:

"That the circular drawn up by the Secretary be adopted by this Committee, and presented to the Branch, with a recommendation that it should be printed and forwarded to all the other Branches of the Association."

The circular referred to in the foregoing resolution is as follows.

"Sir,—The Birmingham and Midland Counties Branch of the British Medical Association, at the ordinary meeting held on October 5th, 1874, passed unanimously the following resolution; viz.:

"'That a Committee of the Branch be appointed to consider the best means of furthering legislation for the care and restraint of Habitual Drunkards.'

"The Committee have since held several meetings, and have come to the conclusion that, at the present stage, the best steps to take for effecting the object in view would be to present a petition to the House of Commons from the medical profession at large, and to bring the question under the notice of the Government by means of a deputation of the British Medical Association to the Home Secretary.

"With this view, they desire to obtain the co-operation of all the Branches of the Association, and request you to have the kindness to bring the matter under the notice of your own Branch at the first possible opportunity.

"They will feel much obliged if you will do this, and communicate the result to them as soon as you can; so that they may be enabled to frame a petition embodying the views of the Branches, and may make such arrangements as may seem desirable for organising a deputation to the Home Secretary. Meanwhile, they purpose drawing up a draft petition, to be submitted to the Branches for consideration by publication in the Journal of the Association, or otherwise.

"They beg to state that, in their own view, it is desirable to adopt, as the basis of any future legislative measure, the 'Bill for the Better Management of Habitual Drunkards', brought in by the late Mr. Dalrymple in the House of Commons in 1873, which Bill was itself based upon the report of the Select Committee appointed to inquire into the best plan for the Control and Management of Habitual Drunkards', which sat in 1872, and of which Committee the late Mr. Dalrymple was Chairman.

"For further information, and for details supporting the views held by the Committee, they beg to refer you to the above mentioned report published in a Government Blue-book in 1872, to Mr. Garman's Presidential Address at the last annual meeting of the Birmingham and Midland Counties Branch, published in the Journal of July 25th, 1874, and to a paper read by Dr. Russell before the same Branch, which appeared in the Journal of November 14th, 1874.

"On behalf of the Committee,
"W. C. Garman, *Chairman*."

## BIRMINGHAM MEDICAL INSTITUTE: ADMISSION OF "HOMŒOPATHS".

[FROM AN OCCASIONAL CORRESPONDENT.]

A meeting of the Committee appointed, at a general meeting of the profession, to settle the first list of members, was held on Friday last week. The fact, that several homœopathic practitioners had applied for admission gave great zest to the proceedings. The discussion, though pointed and animated, was conducted with temperance and good feeling. This would scarcely have been the case a few years ago.

The arguments against their admission may be summarised as follows:—That the voice and influence of all our masters and leaders had always been given to discountenance any association, still more any such amalgamation as that proposed; that, as societies were to meet in the institute, they would be entitled to, and might justly claim, the right of joining such societies; that they would want homœopathic books; that they did not believe what they practised, or practise what they professed to believe; that, had their therapeutical opinions been known to the corporations from which they had obtained their diplomas, those diplomas would not have been granted; that such a recognition would, in the eyes of the public, give a sanction to their principles and practices; that it would deter ordinary practitioners from joining the institute, the utility of which would be thereby impaired; that the honour, dignity, and status of the profession would be seriously damaged.

These arguments were thus combated:—That we are quite capable of forming our own opinion as to what it is right to do in such a matter, and are not to be bound by any such authority as that invoked; that to exclude any qualified member of the profession from a library where no one person is bound to speak or associate with another would be ascribed by laymen to a pure *odium medicum;* that it would be inconsistent with freedom of opinion, the battle for which had already been fought in the streets of Birmingham by Dr. Priestley, under the shadow of whose statue we were assembled; that it would damage and imperil the honour, status, and dignity of the profession, in the eyes of laymen, to perpetuate such exclusiveness; that the societies meeting in the institute would pay rent for the privilege of so meeting, and could, therefore, exercise their own discretion as to whom they would admit or exclude; that the admission of homœopaths to medical societies, and the propriety of meeting them in consultation, were foreign to the question at issue, and might be dealt with at the proper time and in a proper place; that homœopaths had relinquished many of their positions, dynamisation was gone, *similia similibus* was admitted by them to be a partial and not an universal principle; that, in fact, as a body, they were disintegrating, and were kept together to a very large extent by the quasi-persecution to which they had been subjected; that their ostracism kept alive a feeling of sympathy with them; that it was really, therefore, politic on the part of those who disliked them to absorb them, and so hasten that process of dissolution which had already set in; that it was ignoble on the part of so powerful a majority as we are to continue to punish a feeble minority by cold-shoulderism and contumely, the endurance of which was strong evidence of the genuineness of their faith, as was also their relinquishment of those dogmata which they had found reason to consider untenable; that, in a complete library, as we hoped ours would be, we must have heterodox as well as orthodox books, or submit to the imputation of condemning that which we had not taken the trouble to understand.

Sixteen voted for the admission of the homœopaths, and six against it. Two, I believe, remained neutral. Of the country practitioners, I think I am right in saying that but one voted in the minority.

# ASSOCIATION INTELLIGENCE.

### SOUTHERN BRANCH: SOUTH HANTS DISTRICT.

The next ordinary meeting of this District will be held on Tuesday, February 23rd, at 8 p.m., at the School of Science and Art, Portsmouth: W. H. Garrington, Esq., J.P., will preside.

Notice has been received of the following communications.

1. Dr. W. H. Axford: On Dysmenorrhœa.
2. A Case of Resection of Knee-Joint; etc.

J. Ward Cousins, *Hon. Sec.*

### STAFFORDSHIRE BRANCH.

An ordinary meeting of this Branch will be held at the London and North Western Hotel, Stafford, on Thursday, February 25th, at 6 p.m.

Vincent Jackson,
Ralph Goodall, } *Honorary Secretaries.*

February 16th, 1875.

### BIRMINGHAM AND MIDLAND COUNTIES BRANCH: PATHOLOGICAL AND CLINICAL SECTION.

An ordinary meeting of the above Section will be held at the Midland Institute, on Friday, February 26th, at 3 p.m.

Vincent Jackson,
Robert Jolly, } *Honorary Secretaries.*

Birmingham, February 16th, 1875.

# REPORTS OF SOCIETIES.

## CLINICAL SOCIETY OF LONDON.

FRIDAY, FEBRUARY 12TH, 1875.

SIR WILLIAM JENNER, Bart., K.C.B., M.D., F.R.S., President, in the Chair.

*President's Address.*—There was a very large attendance of members and visitors, who listened with marked attention and frequent applause to the inaugural address of the President, which is published at page 233.

Dr. GREENHOW said: The proposition that I have to submit to you is one that you will most cordially accept. Our President, at the commencement of his address this evening, said he had felt some misgivings, on accepting the presidency, as to his ability to give us an inaugural address. I need not say to you, gentleman, that his misgivings were entirely unfounded, for we have heard this evening a most admirable address. This Society has been fortunate, so far, in having as its President always some gentleman in the very forefront of medical science and medical position. We have had in succession the very ablest men that could be selected to fill the office. I have myself sometimes felt misgivings as to whether it was wise to go on inviting our President from year to year to give an inaugural address. We all know how difficult it must be for gentlemen to go on addressing us on the self-same topic. We can all feel how difficult it must be to deliver a Harveian or Hunterian Oration; but it so happens that our Presidents have all been men possessed of a peculiar idiosyncrasy, which they have impressed upon their addresses. Whilst it would be far from me to say that one address was better than another, I venture to say that from the day when Sir Thomas Watson gave the first address at the opening meeting of this Society to this evening, our addresses have all been of first-rate quality, such as to reflect honour on those who gave them and honour on the Society to which they were delivered. It would be presumptuous in me to say more on this subject; I therefore merely beg to propose that the cordial thanks of the Society be given to the President, and that he be requested to hand his address to the secretary for publication in the next volume of the *Transactions* of the Society.

Mr. BARWELL seconded the motion, which was unanimously agreed to.

*Paralysis of the Serratus Magnus Muscle.*—Dr. POORE exhibited a patient with this disease. The man, aged 43, strained his right arm on the 19th of May, 1874. He suffered greatly from pain and other symptoms indicating neuritis of the brachial plexus, but the pain was quickly removed by the use of the galvanic current, combined with the rhythmical exercise of the muscles of the arm. On August 20th, three weeks after the disappearance of the pain, and three months after the injury, paralysis of the right serratus magnus came on, and still remained. The phenomena presented were the following. With the arms at rest by the side, there was nothing obviously amiss, except that the inferior angle of the right scapula approached the middle line somewhat more closely than that of the left; when, however, the serrati were brought into action by holding the arms forward, the spinal border of the right scapula started away from the chest-wall like a wing, and the upper end of the spinal border was drawn slightly upwards and inwards; there was no difference in the level of the shoulders, and no difficulty in raising the arm above the shoulder; the digitations of the serratus were visible on the sound, but not on the paralysed side. By means of diagrammatic sections of the thorax taken with the leaden cyrtometer, Dr. Poore was enabled to show the effect of this paralysis on the thoracic wall. When the serrati were not in action, the sections were nearly bilaterally symmetrical; when, however, the left serratus was brought into play, the section showed that on the healthy side there was lateral bulging of the thorax, due to the pulling upwards of the ribs by the serratus magnus, while on the paralysed side there was no such bulging, but the projection backwards of the scapula was strongly marked. During deep inspiration, the want of symmetry became still more strongly marked. The phenomena presented by the patient differed from the description given by Duchenne, since there was no depression of the shoulder and no tilting upwards of the inferior angle of the scapula when the hands were held forward. The phenomena were at variance also with Niemeyer's description, since that physician stated that paralysis of the serratus magnus rendered the raising of the arm above the level of the shoulder impossible. The cause of the paralysis was doubtful. Had neuritis of the median or musculo-spiral nerve crept slowly up the limb and fallen with undue severity on the nerve supplying the serratus? Dr. Poore thought not, because, early in the history of the case, the patient had complained of pain when the serratus was put in action, although there was no paralysis, a fact which would indicate that the posterior thoracic nerve was implicated. It was possible that the paralysis had been the price, as it were, paid by the patient for his relief from pain. The removal of the pain had enabled him to use his arm, and possibly the movement when rest was indicated had changed his pain into paralysis. Dr. Poore was not aware that the effect of this paralysis on the chest wall, though obvious enough, had been previously demonstrated.

*Lepra Anæsthetica.*—Dr. SOUTHEY exhibited a patient who was suffering from this disease. The patient, a male, aged 25, had been under Dr. Southey's care at St. Bartholomew's Hospital. He was of a fairly healthy complexion, and in a state of moderately good muscular nutrition. His most characteristic peculiarity was in his hands, which were cold and wasted looking, with shrivelled wrinkled skin; and the peculiar bird's talon-like position assumed by the fingers, and the incurvature of the back of the hand when he opened it, at once attracted attention, and served as a means of diagnosis. The skin and tissues of both his hands and feet were affected, and this affection was due, not merely to absorption or diminution of the ordinary subcutaneous fat, but to generally impaired nutrition. The tactile sense had almost altogether disappeared, and the organs by which it was carried on had especially suffered; thus the skin at the finger tips and on the palmar surface was nearly quite smooth, the concentric rows of papillæ being scarcely discernible. Here and there upon the fingers were scars of old burns and injuries, produced by his holding mugs, cups, and plates, which were too hot, and which blistered him without his being conscious of the fact. On the plantar surface of his right foot was an ulcer, now looking nearly healed, which he stated was the result merely of an injury from his boot, and, though not exactly in the ordinary spedalsked ulcer site, appeared ominous both by situation and appearance. The history of the case appeared to confirm the diagnosis. He was born of English parents, and had resided, up to November 1873, in the hill country of Southern India, upon a cinchona and coffee plantation. In 1869, he had contracted some venereal affection, which was followed by a severe crop of boils and by two whitlows upon his fingers. Soon after this, he noticed some impairment of sensation, first in one finger, which gradually extended over both hands. At or about the same time, a large patch of discoloration of the skin, occupying an area of some twelve or fourteen inches, about the right knee, made its appearance; it was of a dusky red colour, felt a little thicker than the rest of the skin, and itched slightly. Loss of sensation in the patch soon became apparent to him, so that he could prick or scratch it without evoking the slightest pain. Subsequently, several similar patches showed themselves in different parts of his body, the most recent having involved his right ear; this organ, however, was certainly not anæsthetic, but he stated that it was so some seven months ago, when he left India, and that it had recovered sensation since his sojourn in England. Fourteen months ago, he had first noticed wasting of the muscles and deformity of the hands, and this had been accompanied by dull, heavy, aching, and occasional dragging pains in his fingers and up the forearm to behind the elbows. The patient had been treated with mercury (though never to salivation), arsenic, liquor potassæ, and iodide of potassium, but without deriving much benefit. His change of habitat, however, to this country had been attended with some amelioration. It was interesting to note that he had lived all his life in the hill district in India; that both his parents were born and lived in India; and that his grandfather was the original settler or migrator from this country. Thus two generations of acclimatisation had in this instance sufficed to confer such an altered habit or idiosyncrasy upon an European body, as to enable it to acquire a specially indigenous disease.

Dr. BUZZARD proposed that, as the usual time of the meeting had expired, the discussion on both the above papers should be deferred until the next meeting of the Society. This proposition was adopted, and the meeting terminated.

## PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, FEBRUARY 2ND, 1875.

GEORGE D. POLLOCK, F.R.C.S., President, in the Chair.

*Aneurism of the Heart.*—The report of the Morbid Growths Committee on Dr. Southey's case of aneurism of the heart was read. They agreed entirely with the description given by Dr. Southey (see p. 61).

*Elongation of Bones from Disease.*—Mr. HOWARD MARSH exhibited a case of elongated bones of the lower extremity in a case of diseased knee (living specimen). The patient was of phthisical family. In August 1869, the left knee became painful and swollen from scrofulous inflammation of the synovial membrane. By means of a splint, Scott's dressing, and cod-liver oil, she improved much, and in the summer of 1870 was nearly well. The condition of general struma was marked, and the knee gradually again grew worse. Small incisions became necessary, and the limb was laid on a back splint. She was three years in bed with it. Three years ago, the limb was first observed to be longer than its fellow. From the abnormal vascularity of the parts, the femur had become one inch and a half longer than that of the sound side. Motion was interfered with.—Mr. Wagstaffe said that this was a case of great interest. Nevertheless, the condition was not very rare. In five cases of similar disease of the knee-joint, now in St. Thomas's Hospital, two had elongated limbs, either in the tibia or femur, or both. In one case, the elongation amounted to five-eighths of an inch, in the other to one and a half inches. In one case, the limb was shorter than the sound one. After excision of the knee-joint, the limb was often found less short than had been anticipated, owing to this elongation.—Mr. Holthouse thought this morbid change not quite so common as Mr. Wagstaffe suggested, or it would be more commonly met with. Apparent elongation in such cases, by the lowering of the pelvis of the affected side, was far from unusual; but it was a different affair with real elongation.—Mr. Howard Marsh asked if any of the Fellows could tell where a case of real elongation was described anywhere in surgical works. Neither in the works of Paget nor Dupuytren could he find an account of this change.—Mr. Wagstaffe said the change was not described anywhere. In the cases he mentioned, the elongation was actual, not apparent. In the case of shortening, the tibia was defective.—The President observed that these cases were very rare; he had only seen two.—Mr. De Morgan had not seen many such cases. At present, he could only remember two, and could not say whether the elongation was in the femur or in the tibia.—Mr. Hulke said such cases were, in his opinion, neither so rare as Mr. Marsh supposed, nor so frequent as Mr. Wagstaffe would infer. In a case of a child thirteen years of age, which came under his notice, there was great overgrowth of one lower limb; this, however, was not from joint-disease, but from teleangiectasis. He had also noticed a curious form of disease where one bone of a limb outgrew its fellow. In three cases, he had seen the radius so outgrow the ulna that it became quite arched. In these cases, there was no chronic disease nor afflux of blood.

*Leprosy.*—Dr. Pye-Smith showed a case of leprosy. The boy was sixteen years of age, born in India. His father was a Scotchman and his mother a half-caste. There were spots of anæsthesia on the arm. The disease affected the palate and larynx. On laryngoscopic examination, the left vocal cord showed one or two nodules.

*Tumour of the Arm.*—Mr. De Morgan exhibited a case of tumour of the arm, the nature of which was not quite clear. It was evidently connected with the nerves. It occurred in a young lady aged fourteen, quite healthy, and of a healthy family. The tumour was of some years' standing. There were several tubercles under the hypertrophied skin, which formed bead-like bodies. There was also a general fulness of the arm. The growth was not in connection with the muscles. There was good movement of the arm, and the owner could play the piano freely. The limb perspired profusely. There was some irregularity observed in the limb at birth, and the swelling gradually increased, and became painful on pressure. The skin was movable over the tumour. There was pain felt over the thumb. In January last, the swelling had increased, and the bead-like surface was more pronounced. Movement was diminished; an operation was therefore decided upon. The radius had become eroded and had given way. There was found a cyst full of dark tenacious fluid. The musculo-spiral nerve was as thick as a finger. The muscles were expanded over the tumour. The nature of the tumour was doubtful, but it appeared to be connected with the nervous system, and was possibly some form of neuroma. At first, he had been inclined to think it might be a form of lymphatic growth.

*Sarcomatous Tumour of the Eye.*—Mr. Geo. Lawson exhibited an eye which he had removed on account of a sarcomatous tumour, which grew from the sclerotic and cornea. The tumour first appeared as a small black speck on the conjunctiva at the inner side of the eye, two years previously. It continued to grow, until August last, when it had attained such a size that the patient was unable to close the lids over it. Up to this time, he had refused to submit to any operation, but he then permitted Mr. Gooch of Windsor, under whose care he was, to excise it. The tumour, however, immediately reappeared, and continued to increase, until early in November, when Mr. Lawson first saw him. There was then a large warty excrescence springing from the sclerotic and adjacent cornea on the inner side of the eye, overlapping the cornea, so as to cover the greater portion of the pupil. It was very painful, and repeated hæmorrhages took place from the surface, so that the patient was becoming exhausted from the frequent small losses of blood and the pain. Mr. Lawson excised the eye; and, on making a section of it, the growth was found to be a round-celled sarcoma, confined to the sclerotic and cornea, and not involving the iris or ciliary processes. The patient made a good recovery, and there had been no recurrence of the disease.

*Melanoid Sarcoma in a Cod-fish.*—Dr. Hoggan exhibited microscopical specimens of melanoid sarcoma in a cod-fish. The tumour was black and nodulated. Under the microscope, it was found to consist of round and oval pigment-cells, amidst fibrous trabeculæ.

*Sarcomatous Growth of Omentum.*—Mr. Knowsley Thornton related the case of a female, aged thirty, who first suffered from abdominal troubles during her first year of married life. Then there was fluid in the peritoneum. She was tapped, and eleven pints of greenish ovarian-like fluid came away. The patient died. On microscopical examination of a growth seated on the omentum, it was found to be a form of sarcoma, fibre-celled chiefly, though round cells were numerous. One ovary was infiltrated with a similar growth, and there was a nodule of it in the liver. The diagnosis in life was exceedingly obscure and difficult.

*General Sarcoma.*—Dr. Hoggan showed microscopical specimens from a case of general sarcoma. The different organs in the abdomen were greatly affected. Under the microscope, the lining membrane of the uterus was found to be disorganised. There was a cancerous mass in the pylorus.—Dr. Coupland said that it had been announced that the specimens exhibited were put up after a new process. He asked what it was.—Dr. Hoggan replied that the process was invented by a lady, and that it would not be fair to divulge it.—Mr. Hulke said that it might be as well if Dr. Hoggan had an opportunity afforded him to describe the method adopted. He could scarcely imagine that any member of that Society would purpose to describe a method and then decline to do so.—Dr. Hoggan replied that if the lady, who possessed a medical degree, were made a member of the Society, doubtless she would explain her process. Not to possess her process was a loss to science.—The President thought the matter hardly a subject for discussion.

*Incomplete Direct Inguinal Hernia.*—Dr. Dowse exhibited an incarcerated portion of bowel in the inguinal canal, which formed an incomplete direct inguinal hernia. The subject of it was an old woman aged 79. The bowel where constricted had become sphacelated, and by progressive ulceration an artificial anus resulted. A month previous to the patient's admission into the Central London Sick Asylum, she was seized with obstinate vomiting and constipation, which continued for a fortnight. After this, the bowels were relieved, but a hard and painful swelling showed itself in the right groin. When Dr. Dowse first saw her, there was neither vomiting nor constipation of the bowels; but upon examining the abdomen there was diffuse cellulitis of the right abdominal wall, with great hardening about Poupart's ligament; and over the internal abdominal ring, midway between the antero-superior spinous process of the ilium and spine of the pubes was a large bleb, which soon ruptured, and the aperture gave exit to fæcal matter. The patient sank from an exhaustive attack of diarrhœa. At the *post mortem* examination, all the parts in the abdomen were healthy, but the lower free border of the ileum was found invaginated in the inguinal canal, and adherent to the internal abdominal ring. There was free communication between the bowel and the skin.—Mr. Wagstaffe asked if by an invaginated intestine an intussusception were meant.—The President asked if there had been no vomiting.—Dr. Dowse replied that there had been vomiting before the case came under his care. There had also been constipation. It was not an intussusception.—Mr. H. Morris asked if it were not an incarcerated hernia, running on into intussusception.—The President thought a portion of intestine might have dragged away and dilated, or it might have been an imperfect diverticulum.—Dr. Greenfield inquired if one side was partially nipped. The answer was in the affirmative.—Dr. H. Green said that, when fresh, it appeared like a diverticulum.

*Syphilitic Ulceration of the Rectum.*—Dr. Dowse showed two specimens of syphilitic ulceration of the rectum. The first was taken from a patient aged 37, who was admitted into the Central London Sick Asylum in July 1874, and died the following December. When Dr. Dowse first saw her, she was suffering from well marked tertiary syphilitic sores and cicatrices. There was extensive ulceration around the labia of the vagina, and mucoid elevations around the anus. About twelve months previously, she complained of pain when passing a motion, which was usually attended with hæmorrhage. The bowels soon began to act very irregularly; sometimes there was persistent diarrhœa, with blood and pus, at other times there was distressing constipation, with colicky pains and tormina. Around the anal aperture, were to be seen the cicatrices of old fistulæ. There was a stricture of the bowel just beyond the internal sphincter, which would admit the forefinger. The ulceration commenced at the verge of the anus, and was continuous up the gut, the wall of which felt rough and uneven, like a worn-out nutmeg-grater. At the necropsy, the rectum, when slit up, was found to be diseased throughout its entire course. It presented an irregular surface of a greyish green colour, with here and there somewhat pendulous-looking masses of almost vermilion redness. The second specimen was taken from a patient aged 27, who for the second time was admitted into the Central London Sick Asylum in September 1874, and died in the following December. The history of the case was similar in most respects to that just narrated. There were, first, acute pain upon defæcation; second, irregular action of the bowels, with hæmorrhage and severe colicky pains with tormina. The hæmorrhage was succeeded by the discharge of a dark-coloured fluid of blood and pus. This patient died from lung-disease, albuminuria, waxy liver, and kidneys. The state of the rectum was in most parts as that just shown. Dr. Dowse remarked that in his experience relative to syphilitic disease of the rectum, one did not, as a rule, find chronic periosteal disease with caries and necrosis of bone, but rather a determination to the skin, connective-tissue, and mucous membranes. Hæmorrhage from the air-passages and albuminuria were associations by no means uncommon, as were also psoriasis of the tongue, hands, and feet, condylomated thickening about the anus, and diffuse cicatrisations of the skin from previous ulcerations.

*Enlarged Liver and Spleen.*—Dr. PYE-SMITH exhibited an enlarged liver and spleen without leukæmia. The patient was a cabman aged 46, who came into Guy's Hospital in November last. There was a history of syphilis. The veins of the face were enlarged, as if there also existed intemperate habits. There were purpuric patches on one leg. The spleen and liver were much enlarged. Double pleuritic effusion came on. The diagnosis was cirrhosis of liver, with fatty deposit and granular kidneys. There was no albuminuria. The man died with nervous symptoms, low delirium, and albuminuria. The temperature was rather below the normal than above it. The *post mortem* examination only made the case more unintelligible. The kidneys were diseased in their structure (microscopically), and the surface was granular. The heart presented evidence of old pericarditis, and altogether weighed eighteen ounces. The valves were healthy. The liver and spleen were smooth. The liver weighed eighty-eight ounces and the spleen eighty-three ounces. It was the spleen of leukæmia. Nevertheless, under the microscope the blood was seen to be perfectly healthy. The absence of blood-change made the diagnosis difficult.

*Hæmorrhage in the Joints in Gout.*—Dr. PYE-SMITH showed a specimen of hæmorrhage into the joints in a case of gout. The man died six weeks ago. There were no peculiarities in life, and no albuminuria. It was a case of gout; the man had been ill several weeks, and had been ailing for four years. When he came into hospital, he had a bed-sore which had healed. There were no sudden symptoms. Urate of soda was found in all the joints; there was interstitial nephritis. In all the joints there was extravasated blood. A cupful (shown) came from a knee-joint. Many joints were equally full of blood. Such a case was rare. The patient had not had purpura.—Dr. HILTON FAGGE related a somewhat similar case, where there was extreme congestion of the knee-joints in a case of dropsy with bronchitis. The man had tophi in his ears. There was gout in the great toe. There was also pus in the forefinger. In the knees there was urate of soda, with much synovial fluid. There was no complaint made of the knees in life. Suppuration in the joints was rare in gout.

*Cancer of the Breast and Liver.*—Dr. PEARSON showed a case of cancer of the breast and of the liver from a female aged 64. The interesting part of the case was the skill with which the sufferer had concealed her open cancer of the breast from her friends and her medical man. It was only discovered after death.

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### TUESDAY, FEBRUARY 16TH, 1875.

GEORGE D. POLLOCK, F.R.C.S., President, in the Chair.

*Invaginated Intestine.*—The Report of the Morbid Growths Committee upon Dr. DOWSE's case of invaginated intestine was read. There was a diverticulum of the intestine caught in a direct inguinal hernia, in which a fæcal fistula had formed from ulceration.

*Ovarian Tumour.*—The Report on Dr. MURRAY's Ovarian Tumou- was read (see p. 61). It was a lobulated tumour, of the size of a man's head, consisting of several cysts, one considerably larger than the others. There was no clear fluid in any cyst, but a soft kind of new growth. The cysts were scarcely true cysts. In the more recent parts, the new growth was cellular, the cells being round, oval, or irregular in shape, so that it resembled in character the tissue of sarcoma. In the old portion, the cells were smaller and finer, and the stroma was hardened. The cells resembled leucocytes, and were about a third of a lymph-corpuscle in diameter.

*Congenital Defect of Clavicles.*—Dr. DOWSE exhibited a case of congenital defect of the clavicles (living specimen). The girl, aged 17, was the eldest of eleven children, all of whom were perfectly healthy. During the intrauterine existence of this girl, her mother went into the country for the first time in her life, and was much alarmed at a large number of frogs there existing. She stepped upon these frogs from time to time, which increased her alarm. The child was born at the full time, and at birth some deformity was observed. It also performed frog-like movements. Such was the story of the child's grandmother. The child went through the troubles of infancy quite smoothly; at nine, it commenced to have epileptic fits. One point Dr. Dowse wished to point out strongly was, that this child could do all that perfectly developed persons could do—and more. The child could bring the shoulders together over the chest.—Mr. WAGSTAFFE inquired if there were any bone at the outer end of what should have been the clavicle, or if there was a joint in the clavicle. He should also like to know at what time during pregnancy this fright was received, as the clavicle was a bone that ossified early.—Dr. DOWSE replied that there was no central joint, and no true acromion process. The fright occurred during the third month of pregnancy.—The PRESIDENT suggested that some of the surgeons in the room should examine the child. This was accordingly done; and, after some other communications had been made to the Society, Mr. HENRY SMITH said it was a difficult task, and it was very fortunate that they were not being examined before the Lord Chief Justice, as it might not have been easy to agree. There was, doubtless, bilateral distortion, and spaces on each side where the clavicles finish. What were the bones at the acromial end? Were there intrauterine fractures, and not an arrest of development? Disagreement was very easy.—Mr. MORANT BAKER thought that Dr. Dowse was right, that there was arrest of development. The coracoid process could be felt, but not the acromion process. The patient could bring the shoulders together in front, and that went against Mr. Smith's view. For his part, he was glad that they were not being examined before the Royal College of Surgeons.—Mr. CAMPBELL DE MORGAN agreed with Mr. Smith. He thought he could feel the acromion process on the left side, and possibly also on the right side. This case furnished a new view of clavicles: the patient had more power than those who possessed clavicles—could do all that others could do, and more. Were clavicles useless vestigia?—Dr. PYE-SMITH supported Mr. Baker's view. On the right side the fibres of the coraco-brachialis could be felt to be attached to the bone, whatever it was, and from that he thought it hardly likely to be an acromion process. There was an arrest of development resembling what is found in the carnivora. The external ends of the clavicles were not developed.

*Double Thoracic Aneurism.*—Dr. BURNEY YEO read an account of a double thoracic aneurism. The patient died in King's College Hospital last week. There were two aneurisms. One was easily recognisable in life, the other was only suspected. The suspected one was the cause of death. The first was in the ascending aorta, and was of the size of a hen's egg; it communicated with the aorta by a large opening. Its walls consisted of several layers of fibrin, and it was adherent to the cartilages of the second and third ribs. The aortic arch was normal. There was an aneurism in the descending aorta, of a dissecting character. The posterior wall of this aneurism consisted of the bodies of the fourth, fifth, sixth, and seventh dorsal vertebræ, which were much eroded. There was an ulcer at the point of contact with the œsophagus, and a hole of the size of a sixpence. There was no general inflammatory adhesion betwixt the aneurism and the œsophagus. The aneurism fell away from the œsophagus on the parts being lifted. There was much atheroma in the aorta. The valves and walls of the heart were quite healthy. The stomach was full of blood-clots. The symptoms in life were pain in the right side, cough, and dyspnœa. The man stooped forwards, for when he stood straight up there was pain, and stridulous cough induced. He was thirty-eight years of age, unmarried, and had had syphilis. He had had a fall some months ago, and had had much cough since Christmas last, when he had a bad cold. The chest was emphysematous; there were dulness and pulsation at the ascending aorta, and a systolic murmur at the base of the heart. The pupils were equal. After fourteen days' rest in bed, he was much easier. On the 2nd of the month, he could swallow food without difficulty; on the 9th, he wished to go out of hospital. On the 11th, he sat up in bed and had some food, when he felt faint, and blood came up freely without cough. In the afternoon the hæmorrhage returned, and was fatal. The opening into the gullet was sharply cut, and had a punched-out appearance. There was no dysphagia, except occasionally, and then it was only slight.—Dr. THEODORE WILLIAMS had seen many aneurisms, but only one case of double aneurism in the same arterial trunk. The second aneurism might easily be overlooked. If the patient had lived, doubtless the second aneurism would have pointed. He thought the case a very interesting one.

*Fatty Degeneration of Muscles.*—Mr. CRIPPS brought forward a case of fatty degeneration of the muscles of the thigh, from a body which came into the dissecting-room at St. Bartholomew's. All the muscles of the leg and some of those of the thigh were affected. The fatty degeneration extended from below upwards in the muscles. The muscles affected were those supplied by the great sciatic nerve. The short head of the biceps, however, was unaffected. The opposite limb was affected in a precisely similar way. The limbs had been too much cut about to permit of a careful search being instituted as to the possibility of some abnormal nerve-supply to the short head of the biceps. The old woman had had paralysis for some time. The sciatic nerve was not affected.—The PRESIDENT thought a report of the state of the nerve desirable. He had seen a similar change in a horse, where the nerve was caught and pressed by the aorta.—Mr. WAGSTAFFE thought a microscopic section of the muscles desirable. Fatty degeneration in voluntary muscles was rare. Fatty infiltration after fracture was common.—Mr. CRIPPS replied that by fatty degeneration in this case he meant that there was no trace of muscular fibrillæ to be found.—Mr. MORRIS disagreed with Mr. Wagstaffe's remarks as to the rarity of true fatty degeneration in the voluntary muscles.

*Contraction of the Coronary Arteries.*—Dr. GREENFIELD showed a specimen of contraction of the coronary arteries. At the commencement of the aorta, there was a band of atheroma, by which the orifices of the coronary arteries were much obstructed. On section, the aortic wall was found to be much thickened. The patient, a female, aged 27, was brought into hospital dead. She had felt queer and sick, and died on the way, being ill altogether about half an hour. There was no distinct history of syphilis. The heart was healthy, and the left ventricle contracted. There was no microscopic examination made when the parts were fresh. The muscle was of good colour, and there was but slight fatty change. The interest of the case lay in the youthfulness of the patient, and the absence of symptoms. There was no other disease of the vascular system. Was there syphilis? He was not certain about it.—Dr. HILTON FAGGE inquired if local patches of disease were associated with obstruction of the coronary arteries. He had had no personal experience of such cases. Did muscular changes necessarily follow obstruction of the coronary vessels?—Dr. GREENFIELD replied that we could not assert that almost complete obstruction of the coronary arteries was necessarily followed by fatty degeneration of the muscular structure of the heart. In old persons, these changes were commonly found together. When an arterial trunk was cut in two, molecular necrosis of the parts supplied followed. There were cases on record where, when one coronary vessel was diseased or obstructed, fatty degeneration of the part supplied by it followed.—Mr. MORRIS inquired, if one coronary vessel was obstructed, why the parts were not nourished by the anastomoses of the terminal branches of the coronary arteries. Hyrtl said that such anastomoses did not exist, but that day he had seen a case to the contrary.

*Obstruction of the Renal Arteries.*—Dr. GREENFIELD showed two cases of obstruction in the renal arteries, due to atheroma. The first was from a man, aged 49, who had been in hospital for some time with slight albuminuria and slight jaundice. There was a systolic murmur over the heart. The aorta was rigid and roughened, and there were plates of atheroma. The right renal artery was much diseased, and the right kidney weighed only one ounce and a half. The vessels of the kidney were thickened; the capsule came away easily, and the surface was very granular. The left kidney weighed ten ounces and a half; it was smooth; one lobe was atrophied from atheroma of the artery supplying it. The second case was that of a female, who had an ovarian tumour. There were no symptoms, no albuminuria, but great ascites. The left kidney weighed four ounces and a half; its artery was obstructed. The right weighed three ounces and a half, and was slightly granular, of a yellowish white colour, and the pyramids had white rings in them like sections of vessels. There was a coagulum in the obstructed artery, extending into the aorta. In the right kidney there was some wasting of the cortex, and acute changes in the epithelium like those found in fatty kidney. These cases showed the effects of complete and of incomplete obstruction. One kidney was atrophied, and the other enlarged. When there was thrombosis, there were acute necrobiotic changes.

*Fibroid Disease of Heart.*—Dr. GREENFIELD exhibited a case of fibroid disease of the heart, from a man, aged 43, who died suddenly, after being a few hours in hospital. The symptoms were those of advanced heart-disease, with albuminuria and dropsy. The interest of the case lay in a roughened patch on the posterior wall of the left ventricle, to which was attached a honeycomb clot. This was a rare cause of death. There were numerous embola in the renal arteries, which were indeed stuffed with them. Was death due to the changes in the heart, or to those in the kidneys?

*Fatty Tumour in Groin.*—Mr. BUTLIN showed a fatty tumour removed in the course of herniotomy. It came from a woman, who was admitted into the West London Hospital in September last, with a hernia. There was a history of hernia for some years, always so far easily reducible. She was forty years of age. There was a large tumour in the left inguinal region, and much pain. The tumour was quite irreducible, and gave no impulse of cough. In operating, he cleared the sac, but failed to obtain reduction. He then opened the sac, and found the tumour. It at that time was smooth and dark, like a piece of congested lung, and light on the outskirts. A pedicle sprang from it, which was attached to the interior of the abdomen: He cut this, and removed the tumour. The microscopic examination showed that it was a fatty tumour, containing a rather large amount of fibrous tissue. The dark colour was due to blood effused into the tumour in the attempts at taxis.—Mr. WAGSTAFFE asked if it was not a low form of connective tissue tumour.—Mr. BUTLIN replied that at first he thought it might possibly be a diseased ovary, but he had found that it was an enlarged appendix epiploica.

# CORRESPONDENCE.

## THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

SIR,—By direction of the College, I send you the following copy of a resolution which they adopted unanimously at their meeting yesterday.

"*Resolved*—That, if the Charter be granted, giving the College the power of instituting an order of members, it is the opinion of the College that any licentiate admitted before the granting of the Charter, who may desire it, may be transferred to the order of members without additional expense.

I am, sir, yours faithfully,

J. M. FINNY, M.D.

Dublin, February 13th, 1875.

SIR,—The Licentiates of the King and Queen's College of Physicians are much indebted to you for bringing prominently forward the principal features of the Supplemental Charter which is sought for by the President and Fellows of that College; and I shall feel obliged by your giving me space to point out some of the reasons why this Charter, or some modified form of it, is essentially necessary to the well-being, nay, even to the existence, of the College.

There are but two points really involved in the Charter; viz., that of membership, and the power to elect Fellows and Officers by ballot. As to the former, so long ago as 1867, a Committee of the College recommended that an order of "members" be instituted. The Committee was influenced, in coming to this resolution, mainly by the fact, that very many public appointments in England and Scotland were open only to "Fellows or Members of a College of Physicians"; and, there being no such grade as that of "member" in the Irish College, its licentiates were necessarily excluded from such, and, therefore, occupied a disadvantageous position. It is indeed difficult to understand on what grounds the five dissentients oppose this step, evidently necessary for the well-being of the licentiates. This is more remarkable, as no fewer than three out of the five dissentients signed the report recommending the institution of the order of member.

Since the publication of your article, letters have been received by the Registrar of the College from licentiates resident in various parts of the kingdom, in favour of the proposed order of member; and it is desirable that such as feel interested in the question should express their opinion on the point. The College has always contended that its licentiates should be considered on a par with the members of the sister colleges, inasmuch as they are prohibited from selling medicines, and have to pass a very stringent examination. Consequently, the Committee recommended that, in the event of the power of instituting members being obtained, all persons admitted licentiates prior to the institution of the grade, who had not forfeited their title to it by the commission of some improper act, should be admitted members: this was a mere act of justice to the existing licentiates, and will, doubtless, be acted on.

The question of the Ballot is more open to discussion; but, if the Ballot be necessary for the protection of voters where thousands poll, is it not still more necessary where a comparatively few are called on to decide whether an individual having probably an extensive connection is worthy the honour of the Fellowship? And, as the Colleges o Physicians of London and Edinburgh elect to their Fellowships b ballot, the Irish College claims the same privilege.

The Irish College of Physicians is peculiarly circumstanced. It Fellowship previously to the year 1861 was restricted to graduates o the Universities of Oxford, Cambridge, or Dublin, and a very stringen limitation this proved. In 1861, the College, at its own request, obtained the power of electing others to the Fellowship, under such limitations as to the President and Fellows seemed fit. Those "limitations have never been defined, but their very vagueness could, and, in my opinion, should, be used by the College to extend its basis, and elect out of its numerous licentiates a considerable number of Fellows.

But this desirable course is prevented by the action of the five dissentients, who, by siding with some others who openly admit their wish to limit the Fellowship, have prevented what otherwise would have been the majority from taking the steps necessary to effect this reform.

In the Irish College of Physicians, there is no Council. The Fellowships having been hitherto restricted in number, the Fellows at large exercised the functions of an Executive Council, such as exists in the sister colleges.

The five dissentients who oppose the Ballot also oppose the formation of an Elective Council.

I ask you, sir, would it be possible for a corporate body, consisting of some two or three hundred Fellows, to discharge its functions without the intervention of a Council? The Charter Memorial Committee, of which I was a member, recommended that powers to form an Elective Council should be sought for by the College. This was opposed by the dissentients, they being the leaders of the opposition; yet these gentlemen now declare that we, who urged the adoption of the only course which rendered a considerable extension of the College possible, are narrow-minded, influenced by religious animosity and by a desire for personal aggrandisement.

As it is, the College is too large for the efficient transaction of business; already its meetings are turned to account for the purpose of delivering carefully prepared speeches. A few weeks ago, a Fellow read a speech, which occupied in the reading over half an hour, and which next morning appeared in one of the daily papers. At a more recent meeting, another gentleman, also one of the dissentients, made a speech which occupied forty-five minutes in delivery; the motion in favour of which he spoke was, *inter alia*, for the admission of reporters to the meetings of the College; and, though introduced by so long a speech, it fell to the ground for lack of a seconder. Imagine nearly an hour wasted on the introduction of a motion which no one would second; but, nevertheless, an allusion to this motion was given a prominent place in one of the morning newspapers. I am aware that, in making these statements, I leave myself open to the charge of holding up the College, or at least some of its Fellows, to ridicule; and I regret being obliged to mention these facts; but it is necessary to do so, in order to show that the proposed new Charter, or, what I would much prefer, a modification of it, assimilating the Irish College of Physicians to those of London and Edinburgh, in both of which a Council exists, is essential to the well-being, nay, the very existence, of the College.

I am, etc., LOMBE ATTHILL.

11, Upper Merrion Street, Dublin, Feb. 14th, 1875.

## DIPSOMANIA.

SIR,—In my letter on Dipsomania, in the JOURNAL for February 6th, I find that the name of Dr. Harrington Tuke is omitted from he list of those distinguished friends who kindly signed the document referred to in my letter. The omission occurred through an error of my copyist in the first instance, and my own carelessness in not having noticed it before it was sent to press.

I am, etc., CARSTEN HOLTHOUSE.

3, George Street, Hanover Square, February 12th, 1875.

## THE CONTAGIOUS DISEASES ACTS.

SIR,—You will perhaps permit me to send one more letter on the influence of the Contagious Diseases Acts, as the statistics given in it eem to me very strong. I am enabled to give them by the kindness f Surgeon-General Mouat, C.B., V.C., and of Surgeons Ambrose nd Macnamara, of the 58th and 106th Regiments respectively.

The two regiments named above arrived from India in the early part f 1874, and each brought with it, as usual, a considerable sum of money, which, as usual, passed in large measure into the hands of publicans and harlots before the end of the year. The 58th Regiment went to a station (Portsmouth) under the Acts; the 106th Regiment went to Parkhurst in the Isle of Wight, a much better station than Portsmouth in all sanitary particulars, except that it is not under the Acts.

The 58th Regiment arrived at Portsmouth from India on March 30th, 874; and, from that date until December 31st, the mean strength was 20 men, and there were admitted 31 cases of primary syphilis, and 7 cases of gonorrhœa. The 106th Regiment went to Parkhurst from India on January 13th; and, from that time to the end of the year, the mean strength was 561 men; the admissions from primary syphilis were 65; and from gonorrhœa were 61. In each regiment, exactly the same number of recruits (viz., 6) were taken in the year, so that that source of fallacy is avoided. In the 58th, there are 54 men married with leave, and about 12 without leave; in the 106th, there are 70 men married with and without leave.

If we now calculate out what number of admissions there would have been, in the same period of time for each regiment—viz., in a year, and take the mean strength as above, we have the following table:

| | | Total Admissions *per Annum.* | | Admissions per 1,000 of Strength *per Annum.* | |
|---|---|---|---|---|---|
| Regt. | Strength. | Prim. Syphilis. | Gonorrhœa. | Prim. Syph. | Gonorrhœa. |
| 58th... | 720 ......... | 40.84 ......... | 48.75 ...... | 56.72 ...... | 67.71 |
| 106th... | 561 ......... | 67.21 ......... | 63.06 ...... | 119.8 ...... | 112.4 |

The astonishing difference in the number of admissions in the protected and the unprotected stations is most striking, and must, I should think, impress anybody who is capable of being influenced by figures. But, lest it should be said that the small number of men introduces an error, let us see what the error arising from the small numbers is. In the case of primary syphilitic admissions, the error is in the 58th Regiment ± .024382 to unity, and in the 106th Regiment ± .039173 to unity. In other words, the ratio of admissions per 1,000 might have been in the 58th, the protected regiment, anything between 32.34 to 81.1; and in the 106th, the unprotected regiment, anything between 80.63 to 158.73. So that the highest possible limit in the protected station is nearly identical with the lowest possible limit in the unprotected station. We can only conceive the admissions from syphilis to have been identical in the two stations on the almost impossible supposition that the error arising from the small number was entirely in one direction in one station, and entirely in the other direction in the other station. In gonorrhœa, the range of error lies in the 58th Regiment between 43.29 and 94.19 admissions per 1,000, and in the 106th between 74.69 and 150.13 per 1,000. The case here is almost as strong.

Can, then, any one doubt that the unlucky 106th, by being sent to the unprotected station, has had, in proportion to its strength, more than two cases of syphilis to one case in the fortunate regiment in the protected station? Considering, now, the facts stated in this and in previous letters, and in the army and navy returns, I think I have a right to call on those members of our profession who oppose the Acts to review their position. If they do so, and still oppose the Acts, it can only be, I conceive, on grounds altogether unconnected with statistics. If figures can prove anything, they prove that the Acts have greatly lessened disease; and whoever aids in repealing the Acts, ought to recognise the responsibility thereby resting upon him of increasing, by his action, the amount of venereal disease.

I am, etc., E. A. PARKES, M.D.

Netley, February 11th, 1875.

SIR,—The following facts, derived from a study of the medical history of my late regiment (the 34th), may throw some light upon the vexed question now under discussion, and the utility or otherwise of the above Acts.

We left Shorncliffe, a protected district, in September 1871, embarking at Dover for Ireland, our average strength during the year being 824.41. The head-quarters proceeded to Newry, a half battalion to Enniskillen, and detachments to Kavan, Drogheda, Newtonstewards, Armagh, and Monaghan—all unprotected districts. We lay in these quarters from January 1st, 1872, until July 1st, 1872, when we marched into the Curragh camp, a protected district.

Rate per 1,000 of Admissions.

| | First Six Months, Newry and Detachments; Average, 320.77. | | Second Six Months, Curragh Camp; Average, 272.71. | |
|---|---|---|---|---|
| Disease. | No. of Cases. | Average Duration. | No. of Cases. | Average Duration. |
| Gonorrhœa.................. | 48 ... | 22.9 days | 21 ... | 17.86 days |
| Primary syphilis........... | 17 ... | 33.32 ,, | 13 ... | 28.62 ,, |
| Secondary syphilis......... | 4 ... | 32.25 ,, | 4 ... | 29.25 ,, |
| Total, protected districts... | 69 | | Protected... 38 | |

The average annual strength throughout the year was 871 non-commissioned officers and men.

On referring to my notes, I find that in 12 cases of primary syphilis admitted into hospital at the Curragh, January 1st to May 1st, and shown in the returns as having been admitted in a protected district, 10 were contracted elsewhere, only two at the Curragh (6 at Newbridge, 1 at Kells, 1 at Rath, 1 in London, 1 in Brownstown, none of which places were under the Act). Statistics would show all these as having occurred in a protected district.

In June 1873, the regiment was again divided.

Head-quarters, 380 non-commissioned officers and men, Curragh Camp, protected district; admissions during month, 13.

Venereal, 4 { Balanitis ....................1
Gonorrhœa ................1
Primary syphilis (soft)...2

Left half battalion, Dublin, 374 non-commissioned officers and men, non-protected district; admissions during month, 35

Venereal, 20 { Bubo .............. 1
Gonorrhœa ......11
Primary syphilis 6

I volunteered for the Gold Coast shortly afterwards, and cannot trace the medical history of the regiment further, but, believe that, upon its concentration in Dublin, the admissions for enthetic disease largely increased. My personal experience of two protected districts, Shorncliffe and the Curragh, was, that the disease was milder in form, more quickly brought under notice, and more easily cured, than in stations not under the Acts; also, that most of the hard or infecting chancres were contracted in the latter. The moral tone of the unfortunate women was undoubtedly vastly better in stations under the Acts, and many of them were reclaimed. The statistics which I have quoted favour Dr. Parkes's view of the beneficial effects of the Contagious Diseases Acts, at least as far as the experience derived from the charge of an individual regiment is concerned.

I am, Sir, yours, etc.,
ALBERT A. GORE, M.D.,
Surgeon-Major.

Dublin, February 15th, 1875.

# MEDICO-PARLIAMENTARY.

*HOUSE OF COMMONS.—Thursday, February 11th*, 1875.

*Pharmaceutical Society in Ireland.*—In reply to Mr. Errington, Sir M. H. BEACH said he hoped to be able to introduce a Bill this session for the establishment of a pharmaceutical society in Ireland.

*Consolidation and Amendment of the Sanitary Laws.*—Mr. SCLATER-BOOTH moved for leave to introduce a Bill for consolidating and amending the Acts relating to Public Health in England, and in doing so he asked the House to favourably receive the measure, which both Houses of Parliament had frequently expressed a desire to see accomplished. The report of the Sanitary Commissioners of 1869 contained a very interesting account of the subject, going back to the reigns of Henry VI and Henry VII, but for practical purposes the consolidation would be confined to legislation since 1848. The Public Health Act of that year was passed under pressure of considerable alarm arising from the approach of cholera. Both previously and subsequently to that date, innumerable local Acts had been passed, but since that time public attention had been more and more directed to this subject, and efforts had been made yearly to improve and facilitate local administration in the country. Many of them had been of a permissive character, and others had contained clauses partly permissive and partly compulsory, but cast upon different models, and they had approached the subject from different points of view, and contained provisions which touched, and in some cases conflicted with each other. The object of this Bill would be to amend and reconcile many of them. Since the Provisional Orders Bill had been in operation, a number of Bills had been passed which contained provisions of law most objectionable to the whole of the community, and the Sanitary Commissioners stated that the number of statutes that had been passed, and the way in which they had been framed, had rendered the state of the sanitary law unusually complex, arising from the progressive and experimental character of modern legislation, without any attempt at reconstruction or classification. The law was frequently unknown, and when studied was difficult to be understood. It was found impossible in passing the Act of 1872 to comprise within it any consolidation of the law, but after two years' experience of its working an amended Act was passed last year of a more uniform character. In fact, it would have been impossible to have worked the Act of 1872 if a digest had not been prepared by the officials of the department. The time had now arrived for making a clean sweep of these Acts; and twenty-nine Acts, passed since 1846, would be more or less dealt with by this Bill, with the exception of five or six clauses contained in them. And the few remaining provisions would be dealt with in future years. It was proposed to consolidate in this Bill the Public Health Acts of 1848, 1859, and 1872; the Sanitary Acts of 1866, 1868, and 1870; the Nuisance Removal Acts; the Local Government Acts from 1858; the Sewage Utilisation Acts; the Towns Improvement Acts, and many others; and, therefore, he asked the House to allow the consolidated clauses to pass without much discussion and without opposition, and take them on the responsibility of his department; and, with regard to clauses where the construction was doubtful, and the law was in apparent conflict, he would make known to the House the grounds upon which the proposed construction was placed upon them. The Bill would make better provision as to the construction of sewers, and the local authorities would be empowered to obtain provisional orders under the Gas and Water Facilities Act; but it would not involve any question of competition with private companies, nor interfere with existing compulsory action. Powers would also be given for providing mortuaries in certain cases, and the meaning of overcrowded houses would be defined, which might be the case of one family only. Power would be given to the Local Government Board to group districts for the appointment of medical officers of a less clumsy and difficult nature than at present existed. Some provisions would also be introduced dealing with nuisances arising from smoke and offensive smells, to enable the present law to be more effectually put into operation, and the local authorities would be empowered to take such proceedings as were allowed under the present law whether the nuisance arose within or without their respective districts; and a person who contributed to a nuisance would not be allowed to escape the penalty, upon proceedings being taken against him, by pleading that he was only one of many parties who were guilty of the nuisance. The Bill would in no way interfere with the provisions of the law that had been passed in the interest of trades and manufactures, but there would be an amendment so as to make the law reach those smoke nuisances that were exempt from the operation of the present law.—The motion was then agreed to.

*Friday, February 12th.*

*Adulteration of Food and Drugs.*—Mr. SCLATER-BOOTH obtained leave to bring in a Bill to repeal the Adulteration of Food Acts and to make better provisions for the sale of food and drugs in a pure state.

*Monday, February 15th.*

*The Artisans' Dwellings Bill.*—On the order for the second reading of this Bill, Mr. STANSFELD expressed his pleasure at the fact that the Government had begun to attempt to legislate on this matter, and said he believed that, consistently with the principles of political economy, a great deal could be done towards improving the dwellings of the working classes. The clauses of the Bill, in their present shape, failed to give effectual power to deal with single houses or groups of houses, and seemed to apply only to large areas. He approved the proposal to limit compensation to the fair market value, and as the property to be acquired would be mostly in a condition that the existing laws condemned, a deduction should be made from the *primâ facie* value on the hypothesis that it was fairly chargeable with the cost of putting it in the state the law required. With such amendments as he had suggested, the Bill might leave the House in a practical shape, and form a piece of sanitary legislation creditable to the Government and satisfactory to the country.—Sir S. WATERLOW, while cordially supporting the second reading, hoped to see the Bill amended in various directions. It was to far too great an extent of a permissive character, and rested on the initiative of the medical officers and the vestries.—Mr. RITCHIE thought the Act should apply to small towns and villages as well as to the larger districts; and, in case of the failure of the medical officer or local authority to take action, the ratepayers should have some appeal. There should also be a clause similar to that in the Glasgow Bill, that people must not be ejected without adequate accommodation being provided for them elsewhere.—Mr. WADDY said that, as far it went, the Bill was admirable; but it did not deal practically with those people whom it was proposed to eject from the terrible rookeries of large towns, for a large portion of them could not pay the rent, for instance, of such places as the Waterlow dwellings. The Bill provided no means of action except by an urban sanitary authority totally neglecting the rural districts. While there were only sixty-four towns with a population above twenty-five thousand, there were five hundred and seven with a population above two thousand; and in the lower rank were places which needed cleansing quite as much as any part of London.—Sir J. HOG thought that the scheme in respect to the granting of provisional order was cumbrous. The provision of a standing arbitrator, and that of fair market value being given for land taken, were most excellent.—Mr RATHBONE believed that no place more needed such a Bill than Liverpool; and the need of that place had probably had a good deal to d with the framing of the measure. The Bill had anticipated, to a grea extent, a memorial which the associated municipalities had resolved t present asking the Government to take steps to amend the presen costly and difficult mode of proceeding to acquire such property a ought to be pulled down. The Bill required modification in som respects, and that a greater boldness should be infused into it. To much, perhaps, had been done in the way of merely pulling dow houses, and too little in the direction of improving those that were reall habitable. Experiments conducted in London had shown that a gre deal could be done in this direction.—Mr. SALT did not see where tl rength lay which was to bring the clauses into practical operation. Ie alluded particularly to the clause which enacted that the medical fficer was to be the person to bring the Bill into working order. As ie Bill now stood, it was impossible to form an idea of what expense ould be incurred under its provisions.—Mr. S. LEFEVRE expressed eneral approval of the Bill, but suggested one or two points which he hought required amendment. For example, he was afraid local uthorities would be too much exposed to the same sort of opposition s had now to be encountered by private Bills.—Mr. GRIEVE appealed the Home Secretary to extend the Bill to Scotland.—Sir S. FITZERALD thought that, in cases where the alterations were positively ecessary in the cause of health, they should be insisted on; and that ie ratepayers who would benefit by them should contribute largely to ie expense. There were portions of large towns where plague spots xisted surrounded by houses of a superior description on the same states, and the same compulsory powers should be given to the owners f these large estates as was proposed to be given to the local authories, so that they might be able to carry out improvements instead of rangers being called upon to do so. He felt satisfied that the great ulk of medical officers entrusted with the discharge of sanitary duties ischarged them zealously and actively, and were not at all likely to ecome the creatures of local boards.—Mr. JAMES thought the object med at should be secured by private commercial enterprise and a igorous enforcement of the sanitary laws. He was afraid the effect of ie Bill in some cases might be to drive the poor from bad dwellings to orse, and to encourage pauperism and ignorance rather than a feeling independence.—Lord R. MONTAGU regretted the absence of comulsory powers to acquire land outside the towns. It should not, morever, be left to town councils to execute the Bill, because the most unealthy buildings generally belonged to town councillors or their friends. -Mr. ANDERSON expressed the hope that the Bill would be extended Scotland.—Mr. KAY-SHUTTLEWORTH gathered from the debate at the general principles of the Bill were approved by the House. He as only afraid that in London and other towns the authorities would too much restrained in their operations; and he knew that in Glasw the persons by whom improvements had been carried out believed would have been better if they had been able to conduct them over a ider area. The Home Secretary was quite right in entrusting the itiative to the medical officers, who were best acquainted with the fever ns of the large towns. He did not agree with the member for Barnple, that this Bill would benefit the wrong classes. The third clause ovided for the setting of the Act in motion. It seemed to him that, hough the medical officers of health were the proper parties to be trusted with the initiative, there might be districts in which they were s independent than in other districts; and he thought it would be sirable to have an alternative, and name the medical officers or the al authority. In Liverpool and other large towns there might be no fficulty with respect to the action of the medical officers, but there re other towns in which those officers would shrink from putting the t into operation. In London, it would be absolutely necessary that Metropolitan Board should have the power of appointing a medical icer to report where improvements were most needed, but by the Bill at Board had power to appoint such officer only where a special iniry was instituted in a particular district. And, with respect to the untry generally, he saw no reason why, if the medical officer did not the Bill in motion, the Local Government Board in the country or Government Board should not send down a medical officer to ort. The medical officer was directed to report about a certain a, and no power was given to go beyond that area. Now, he l not think that the medical officer was a proper person to define exact area, and he would suggest the introduction in the third clause words giving the local authorities power to include in the scheme h other lands in the immediate vicinity as might be necessary for improved scheme. He considered the provision with regard to oviding dwellings in large towns for those who were dispossessed a y desirable one, but did not consider it absolutely necessary in aller towns.—Mr. DALRYMPLE joined in the appeal made by other mbers for Scotland, that the Bill should be extended to that country. Dr. L. PLAYFAIR joined in urging that the Bill might be extended to otland. For the last thirty-four years, owing to various measures of provement, there had been no deterioration in the mortality of gland, but in Scotland deterioration had more than overtaken improvements. In the chief towns of Scotland, the death-rate raged, from 1858 to 1859, 26.9, and from 1860 to 1871, 28.2. In er large towns in the same periods it was 23.9 and 24.6. The first nciple of the Bill was that it should not be put in operation for civic provements, but to promote the health of the people. But by what tive power was it to be brought into operation? By the fourth use, it provided that it should begin on the report of the medical officers of health. He would be the last to insinuate that they would not perform that duty. Their professional zeal and their known effort to ameliorate the dwellings of the poor would induce the medical officer to take a lively interest in the measure, and to try to put it into operation. But, suppose those efforts met no co-operation from the local authorities, what then? Take the case of Over-Darwen. There they had a local board returned upon a promise of inaction to the ratepayers —a promise not to spend the rates in the improvement of the town. In such a place, what would become of the zeal of the medical officer? Suppose he did move, he would be snubbed, and be told that his interference was not wanted. Being the servant of the local board, his efforts could not possibly be of any use. What made Over-Darwen stir itself at last? A sudden outburst of fever, but, still more, the publicity which its scandalous condition obtained, forced the parishioners to give up their opposition to sanitary improvement, and forced the local board to improve the state of the town. He would suggest—and he intended to put an amendment on the paper to that effect—that, if any medical officer of health reported on the bad state of a locality, and showed that it was unhealthy, and the local board took no action, the local board should be compelled to send that report to the confirming authority, whatever that may be. In the result, an inspector would be sent down to the district to consult with the local medical adviser. The result of that would be that public opinion would be brought to bear upon the nuisance, and the public would benefit. His belief was that the ratepayers throughout the country required to be educated upon the subject; and that, until full knowledge were disseminated, the whole of the advantage to be derived from the Bill would not be reaped. By way of illustrating the vast amount of good which the measure was capable of conferring, he declared that no less than thirty-eight per thousand people died annually in Liverpool from preventable diseases; and that in towns where the dwellings had been improved, consumption had decreased from 40 to 42 per cent. He thought they ought to accept the modest and moderate provisions of the Bill as a step in the right direction.—Mr. CROSS had certainly no cause to complain of the manner in which the Bill had been received. The Bill had very fairly been described as one whose object was the demolition of the fever dens of large towns. All the Bill proposed to do, was to enable the local authorities to get rid of the pestilential dens, and then the rest could be accomplished by means of the existing standing orders. Some honourable members complained that the Bill did not go far enough, while others complained that it went too far. The same remedy would not apply even in the case of all large towns; for instance, there was a difference between London and Liverpool, and different machinery must be applied to meet varying cases. As to the question to whom the authority is to be given to put the power in motion, when he first considered the question, many of the observations that had been made occurred to him. He had had placed in his hands the reports of the medical officers from London and the large towns in the country, and he found they had discharged their duties. He did not think that either the town councils or the medical officers would refuse to do their duty. Those who refused to put the Bill into action took the narrowest view of their own wants and necessities. He thought there should be power given to enlarge the area on the recommendation of the medical officer. He had purposely left out Scotland, because he thought Glasgow and Edinburgh had enough to do under their Improvement Bills, but he had been strongly pressed to apply this Bill to Scotland, and he would take the opportunity of consulting the Lord-Advocate, and, if it could be done, he (Mr. Cross) should have no objection. This Act should be put in force in the best possible practical way. He implored the House not to carry the Bill further than it was intended to go, and not to seek to apply it to purposes for which it was not intended, but he hoped it would be passed very much in its present form.—The Bill was then read a second time; and the Committee fixed for March 4th.

ASSOCIATION OF HEALTH OFFICERS IN LANCASHIRE.—A conference of medical officers of health, convened by the Manchester and Salford Sanitary Association, was held in Manchester on the 12th inst., under the presidency of Dr. Noble, the chairman of the association. Officers of health were present from the chief towns of Lancashire and Cheshire. Derbyshire and Yorkshire were also represented. The object of the meeting was to consider the propriety of establishing an association of officers of health for the north-west of England, with the view of obtaining united action in sanitary matters, and furnishing legislation as to the public health. Such an association was formed under the name of the North-West Association of Officers of Health, under the presidency of Dr. Trench of Liverpool; Dr. Vernon of Southport being the Vice-President.

# MILITARY AND NAVAL MEDICAL SERVICES.

INDIAN MEDICAL SERVICE.—The following medical candidates were successful at both the London and Netley examinations, having passed through a course of instruction at the Army Medical School, Netley, February 1875.

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| 1. | Stoker, R. H. N. | 5290 |
| 2. | Bomford, G. | 5222 |
| 3. | Barclay, A. | 5206 |
| 4. | O'Hara, W. | 4785 |
| 5. | Tootell, E. | 4780 |
| 6. | Gray, H. A. C. | 4410 |
| 7. | M'Cartie, C. J. | 4348 |
| 8. | O'Keefe, J. L. | 4145 |
| 9. | Adams, A. F. | 4100 |
| 10. | Hume, T. | 4087 |
| 11. | Parakh, D. N. | 3887 |
| 12. | Oliver, J. P. | 3795 |
| 13. | Lucas, J. C. | 3732 |
| 14. | Sweetnam, M. | 3515 |

MOVEMENTS OF ARMY MEDICAL OFFICERS.—Deputy Surgeon-General T. Moorhead, M.D., has been appointed Principal Medical Officer at Hong Kong, on promotion, *vice* Deputy Surgeon-General A. Crocker, who is to be provided for on a home station.—Deputy Surgeon-General T. E. White, M.D., C.B., has embarked on a turn of service in India.—Deputy Surgeon-General Inglis, M.D., C.B., is to proceed from Meerut to Bombay, to succeed the late Surgeon-General O'Flaherty, as Principal Medical Officer of the Bombay Army.—Deputy Surgeon-General Fayrer, M.D., C.S.I., joins the Senate of the Army Medical School, Netley, by virtue of his appointment at the India Office.

# MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentleman passed his examination in the science and practice of medicine, and received a certificate to practise, on Thursday, February 4th, 1875.

Johnson, William Boyter, 145, Bishopsgate Street, Without

The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, February 11th, 1875.

Cotton, Herbert, Silcut Street, Ipswich
Wye, John Henry, Upper Pit Street, Liverpool

The following gentlemen also on the same day passed their primary professional examination.

Jackson, Philip John, Guy's Hospital
Mount, Walter, Guy's Hospital
Turner, Walter Pickett, Guy's Hospital

## MEDICAL VACANCIES.

THE following vacancies are announced:—

ALDERBURY UNION—Medical Oficer for the Fourth District and the Workhouse.

ARMY MEDICAL DEPARTMENT—Surgeons. Applications to be made to the Director-General of the Army Medical Department.

BARONY PAROCHIAL HOSPITAL, Barnhill, Glasgow—Dispenser.

BECKETT HOSPITAL AND DISPENSARY, Barnsley — House-Surgeon. Salary, £140 per annum, with furnished rooms, gas, and coals.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN—Resident Medical Officer. Salary, £80 per annum, with board, washing, and attendance. Applications to be sent in not later than March 3rd.

BRAMPTON UNION—Medical Officer for the Union and Workhouse. Salary, £50 per annum, and extras, £31 : 15.

CITY OF LONDON UNION INFIRMARY—Assistant Medical Officer and Dispenser. Salary, £100 per annum, with board, residence, and washing. Applications to be made on or before the 23rd instant.

CLINICAL HOSPITAL AND DISPENSARY FOR CHILDREN, Manchester—House-Surgeon. Salary, £60 per annum, with board and residence. Applications to be made on or before March 6th.

COVENTRY AND WARWICKSHIRE HOSPITAL—House-Surgeon and Dispenser. Salary, £100 per annum, with board, lodging, and attendance. Applications to be made on or before March 25th.

DERBYSHIRE GENERAL INFIRMARY—Assistant House-Surgeon. Board, lodging, and washing, but no salary. Applications to Secretary.

DOVER UNION—Medical Officer for the St. Mary's District and the Workhouse. Salary, £180 per annum.

DOWNHAM UNION—Medical Officer for No. 6 District.

DURHAM COUNTY ASYLUM—Assistant Medical Officer.

EMSWORTH—Certifying Factory Surgeon.

FLAX MILLS FRIENDLY SOCIETY—Medical Officer. Salary, £110 per annum. Applications to A. M'Keeman, 7, Hunston Square, Johnstone, N.B.

FULHAM UNION—Medical Officer for the Fifth District.

GRANTHAM UNION—Medical Officer for the Ropsley District. Salary, £26 : 10 per annum.

HAILSHAM UNION—Medical Officer and Public Vaccinator for the Parish of Heathfield. Salary, £44 per annum, and fees. Applications to be made on or before March 8th.

HARDINGSTONE UNION—Medical Officer for the Brafield District. Salary, £45 per annum.

HARRIS, Parochial Board of—Surgeon. Salary, £66 per annum, including vaccination and medicine for the poor. The gentleman elected will get £90 per annum for attending the ratepayers and cottars within South Harris. Applications to be made to the Chairman of the Parochial Board of Harris.

HEADINGTON UNION—Medical Officer for the Wheatley District. Salary, £70 per annum.

HENDON UNION—Medical Officer for the Willesden District. Salary, £40 per annum.

HOSPITAL FOR WOMEN, Soho Square—Physician and two Assistant-Physicians. Applications to be sent in on or before March 2nd.

KILBURN DISPENSARY—Assistant Resident Medical Officer. Salary, £80 per annum, with apartments.

LANGPORT UNION—Medical Officer for the Babcary District. Salary, £27 per annum, and fees. Applications to be made on or before March 2nd.

LONDON FEVER HOSPITAL—Resident Medical Officer. Salary, £200 per annum, with residence, coals, gas, and attendance. Applications to be made on or before March 6th.

MANSFIELD UNION—Medical Officer for the First District, and the Work house. Salary, £50 and £40 per annum, respectively.

MILFORD UNION, co. Donegal—Medical Officer for the Ramelton Dispensary District. Salary, £100 per annum, and fees.

MORVEN, Parish of, Argyleshire—Medical Officer. Salary, £100 per annum. Applications to H. A. Fraser, Morven, N.B.

NAAS UNION—Medical Officer for the Clane and Tunahoe North Dispensary District. Salary, £125 per annum, and £15 as Sanitary Officer. Applications to be made on or before the 27th instant.

QUEEN'S HOSPITAL, Birmingham—House-Surgeon. Salary, £50 per annum, with board, lodging, and washing. Applications to be sent in on before March 11th.

REDDITCH and DISTRICT MEDICAL ASSOCIATION—Medical Officer. Salary, £150 per annum, with fees and unfurnished house.

ROYAL INFIRMARY FOR WOMEN and CHILDREN, Waterloo Bridge Road—Physician.

SAFFRON WALDEN UNION—Medical Officer for the Seventh District. Salary, £86 per annum.

SOUTHPORT INFIRMARY—Resident House-Surgeon. Salary, £100. Applications to be made on or before March 1st.

ST. BARTHOLOMEW'S HOSPITAL—Two Casualty Physicians. Application to be made on or before March 3rd.

ST. JOHN'S WOOD and PORTLAND TOWN PROVIDENT DISPEN SARY—Surgeon. Applications to be made on or before the 24th instant.

ST. LUKE'S HOSPITAL FOR LUNATICS—Second Clinical Assistant. Boar and furnished apartments.

SALOP INFIRMARY—Assistant House-Surgeon.

SEAMEN'S HOSPITAL—House-Physician. Salary, £120 per annum, wit furnished rooms and attendance. Applications on or before the 22nd instant.

SOUTH ESSEX DISPENSARY—Surgeon.

ULVERSTONE UNION—Medical Officer for the Hawkshead District. Salary £20 per annum.

UNIVERSITY COLLEGE, London—Curator of the Museums of Anatomy an Comparative Anatomy. Salary, £200 per annum. Applications to be sent i on or before March 6th.

UNIVERSITY COLLEGE HOSPITAL—Resident Medical Officer. Applications not later than February 13th.

UNIVERSITY OF EDINBURGH—Additional Examiner in Medicine.

## MEDICAL APPOINTMENTS.

*Names marked with an asterisk are those of Members of the Association.*

CONNOLLY, P. R., L.K.Q.C.P.I., appointed Resident Medical Superintendent the Waterford District Lunatic Asylum, *vice* R. V. Fletcher, L.R.C.P.Ed.

*COOK, John, M.D., elected Out-patient Physician to the Great Northern Hospita

DAVISON, Francis V., M.B., appointed Resident Medical Officer to the Bridgwat Infirmary, *vice* D. L. Parry, L.R.C.P.Ed., resigned.

*FIRTH, Charles, M.B.Lond., M.R.C.S.Eng., appointed Assistant Surgeon-A coucheur to the Norwich Lying-in Charity.

FLETCHER, Robert V., L.R.C.P.Ed., appointed Medical Superintendent to t Ballinasloe District Lunatic Asylum.

HAYES, Thomas C., M.B., appointed Physician Accoucheur to the St. Marylebo General Dispensary, *vice* C. E. Squarey, M.B., resigned.

HIGGINS, Wm. H., M.B., appointed Assistant Medical Officer to the Derby Coun Lunatic Asylum.

HYATT, James T., M.R.C.S.Eng., appointed Medical Officer to the Shept Mallet District Hospital.

*MAHOMED, F. H. H. Akbar, M.R.C.P., appointed Medical Tutor and Demo strator of Pathology at St. Mary's Hospital, *vice* S. J. Knott, M.R.C.S.En resigned.

SINGLETON, F. E. C., L.R.C.P.Ed., appointed Resident Medical Officer to t Royal Hospital for Sick Children, Edinburgh, *vice* W. D'O. Grange, M.B.

SMITH, Frederick P., M.B., appointed Medical Officer to the Shepton Mallet D trict Hospital.

WALKER, William C., M.R.C.S.Eng., appointed Consulting Medical Officer to t Shepton Mallet District Hospital.

WRIGHT, Edward A., M.B., appointed Junior House-Surgeon to the Huddersfi Infirmary, *vice* John Irving, M.B., promoted.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the communication.*

### DEATHS.

*DE NÉGRI, Athénodore, M.B.Lond., at 192, Belsize Road, St. John's Wood, a 35, on February 3rd.

NICOLSON, Charles Patrick, M.A., M.B., B.Sc.Edin., aged 31, at Forest Hill, February 9th.

IN consequence of the rejection of the Compulsory Vaccination by the Jersey States last week, a Bill for facilitating voluntary vacci tion by the appointment of public vaccinators, was ordered to be c sidered in a fortnight.

## OPERATION DAYS AT THE HOSPITALS.

ONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

JESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

EDNESDAY..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

HURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.

RIDAY.........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

ATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

## MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

ONDAY.—Royal College of Surgeons, 4 P.M. Mr. W. K. Parker, "On the Structure and Development of the Skull".—Medical Society of London, 8.30 P.M. Mr. Spencer Watson, "On the Obstructions of Lacrymal Sac and Nasal Duct"; Dr. C. Theodore Williams, "On a Case of Temporary Paralysis in a Young Female".

JESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Dr. Wm. Marcet, "Contributions to the History of Laryngeal Phthisis".

EDNESDAY.—Royal College of Surgeons, 4 P.M. Mr. W. K. Parker, "On the Structure and Development of the Skull".—Hunterian Society. Council Meeting at 7.30 P.M. General Meeting at 8 P.M. Dr. Sedgwick Saunders will give his Presidential Address. Dr. R. Clement Lucas, "A Case of Excision of the Ankle-joint"; Mr. N. Davies Colley, C.M., "Two Cases of Diffuse Palmar Ganglion treated Antiseptically".

HURSDAY.—Harveian Society of London, 8 P.M. Dr. J. Milner Fothergill, "On the Treatment of Primary Disease of the Heart".

RIDAY.—Royal College of Surgeons, 4 P.M. Mr. W. K. Parker, "On the Structure and Development of the Skull".—Clinical Society of London, 8.30 P.M. Adjourned Discussion on Dr. Vivian Poore's Case of "Paralysis of Serratus Magnus", and Dr. Southey's Case of "Lepra Anæsthetica"; Mr. Pugin Thornton, "Case of Exceeding Infrequency of Pulse"; Mr. John W. Teale, "Case of very remarkable Elevation of Temperature (to 120° F.) after Injury to the Spine"; Dr. Whipham, "Fatal Pleuropneumonia in an Opium-eater".—Quekett Microscopical Club, 8 P.M. Mr. B. T. Lowne, "On the Histology of the Eye".

## NOTICES TO CORRESPONDENTS.

RRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

BLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Iealth if they will, in forwarding their Annual and other Reports, favour us with *)uplicate Copies.*

THORS desiring reprints of their articles published in the JOURNAL, are requested o communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

RRESPONDENTS, who wish notice to be taken of their communications, should uthenticate them with their names—of course, not necessarily for publication.

E CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

MMUNICATIONS respecting editorial matters, should be addressed to the Editor: hose concerning business matters, non-delivery of the JOURNAL, etc., should be ddressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

F. S.—To Abernethy, we believe, is due the sole honour of establishing the anaomical school of St. Bartholomew's. The immortal Harvey was long on the meical staff of the hospital.

THE NEW CHARTER OF THE KING AND QUEEN'S COLLEGE OF PHYSICIANS.

R,—I must certainly add my protest against the unauthorised declaration that has een made by certain Fellows of the College, dissentients from the proposed new Charter, on behalf of the Licentiates, and am quite of opinion that a new charter, uch as has been drawn up by the Committee and approved by the College, is rgently needed. The dissentients, in asserting that it is "an unfounded pretence o put forward as a reason for seeking a new order", "that there are numerous aluable medical appointments in England which can only be held by Fellows or Members of a College of Physicians", assert that which every one knows to be no nfounded pretence whatever, but a fact clearly recognised; that, as a rule, Licentiates of a College of Physicians are excluded from valuable public appointments, or which Members and Fellows are alone eligible.

I think some expression of the feelings of the Licentiates upon a matter which o closely affects their interests might now very opportunely be made through the edium of your valuable columns.—I am, sir, your obedient servant,

NIL TEMERE CREDIDERIS.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

### SYPHILITIC INFECTION.

SIR,—Can any of your readers inform me whether instances of syphilitic infection have ever been known to occur through the use, in common, of spoons, cups, glasses, etc.? What would be the effect of drinking from a cup after a man suffering from secondary or tertiary sores on the lips and tongue? We know that nurses' nipples are infected by syphilitic children, but suckling is a more intimate process than drinking.—I am, etc., FREDK. J. BROWN, M.D.

H. A. A. asks; "Which are the two best books on 'Sudden Death and its Causes'? Dr. Granville's work on the subject does not go into causes, or give cases." He adds: "I also want information on the subject of the International Medical Congress to be held at Brussels this year. What is the exact date of its commencement? Who is the secretary, and his address? What are the terms of subscription? And will any account of the arrangements be published soon in the medical journals of this country? I shall feel greatly obliged for information on all the above questions."

### ON THE INFLUENCE OF TEMPERATURE DURING CHILDBIRTH.

SIR,—Assuming that labour has commenced, but has not been summarily brought to a close by the kind of preparation referred to in my previous letter, let the patient lie down and cover herself up warm, and go to sleep, if possible, between the pains. Now is the time for absolute quiet and repose; now is the proper time, also, for darkening the room: everything, in short, should be done to encourage warmth and sleep. Better, far better, that she be left entirely alone, than that the slightest noise or conversation should for a moment be tolerated. Now I verily believe that if these conditions were religiously and universally fulfilled, we should hear very much less than at present about difficult and dangerous cases—cases of tedious labour requiring instrumental delivery, and cases of *post partum* hæmorrhage requiring injections of perchloride of iron. Among certain classes of society it is customary for the patient to be delivered in her daily attire. There is an advantage in this which should not be lost sight of. The warmth of the body (especially between the shoulders and around the upper parts of the arm) is thereby better sustained than when the patient is throwing about her arms, covered only by a night-dress—a consideration, according to my view of the matter, of very great importance; so much so, that I have frequently had occasion to advise the patient to put on a warm jacket, for, although she has complained of being oppressed by heat, I have found the upper parts of her body to be cold and clammy. On the other hand, no greater mistake is likely to be committed than that which is sometimes done at the suggestion of the nurse—namely, for a patient, in an interval of labour, to get out of a warm bed and walk about the room in her night-dress. So far from expediting delivery, the adoption of this method, by chilling the surface of the body, is pretty sure to retard the progress of labour for several hours.

Still further to illustrate the all-pervading influence of temperature, I may mention that in cases of retention of the placenta, whether arising from spasm or inertia, I have found it an excellent plan to get the patient to stand before a fire, and thus to warm and dry her body back and front. I have then succeeded in removing the placenta without force, and therefore without hæmorrhage.—I am, etc.,

Harlesden, February 8th, 1875. M.D.

### PRACTICE IN THE COLONIES.

THE following is something of a curiosity.

*Practice resumed.*—Dr. Frederick Beer begs to announce that he has resumed practice; and, being a Doctor of Medicine, Doctor of Surgery, and of the art of Midwifery, he is fully qualified to become the medical adviser of families, institutions, etc. As a physician, coming from the most enlightened continental school, he is unapproached by any practitioner in the Colony—a fact which is borne out by the *Lancet* of 1st July, 1871. He will in the prosecution of his duties be guided by fixed principles, of which the following is a summary.

1. His rooms will not be carpeted, nor adorned with hangings, in order that he may keep them absolutely clean and free from the *débris* of fallen morbid matter from cutaneous and other diseases, and thereby prevent them from becoming a hotbed for the propagation of disease.

2. His consulting-rooms, as soon as a more suitable dwelling can be obtained, will be in a central but secluded part of the city, free from the incessant noise of traffic, and where alone it will be possible to make correct and minute diagnoses of diseases of the chest.

3. He will not make his practice a mere routine one, nor call oftener on patients than is required; nor will he unnecessarily recommend consultations in the cases of people of means; nor will he consent to consult with any practitioner (though the said practitioner may be legally qualified) whom he knows from the nature of the case to be incompetent to form an adequate opinion thereon. For example, he will not meet a mere surgeon in a medical case, or *vice versâ*.

4. He will not accept from druggists a per-centage on medicines supplied by them; nor will he compel his patients to have their prescriptions dispensed in any particular establishment by giving advice therein.

5. He will not attempt to attract and gain support from the vulgar by any external display; such as dazzling equipages, liveried lacqueys, etc.

6. His charges will be regulated by the claims on his time and attention. The following scale will indicate them:—For visits in the city and its immediate suburbs: in medical cases, one guinea; for surgical visits, same distance, half-a-guinea; for full topical examination of the thoracic viscera, with written diagnosis, prognosis, and indications for treatment, one guinea; for ordinary medical and surgical consultations, at his residence, half-a-guinea; servants, on weekly wages, half-price.

As soon as more eligible premises can be obtained, Dr. Beer will give due notice thereof.

2, Burdekin Terrace, College Street, Sydney, 3rd April, 1874.

DR. CAMPBELL.—For several centuries the diseases of the eyes were treated by quacks. The late Martin Ware was one of the first who made the ophthalmic branch of the art a peculiar study. The Romans had their oculists—Attius Attimetus and Lyrius being royal oculists, as appears by the following inscriptions on stone: "P. Attius Attimetus, Augusti Medicus ab oculis. Tit. Lyrius, Tiberii Medicus Ocularius."

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, twelve o'clock.

### SPIRITUAL MANIFESTATIONS.

THE Eddy brothers, who live near Rutland, Vermont, have for a long time excited much public comment. Dr. George W. Beard, whose exposure of "Brown, the mind-reader", we published recently, paid them a visit not long since. He writes: "The sum of the matter is, that all of the performances of the Eddy family, except the materialisation of a variety of forms, are old exploded tricks. The key-point of the deception is the physiological flexibility of the family." With regard to the "materialisation phenomena", he says: "They always take place in a light which is almost darkness, and in which nothing but outlines can be discovered. In such a light, practised contortionists, such as the Eddys, could pass themselves off as dwarfs; or, by the addition of a high head-dress and a little stretching, might personate a giant." Dr. Beard unhesitatingly qualifies the "spiritual" phenomena observed as pure trickery. The *séances* are qualified as light, dark, and materialistic. The chief trick in the light *séance* is the production of music by supposed spiritual hands. An individual is acted on in each instance. "The medium clasps the arm of the individual in both his hands. A shawl hides the hands of both, and the screen divides the two from the table, upon which the musical instruments lie within easy reach of the medium. This circle completed, a jangling of guitar-strings and tambourine makes a poor apology for heavenly music, and during the interlude a spirit-hand is passed gently across the face of the passive party. The individual is convinced that the grasp of the two hands is never once released from his arm, and so concludes that spirits agitate the guitar-strings." The success of this trick, Dr. Beard observes, "depends on an interesting well known physiological fact—namely, that when the arm is bared and cold hands are clapped on it and pressed hard, the sensation is so benumbed that, if the lower hand be removed, the person operated on will not know it". "The key-points of the deception are the physical flexibility of the family, and the benumbing of the arm-trick in the light *séance*. All those who deal with the insane and with criminals know that there are persons so flexible and limber that they cannot be kept handcuffed or tied in any way."—*Philadelphia Medical and Surgical Reporter.*

### MEDICAL DEGREES AND TITLES.

SIR,—As one of the much-abused L.R.C.P.E.s, let me draw the attention of the profession to the fact, that while execration is heaped upon us by the fretful M.D.s, not one word is said about the use of the "Dr." by M.B.s. Now, if we have no right to the title of Dr. (which I deny), no more has any M.B.; and yet no one appears to think of questioning the right of these gentlemen to the prefix. I know of several instances where M.B.s are stated to be Drs in hospital lists, and also in the regulations of medical schools. If we are not legally entitled to the "Dr.", the sooner parliamentary powers are obtained by the Royal College of Physicians the better.—I remain, yours truly,

PISISTRATUS.

January 28th, 1875.

SIR,—As custom and courtesy are set on one side by those who write against the Licentiate using the title of "Dr.", and a wish expressed to adhere strictly to the legal view of the case, I would ask if a simple surgeon, or surgeon-apothecary, has a right to the title of "Esquire", or even the prefix of "Mr."? and if a minister, of any sect, to that of "Reverend"? If not, we had better drop them, and hereafter designate the holders of such qualifications as plain John Brown, surgeon-apothecary; or W. Robinson, minister, as the case may be. If ancient usage, custom, and courtesy, do not confer a privilege in one case, it cannot in another. At page 17 of the *Register* for K. & Q.C.P.I., 1866, is the following: "By ancient usage in this country, analogous to the title of 'Rev.' in the case of a clergyman, and 'Esquire' in that of a barrister, the title 'Dr.' has always been applied to a physician as distinguished from that of 'Mr.' in the case of a surgeon; accordingly, this College applies the title of 'Dr.' to its Fellows and Licentiates whether graduate Drs. or not."—Yours faithfully,

THOS. PARTRIDGE, L.K.Q.C.P.I., M.D., M.S.

February 1875.

SIR,—I have just read with some interest a letter in your valuable JOURNAL of the 6th instant, signed "A Physician". He has endeavoured to elucidate some points under discussion on the above heading, so far as his side of the argument is concerned. He refers in quite a legal manner to the rights of F. & L.K.Q.C.P.I.s—a reference which, I think, is as unnecessary as it is unimportant, since his quotations have been already made use by your correspondents without any weight, and with, no doubt, the same intention. As to the London College of Physicians, it is plain that the worthy Council of that distinguished and most respectable body forbids the assumption of the title of "Dr." by its non-graduated Licentiates—an amendment which was never added to its bye-laws without the mature and decisive consideration of said Council, most of whom, I can confidently state, are luminaries of the profession. As to the opinion which he quotes from the Edinburgh College respecting the title of Licentiates of a College of Physicians, I am "at sea" to know what more convenient distinction could be accorded to them except that of Dr., the possession of which by mere Licentiates of a College would cause University education and graduation to be of no further value, as the Licentiate-Doctors, one and all, would enter upon practice with all the *prestige* of educated gentlemen. I willingly admit that there are Licentiates at present in practice who, both in gentlemanly conduct and professional acquirements, outstrip many graduates of the leading Universities; but I do not mean to convey that they are all of such composition. According to your correspondent, the *Lancet* has some time ago addressed the general practitioners of the United Kingdom in very inviting terms respecting the Edinburgh College of Physicians during the year of grace—a year which, in my opinion, would have been more appropriately termed the year of disgrace. It was a year which caused many L. & M.R.C.S.s to become registerable physicians, many of whom, you will admit, could not have satisfied the most lenient Board of Medical Examiners in the United Kingdom. The year referred to was a fortunate occurrence to many surgeons practising as general practitioners; but, I may add, on the other hand, that it was the reverse to the patients, who are daily placing their lives, when in imminent danger, under the care of such gentlemen, who, they believe, are thoroughly informed on everything connected with the practice of medicine. Your learned correspondent has wound up his letter in a dialogistic, but by no means a conclusive, manner. He says that Licentiates do not object to M.D.s calling themselves physicians, and he cannot see why M.D.s should be so severe on Licentiates calling themselves Doctors. Now, the title of Physician is intended to convey that the person who uses such title is duly qualified to practise the science of medicine. The title of Dr., in addition to the foregoing, is also a distinction implying that the possessor of the same is learned in the highest degree in everything pertaining to the practice of a physician, so that a Doctor of Medicine is plainly more entitled to the prefix "Physician" than a Licentiate of a College—that is, if any preference be given; but it would be thoroughly absurd to answer in the affirmative to the interrogation of a non-graduated Licentiate as his being a Dr. If he can inform me as to what a non-graduated Licentiate is Doctor of, then I will say that I am wrong. All your readers know (at least I expect so) that the assumption of the title "Dr." is illegal *sine* graduation. If a man obtain a Licentiate in Arts Diploma, is that any reason why he should represent himself as having obtained the highest degree in that Faculty, admitting that the acquirements of the former may be equal to those of the latter?

I will not enlarge any further at present on the subject of Medical Degrees and Titles; but if your learned correspondent think he is capable of refuting the opinion which I have set forth, I will be most happy to reply to his communication, just for the purpose of enlightening him and others of his opinion, as I think it the better mode of bringing to a close the correspondence which you have kindly afforded space for in your truly valuable JOURNAL.—I am, etc.,

STUDENS MEDICINÆ.

Merthyr Tydfil, February 1875.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Gazette; The Midland Counties Express; The Hull and Eastern Counties Herald; The South Eastern Gazette; The Alcester Chronicle; The Auckland Times and Herald; The Western Daily Press; The Manchester Guardian; The Ulster Advertiser; The Sussex Coast Mercury; The Broad Arrow; The Surrey Advertiser; The Bedale and Northallerton Times; The Hackney Express; The Liverpool Porcupine; The Scotsman; The Liverpool Mercury; The Glasgow Herald; The Stroud News and Gloucestershire Advertiser; The Bradford Observer; The Morpeth Herald; The Portsmouth Times; The Western Daily Press; The York Herald; The Sheffield Evening Star; The Brighton Guardian; The Sussex Daily News; The Wrexham Advertiser; The Newton Directory; The Sussex Coast News; The Berkshire Chronicle; The Hull News; The Southern Times; The Worthing Intelligence; The Hampshire Telegraph and Sussex Chronicle; The Sheffield Daily Telegraph; The Hereford Times; The High Peak News; The Brighton Daily News; The Bath Argus; The Pembrokeshire Herald; The West Briton and Cornwall Advertiser; The Glasgow Herald; The British Mail; The Indian Medical Gazette; The West Country Lantern; the Ripon Gazette; The Airdrie Advertiser; The Manchester Courier; The Wolverhampton Chronicle; The Cork Constitution; The Sheffield and Rotherham Independent; The Liverpool Daily Post; The Redruth Times; The Hackney Express; The Hour; The Paddington Times; The Newton Directory; etc.

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COMMUNICATIONS LETTERS, ETC. have been received from:—

Sir William Jenner, London; Sir William Fergusson, London; Mr. Spencer Wells, London: Dr. Tripe, London; Dr. Southey, London; Mr. Baker, Birmingham; Dr. Birkbeck Nevins, Liverpool; Dr. Clifford Allbutt, Leeds; Dr. E. A. Parkes, Netley; Dr. R. J. Lee, London; Mr. Annandale, Edinburgh; Dr. W. H. Sheehy, London; The Military Secretary, India Office; Dr. George Johnson, London; Mr. J. Whittall, London; Dr. W. H. O. Sankey, Cheltenham; Dr. F. J. Brown, Rochester; Mr. Kay-Shuttleworth, M.P., London; Mr. C. Holthouse, London; Dr. Robertson, Glasgow; Dr. M. Charteris, Glasgow; A Member; Mr. John Gill, Wem; Dr. Strange, Worcester; The Secretary of the Manchester and Salford Sanitary Association; Sir John Rose Cormack, Paris; Dr. E. Malins, Birmingham; Dr. Finlayson, Glasgow; Dr. Arlidge, Stoke-on-Trent; Mr. C. Gatliff, London; Mr. T. Leeds, Sheffield; Mr. J. Brown, Dorchester; Mr. A. Milroy, Kilwinning; Mr. T. C. Parson, Clifton; Mr T. P. Pick, London; Dr. E. L. Fenn, Richmond; Dr. Harker, Lancaster; Mr. W. W. Wagstaffe, London; Mr. Francis Hollinshead, King's Norton; Dr. F. M. Pierce, Manchester; Mr. A. D. Stewart, Greenock; Mr. E. W. Berridge, London; Dr. Edis, London; Dr. Maunsell, Dublin; Dr. Farquharson, London; Dr. Legat, South Shields; Messrs. Domeier and Co., London; The Secretary of the Clinical Society; Mr. Eastes, London; Our Paris Correspondent; M.D.; The Secretary of Apothecaries' Hall; The Registrar-General of England; The Registrar-General of Ireland; Mr. T. M. Stone, London; The Registrar of the Medical Society of London; Mr. C. R. Thompson, Westerham; Dr. Balthazar Foster, Birmingham; Dr. L. Atthill, Dublin; Dr. J. M. Finny, Dublin; Dr. James Russell, Glasgow; The Secretary of the Yorkshire Exhibition, Leeds; Mr. E. Powell, Brentwood; Mr. Edwin N. Marshall, Manchester; Dr. Rutherford, Edinburgh; Dr. Russell, Birmingham; Dr. J. H. Aveling, London; Mr. John E. Ingpen, London; Dr. Gore, Dublin; Dr. John Cook, London; Dr. H. Gervis, London; Our Glasgow Correspondent; Our Edinburgh Correspondent; Our Dublin Correspondent; Dr. Ross, Waterford; Dr. F. Meigill, London; Dr. Macnaughton Jones, Cork; Dr. Fayrer, London; Dr. Corfield, London; Mr. Chapman, Oxford; Dr. R. Lawson, London; Dr. Mackey, Birmingham; Mr. H. A. Allbutt, Leeds; Dr. T. E. Clark, Clifton; Dr. Bond, Gloucester; Dr. Huntley, Jarrow-on-Tyne; Mr. A. Taylor, Corfe; Mr. W. Hunt, Hull; Mr. Hirons, Bournemouth; Dr. Hughes, Colwyn; Dr. Clouston, Edinburgh; Dr. Ritchie, Edinburgh; Dr. Steele, Liverpool; Dr. J. Burdon Sanderson, London; Dr. Procter, York; Dr. R. Quain, London; Dr. A. Ogston, Aberdeen; Dr. Parsons, Dover; Dr. T. W. Green, Rawtenstall; Mr. T. E. Jones, Wrexham; Dr. Lauder Brunton, London; Dr. J. G. McKendrick, Edinburgh; Dr. F. Lees, Middleton-on-Tees; Dr. W. N. Hiron, Buenos Ayres; Dr. J. Sawyer, Birmingham; Mr. E. S. Jones, Weston-super-Mare; etc.

## BOOKS, ETC., RECEIVED.

Lectures on Skin-Diseases. By E. D. Mapother, M.D. Dublin: Fannin an Co. 1875.

The Disposal of the Slop-Water of Villages. By C. B. Fox, M.D. London: and A. Churchill. 1875.

# THE GOULSTONIAN LECTURES ON PUERPERAL FEVER.

*Delivered at the Royal College of Physicians, London.*

By ROBERT J. LEE, M.D., F.R.C.P.,
Assistant Physician at the Hospital for Sick Children, Great Ormond Street.

## Lecture I.

Mr. President,—The disease generally known as puerperal fever is distinguished by characters which render it peculiarly suitable as a subject for the consideration of such an audience as I have the honour of addressing on the present occasion.

We can trace its history in the literature of medical science more or less continuously from the present time to periods so remote, that we possess now only scanty records of them. In the progressive stages of historical inquiry, we find that puerperal fever, though comparatively a modern introduction into nosological classification, has retained a degree of exactness in its nature which can be claimed by few other diseases, which enables us to recognise it without difficulty in the descriptive works of various authors. It has shared the same fate—or perhaps we ought to say, has enjoyed the same privilege—as those to which I refer, in that it has afforded the student of history the means of determining the character of mind, the method of investigation, the degree of accuracy in observation, and the practical skill which were possessed and exhibited at any particular point of time within the compass of historical records.

Lastly, it may be regarded as the most recent and not least grateful recipient of the favour and advantage which every branch of our science and practice derives from the progress of physical knowledge.

If puerperal fever be thus distinguished, it would seem an easy task to entertain you without fatigue in any one of the lines of research which I have indicated. I am obliged, however, to request that the standard which I regard with deep respect, and you with satisfaction, may be reduced to meet an unusual demand for judgment and caution in dealing with materials so abundantly afforded by past history and recent important researches as to make the satisfactory treatment of them a matter of more than common difficulty.

There is a particular mental attitude, if I may use the expression, which we must assume, in order to arrive at just conclusions regarding the value of the contributions of others to our stores of knowledge of any particular branch of science. It is not easy to avoid a tendency to become partisans of a theory under the influence of evidence which rests upon data beyond our immediate power of verification. To observe and record with accuracy the phenomena of disease, both clinical and pathological, requires much more than ordinary caution and patience when those observations are made for the express purpose of esting the credibility of the opinions of others.

It is desirable to keep in view the general principle that those facts are most valuable which contribute to the practical treatment of any malady, including of course in the term treatment the knowledge of tiology and the best means of prevention. It may be necessary to mention some of the various methods of treatment which have been at times in general repute, though with few exceptions I shall omit those which were of empirical character and ephemeral duration, and cannot e classed with remedies rationally suggested by etiological and patho-ogical considerations, and fairly tested by experience.

It shall be my aim, therefore, when perusing the history of this ever, to prefer those records which contain practical information, nd which tend to the elucidation of the origin and real nature of he disease. And, while pursuing this plan, we may with advantage otice instances in which contemporary neglect apparently rewarded most important researches. The effect of thus ascertaining the reception which was accorded to new and original views will be to ender us less liable to the disparaging charges which posterity may make against us when present time has become the past—a time which, here are good reasons for believing, will prove not the least distinguished epoch in the future history of the progress of medical science.

I shall attempt to place before you such evidence as is necessary to ow that puerperal fever existed very much in the same form as in the esent day, at that period which we generally term "classical", when nosological distinctions were based upon symptoms, and the modern science of pathology had not been developed, or was entirely unknown.

I may assume, for the sake of convenience, the date of the foundation of this college (A.D. 1518) as the commencement of the modern era, through which we shall trace the successive additions which were made to the general and special knowledge of our subject.

Within the last few years, very considerable modifications have been brought about in our views of contagious agents, in which of course those on puerperal fever have to some extent participated. It is to the chemical investigator and the scientific physiologist that we are chiefly indebted for a series of observations and suggestions which have thrown more light upon the real nature of the fever than we should ever have obtained from ordinary clinical and pathological methods. In fact, it may be said that those sources of information were exhausted. As the conclusions deduced from the observations alluded to are of great practical value, and are receiving constant additions now that so many are engaged in research, it will be necessary for us to examine with patient care the facts presented by the most reliable authorities, and endeavour to ascertain whether they will bear the test of general experience, and how far they afford satisfactory explanations of the causes which produce the phenomena which characterise the disease.

There is one point which must be noticed when we compare in detail the descriptions which we possess of the fever as given by some authors, with the general symptoms which it usually presents in the routine of daily practice. It is the fact that the disease has often appeared in a more acute form, and has been attended by more serious results, than we observe now. Those epidemics, as they were called, which occurred in some of the large cities of Europe and in this country, particularly in the middle and latter part of last century, afford us considerable assistance in explaining these apparent discrepancies, though a complete solution is only to be supplied by an accurate determination of the etiology of the fever. It may seem parodoxical to assert that the disease is a definite one, and yet that we are to be prepared to meet with various descriptions by authors of its symptomatic and pathological characters. If it were not for the fact that many have formed their own ideas of its nature from personal experience alone, and have obtained only a limited view of the many phenomena which it exhibits, it would have been unnecessary for me to direct attention to the reason why we should make some allowance for the difference in details and in opinions which I allude to. There is one way in which we may yield in this respect without going too far, and that is by separating the points of resemblance from those of difference, under the guidance of experience; and by not insisting too strongly on the introduction of the latter into the terms of a definition, we may agree that, both in a scientific and practical point of view, there is sufficient positive evidence to justify us in regarding the disease as one of specific nature.

The Hippocratic treatise known as the Περὶ Γυναικείων contains a general description of puerperal fever, which has been quoted by most writers on the subject. We may supplement it by references to the *De Morbis Vulgaribus*, or *Epidemics*, in which a few cases are related with such clearness and detail as to afford the evidence we require to prove the point in question.

Hippocrates says: "If the lochia do not occur in the puerperal condition, it is very probable that fever and abdominal swelling will supervene. The whole system, but particularly the abdomen, will be highly sensitive to touch. Sometimes there will be intense abdominal and lumbar pain, dislike of food, insomnolence, and irritation of the surface of the body. On the fifth or seventh day after these symptoms, the patient will be attacked with disturbance of the alvine and urinary secretions. If the lochial discharge return, the patient may with proper care soon recover; but, if not, there is great danger that diarrhœa will ensue, and the lochia be arrested. The arterial pulse is weak, though sometimes quick and varying in force. Thus the early stage of the disease is characterised. After a time, the hollows of the face become flushed. In this condition, the diet must be light. If there be delirium, laxatives must be given to drink, and other remedies, according to the indications of bilious or mucous secretions. Fomentations and poultices are to be applied daily. If, however, the lochial purgation appear to affect the head, thorax, and lungs, for that may happen, the patient always very soon succumbs." (Hippocratis *Opera*, Ed. Foes., p. 603, secs. 40, *et seq.*)

This general description applies, as we see, to one particular form of puerperal fever, and, though it is followed by an account of some other forms of disease which we know to be nearly allied to it, and to depend upon the same cause; yet there is no strong indication that they were associated for any reason of that kind in the treatise referred to.

To illustrate the above, in the first book of the *Epidemics*, the history is related of the case of the wife of Philinus, who was seized on the fourteenth day after delivery with pain in the hypogastric and pubic regions, consequent on the cessation of the lochia. The first symptom mentioned is rigor, or in the original: "She was seized with fever attended with rigors." On the eighth day after this, the rigor returned; on the fourteenth day, she had subsultus and incoherent wanderings, and on the twentieth day she died. (*Op. cit.*, p. 976.)

This case is followed by one still more accurately described. "The wife of Dromeades, having been delivered of a female child, and all other matters progressing favourably, on the second day after was seized with rigor and acute fever. She began to have pain in the hypochondrium and nausea; was incoherent and sleepless for many hours; respiration was long and irregular, and she suffered from thirst, cold sweats, and epistaxis. On the sixth day, she expired." The third case is that of a woman who "was seized with fever soon after the birth of a son. At first, there was thirst, nausea, and cardialgia; the tongue was dry, the bowels disordered; she had slight rigor, acute fever, and a faint cold sweat about the head. On the third day, she was in great pain, and there was diarrhœa; on the fourth day, she had rigors again, and all the symptoms were increased in severity. They continued with slight variation till she died with epistaxis on the fourteenth day." (*Op. cit.*, p. 987.)

Some remarks on the conditions of the atmosphere which existed at the time of the occurrence of this case contain the observation that erysipelas, in a malignant and non-malignant form, was prevalent. There is generally some reason for the introduction of such a fact as this, which is left to the reader to explain as he pleases. The way in which Hippocrates quietly mentions it without remark, still leaves the impression that he had noticed a connection between atmospheric conditions and the occurrence of certain diseases which he could not explain.

There is another important case, which is compared by the commentators with that of the wife of Philinus. The symptoms are regarded as very typical in both instances of the consequences of arrested lochia: a theory, I need hardly mention, which satisfied the minds of the physicians of that day, and indeed for centuries later.

But I do not mention this case, which commences ἐν Θάσῳ την κατακειμένην, etc. (*op. cit.*, p. 1096), for any other reason beyond the fact that, during the period of eighty days of illness terminating in death, we have those symptoms detailed which clearly mark the case as one of phlebitis or inflammation of the cellular tissue of the right limb. The woman was attacked on the third day after delivery with the usual symptoms of puerperal fever, such as were mentioned in the other cases I have related. On or a little after the twentieth day, the symptoms of phlebitis commenced, and the febrile variations which are so commonly met with in this form of disease are simply and clearly stated; they were of a wandering and paroxysmal character (πεπλανημένως δὲ παροξύνομενοι), which exactly describes them.

Before disposing of the Hippocratic works, it may be allowable to refer briefly to two cases of abortion (*op. cit.*, pp. 1078-79)—cases, at least, in which febrile symptoms followed immediately on that occurrence. It is right to mention that they are referred to in the annotations of the edition of Foesius as instances of fever producing abortion. There is, however, this peculiarity in the account of the cases which we can hardly regard as without intention. It is, that they both commence somewhat thus:—"This is a case in which acute fever attacked a woman immediately after abortion," etc.; or, "This is another case in which acute fever followed abortion at the fifth month," etc.; and both cases terminated fatally on the seventh day. As it is not the purpose of Hippocrates, in his clinical histories, to connect cause and effect, but to leave the simple facts to speak for themselves, we are not obliged to submit to the conclusions of commentators who have looked at them through the medium of a theory. We are told of the events and symptoms in order of time, and we are permitted to consider the occurrence of abortion related in those cases as certainly presenting a different aspect in connection with the symptoms than if it had been mentioned later in the history.

Independently of these cases, we have the distinct statement, that abortion might be followed by puerperal fever; for we find, in the treatise *De Morbis Mulierum*, such remarks as the following:—"This (puerperal fever) may happen after abortion"; or, again, "Abortions are more dangerous than ordinary parturition, for the uterus is liable to ulceration or inflammation—a condition most serious". It is from such extracts as these and others that most modern authors satisfy themselves of the existence of puerperal fever among the maladies of ancient times. In a treatise by Hulme in 1772, the point seems to have been settled in the opinion of the authors of last century, and his concluding remarks are interesting enough to be quoted as the general expression of opinion at the time referred to. "We have here", he says, "a pretty accurate and plain description of the puerperal fever, as observed by Hippocrates, which in most parts exactly corresponds with what has been said of it in the first part of this treatise, insomuch that, had both descriptions been written about the same time, it might have been disputed which author had borrowed from the other. But the truth is, neither of them in the least tittle copied from the other, but from Nature alone. Hence it is similarity arises; from which also we may learn that the operations of Nature are the same in Britain as in Greece, and continue the same in this day as they were above two thousand years ago. This is likewise a clear proof of the immutability of the puerperal fever, that it is an original disease, and hath been prevalent at all times and in all climates, and yielded to the same method of cure as hath been prescribed above." (Page 95.)

We may assume, then, that there is no great difficulty in establishing the first question of identity in all important particulars. There are one or two points deserving of further notice. It may be observed that Hippocrates omits all mention of treatment in his clinical examples, so that we are unable to determine the extent to which he practised the instructions contained in his general treatise, nor do we feel at all certain that we understand the views which were taken of the essential nature of this fever. It is asserted by his commentators that Hippocrates referred puerperal fever to an arrest of the lochia, the grounds for that assertion being his statement that this is the first symptom of the disease in the puerperal state. There is no doubt that he did entertain some such idea; for he remarks that, "if they"—that is, the lochia—"return, it is a favourable symptom". But the question of the cause on which the local and general disturbances depend is not limited by any means, as some suppose, to the arrest of the lochia alone. There are distinct pathological conditions assigned as causes in a certain number of cases; namely, inflammation and ulceration of the uterus, and retention of placental structures. There is no point more carefully set forth than this, and there is no hesitation in referring the symptoms which follow such retention to the effects of decomposition. "There may be ulcerations in the uterus from the decomposition of the lochia (Γίνεται δὲ καὶ ἕλκεα ἐν τῇσι μήτρῃσιν υἷα τῶν λοχείων σαπέντων") certainly implies this. The word here used we have found necessary to introduce into our own language when we wish to indicate in a special manner the process of decomposition, though it appears to have been commonly used by the Greeks: as, for example, when Hermes reported of Hector's corpse:

> δωδεκάτη δὲ οἱ ἠὼς
> Κείμενῳ οὐδέ τι υἱ χρὼς σήπεται, οὐδέ μιν εὐλαὶ
> Ἔσθουσι.
>
> "This the twelfth evening since he rested there,
> Untouched by worms, untainted by the air."
>
> (*Iliad*, xxiv, 414, Pope's Translation.)

We shall see that the principle involved in our modern term "septic", though clearly appreciated by the ancients, was to some extent lost sight of till almost the present day.

So far as the arrest of the lochia was considered one principal cause of puerperal fever, the theory was naturally applied to the explanation of the various constitutional symptoms noticed in the disease; that is, to say, they were simply regarded as of metastatic origin, and their cessation on the return of the lochia was explained by and supported that idea.

Only one other circumstance remains to be mentioned under which the symptoms of puerperal fever may occur, and that is the possibility of inflammation at the ordinary period of menstruation. From what has been extracted thus briefly from the Hippocratic works, we may conclude that several causes were recognised by Hippocrates as capable of producing the series of symptoms which we term puerperal fever, and that amongst those there is evidently a clearly conceived notion of infective agency.

It is not probable, it is quite certain, that the more carefully we scrutinise the classic authors, the more they appear to have known of the symptoms of disease; and their accuracy and acuteness of observation, and, above all, their singular simplicity and truth, command our respect and attention. It is only by some such general expression of appreciation that we can fairly excuse ourselves from a more elaborate analysis than I have offered above. The same kind of sensation steals over the mind in perusing those authors which the works of art of that period produce upon the senses. They exhibit a subtleness of intellect and perception which so astonish and delight, as to make comparison with contemporary efforts never occur to our thoughts, and which lull all feelings of envy into tranquil admiration.

It is not unprofitable, you will agree, to cherish the feeling I have described. It seems long since the Hippocratic writings were seriously studied in this country. We have perhaps been advancing, or at least moving so rapidly, that we have not cared to look back. Yet there never was a time, I believe, since the period of Grecian excellence, when such true appreciation of its wonderful productions would be developed by a more intimate acquaintance with them than at the present day. Though the knowledge of the phenomena of disease may never have been so complete, their origin and cause so profoundly investigated, as now; though we have the assistance of mechanical, optical, and chemical science to aid in a thousand ways, and may be too much occupied with the present to think of the past—yet we may learn much by studying the too few relics we possess of ancient wisdom and knowledge, as in an equal degree we may acquire taste by contemplating those ruined monuments—silent proofs of genius and skill.

In stating that we are in a position to judge of their merits, I mean to imply that there does not appear to have been any fair critical power exhibited even by the commentators of comparatively modern time. The annotations in the edition by Foesius of Hippocrates's works published in 1621, enable us to ascertain the exact state of knowledge during the long interval; and I may be excused for omitting to make any mention of a period in which science suffered at the hands of her enemies, and was adorned, consistently with Gothic feelings and ideas, in most unbecoming and uncomfortably restricted garments.

From the quotation in Dr. Hulme's treatise, and from those cases to which he omits to refer, it is clear that, so far as symptoms are concerned, all the important phases of puerperal fever were so well described by Hippocrates as to admit of no considerable addition or improvement. It is to the progress of morbid anatomy and pathology that we are chiefly indebted for recent information on the value of symptoms, and their relation to, or origin in, pathological processes. As examples of this, we are able to explain the various local and constitutional symptoms produced by those particular forms of the disease and their occasional complications, which we are accustomed to designate by distinct terms, *e.g.*, phlegmasia dolens, phlebitis, metritis, thrombosis, and others. When I said that we might assume the date of the institution of this College as an approximately correct and convenient starting-point of the modern era, it was intended to fix the attention upon one or two illustrious names which will always in this country be associated with anatomical and physiological science, and which retain their influence in the preservation of our national character of scientific thought and practical purpose.

For the present, we may limit our inquiries to the gradual evolution of the theory now daily gaining ground, that there is a particular cause for the various forms of puerperal fever; viz., the existence of a specific poison in the human system, either introduced or self-developed. It matters not for our purpose what the nature of the evidence was which first led to this belief, provided only that, so far as they went, the data were strictly true and the deductions logical. Our knowledge of the general principle, that we are all more or less under the influence of theories in our practical views of disease, enables us to discern to some extent from the method of treatment the particular theory which any individual maintains on any particular subject, without knowing directly from other sources what that theory may be. Supposing that we have to determine the view entertained by some author of reputation on the nature of puerperal fever, we may ascertain from his directions as to treatment what his theoretical views were, whether chemical, mechanical, physiological, or pathological. This is not perhaps true of most of us, as we rather follow example than theory, and are more under the influence of education than those to whom we are indebted for original ideas. But, as we find there is often antagonism in the mind between the suggestions of a theory and the influence of habit, it becomes necessary to apply the test of treatment to determine how far any individual believes in his theory. In this question of the origin of the belief that puerperal fever depends on a specific poison, we find that the idea is by no means so recent as might be imagined; but, as it was regarded in such a doubtful way as not to influence treatment to any beneficial extent, we cannot admit that it deserves such serious notice as when we meet with those who have entertained the belief so strongly as to have used every endeavour in their power to arrest the influence of the poison, and to prevent its contagious effects. This is the reason for the above remarks. Time has proved that many explanations of the cause of puerperal fever have been erroneous, and that the belief in a specific poison is entitled to general acceptance. Now, if we limit ourselves to tracing its development, which has been sufficiently gradual, we shall be better occupied than in the criticism of erroneous doctrine, and we can perceive that, with such a limited object in view, we may unravel the tangles of history, and, by following one thread, do better than by attempting to begin without an end in hand on this or that knotted loop of conjecture.

In its present form, our idea of the specific nature of the poison which produces puerperal fever is somewhat different from that which was involved in the "σήψις" of the Greeks; but to what extent it differs, and why, depends of course on our knowledge of the properties of the poison, and that point we need not consider at present. We are not obliged to meet the request to define what we mean by contagious; we should not allow an argument on the meaning of words to interrupt our attention to facts.

I now propose to examine how far the contagious theory of puerperal fever is supported, or contradicted, or neglected by the authorities of the seventeenth century. The theory of a poison generated in the process of the decomposition of organic matter involves the assumption that, *pari passu* with the process of decomposition, there is a simultaneous and equivalent one of generation. This, perhaps, may be going a little too far; but there is no doubt that decomposition and disintegration have always been clearly distinguished. To those who do not reflect upon such questions, the contrast would not seem so striking as to the mind of the scientific inquirer. It is the one, however, which called forth such a request as the following from the pen of Harvey, whom we may regard as the exponent of the most advanced opinions of his day.

"What shall we say of the animalcules which are engendered in our bodies, and which no one doubts are ruled and made to vegetate by a peculiar vital principle? Of this kind are lumbrici, ascarides, lice, mites, syrones, acari," etc.; and then quoting from Aristotle: "For in almost all dry things growing moist, or moist things becoming dry, an animal is engendered." (Page 282, Trans. Harvey: *On Generation* (Sydenham Society's Works.)

In another place, he exclaims: "Let physicians, therefore, cease to wonder at what always excites their astonishment; namely, the manner in which epidemic, contagious, and pestilential diseases scatter their seeds, and are propagated to a distance through the air, or by some *fomes* producing diseases like themselves, in bodies of a different nature, and, in a hidden fashion, silently multiplying themselves by a kind of generation, until they become so fatal, and, with the permission of the Deity, spread destruction far and wide among man and beast" (p. 322, *op. cit.*) There can be no doubt of the views of the author of these passages regarding the development of minute independent organisms in the human body; and, though we have made considerable progress in our powers of demonstrating forms of life of minute dimensions since his time, yet, for practical purposes, he had so clear an idea of the probability of the existence of almost atomic germs, that he would not only have believed the statements of Professor Tyndall, but have followed that distinguished experimentalist to the extreme limits of imagination. He would have agreed with the description of the poet:

> "Unfinished things one knows not what to call,
> Their generation's so equivocal:
> To tell them would an hundred tongues require,
> Or one vain wit's, that might an hundred tire."
>
> *Essay on Criticism*, part i.

There is all the proof which we require of Harvey's belief in the effects of a poison generated by decomposition to be found in a subsequent passage in his work on *Generation*; and, as it is an important one in many ways, particularly in a practical point of view, I shall with your permission quote it at length.

"Women, as they alone have a menstruous, so have they alone a lochial, discharge; added to which, they are exposed to disorders and perils immediately after birth, either from the uterus, through feebleness contracting too soon, or from the lochia becoming vitiated or suppressed. For it often happens, especially in delicate women, that foul and putrid lochia set up fevers and other violent symptoms; because the uterus, torn and injured by the separation of the placenta, especially if any violence have been used, resembles a vast internal ulcer, and is cleansed and purified by the free discharge of the lochia. Therefore, do we conclude as to the favourable or unfavourable state of the puerperal woman from the character of these excretions.

"For, if any part of the placenta adhere to the uterus, the lochial discharge becomes fœtid, green, and putrid; and sometimes the powers of the uterus are so reduced, that gangrene is the result, and the woman is destroyed. If clots of blood, or any other foreign matter remain in the uterine cavity after delivery, the uterus does not retract nor close its orifice, but the cervix is found soft and open. This I ascertained in a woman, who, when labouring under a malignant fever, with great prostration of strength, miscarried of a fœtus exhibiting no marks of decomposition, and who afterwards lay in an apparently dying state, with a pulse scarcely to be counted, and cold sweats. Finding the uterine orifice soft and open, and the lochia very offensive, I suspected that something was undergoing decomposition within. Whereupon I introduced the fingers, and brought away a mole. . . . The woman was immediately freed from her symptoms, and in a short time recovered." (*Op. cit.*, p. 544.)

On the principle advocated by Harvey, that we do well to treat with respect the opinions of the past, I have made these extracts from his work on *Generation*. He observed that "respect for our predecessors and for antiquity at large inclines us to defend their conclusions to the extent that love of truth will allow. Nor do I think it becoming in us to neglect and make little of their labours and conclusions, who bore the torch that has lightened us to the shrine of philosophy." (*Op. cit.*, p. 432.)

In order to ascertain how far the ideas of Harvey on the connection between puerperal fever and decomposition were entertained generally, we cannot refer to a better authority than the celebrated French obstetrician François Mauriceau. In his remarks on the suppression of the lochia, and the symptoms which are produced by it, he says that "those putrefying humours, by reason of their prolonged detention in the cavity of the uterus, produce for certain considerable inflammation, so that the suppression of the lochia may be one of the most dangerous symptoms which can happen in the puerperal condition". (Ed. 1681, p. 284.)

The most important pathological effects of inflammation are described by Mauriceau, nor does he omit to mention the symptoms of puerperal phlebitis, attributing that also to the suppression of the lochia. This idea led him to depend upon bleeding as the chief remedy for the disease; so that we can hardly say he had any conception of the existence of a poison generated in the process of decomposition as the prime cause of these symptoms. As a clinical observer, however, he mentions in detail the most minute as well as the leading symptoms of nearly all the forms of puerperal fever with which we are acquainted; at least of those which occur in the puerperal condition, properly speaking. It is rather in his character of a practical physician that we must regard him than in that of a scientific pathologist.

I have already indicated to what extent simple clinical observation is able to explain the etiology of puerperal fever; and, for the reason that pathological analysis had not been brought to bear upon it till a century or more after Mauriceau's time, we have no important addition to notice in the works of intervening authors.

Changes had taken place, however, in the general doctrines of medical science during that period, and these necessarily more or less influenced general opinion on the etiology of our subject. I have used the term *pathology* in the sense in which we employ it at the present time, or at least in that sense which we attach to the term *morbid anatomy*. It had a different signification, however, a century ago, when Cullen said, in his lectures, "The pathology that I am to deliver is properly to be referred to two heads—that of causes and that of symptoms;" and again, "When we speak of the pathology of a disease in the institutions or in the practice of medicine, the disease is considered in its symptoms, causes, and effects." The term thus may be seen to have included the etiology as well as all the phenomena of disease.

As far as puerperal fever is concerned, we have only to notice in Cullen's works certain views which he entertained on the general question of the difference of fevers and their causes, and which were intended to apply to puerperal fever amongst others of contagious nature. It is his theory of contagion that we are induced to examine, and not any additions to the morbid anatomy or the symptoms of puerperal fever by himself or his immediate predecessors, that deserve our attention. The term *fomes* was used by Harvey to describe a minute organic particle, one of the products of decomposition, possessing very active properties, though certainly indefinite in its character. This term is also used by Cullen in much the same sense. He assumes the existence of different kinds of fomites, of different specific nature, and suggests the employment of the term effluvia "rather than the general ones of contagion and miasma". By effluvia he meant the products of the decomposition of any animal matter, as distinguished from contagion and miasma; miasma being the product of the decomposition of vegetable matter, and contagious being a term used to distinguish such diseases as scarlet fever, measles, and others, not originating in a decomposing process. Such I conceive to have been the meaning of effluvia, contagion, and miasma: "Substances", in his own words, "thus imbued with an active and infectious matter may be called fomites; and it appears to me probable that contagions, as they arise from fomites, are more powerful than as they arise immediately from the human body."

"The miasma", he says, "so universally the cause of fever is that which arises from marshes or moist ground acted upon by heat:" the word fever, as arising from miasmata, being restricted to the intermittent species. He defines "contagions as arising directly or originally from the body of a man under a particular disease, and exciting the same kind of disease in the body of the person to whom they are applied." (*Practice*, vol. i, p. 80, *et seq.*) From these passages, it is not difficult to understand Cullen's idea of fomites, though, as far as having proved the existence of such particles, he was not the least more advanced than his predecessors; that is to say, his reasons for believing in such germs of disease rested entirely upon clinical observation.

He found some difficulty, however, in dealing with a class of fevers or pyrexia known as "continued", jail, or hospital fevers, and in this class he included puerperal fever. He attributes their origin to a common cause. On this point, it will be seen that there was a definite opinion regarding the effects which may be produced by the effluvia from the living human body, which, "if long retained in the same place without being diffused in the atmosphere, acquire a singular virulence, and, in that state being applied to the bodies of men, become the cause of a fever which is highly contagious. The existence of such a cause is proved by the late observations on jail and hospital fevers, and that the same virulent matter may be produced in many other places must be sufficiently obvious." With respect to these contagions, Cullen observes in another place: "Though we have spoken of them as a matter floating in the atmosphere, it is proper to observe that they are never found to act but when they are near to the sources from whence they arise; that is, either near to the bodies of men, from which they immediately issue, or near to some substances which, as having been near to the bodies of men, are imbued with their effluvia, and in which substances these effluvia are sometimes retained in an active state for a very long time."

With such views of the origin of what we now term septic causes of disease, we may expect that the treatment recommended by Cullen was consistent with those views. There is so little empiricism in his admirable works, and he always leads up to the subject of treatment in the most logical manner after a careful analysis of the symptoms and probable nature of any disease, that we are not surprised to find that he avoids those discussions which many of his contemporaries indulged in. It was not a question for him whether to bleed or not to bleed was right, nor would he have recognised any statistical contributions to the determination of that question as of much value. While as for special remedies, unless they were known by experience to produce such effects as would theoretically assist in the consistent working of his idea of the cause of the fever, would he have paid attention to them.

Cullen was not the man to be deceived by the representations of success which were reported to have followed the use of ipecacuanha in puerperal fever, in a memoir by Dr. Doulcet of Paris, the publication of which was made the year before Cullen's last edition was issued. His own directions for treatment, which we will notice presently, were based upon the view, "that the cause of death in fevers may be a poison; that is, a power capable of destroying the vital principle; and this poison may be either the miasma or contagion which was the remote cause of the fever, or it may be a putrid matter generated in the course of the fever. In both cases, the operation of such a power appears either as acting chiefly on the nervous system, inducing the symptoms of debility, or as acting on the fluids of the body, inducing a putrescent state in them." (Section 101, *op. cit.*) In other words, a "strong tendency to putrefaction in the fluids" was "the direct cause of all the phenomena of these fevers." (Section 102, *id.*)

Thus far I have advanced by rather rapid strides in the history of the most important part of our subject. I have referred to original sources for information, and have not attempted, under the influence of any feeling, to make it appear that the authorities referred to knew more or less than they could fairly claim to have known. I have omitted almost all mention of a great deal that has been slowly dismissed from that total of data which we feel is more essential to correct conclusions than the assistance of the most powerful logical reasoning. We have arrived at a time when our modern system of medical science was beginning to develope itself; when attention was being directed to those new and unexplored regions which the researches of the morbid anatomist and pathologist have since exposed to our view. To what extent those new methods of inquiry modified the general ideas concerning the etiology of puerperal fever, I shall proceed to consider in the next lecture.

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ANIMAL VACCINATION.—Since 1872, there has existed in the *abattoirs* of Bâle a vaccine establishment, headed by a veterinary surgeon, which is used by all classes of society. Bulls are inoculated with vaccine from children, and in their turn serve as foci for vaccination. After having shaved the posterior face of the testicles of these animals, about twenty superficial incisions, from two to three *centimètres* long, are made with the instrument charged with vaccine matter. If done carefully, the operation always succeeds, and, at the end of the sixth day, it is possible to collect vaccine, which, mixed with glycerine in the tubes, preserves its properties longer than human vaccine.

# THE ETIOLOGY OF PUERPERAL FEVER.

By ROBERT E. HUNTLEY, M.D., Jarrow-on-Tyne.

I AM induced by the letters signed "Obstetricus" and "Junior" to offer a few observations on the above subject.

In the BRITISH MEDICAL JOURNAL of August 5th, 1865, I gave details of a number of cases of puerperal fever, which had occurred in my practice a few months previously. It was manifest that the outbreak was in some way associated with me, for it was exclusively confined to my practice, notwithstanding there were four other practitioners in our town. I took all the precautionary measures usually adopted to eradicate the disease, such as baths, changing of clothes, but all to no purpose. I eventually went over to Ireland, and remained there six weeks, after which time I returned, in the confident hope that no chance of my transmitting the disease remained. Nevertheless (and "Obstetricus" should note this), the first two or three cases that I attended showed unmistakable signs of infection, and I was compelled, by the serious consequences, to cease the practice of this branch of the profession for a further period. From my sad experience, then, it was apparent that the obstetrician should relinquish practice during not less than two months. But, when such fearful consequences are involved, it is safer to overestimate rather than underestimate the time; and such was the advice I gave to a midwife who recently lost, to my knowledge, not fewer than four cases within two or three weeks. The frequent ablutions which medical men necessarily undergo make it absurd to suppose that for weeks the *materies morbi* can be communicated by the hand of the accoucheur; and, when a change of clothing takes place, we may reasonably conclude that all chance of infection from this source is avoided. As further proof of the fallacy of this belief in the production of the disease by this means, I may cite the rarity of our ability to trace puerperal infection distinctly to these causes.

I left under the charge of my *locum tenens* several cases when I went from home, yet not a single case occurred among all those he attended in my absence. I find that there is a chimerical fear prevalent among physicians regarding this method of contagion, which oftentimes impels them to act inhumanely. Lately, I was called in to see two cases attended by the midwife abovementioned. I found that the friends had already sought the assistance of medical men, who decidedly refused to attend, because the cases were of this nature. I and my assistant took charge of these patients (one of whom died after a few days; the other, though still under treatment, is slowly recovering); and I see no reason to regret placing them on our list, as no evil consequences have followed to any of the confinements since attended by us. Hence, and from repeated experiences of this kind, I infer that such a mode of contagion is rare. That it does happen occasionally, I have no doubt; but, with due caution, as by ablution on leaving a patient thus affected, and by allowing some time to elapse between visiting patients where there is a possibility of infection, the risk is exceedingly small. The cases related in the JOURNAL of February 13th, by Dr. Fenton, would seem to disprove this opinion; but it is by no means certain that the bedclothes in the instances related by him were the source of contagion. I rather incline to the belief that the midwife afforded the fell influence, or was the source from which the poison was derived. Otherwise, burn the bedclothes and set the woman free.

From these considerations and facts, it seemed plain to me then, and I see no reason why I should change my opinion now, that we must look for some other means of communication of the *materies morbi* than that generally accepted by the profession; and, guided by the experience then gained, I advanced the only theory which commended itself to me, viz., that the contagious influence was somehow intimately associated with the *person* of the obstetrician, and not with his surface or clothing only. It is true that I was unaware of any morbid condition then existing in my own constitution which would be likely to give rise to any morbid exhalation, and fortify me in the belief entertained. Still, it is possible that, unobservable to myself, there may have been present some defect in the assimilating process, some error in the secretory or excretory systems, which would generate a morbid material capable of producing septicæmia. It may be, however, that the toxic matter is not generated *de novo* in the system; but, being received from external sources in the first instance, becomes propagated by some unknown means. What I seek, however, mainly to establish is, that the clothes theory is untenable. As to whether the obstetrician can communicate this disease without vaginal examination, I have no definite opinion, not being able to call to mind any instance in which it has happened; but, with views such as mine, such an occurrence would appear by no means unlikely, indeed, nearly as likely as if the whole process of delivery had been under the superintendence of the accoucheur, *i.e.*, presuming that he had been at any time in close contact with the patient.

It is of vital import that the obstetrician should recognise at the very earliest stage the true character of the malady; and the points to which, in my opinion, attention ought to be directed, are the various causes from which puerperal fevers originate. These may conveniently be divided into three classes.

1. Those originating in the patient herself, as general unhealth giving rise to inflammation of the uterine and peritoneal structures, or such as spring from intrauterine causes, putrescence of the infant or of the other contents of the uterus.
2. Such as spring from atmospheric influences, and give rise under ordinary circumstances to fevers, as scarlatina, typhoid, and typhus.
3. That lamentable and malignant form mysteriously communicated by the accoucheur.

Cases of the first class are frequently easily diagnosed, though cases will arise from this cause which may baffle the most expert. As regards the second class, a good, and perhaps the only reliable, guide, is the prevalence in the district of fevers of an epidemic nature. I am of opinion, however, that the epidemic or typhoid form of puerperal fever does not always coexist with the prevalence of typhus or typhoid, but that there is some meteorological condition conducive essential to its production. In all these cases, though the *materies morbi* may not be identical, yet blood-poisoning is the result, and the symptoms are only modified by the constitutional peculiarities and condition of life of the patient.

It has occurred to my mind that, assuming this theory of the production of puerperal pyæmia by the obstetrician, as asserted by me, to be true, it would be matter for serious thought, whether, in the event of a second outbreak in the practice of one man, he should not entirely relinquish obstetric practice, the second event arousing suspicion that there might be some special disposition existing conducive to the production of this fatal disease. I should so act myself.

As most important in preventing the spread of the disease, it is evident that some efficient and organised system of espionage is imperative.

I have become aware in my short experience that many deaths have occurred through want of knowledge and due appreciation of the gravity of the consequences likely to follow from persistence in midwifery practice, in the vain hope from day to day that the disease will disappear. Ignorant midwives, and young practitioners who may not have been taught to recognise the peculiar features of this special form of disease, are very prone to fall into this error. Now that officers of health are (or ought to be) generally established in every district throughout England, it should be deemed by the Privy Council one of the chief duties of such officers to investigate the true nature of any epidemic of puerperal fever coming to their knowledge, and to consult with, or advise, the propagators of the mischief. A stumbling-block would, I suspect, be often placed in his way by the fact that the most important means of information—the books of the Registrar of Deaths—do not always furnish a true record of the cause of death, when it is puerperal pyæmia. This is no idle statement, but one which I have verified by reference to the returns in this district, when I have found only two deaths returned as from this cause during two months, when I have had satisfactory knowledge of the occurrence of at least eight. The tendency to observe secrecy in such cases is a fact intelligible, and to some extent, perhaps, excusable. From this point of view alone, I regard the late Sanitary Act as a wise measure, calculated to prevent much human suffering, and to save many valuable lives.

When, ten years ago, I enunciated the theory I have expressed above, the proposition did not elicit any discussion. Possibly, it was deemed unworthy even of notice; yet I feel confident that in the future it will be recognised as by no means so improbable as superficially it may appear to be.

There are many occult problems connected with the etiology of disease, which suggest themselves every day, that are not less strange than that now propounded, and yet they meet with favourable consideration. The theory of transmission from extraneous sources, I grant, at first sight would seem most probably true; yet, in the minds of those who may unfortunately have the opportunity that experience affords, I feel certain that grave doubts of its validity will arise.

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THE Ryan Prize, value £100, offered about two years since by the Board of Trinity College for the essay that would produce from the Bible the best argument for the truth or Divine origin of Christianity, has been awarded to a member of the profession, Dr. Isaac Ashe, Medical Superintendent of the Londonderry District Lunatic Asylum. Dr. Ashe obtained the second Carmichael prize, value £100, in 1868; and the first Carmichael prize, value £200, in 1873.

# ANOTHER CASE OF POISONING BY HOMŒOPATHIC CAMPHOR.

By GEORGE JOHNSON, M.D., F.R.S.,

Professor of Medicine in King's College; Physician to King's College Hospital.

I AM indebted for the particulars of the following case of poisoning by homœopathic solution of camphor to my friend Mr. Gooch of Eton. He had read my last paper on the subject in the JOURNAL (Feb. 6th, 1875), and, thinking that the case of an Eton boy whom he had attended some time since would interest me, he has been so good as to send me a brief report, with permission to publish it in the BRITISH MEDICAL JOURNAL. The following is Mr. Gooch's narrative.

"About three years since, I was called to see an Eton boy, aged 14, who was supposed to have fainted. I found him lying on his bed, almost pulseless, and quite insensible, with his extremities cold, and his face and lips pallid. He had shortly before had his dinner, and I thought that, perhaps, he might be suffering from an attack of indigestion. Whilst I was administering stimulants, and applying hot bottles, etc., to his feet, a servant accidentally found a small bottle on his table, which was labelled, "Rubini's Homœopathic Camphor"; and, thinking that he might have taken some of its contents, I gave him, with difficulty, an emetic. This had the immediate effect of causing him to vomit his dinner, which was mixed with an immense quantity of camphor, which scented the whole room most powerfully. In about half an hour, he became sensible, and told me that he had a cold, for which he had purchased the camphor; but, instead of dropping two or three drops upon a lump of sugar, as directed, he poured it out on the sugar, and after taking it, immediately became insensible. In the evening, all the effects of the drug had gone off; he passed a good night, and had no unpleasant symptoms afterwards.

"He was a strong, healthy-looking boy. The bottle found in his room was very small, holding about half a drachm, and it was about half full when I saw it; so that he may have taken about fifteen drops of the solution, if an ordinary lump of sugar would hold so much."

This is the seventh case of poisoning by the homœopathic concentrated solution of camphor that has come to my knowledge during the last two years. I suspect that, if all the cases of this kind that have come under the notice of the profession within the United Kingdom during the same period were published, the list would be a very long one, and it might serve as a warning of the danger which attends the incautious use of this highly concentrated poison.

Since the above was written, I have read with much interest the two cases published in the last number of the JOURNAL (p. 243), by Dr. Legat and Mr. Ellerton.

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# ON SOME POINTS IN THE DIAGNOSIS OF BRIGHT'S DISEASE.

By CHARLES MACLEAN, M.B., Applecross.

IT may appear a work of supererogation to speak of the powers of the microscope in the investigation of renal disease, but we really cannot be too much impressed with the value of that instrument in diagnosis; and the chief object of this paper is to show how it can be made the principal medium in the performance of a delicate test towards the detection of true albuminuria when the urine contains blood. Bright's disease may easily be complicated with hæmaturia—indeed, it is often so; and it frequently becomes a question, whether the albumen in the urine of a patient is or is not to be explained by the presence of effused blood. We have, in fact, to find out how much blood-albumen the urine contains, and how much albuminuric albumen. The former can be estimated by counting the number of red blood-corpuscles to be seen on a given extent of the microscopic slide; it being known how much albumen, say in the ounce of urine, shall correspond to a given number of discs. The amount of albumen in the urine is easily found by coagulating, filtering, and drying that contained in a like quantity of urine (an ounce), and weighing it.

I find that, when forty blood-discs are to be seen in the whole field of an "Oberhauser" microscope, using object-glass No. 7 and eye-glass No. 4, if there be effused blood in the urine, the albumen contained in an ounce, on being dried, weighs one grain; therefore, whatever there is of dried albumen from the ounce of urine, over and above the proportion of one grain to the forty blood-discs, seen as above, must be the product of true albuminuria. I have a case of granular disease of the kidney in which the albumen obtained from one ounce of the urine, independently of blood, weighed eight grains when I saw it first.

It would be as fallacious to look upon coagulation by heat and nitric acid as conclusive of a case being one of albuminuria, without taking other circumstances, such as the presence of blood, etc., into account, as it would be to exclude the possibility of that disease being present merely because of the urine containing blood. It may be mentioned, that the urine has a distinct tinge of blood when as few as ten discs are to be seen on the field of the microscope. I had occasion to examine the urine of a lady, a visitor in this neighbourhood, who, before she left home, received a note from her medical attendant saying that she had had a severe attack, in which the noticeable symptoms were dark smoky-looking urine, which contained blood-discs, and which coagulated distinctly on the application of heat—essentially a tautological statement. The coagulation was twice referred to as an important point; whereas I think it quite likely that, if a test of the kind described in the foregoing remarks had been applied at the time, it would have been found that hæmorrhage sufficiently accounted for all the coagulation. I found the urine quite natural in every way, except that it contained great numbers of crystals of oxalate of lime; and the conclusion to which I came was, that the bleeding had been caused by a concretion of oxalate of lime forming in the kidney.

The importance of examining the urine in the diagnosis of disease cannot easily be exaggerated. The facility with which we obtain evidence in this way, and the certainty of the information when obtained, make the omission on our part of this means of diagnosis the more inexcusable. I was recently called to a case, in which the only observable symptoms were epigastric pain, nausea with feeling of great weakness, and a subacute bronchial affection. As the latter complaint did not appear to me to be capable of accounting for the constitutional symptoms, I examined the urine and found it loaded with albumen; and the microscope revealed numerous granular casts. All doubt as to the nature of the disease was thus at once dispelled. There was here not the least lumbar pain complained of, and no unusual feeling on micturition.

I had an instance of the great value of the microscope some time ago in a case of hæmaturia. It was an alarming case; and life seemed at the time in danger from the large quantity of blood lost, for pint upon pint of bloody urine (or, more properly speaking, of diluted blood) was passed. I gave the patient gallic acid to begin with, until I should examine the urine microscopically. This treatment made little or no impression, however; and, when I brought the microscope into use, I found crystals of the ammonio-magnesian phosphate in abundance. Thereupon I combined sulphuric acid with the gallic, and the almost immediate result was an abatement of the bleeding. The mineral acid probably dissolved any irritating particles of the triple phosphate that may have formed. The patient had a milder attack afterwards, but it yielded readily on the application of the same remedy.

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# THERAPEUTIC USE OF THE CONTINUOUS GALVANIC CURRENT.

By THOMAS E. CLARK, M.D.,

Late Physician to the General Hospital, Bristol; and formerly Surgeon to the Royal Infirmary, Bristol.

I SEND three cases treated by myself by the continuous galvanic current, believing that it is a subject of interest to the profession.

CASE I. *Endometritis cured by the Continuous Galvanic Current.*—S. H., aged 39, a married woman, has had four children. After her fourth confinement, she suffered severely from leucorrhœa, bearing-down pains, tenderness in the left iliac region, and dysmenorrhœa. This continued for six months, when she was able to go about the house; this was in 1870. I saw her in June 1871, and, upon examination, found the fundus uteri lying obliquely and to the left, the os uteri patulous, and superficially ulcerated; and, during the introduction of the speculum, a porter-coloured fluid of a very offensive character flowed from the os. Under the local use of nitrate of silver, and the internal use of bromide of potassium, iron, and sumbul, with rest, she became very much better, and indeed reported herself well. However, in the November following, she caught a severe cold, and all the old symptoms recurred. She was now confined to her room and bed, and no treatment seemed to have any beneficial effect upon her case. I saw her in June 1872, and ordered her away for a time to recruit her shattered nervous system, and at intervals of a week, applied the nitrate of silver; she also continued the bromide of potassium and iron mixture. At the end of August she returned home, and I recommended the continuous current, with the idea of altering the secreting property of the lining membrane of the uterus. Accordingly, I introduced a partly insulated wire into the cavity of the uterus, and attached it to the negative pole; the positive was connected with a moistened sponge, and applied over the pubes for twenty minutes. This was repeated three days; after which treatment, I had the satisfaction of finding that the offensive discharge ceased, and never returned. It was some months, however, before the hysterical condition subsided; but now, after two years, she has continued perfectly well, and is able to undertake all her usual household duties.

CASE II. *Lipoma cured by Electrolysis.*—A. A., aged 66, had a fatty tumour over the left shoulder. Thirty years ago, a fatty tumour was removed from the upper part of the left shoulder, and soon after the healing of the wound, a small swelling was observed close to the cicatrix; this caused no pain, and grew very slowly till within the last eighteen months, when its growth was more rapid, the skin becoming thin and shining, and two ulcers formed, one of the size of a two-shilling piece, and the other of the size of a shilling. In 1868, the patient had the appearance of being deformed, having a large swelling over the left shoulder, extending from the spine of the scapula upwards, and outwards to the acromion, measuring twenty-one inches in circumference, and fourteen inches transversely from base one side to the base on the other. There were two ulcerated patches as above stated, the skin appearing extremely thin, and large veins crossed its surface. The feel was semielastic, and pressure produced a lobulated appearance. I suggested its removal by the knife, but this she declined. I then advised the continuous galvanic current, and she decided to try it. A battery of sixteen cells was the one used. Three needles were passed into the tumour at its circumference, and connected with the negative pole, the circuit being formed by means of a moistened sponge attached to the positive pole, and placed on the tumour. The application lasted twenty minutes, was repeated at intervals of a week or fortnight; and, after four applications, the size had decidedly lessened, and the ulcers entirely healed. The process was continued in all fifteen times, and varied in duration from twenty to forty minutes. The only sensation complained of was a sense of heat; there was no bleeding, and the patient, who came from a distance, was in no instance prevented from returning. The time occupied with this case was nearly twelve months, and, at the end, the tumour had entirely disappeared, leaving only a small hardened portion, not larger than half a walnut.

CASE III. *Prostatorrhœa cured by the Continuous Galvanic Current.*—R. S., aged 45, had suffered severe dragging pain in the perinæum and around the back and groins, coming on after micturition or defæcation, and lasting several hours, although he was seldom free from a sense of discomfort; there was also a mucous discharge from the urethra during the act of defæcation and at the end of micturition, with a feeling of burning pain along the urethra, and this would continue for several hours. He had been under treatment for two years before seeing me. I examined the urethra; No. 10 catheter passed easily without pain, except over the prostatic portion. The finger in the rectum demonstrated a flattened elongated prostate. He was greatly depressed from the continual suffering. I tried a variety of treatment: suppositories of opium and belladonna; the bromides with bark, etc., but to no purpose. There were several consultations held (one gentlemen saying he believed it was malignant disease of the prostate). After some months of suffering and no benefit from remedies, I determined to try the continuous current. Applying the negative pole in the rectum, and the positive, a moistened sponge, to the perinæum, I continued it for five or ten minutes. This was repeated a dozen times, and the patient's trouble entirely disappeared. This was at the end of 1873, and he has since continued in perfect health.

# ON THE CAUSES OF DEATH AFTER OPERATION FOR STRANGULATED HERNIA.*

By F. H. EDMONDS, L.R.C.P.Lond., Rochester.

ABDOMINAL hernia being unfortunately a common disease, and the strangulation of a hernia being sudden in occurrence and rapidly fatal in its course, we, as general practitioners, have to be prepared to meet it at once, and to undertake its treatment without the advantage of a consultation with a surgeon, fortunately permitted us in other surgical diseases. It is, therefore, necessary that we should pay every attention to the detail of all cases coming under our care. In the following four cases, the operation was performed by Dr. F. J. Brown in hree, and by Mr. Nankivell in one; and I have to thank these gentlemen for their kindness in permitting me to lay them before you, and direct your attention to the points which appear to me of practical interest. My connection with the cases was that of administering chloroform and making the *post mortem* examination.

CASE I.—Amos Saywell, aged 24, admitted to St. Bartholomew's Hospital, Chatham, on September 5th, 1870, had suffered from inguinal hernia for some years, and had been once before relieved at the hospital by taxis. The operation was performed by Dr. F. J. Brown, twenty-four hours after strangulation, twenty-two hours after admission, under chloroform. The sac was opened. About one hour after the operation, the patient vomited a quantity of fæcal matter, with large quantities of serous fluid. Mr. Nankivell and myself being at the bedside, we gave brandy. The vomiting continued; and, as the patient seemed to be choking, we used Silvester's system of artificial respiration for a few minutes; but the patient died, with marked symptoms of apnœa.

POST MORTEM EXAMINATION, thirty-nine hours after death.—Rigor mortis was strongly marked. Sero-fæculent matters issued from the nostrils. The right pleura contained about one pint of fluid; the left pleura was toughly adherent to all the walls of the thorax. The right lung contained a quantity of fluid in its bronchi, of the same character as that vomited; the left lung contained a little fluid of the same nature. The hernia had been reduced. There was a small spot of congestion on the convexity of a convolution of the ileum near the abdominal ring. The intestines were generally hyperæmic, and were distended by what proved to be, on puncture, large quantities of fluid of the same character as that vomited. There was no complete constriction of any part of the intestinal canal. The peritoneum appeared healthy.

This case is curious from the enormous quantity of fluid secreted by the intestines in a short time. It appeared that the death was due to a continuous stream of fluid issuing from the pharynx during attempts at inspiration, and, in fact, *drowning* the patient. This view is supported by the *post mortem* appearances of the lungs.

CASE II.—William Johnson, aged 36, admitted March 27th, 1873, had had left inguinal hernia for eight years, and had worn a truss. The truss broke the day before admission, and the hernia became strangulated. Mr. Nankivell operated, opening the sac. Vomiting continued to a slight extent until death on March 28th.

POST MORTEM EXAMINATION, twelve hours after death.—Rigor mortis was well marked. On dissecting the anterior wall of the abdomen and examining the lower part, there was found an epiplocele of the right side. On the left side, the hernia had been returned from the canal; but a small piece of intestine had insinuated itself into a pouch formed by the division of the internal oblique and transversalis muscles, and was here constricted without showing any external signs, owing to the patient's obesity.

In this case, the corpulence of the patient was the cause of death. The deposit of fat in the areolar tissue between the muscles made it more easy to separate the muscular layers, and the thickness of the subcutaneous fatty layer had prevented the diagnosis during life of the tumour caused by the knuckle of small intestine found between the muscles after death.

CASE III.—Sarah Barringer, aged 47, admitted on October 10th, 1872, suffering from inguinal hernia of the right side, which had been strangulated one day. Dr. Brown operated; but the patient did not seem relieved after the operation, and continued to suffer from sickness until death, on October 24th, *i.e.*, fourteen days from operation.

POST MORTEM EXAMINATION, twenty-one hours after death.—Rigor mortis was well marked. The abdomen only was opened. The omentum was spread evenly over the intestines, and adherent by a small point to the pubic bone. The inguinal hernia was completely reduced. The right femoral ring was occupied by a small knuckle of intestine; the end of this knuckle was ulcerated, and had given vent to fæcal matter. The iliac fascia was stripped off the os pubis and ischium, forming a large pouch. Fæcal matter found in the operation abdominal wound was traced to the roof of the crural canal.

CASE IV occurred in the practice of my friend Mr. Robert R. Brown of Strood. Ann Bridger, aged 42, widow, had had a right femoral hernia for two years. This had been strangulated three days when Dr. F. J. Brown operated, returning the hernia without opening the sac. After the operation, Dr. Brown, Mr. Redmond, R.N., Mr. R. R. Brown, and myself placed our fingers in the wound, and found the crural ring clear. The patient continued vomiting, and died on the third day after the operation.

POST MORTEM EXAMINATION, twenty-two hours after death.—Rigor mortis was well marked. The hands were black and shrivelled; the body thin; the abdomen distended with flatus. There were patches of ecchymosis about the lower part of the abdomen. The wound was healthy, but without any attempt at adhesion or suppuration. The peritoneum was covered with fresh lymph near the region of operation. The intestines were much distended with flatus. Through the crural ring a knuckle of intestine seemed to project, but could not be felt from the wound of operation. On tracing it from the abdomen, it was found to have got under the iliac fascia, and into the pelvis between the fascia and the obturator intervenes muscle. On withdrawing it, it was found to be congested, but with its covering peritoneum still shining and intact.

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* Read at the West Kent District Meeting.

In Case III, the operation succeeded in curing the inguinal hernia; but the dissection of the femoral hernia was so instructive, that it will repay our attention, and consoled me for one of the most disagreeable *post mortem* examinations I ever saw.

"The end of the knuckle of intestine was ulcerated." Now, if the constriction were caused by Gimbernat's ligament, the effused matter would not have passed into the abdomen; the constriction by the ligament would have prevented the return of the crural sheath even; it would, therefore, prevent the backflow of effused fluids. But, if the constriction were at the neck of the sac, or at the mouth of the sheath, as Erichsen says it most frequently is, the effusion could pass between the crural sheath and the muscles and vessels, and under Poupart's ligament, and, anteriorly, would be directed by the fascia transversalis into the inguinal canal, and thus into the wound of operation for inguinal hernia; posteriorly, it would get under the fascia iliaca, and, if that fascia were not attached to the brim of the pelvis, then into the pelvis between the fascia and the obturator muscle. As "fæcal matter, found in the abdominal operation-wound, was traced to the roof of the crural canal", and "the iliac fascia was stripped off the os pubis and ischium, forming a large pouch", and also, as in Case IV we found the strangulated intestine "under the iliac fascia and in the pelvis, between the fascia and the obturator internus muscle", I conclude we here have anatomical demonstrations made for us by pathological processes.

In the American edition of Sir A. Cooper's work on *Hernia*, at p. 224, is the record of a fatal case of femoral hernia, from which the following is extracted. "Upon cutting through the integuments of the groin, the sac and its contents were entirely gone from thence. Looking at the right groin from within the abdomen, the peritoneum was seen pushed upwards to the extent of two inches on the iliacus internus muscle; and, upon examining this part, I found the hernial sac included in its facial covering, and containing the intestines strangulated by a stricture at the neck of the sac, and by the fascia covering it." Again, at p. 222 of the same work, in a footnote by Aston Key, is another case of femoral hernia, fatal after operation, from which I will extract what bears on our cases. "On looking into the sac from the wound in the thigh, no intestine was at first perceived, but the surrounding parts being all taken out, and more perfectly examined, it was found pushed up between the peritoneum and the sheath of the femoral vessels." Looking at this last case by the light thrown on the subject by our two cases and Sir A. Cooper's one, I would suggest that Mr. Key overlooked the fascia which covered the strangulated knuckle, and which would scarcely be noticed unless detached to such an extent as it was at least in Sir A. Cooper's case, and here it was less than in either of ours.

As to the anatomical point of the attachment of the iliac fascia to the brim of the pelvis, or otherwise, I find that Ellis and Ledwich do not give any information; Gray, Wilson, and the seventh edition of Quain, say that it is attached there; but Jones Quain, in his fourth edition says, "It is connected closely to the bone, after which it descends, lying upon the inner surface of the obturator internus muscle"; and Aston Key, in the anatomical part of Sir A. Cooper's work, says, "It blends insensibly with the fascia of the pelvis". You will see that the authorities are divided, but the description of dissections by disease I have laid before you, give a strong support to Dr. Jones Quain and to Mr. Key.

In a small strangulated hernia, with the strangulation not caused by the arch, it would be no difficult matter to return the tumour to the abdomen, by dividing Gimbernat's ligament, and thereby giving room for the hernia to pass bodily through; but, as the peritoneum would be carried forcibly upwards at the level of the neck of the sac, it would be thereby stripped from the inside of the abdominal walls, and if it had, by pressure of the hernia, become attached to the fascia in its neighbourhood, or if the constriction were by the mouth of the sheath, it would carry the fascia with it: even in the healthy subject it is easier to separate the fascia from the muscles than the peritoneum from the fascia.

Sir A. Cooper's cases are related to show the necessity of making sure that the stricture is divided before the tumour is reduced; but, in his case, the error was made of mistaking the fascia propria for the sac; and, as such a mistake may occur again, I would suggest that, in all cases of strangulated femoral hernia, not relieved at once by the usual operation, the most frequent cause will be found to be a constriction under the iliac fascia, and this part should therefore be examined.

Finally, I would point out that, in my Case III, there was not even an attempt at reduction of the femoral hernia, so there was no force used, except such as the effusion of fluids might produce. The intestine was ulcerated through, the effused matter found its way by ulceration through the peritoneal sac, and separated the fasciæ as described; but, since the force of an effusion seeking to escape cannot be very great, we must be more careful in applying even a slight force for the reduction by taxis of a strangulated femoral hernia.

## CASE OF DIABETES MELLITUS TREATED BY THE SOLE ADMINISTRATION OF SKIMMED MILK: DEATH.

By HORACE CHALDECOTT, M.R.C.S.Eng., Dorking.

E. T., a labourer, was admitted into the Dorking Cottage Hospital, under my care, November 12th, 1874. On admission, he had a very dry tongue, great thirst, and hunger. The urine was of a pale greenish colour, of specific gravity 1032; on boiling with an equal quantity of liquor potassæ, it became of the colour of brown sherry. There was no albumen. The history obtained was that he had been emaciating for a few weeks, with increasing hunger and thirst, together with a progressive increase in the amount of urine passed.

I give below a table showing the amount of urine passed every twenty-four hours, and the specific gravity daily.

He was put on full meat diet, with greens, "diabetic biscuits", and plenty of milk; he was also ordered the following prescription:

℞ Liquor strychniæ ♏v; tincturæ ferri perchloridi ♏x; aquæ ad ℥i. M. Fiat haustus ter die sumendus.

This treatment was continued until December 10th, when he was ordered eight quarts of skimmed milk daily; nothing else either to eat or drink. On December 3rd, his weight was 9 stone 5 lbs.; on December 10th, 9 stone 1½ lbs.; on December 18th, 9 stone 3½ lbs. Hunger left him after commencing the milk-diet. The bowels, which had previously been costive, were now moved copiously and regularly. He had heard from a visitor of the efficacy of the skimmed milk treatment, and was very sanguine that it would cure him.

The treatment was steadily adhered to, and the patient was apparently doing well until December 24th, when he was attacked with purging and vomiting. He also became somewhat drowsy; but this symptom was attributed at the time to the opium in the following mixture prescribed for him at the outset of the attack, of which he took six doses at varying intervals in about thirty-six hours.

℞ Tincturæ opii ʒj; bismuthi oxidi ʒj; pulveris gummi tragacanthæ, ʒj; aquæ ad ℥viij. M. Two tablespoonfuls for a dose.

On December 25th, the purging and vomiting were allayed; the drowsiness was increasing.

On December 28th, at 9 A.M., the drowsiness had been steadily increasing, and he was now incapable of being aroused. His breathing was stertorous. The pupils were equal, rather contracted. The bowels were not relieved on the previous nor this day. The urine contained phosphates; no albumen. The patient died the same night at twenty minutes to twelve. There were no symptoms or signs of phthisis throughout. No necropsy was made.

| Date. | | Sp. gr. | Amount of urine passed in 24 hrs. | Date. | | Sp. gr. | Amount of urine passed in 24 hrs. |
|---|---|---|---|---|---|---|---|
| Nov. | 13 | 1035 | 21 pints | Dec. | 6 | 1026 | 14½ pints |
| ,, | 14 | 1031 | 23 ,, | ,, | 7 | 1027 | 15 ,, |
| ,, | 15 | 1032 | 21½ ,, | ,, | 8 | 1027 | 14 ,, |
| ,, | 16 | 1031 | 19 ,, | ,, | 9 | 1027 | 14½ ,, |
| ,, | 17 | 1031 | 21 ,, | ,, | 10 | 1028 | 14 ,,[†] |
| ,, | 18 | 1030 | 20 ,, | ,, | 11 | 1030 | 12 ,, |
| ,, | 19 | 1030 | 19 ,, | ,, | 12 | 1034 | 11 ,, |
| ,, | 20 | 1029 | 16½ ,, | ,, | 13 | 1032 | 11 ,, |
| ,, | 21 | 1029 | 19 ,, | ,, | 14 | 1031 | 10 ,, |
| ,, | 22 | 1029 | 14 ,, | ,, | 15 | 1030 | 10 ,, |
| ,, | 23 | 1028 | 16 ,, | ,, | 16 | 1029 | 10½ ,, |
| ,, | 24 | 1030 | 16 ,, | ,, | 17 | 1029 | 10½ ,, |
| ,, | 25 | 1030 | 14 ,, | ,, | 18 | 1029 | 11 ,,[‡] |
| ,, | 26 | 1029 | 14 ,, | ,, | 19 | 1030 | 10 ,, |
| ,, | 27 | 1030 | 14 ,, | ,, | 20 | 1029 | 10 ,, |
| ,, | 28 | 1031 | 14 ,, | ,, | 21 | 1030 | 10 ,, |
| ,, | 29 | 1031 | 14 ,, | ,, | 22 | 1027 | 10½ ,, |
| ,, | 30 | 1030 | 12½ ,, | ,, | 23 | 1030 | 10½ ,, |
| Dec. | 1 | 1030 | 14 ,, | ,, | 24 | 1033 | 10½ ,, |
| ,, | 2 | 1035 | 13 ,, | ,, | 25 | 1031 | ? ,,[§] |
| ,, | 3 | 1030 | 13½ ,,[*] | ,, | 26 | 1032 | ? ,,[§] |
| ,, | 4 | 1028 | 14 ,, | ,, | 27 | 1030 | 8½ ,, |
| ,, | 5 | 1027 | 15 ,, | ,, | 28 | 1028 | 3 ,,[‖] |

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[*] Weight, 9 stone 5 lbs.

[†] Began skimmed milk treatment. Weight, 9 stone 1½ lbs.

[‡] Weight, 9 stone, 3½ lbs.

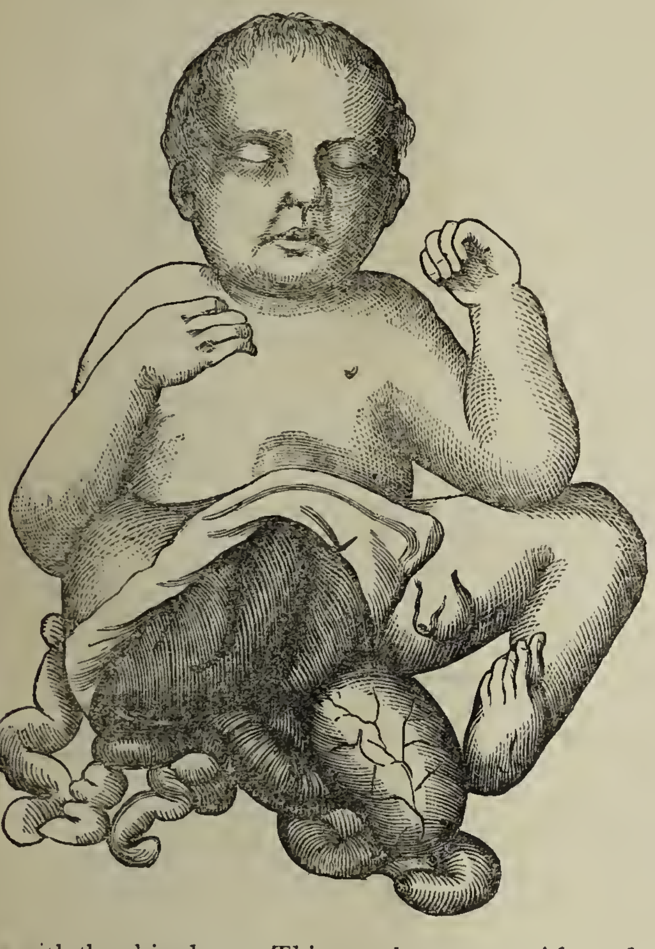
[§] Query, on account of diarrhœa.

[‖] Died 11.40 P.M.

## OBSTETRIC MEMORANDA.

### FŒTAL MALFORMATION.

A HEALTHY woman, aged 24, was taken in labour with her first child, at her full term, on August 16th, 1874. As the head, which presented, became impacted on the pubes, the forceps were used. The fœtus when born showed the following peculiarities of development. The left elbow, as was also the left knee, was somewhat ankylosed. The thorax appeared natural, but the abdomen and its contents were greatly different. No abdominal walls were visible, but the viscera were only enveloped by a thin membrane, which in front and above was continuous with the skin of the thorax, a line of demarcation being well marked, and posteriorly was attached at some places to the bones, and at others was continuous with the skin there. This membrane was without doubt ruptured during the act of parturition; the umbilicus, os innominatum of the right side, sacrum, and anus were all absent, as were the whole of the urinary tract and the pancreas. Only part of the genital organs were present, but they were not sufficiently well marked to determine the sex. The rectum terminated in the cord, which passed through the membrane about the usual position of the umbilicus; the left foot was deformed, talipes equino-varus being noticed. The fœtus, though without doubt alive at the commencement of the labour, was still-born; it weighed, six hours after birth, four pounds nine and a half ounces. The drawing gives a good idea of the appearance presented by this unnaturally developed fœtus. The mother states that she received a fright whilst pregnant.



W. H. SHEEHY, L.R.C.P., Claremont Square.

### DOUBLE ARM-PRESENTATION.

I AM afraid that cases of double arm-presentation are not so rare as Mr. Karkeek supposes. I can report a case which occurred in my own practice about two months ago, and which ended fatally, but still worth reporting.

On the evening of December 16th last, I was sent for by two other medical gentlemen, who were in attendance on Mrs. M., as her case was an exceedingly peculiar one. When I arrived, I found both hands protruding beyond the vulva. Both gentlemen had tried to turn, but neither could introduce his hand far enough to catch a foot, owing to the jamming up of the pelvic cavity, nor could the arms of the child be put back. The pains had been very severe for eight or ten hours, and the arms were driven down this length before the regular medical attendant saw the case. Within the last hour, the woman's pulse had become very rapid, and she had the appearance of sinking. Without attempting to turn, I administered chloroform, and then tried it, but it was quite impossible to introduce the hand, and still impossible to put back the arms. There was no alternative now but amputate one of the arms, which we did. After this was done, it was with the greatest difficulty I managed to turn. The woman died in about fifteen minutes after delivery. No *post mortem* examination was made, but I am of opinion that rupture of the uterus had taken place, which accounted for the sudden cessation of the pains, the high pulse, and the sinking appearance of the woman. I have turned in nearly all sorts of presentations, but this one presented difficulties which no one can think of until he has actually had a case. It is a pity that none of our obstetric writers say anything about this sort of presentation, as I feel certain that it frequently occurs.

There can be no doubt that if the case be seen early, there will not be so much difficulty in turning; or if one arm be quite down, and the other only partially so, then the usual method of bringing down the opposite leg to that arm which is advanced will cause the turning to be much more easily accomplished. But when both arms are driven beyond the vulva there is not only the difficulty of introducing the hand and causing the child to rotate on its axis, but the nates of the child rise and the feet are turned up behind the nates; so that, upon securing a foot, it is necessary to sweep it well backwards, for, if it be pulled straight down, the whole child becomes hopelessly jammed in the pelvis, and this was the difficulty with which I had to deal.

A. MILROY, L.F.P.S., Eglinton Iron Works.

## THERAPEUTIC MEMORANDA.

### JABORANDI.

ON January 26th, I had a specimen of jaborandi given to me by Mr. Holloway of Castle Street, consisting only of the leaves of a plant. An average-sized leaf picked out of the specimen had the following characteristics. It was about 1½ inch long and half an inch broad, of an ovato-oblong form, petiolate, with an oblique base, an obtuse emarginated apex and entire margin. The under surface of the leaf was hirsute, the hairs being small, few in number, and not easily recognised without a lens; but they were more numerous along each side of the midrib. The venation was reticulate; the primary veins coming off from the midrib at an average angle of 53 degs. on the side which had the larger half of the base, and at 56 degs. on the opposite side. These terminated within the margin by joining one another by means of intermarginal branches. When held up to the light, the leaves were seen to be numerously dotted with small puncta, which were generally scattered over the surface, and appeared of a light yellow colour. The leaves have a faint odour when cold, which becomes stronger on warming.

On the evening of February 2nd, I made an infusion of thirty grains of the leaves; but, being prevented from taking it then, I took it at 12.15 A.M. the following night, swallowing both dregs and infusion. Previously, I had taken my temperature and observed my pulse and respirations. I then sat down in an arm-chair with the paper, to divert my attention from the experiment. The following table gives the variation of temperature (centigrade scale).

| | Temp. in right axilla. | Temp. in left axilla. | Average temp. | Pulse. | Resp. |
|---|---|---|---|---|---|
| 12.15 A.M. | 35·3 | 35·1 | 35·2 | 60 | 16 |
| 12.30 A.M. | 36. | 36. | 36. | 66 | 16 |
| 12.45 A.M. | 36. | 35·4 | 35·7 | 66 | 14 |
| 1 A.M. | 35·4 | 35·3 | 35·35 | 68 | 15 |
| 1.15 A.M. | 35·35 | 35·27 | 35·31 | 74 | 15 |
| 1.30 A.M. | 35·3 | 35· | 35·15 | 74 | 15 |
| 1.45 A.M. | 35·35 | 35·2 | 35·275 | 75 | 16 |
| 2 A.M. | 35·35 | 35·3 | 35·325 | 76 | 14 |
| 2.15 A.M. | 35·4 | 35·3 | 35·35 | 74 | 16 |

The pulse and respiration were taken every quarter of an hour for two hours. During the second quarter of an hour, I began to feel my saliva being secreted more freely than natural. This continued to increase in quantity for an hour and a half, but had reached its maximum before 2.30, by which time I had expectorated four ounces, being the total amount excreted. The drug with me had no diaphoretic action, and not the slightest effect upon my sight or pupils; probably because I had not taken sufficient. It will be noticed from the table that my pulse rose gradually up to two o'clock, at which time the amount of saliva secreted seemed to be diminishing. The temperature was taken by means of two Casella's registering thermometers, Nos. 17,401 and 17,402; the last mentioned registering .05 of a degree higher than the other. It was this I used for the right axilla. One thermometer was placed in each axilla, and, after every observation, the index was shaken down, and in five minutes returned to the axilla, so that it remained ten minutes in position each time. From 12.15 to 9 A.M., I secreted twenty-one ounces of urine, of specific gravity 1020, of acid reaction, with no albumen. The drug appears to have no diuretic action.—ROBERT CORY, M.B., Carlisle.

### MACKAY'S OMPHALIC MUSTARD PLASTERS.

I AM glad to read in the JOURNAL of January 23rd, under the heading of New Inventions, a description of Dr. Mackay's omphalic mustard leaflets. After using them frequently, I can testify to their efficacy as a most useful and elegant means for counterirritation. They can be applied with ease and accuracy, and they are free from the discomfort which generally attends the use of mustard poultices or plasters. Each leaflet is about four inches square, and contains from twenty to twenty-four discs or spots of mustard of the size of a large wafer, and they are placed so as to allow a considerable interspace between the discs. By this arrangement, two-thirds of the whole leaf are covered by the irritant, leaving the remaining third free. When used, the leaf is to be first dipped into water. The surplus water may be removed by shaking. It is then to be placed firmly and evenly upon the surface of the skin. In a few minutes, it produces a warm and not disagreeable feeling, and the skin beneath the spots becomes reddened. If allowed to remain for thirty or forty minutes, the whole surface beneath the plaster becomes affected, producing the benefit of an ordinary mustard application, but with the smallest possible injury to the skin. When the leaf is removed, the skin between the spots rapidly resumes its normal condition and appearance, whilst the impression from the discs will remain for some days. Any number of the spots may be applied, according to the effect desired; and they can be repeated upon the same surface at shorter intervals than is possible when using any other form of mustard irritant. In neuralgia, one or two spots of the mustard, placed over a painful spot along the course of the nerve, will frequently relieve the pain, with but little or no discomfort.

Upon the same principle, Dr. Mackay has produced leaflets composed of Spanish fly. The discs of the vesicant upon each leaf are smaller and more numerous than those of the mustard on the mustard-leaves; the idea being in each to imitate as much as possible the operations of nature, when relieved by the eruption of a number of papules or vesicles. W. HEATH STRANGE, M.D.

## SURGICAL MEMORANDA.

### THE NEW OPTOMETER.

IF Mr. Jeaffreson will again read the description of the optometer in the JOURNAL of January 16th, he will there find that in "the beginning of 1873" I had proposed an instrument corresponding to the "Refraction Ophthalmoscope", described in his *Aids to Ophthalmic Diagnosis*, published in July, 1874, and which seems to me more completely and better fitted for the purposes for which both instruments were designed, in that while the powers obtained are more numerous, the obtaining of them by means of the rack moving the two discs is much easier. A description of the instrument will be found in a pamphlet, entitled *A Contribution to Ophthalmoscopy*, published by me in February 1873, and in the Catalogue of the British Medical Association of the same year, No. 410, p. 119. By means of this instrument, the ophthalmoscopist, or anyone accustomed to the use of optical instruments, can determine his own degree of myopia or hypermetropia, or that of an educated and careful observer. But, as in the determining of patients in private or in hospital practice, we have not generally to deal with such, and, as this instrument, by no yet known method, will enable us to correct an astigmatic ametropia, so as to allow of the determination of the refraction by the usual control tests, I cannot see how Mr. Jeaffreson can call the instrument described by him in 1874, and by myself in 1873, the same instrument as one in which, by the combination of + and − spherical and cylindrical lenses, arrangements are made for the determination of simple, compound, or mixed astigmatism, in addition to the simple myopia and hypermetropia corrected by the instruments abovementioned.

The objections which Mr. Jeaffreson found to his instrument from its size and the necessity of having recourse to the table of calculations, were foreseen and obviated in the new instrument proposed, by having the glasses of the usual testing size, and by the product of any combination being found opposite the combination.

The table of calculations had been formed by me on much the same plan as Mr. Jeaffreson's, but occupying half the space. It will be noted that the one-half of the calculations in Mr. Jeaffreson's table is a repetition of the other, which a slightly different arrangement of the figures would have rendered unnecessary.

W. LAIDLAW PURVES, Hanover Street.

# REPORTS
OF
# MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

## GUY'S HOSPITAL.

### ANEURISM OF INTRAPERICARDIAL PART OF AORTA: EMBOLISM OF FEMORAL ARTERY: GANGRENE OF FOOT AND LEG: AMPUTATION OF THIGH: DEATH: NECROPSY.

(Under the care of Mr. BIRKETT.)

FREDERICK S., aged 33, an engine-driver, was admitted into the Hospital on June 15th, 1873. He gave a good family history. His own ailments had been limited to a sore on the penis contracted fourteen years previously, and followed by a bubo; to a "bad sore-throat" five years ago; and to indigestion. His usual daily allowance of beer had been four pints; and he had occasionally been intoxicated. Eight days before admission (June 7th), he had become suddenly faint, and fallen insensible; but had soon recovered. An hour afterwards, however, great pain had commenced in the right leg, and the patient could not stand upon it. The pain continued; and, on June 10th, the toes had begun to turn black. The blackness had slowly extended up the limb; and, on June 14th, there was some swelling of the right arm.

On admission, the right foot and adjoining part of the leg were gangrenous. Behind, and at the sides, the gangrene extended over the lower two-thirds of the limb; in front, it reached halfway up only. The skin on the dorsum of the foot was of a dark red colour; on the sole, it was nearly black, and the superficial veins were full of blood; on the leg, the skin was livid, and presented blebs containing a sanguineous fluid. The gangrenous part was quite insensible to the touch; but the skin of the limb immediately above it was inflamed, and exceedingly tender and painful. There was occasional pain in the foot. The dead part was not moist, and no odour arose from it. The man felt very weak; had no appetite; and the pain prevented sleep at night. The tongue was coated with a brown fur; the bowels were confined; the urine contained no albumen; the liver was enlarged. The sounds of the heart were feeble and intermittent; there was no *bruit*. The apex-beat was not perceptible. There was an unusual extent of dulness behind the sternum. Pulse, 120; respirations, 20; temperature, 99.5 deg. He was ordered

Liq. morph. hydrochl. ♏x; acidi hydrochlor. dil. ♏x; decoct. cinch. flav. ℥j, every six hours. Beer, two pints daily.

June 17th. He had not slept during the night; he complained of a pricking sensation in the sole of the foot. Pulse, 120; temperature, 99 deg.

June 18th. The patient had slept after a subcutaneous injection of morphia administered the previous evening. He had lost the power of extending his right hand; and could only partially use the fingers of that side. There was a little pain in the same wrist. Pulse, 120; temperature, 99.4 deg.

June 19th. He had slept again after an injection of morphia, and had regained the power of extending his right hand. The gangrene had not advanced up the leg; and the inflamed skin above the line of demarcation was rather less painful. Pulse, 120; temperature, 99 deg.

June 20th. Although morphia had been injected the previous evening, the man had passed a restless night. The leg was beginning to smell badly. Pulse, 120; temperature, 99 deg.

June 21st. He had again slept badly after an injection of morphia. Pain in the leg had increased. Pulse, 120; temperature, 101.4 deg. He was ordered pil. opii gr. 1, to be taken twice a day; and to continue the mixture ordered on the 16th.

June 23rd. He had passed a better night. The bowels had not been opened for four days. The tongue was dry and brown. Pulse, 120; temperature, 101.8 deg. He had headache, and severe pain in the leg. There had been some swelling of the right side of the head and neck. He did not talk quite rationally. The gangrene was more complete, but had not extended higher up the limb. The superficial veins of the thigh looked turgid.

4 P.M. Mr. Birkett determined to amputate the limb. Upon chloroform being administered, the patient took it badly, and had several attacks of threatened apnœa. The femoral artery was compressed by a weight. Mr. Birkett made lateral semicircular flaps in the lower third of the thigh. Torsion was used on the femoral artery and several smaller vessels; the flaps were united by six interrupted sutures; the stump was then wrapped in carbolised gauze, and placed on a splint.

The disorganisation of the tissues of the foot and leg was too far advanced to allow any changes in them to be usefully recorded.

June 24th. He had passed a very restless night. At 8 A.M., paroxysmal attacks of dyspnœa commenced, which much resembled epileptic convulsions, but were not accompanied by lividity of countenance. The pulse became very quick, but was not irregular; and, at the onset of the convulsion, the patient was sensible. As the fit progressed, temporary coma supervened, from which he slowly recovered with a sighing respiration. There was much pain over the mid-sternal region. In one of the above noticed paroxysmal attacks, he died at about 11 A.M.

An examination of the body was made on June 25th. The heart weighed ten ounces. The pericardium was greatly enlarged. It contained thirty-two ounces of a bloody fluid, which was not coagulated, and was evidently a mixture of blood and serum. The parietal layer of the pericardium was roughened by lymph. The visceral layer was covered by a thin, but coherent, lamina of lymph, and in places this was separated from the heart's surface by a layer of coagulated blood, especially over the posterior surface of the right ventricle, where this layer of blood was more than a quarter of an inch thick. Beneath it, and immediately in contact with the heart itself, was a layer of inflammatory material. It was, therefore, evident that the pericarditis had existed before the escape of blood into the pericardial sac; that the blood had entered beneath the layer of lymph just formed on the visceral membrane, and dissected this off; and that afterwards a fresh layer of lymph had formed beneath the blood. The heart-substance and valves were healthy. In the right side of the base of the aorta, about half an inch to an inch above the valves, was an opening (of about the size of a florin) into an aneurism about as large as a billiard-ball. This aneurism came forwards to the right side of the base of the pulmonary artery; it projected as a rounded tumour beneath the endocardium lining the right auricle; and the superior vena cava was also stretched over it. Where it projected into the pericardial sac, it was very thin; and an oblique rent existed, which was probably very small before it had been disturbed. There were some adhesions of the pericardial layers over the aneurism. The aneurism contained chiefly soft black coagulum; but the surface of this which looked towards the interior of the aorta was firm, buff-coloured, resembled chamois-leather in appearance, and had a smooth curved surface, as if it were part of a solid ball of fibrine. The aneurism extended upwards for some little distance outside the aorta, between it and the superior cava. Just below the origin of the innominate artery, there was a rough depression on the wall of the aorta, about as large as a sixpenny-piece, having some rough lymph adherent to it. The aneurism lay just outside this; but no communication could be traced. The femoral artery was plugged, just below the origin of the profunda, by a mass of disintegrating adherent fibrin of a brown colour; it occupied a part of the artery about an inch in length. The liver was healthy. The lungs contained some œdema. The spleen weighed seven ounces; in some parts it was much blacker than at others, but was of the same consistence throughout. It could not be made out that it contained embolic patches. The kidneys weighed fifteen ounces; they presented several irregular embolic patches, some of considerable size, partly pale yellow, partly crimson from effused blood. The smaller arteries were searched with care, but no coagula could be discovered.

## SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.

### EPITHELIOMA OF THE TONGUE: DEATH FROM CHLOROFORM.

(Under the care of Mr. ARTHUR JACKSON).

H. J., AGED 56, admitted January 5th, 1875, had suffered from epithelioma of the tongue for two and a half years. The tongue was very painful and enlarged, and increased in size from the time of his admission, so as seriously to interfere with mastication. During the last three weeks, he was only able to take liquid food; and his troubles had so much increased that he willingly consented to have the whole of his tongue removed. It was decided to do this with the galvanic cautery. The heart and lungs were carefully examined, and found to be healthy; the pulse was feeble, but fair; the urine was normal. On February 19th, chloroform was administered on lint, with a view to operation. A few minutes after the commencement of the inhalation, the pulse became slightly intermittent, but soon regained its tone. As the patient struggled a great deal, the administration was continued with increased caution. After the lapse of about ten minutes, the patient appeared ready for operation, and one needle was passed into the tongue; but it had to be withdrawn at once, as, without any stertorous breathing, failure of the pulse, or blanching of the face, the respiration became irregular and ceased, but not before the chloroform had been discontinued, and artificial respiration had been commenced, together with the application of cold to the chest, ammonia to the nose, and the galvanic current to the diaphragm. These remedies, with nutrient enemata, were continued for half an hour. The pupils were dilated. The heart continued to beat for some little time after the cessation of respiration. Three drachms of chloroform were administered.

*Necropsy.*—Seventy-eight hours after death. The brain and heart were healthy; the left ventricle was contracted, the right relaxed, but neither contained clots. The blood throughout the body was black and liquid. The lungs were healthy, not much engorged with blood; but both pleuræ were adherent to the thorax and diaphragm. The trachea and bronchi contained a large quantity of grumous mucus. The stomach was distended with air, which had a strong odour of chloroform. This was not perceived in any other part of the body. The liver and kidneys were healthy.

The whole of the disease in the tongue could have been removed without much difficulty. Death in this case appeared to have resulted from paralysis of the nervous centres of respiration.

# REVIEWS AND NOTICES.

THE WEST RIDING LUNATIC ASYLUM MEDICAL REPORTS. Edited by J. CRICHTON BROWNE, M.D., F.R.S.E. Vol. iv. London: Smith, Elder and Co. 1874.

THE fourth volume of Reports, which has lately been published by the Superintendent of the West Riding Asylum, is in no respect inferior to its predecessors. Of the twelve papers contained therein, seven are by officers of the asylum, chiefly upon subjects connected with insanity, while the remainder are by physicians of note, upon brain-function or brain-disease.

The now well-known experiments of Dr. Ferrier were, as most of our readers are aware, performed at the West Riding Asylum, and described in the third volume of these Reports. The first paper in the present volume is an address delivered by Dr. Carpenter at the asylum upon the physiological import of Dr. Ferrier's investigations. The latter are now so well known that we need not dwell on them here, or on Dr. Carpenter's views of them. The third paper is one by Dr. Ferrier himself, who applies the clinical bearings of his researches to certain cases of patients, as narrated in the case-books of the asylum. The first two were cases of epileptic insanity; in both were found lesions of the cortical structure of the hemispheres. Dr. Ferrier discusses the question, whether convulsive discharges proceed from the lower centres, as the medulla, or from the cerebral hemispheres themselves, and reminds us that his experiments on the lower animals showed that convulsive attacks, with all the phenomena of idiopathic epilepsy, can be caused by irritation of the surface of the hemispheres in certain places, while there are other parts, stimulation of which gives rise to no external phenomena whatever. Case 3 was an example of cerebral tumour. Case 4 was one of aphasia complicated by dementia. There was extensive atrophy of the region supplied by the anterior cerebral artery, and on this the dementia evidently depended; there was also destructive lesion of the left hemisphere. Dr. Ferrier would localise the speech-centre in the *operculum* (Klappdeckel), which is included between the ascending and horizontal limbs of the fissure of Sylvius, and which immediately overlaps the island of Reil. Case 5 was one of melancholia with lesions of both hemispheres, especially the right, producing loss of power. Various motor centres were involved, those of the hand and mouth especially; and not only motor centres, but also sensory regions of the brain. The occipital lobes, too, were involved. When these were destroyed in a monkey, Dr. Ferrier observed a remarkable state of depression, with refusal of food, such as one finds in melancholics, and he raises the question whether, the melancholia in this woman depended on the lesion of these parts, or on the general malnutrition of the brain.

In the paper by Dr. Milner Fothergill on Cerebral Anæmia, in those of Drs. Crichton Browne and Aldridge on Acute Dementia, and the Ophthalmoscopic Observation of it; and, to some extent, in that of Dr. Lauder Brunton on Inhibition, the attention of the reader is directed to that all-important question, the blood-supply of the brain, and the causes which interfere with its healthy function. We have been ever of opinion that, by this line of investigation, the most important results will be arrived at with regard to the pathology and treatment of insanity, and no publications have done more in this direction than the present series of Reports. For it is by the effect produced on the circulation in the brain, that such substances as ergot, Calabar bean, and nitrite of amyl, are of value; and both pathological observation and the results of drug treatment agree and lead us on to fresh inquiries. It has been a fashion with some inquirers to fix their attention exclusively on the brain-cells, and to ignore the circulation in the organ and the nervous system which governs it; but on the rise and fall of the circulation the healthy action of the organ must depend; and this is shown more clearly, day by day, by physiology, pathology, and therapeutics. Dr. Fothergill reminds us of the peculiar mental changes undergone by the sufferer from advanced heart-disease, which, he says, go far to establish the conclusion that the vascular changes are not always the result of primitive changes in the brain-cells affecting the blood-supply as a secondary action, but that modifications in the vascular supply to the pia mater and grey matter of the convolutions, do exert a consequential action upon the functional working of the cerebral cells, and the thoughts evolved therefrom. When no muscular hypertrophy accompanies and compensates organic disease of the heart, the mental condition of the individual often becomes distinctly altered. Self-reliance and confidence give way to distrust and suspicion. Sustained thought is no longer possible, and mental irritability alternates with depression. The conditions under which cerebral anæmia is found, are enumerated as 1, general anæmia, proceeding from such causes as piles, menorrhagia, lactation, and the like; 2, spanæmia from blood-poisons, malaria, or acute diseases; 3, unfilled vessels; 4, disease of the heart; 5, pressure on the arteries supplying the brain; 6, embolism; 7, venous stasis; 8, apoplexy, and other forms of pressure; 9, gouty spasm of the cerebral vessels; 10, organic disease, as syphilis, involving the blood-vessels; 11, vaso-motor disturbances of the cerebral vessels; 12, artificial production by medicinal agents, as Calabar bean and bromide of potassium. Cerebral anæmia is divisible into acute and chronic, the signs of the latter being the condition of the pupil, which is generally dilated, pallor of the face and eye, and of the optic discs; the general state of the circulation, cold hands, drowsiness, and headache, are also to be noticed, and we may also find vomiting, palpitation, sighing respiration, and constipation. In treating such cases, Dr. Fothergill gives the first place to iron, opium, and alcohol.

We have not space to give an accurate analysis of Dr. Lauder Brunton's interesting and suggestive paper on Inhibition, that difficult subject, which at present occupies much of the attention of physiologists. The effects of it on muscles, glands, and vessels, will have to be considered again and again before any definite conclusions can be arrived at. Not only must we investigate what causes inhibition: it is equally important to discover what prevents it, what inhibits inhibition. "At present, our notions of nervous action seem to be getting as involved as the Ptolemaic system of astronomy; and, just as epicycles become heaped upon cycles, so nerve-centres are being added to nerve-centres; and yet, clumsy though the system may be, it serves at present an useful purpose, and may give us real aid until a better is discovered." Dr. Brunton suggests that inhibition in the higher centres may be explained by diversion of stimuli, without assuming the existence in them of an inhibitory apparatus, such as we have in the lower ones. A stimulus may excite action in a nerve-centre which may pass off partly in motion, partly in secretion, partly in vascular change, and partly in alteration of the nervous system. And the oftener it passes along any nervous path, the more readily does it find its way along that in preference to any other. Hence we see the importance of diverting the insane, who suffer from emotional disturbance, by exercise and muscular action, which will benefit not only the mental but also the visceral condition. The emotional centres, too, are inhibited by the ideational, and the conflict between these is witnessed in lunatics who request to be restrained and prevented from suicide or homicide, and in those who are powerless to abstain from alcohol, which they know to be their ruin.

Dr. Major continues his observations on the Morbid Histology of the Brain, and in this volume presents us with the result of his examination of brains in a state of Senile Atrophy. His conclusions are, that the brain-cells throughout the entire depth of the cortical layer are affected, the larger ones being usually in a state of granular degeneration, the smaller simply atrophied; that the nuclei of the cells participate, and also become the seat of granular degeneration; that the so-called hypertrophy of the cells depends on a transformation of the large pyramidal bodies, and is not confined to senile atrophy, being also found in general paralysis, and rarely in either. The vessels were most frequently dilated with enlargement of the vascular canals. The fibres were abnormally coarse and tortuous, and appeared broken down in parts; the neuroglia was atrophied and degenerate, the substance breaking down into molecular *débris;* the neuroglia-corpuscles were somewhat increased in number, and eventually shrivelled and atrophied.

Dr. Crichton Browne contributes a paper on Acute Dementia, which he ascribes to inanition of body combined with inanition of mind, the monotony of mill-life or life in prison. The disorder and its mental phenomena are described with accuracy, especially the automatic and rhythmical movements so often witnessed. M. Baillarger described this disease as *melancholia attonita,* which Dr. Browne renders atonic. The remarks on the diagnosis of the two disorders are instructive, but we must demur to the assertion that acute dementia most often arises out of physical causes. In our experience, the exciting cause has been most frequently a mental shock or fright, joined, it may be, to the effects of previous physical depression or starvation. The state of the brain in this disease is, according to Dr. Browne, one of cerebral congestion from vascular weakness; atony and increased calibre of the capillaries and veins are established, either by constitutional weakness or by nervous exhaustion, and are followed by retardation of the blood-current; the removal of the products of combustion from the brain is retarded, and the functional activity of the organ is interfered with. Œdema occurs, then compression, then atrophy, and so acute dementia passes into chronic. These views receive confirmation from the ophthalmoscopic observations of Dr. Aldridge, who discovered marked anæmia of the disc and occasionally œdema; the arteries were small, shrunken, and straight, and the veins dark.

Those interested in ophthalmoscopic research will find a paper by Dr. Hughlings Jackson on a Case of Recovery from Double Optic Neuritis. Dr. Morson contributes Observations on the Urine of Patients suffering from General Paralysis while taking Calabar bean and alcohol, and also while under no medical treatment. Dr. Benham writes on the Therapeutic Value of Cold to the Head, which he believes to be small. Other papers are, Dr. Robert Lawson's on the Hourly Distribution of Mortality, and Dr. Benham's on the Actions of Nicotine.

# SELECTIONS FROM JOURNALS.

## MEDICINE.

CHOREA AFTER DIPHTHERIA.—Dr. Baumblatt describes in the *Aerztliches Intelligenz-Blatt,* No. 25, 1874, the case of Maria D., aged 21, who, after a mild attack of diphtheria, had choreic paroxysms which set in suddenly, lasted three or four minutes, without loss of consciousness, and ended as suddenly as they had begun. Indications of a high degree of chenosis gradually appeared; the menses became scanty and rare, and she was extremely anæmic. She was treated by iron and morphia, also by an energetic use of the cold-water system. At the end of two months, she was sent to the iron-springs at Boklet, and returned in six months much improved in her general health. The chorea, however, continued, and did not disappear until she had made a second visit to Boklet in the following year; since which, four years ago, there has been no return of the malady.

TREATMENT OF SCABIES.—Dr. F. W. Clemens of Rudolstadt recommends inunction with arsenic as a means of destroying the acarus of itch. The following are the proportions of the ingredients in his formula: Arsenious acid, 1 part; carbonate of potash, 20 parts; soap-spirit (soap-liniment?), 200 parts; water, 2,000 parts. Some of this is rubbed into the affected parts twice daily. The carbonate of potash increases the solubility of the arsenic, and prevents too rapid desiccation; and the soap-spirit facilitates the passage of the remedy into the cuticle. Dr. Clemens says that he has tried this treatment for five years with complete success, and without having on any occasion observed gastric disturbance or any other ill effect.—*Allgemeine Medicinische Central-Zeitung,* December 9th, 1874.

SUBCUTANEOUS INJECTION OF STRYCHNIA IN INCONTINENCE OF URINE.—Dr. Kelp, director of the lunatic asylum at Wehnen near Oldenburg, describes the results of subcutaneous injection of strychnia in two cases (*Deutsches Archiv für Klin. Medicin,* Band xiv, Heft 3 and 4). One case was that of a girl aged 16, who was admitted with *melancholia stupida,* and was discharged cured at the end of about a year and a half. She was small and feeble, and had been badly cared for at home. From childhood, she had suffered from nocturnal incontinence of urine. Small doses of strychnia, given internally, produced no effect. But, after the injection of one-sixteenth of a grain of nitrate of strychnia dissolved in water (one grain in two drachms) in the sacral region, the enuresis ceased, and did not return for some days. The injections were repeated from December 17th, 1867, to April 3rd, 1868, whenever the enuresis returned; it appeared at gradually increasing intervals, and at last ceased. The dose of strychnia was increased to one-sixth of a grain. During the whole time, not more than four grains were used. For a year after her discharge, she resided near the hospital, and was occasionally troubled with incontinence of urine, which was removed by a repetition of the remedy. She has since married, and has not come under Dr. Kelp's notice; from which he concludes that the enuresis has not returned. The second patient was an imbecile girl aged 20, who had suffered from enuresis from childhood. The treatment was the same as in the former case, and the result was as good; but Dr. Kelp does not know whether the result is permanent, as he has not heard of the patient since she left the asylum. The treatment was continued for about two years, during which about ten grains of strychnia in all were used. The intervals between the attacks of enuresis varied from some weeks to a few days. The usual dose was one-seventh or one-eighth of a grain; but, even when this was used daily, no general action on the system was observed.

CADAVERIC POISONING.—Dr. Odenius of Lund, in vol. vi of the *Nordiskt Med. Arkiv*, agrees with Neumann, Hüter, and Cohnheim, that infection from the dead body may take place through the sound skin through the medium of the follicles. The sweat-glands, however, in consequence of their structure, are less favourable to this than are the others. He observed some time ago that, after making *post mortem* examinations, the hands of himself and his assistants became covered with pustules; and at length it was found that this arose from the friction of the hands with cocoa-butter, which had stood in the room for a long time and had become rancid. In 1871, he made an experiment on himself, which was troublesome, but convincing. After examining a recently dead body from pneumonia, he perceived the next day a painful swelling on the anterior surface of the forearm. There was no wound; not the slightest laceration; but at the necropsy a little fluid from the body had come into contact with the arm, and had been pressed on it by the wristband of his shirt. Sloughing of a portion of skin took place at the part. While the disorder was at its height, Dr. Odenius observed that movements of the muscles of the forearm were attended with rigors, which he attributed to the increased entrance of pyrogenous material into the lymphatic vessels. During the next year, he had several opportunities of making similar observations on himself and his assistants. He remarks that similar symptoms of poisoning are produced by attendance on difficult labours, which require long continued operations and manipulations. In any case, in order to produce the effect described, there must be a certain predisposition, a fine skin, etc., or a continued and close contact of the infective material with the cutaneous follicles.

## SURGERY.

TREATMENT OF MALIGNANT LYMPHOSARCOMA BY ARSENIC.—This plan is not novel. A large number of surgeons, since Lefebure de Saint Ildefond, have used arsenic either internally or as a topical remedy for cancer; and, although the majority have not published any successful results which may be exclusively attributed to that agent, they appear to have obtained some good effects from its use. Dr. Tholen reports four cases of lymphosarcoma treated by arsenic in the practice of Professor Czerny, in one of which the administration was obliged to be relinquished in consequence of serious accidents to the sight and hearing which supervened. In another case, an enormous ganglionic tumour ceded rapidly to the administration of Fowler's solution; but a serious hæmophilic condition developed itself, which rendered it necessary to suspend the treatment. At the same time, the spleen showed an increase in size, which soon made rapid progress. In the two other cases, Fowler's solution, employed internally as well as in interstitial injections, induced a cure. One especially was at first thought to be an epithelial infiltrated cancer. The author gives expression to some doubts on the exactness of this diagnosis, and is inclined to consider it a malignant lymphosarcoma. He compares these four cases with two others already made public by Billroth, and sees in them a confirmation of the opinions which were formerly held respecting the efficacy of arsenic for cancer. As to the method of administration, he recommends the greatest reserve in the employment of Fowler's solution in interstitial injections, and proposes to reserve the latter for instances of true cancer. The lymphosarcomata would be sufficiently modified by the internal administration of arsenic. The interstitial injections, possessing much greater local activity, are not devoid of danger, as two of the cases sufficiently prove.—*Archiv für Klin. Chirurgie*, vol. xvii, fasc. 1.

## THERAPEUTICS.

ACTION OF EXTERNAL APPLICATION OF WATER, ETC., ON THE CEREBRAL BLOOD-VESSELS.—Schüller of Laubbach has made a number of experiments on rabbits to ascertain the effect on the cerebral vessels of the external application of warm and cold water, etc. His paper is published in the *Corresp.-Blatt der ärztl. Vereine in Rheinland, Westphalen, und Lothringen*, No. 14, 1874). The animals were trephined, and in course of time the cervical sympathetic on one side was removed. Some of them were curarised. The following were the results which he obtained. 1. Dilatation of the vessels of the pia mater is produced by laying compresses soaked in water at a temperature of 50 Fahr. on the abdomen, and in a more intense degree and of longer duration by immersing the animal in the water. If the action of the cold water be continued for five or ten minutes, the result is gradual contraction of the cerebral vessels, which often lasts half an hour. 2. The application of warm water (95 to 99.5 Fahr.) always produces strong contraction of the vessels, which lasts for a longer or shorter time. 3. Douches on the belly or back generally produce alternating changes in the calibre of the cerebral vessels. 4. The injection of water into the rectum is attended with moderate dilatation of the vessels. 5. The usual result of the cold pack is a gradually increasing and very energetic contraction of the vessels of the pia mater, which often lasts two hours. At the same time, the pulse and respiration become slower, and reflex irritability is reduced. 6. Ice laid on the intact skin of the head produces after some time a moderate contraction of the vessels. 7. Friction of the abdomen always produces contraction. The results were observed in curarised animals in a less marked degree than in those not so prepared. Section of the vagi has no influence on the changes in the vessels. Schüller makes some further remarks of physiological interest; and, with regard to the practical part of the subject, observes that the use of extreme temperatures is contraindicated in cases of cerebral hyperæmia, anæmia, and congestion, especially where the muscular structure of the blood-vessels is impaired. He attributes the beneficial influence of the various forms of baths partly to the depletion of the cerebral vessels, partly to the establishment of normal tone in the muscular structure of the cerebral vessels, to strengthening of the cardiac muscle, and to improved nutrition both of the nervous centres and of the whole organism. The chief point of interest in Schüller's communication is, that the action of baths is not limited to the temperature and the change of substance, but that changes in the distribution of the blood, in respiration, in the action of the heart, and in excitability of the nerves, form part of the physiological results of this agent.—*Allgemeine Medicin. Central-Zeitung*, No. 94, 1874.

ACTION OF CERTAIN MEDICINES ON THE VESSELS OF THE BRAIN.—Schüller (*Berliner Klinische Wochenschrift*, Nos. 25 and 26, 1874) performed experiments on rabbits by removing, with a trephine, a portion of the upper part of the parietal bone without injuring the dura mater, and generally at the same time taking away the cervical sympathetic with the superior cervical ganglion of the same side. He was thus able to observe the vessels of the pia mater, and to notice any changes in their filling. The substances with which he experimented were mustard, nitrite of amyl, ergotin, opium, and chloroform. Small sinapisms produced scarcely any effect on the vessels; the application of large ones, on the one hand, was first regularly followed by dilatation, which was followed by more or less rapidly alternating changes in the calibre of the vessels, and finally by contraction, which often continued an hour and a half after the removal of the sinapism. To explain these phenomena, Schüller supposes that at first the irritation of the sensory cutaneous nerves produces, by reflex action, a partial paralysis of the vaso-motor nerve-fibres (dilatation), and that later on the influence of the peripheral congestion exerts its influence and ultimately gains the upper hand (oscillations of calibre and contraction).—After nitrite of amyl, there was a very evident dilatation of the vessels of the pia mater, both arteries and veins. It could be observed even on the side where the sympathetic had been injured, and where there was already dilatation of the vessels; and took place both after section of the vagus and in curarised animals. This action, according to Schüller, depends on the degree of filling of the vessels, and the capability for reaction of their muscular structure.—Ergotin produced a strong and long-continued contraction of the vessels of the pia mater, even on the side where the sympathetic was injured. Schüller regards ergotin as standing in a certain antagonistic relation to nitrite of amyl, inasmuch as the contracting action of the former overcomes the dilating action of the latter. Opium produced first dilatation, then contraction.—After the inhalation of chloroform, there was a commencing contraction of the vessels; but very soon they became relaxed, and well marked venous stasis was developed. Nitrite of amyl not only very quickly removed this action on the vessels of the pia mater, but, when chloroform narcosis was carried to a far more advanced stage, under the action of nitrite of amyl the laboured dyspnœal respiration and the pulse quickly recovered themselves, and in a remarkably short time reflex excitability was restored.

## BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1875.

SUBSCRIPTIONS to the Association for 1875 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, FEBRUARY 27TH, 1875.

## THE ARTISANS' DWELLINGS BILL.

IN our last article on this Bill, we pointed out numerous defects, and shall now state some of the amendments which we consider to be necessary for its satisfactory working.

In Clause 3, we showed that the basis on which the report of the medical officer of health is to be formed is too limited; and we therefore propose that the words contained in the preamble should be added, so as to enable him to state that an improvement-scheme is required, if the houses situated within the area be uninhabitable from want of light, air, ventilation, or of proper conveniences, or because the sanitary defects in such area cannot be otherwise remedied, in consequence of the closeness, narrowness, and bad arrangements of the streets and houses situated therein. We are also of opinion that, if there be any spaces of ground which have been, or may hereafter be, rendered vacant under the provisions of Torrens's Act, the local authority should have power to purchase the ground compulsorily, in the same manner as if it were still occupied by houses. We are also of opinion that Clause 3 should be amended by the addition of such words as would compel the local authority, in the event of their not taking action on the "official representation" of the medical officer of health within four months after receiving the representation, to forward a copy thereof to the "confirming authority", together with their reasons for not taking action.

As regards Clause 4, we think that the medical officer of health should have the assistance of a surveyor, and, in the metropolis, of the district surveyor, in coming to the conclusion (see Clause 3) "that the sanitary defects in such area cannot be effectually remedied otherwise than by an improvement-scheme for the rearrangement and reconstruction of the streets and houses", or some of them, in such area. It is manifestly unjust that "a medical officer, acting in pursuance of this Act, shall make such representation whenever he sees cause to make the same", or that he shall be compelled to inspect any area deemed unhealthy by any twenty ratepayers of the district, and make an official representation thereon, without having the assistance of a surveyor or a medical officer of the Metropolitan Board of Works, or of the Local Government Board, as the case may be. There are many places regarding which medical opinions would differ as to the necessity for reconstruction, or where the local medical officer of health, being in doubt, would not take action, unless he had the power of calling in some consulting officer of a superior Board. We, therefore, think that Section 9 should be so altered as to enable the Local Government Board for all extra-metropolitan places, and the Metropolitan Board of Works for all metropolitan places, to send a medical officer to assist the local medical officer; or, if deemed necessary, to make a special sanitary inquiry into the condition of any suspected localities. These officers should be permanently appointed, and not temporarily, as suggested by the ninth clause.

The fifth clause might be amended, as we suggested in our last, by allowing the new houses to be erected a short distance from the old area, if deemed advisable.

By Clause 6, the local authority is required to serve a notice on every owner, etc., of any lands proposed to be taken compulsorily, requiring an answer whether he assents or dissents in respect to the scheme; and it is provided that the notice may be sent by post as an ordinary prepaid letter, or served personally or at his house. Surely the sending it as an unregistered letter should not be sufficient service; and this is especially noteworthy, as by the same clause the petition from the local authority to the Secretary of State or Local Government Board shall state the names of the owners, etc., who shall dissent "in respect of the taking of their lands". What about the owners, etc., who may not have received notice, or from other cause, have not replied? Are they to be considered as affirming the scheme? Proof also is required of the serving of the notices; but it is not stated how the serving of the notices sent by post is to be proved.

Passing by some other technical objections, we notice that a provisional order made by the confirming authority, authorising the local authority to carry out the scheme, "shall not be of any validity until and unless it has been confirmed by Act of Parliament"; and, when confirmed with such modifications as shall seem fit to Parliament, it shall be deemed a public general Act. Surely there cannot be any necessity for the confirming authority to go to Parliament and put the local authority probably to the expense of a parliamentary opposition, for the sake of houses worth only a few hundred pounds. How much better would it be either that below a certain value, say £500, or when fewer than a certain number of houses were concerned, this should be unnecessary. The scheme is expensive enough without adding this burden, which may be very heavy, in addition to those previously mentioned. This clause also provides that all costs, expenses, and charges incurred by the confirming authority, or any person to whom they are allowed, shall be paid by the local authority by a given time, with interest at five per cent. per annum, should the confirming authority so determine. This power of charging interest should not be allowed, especially as the order may be made a rule of one of Her Majesty's superior courts, and be enforced accordingly.

As regards the acquisition of lands, it is proposed that the estimate of the value shall be based upon the fair market-value of the lands or interests proposed to be taken, but without additional allowance for compulsory purchase. Now this, although definite enough as regards the lands, is most indefinite as regards the other interests: as, for instance, how is the value of a term to be computed when the houses to be taken are let out in separate tenements, and bring an enormous rental, as compared with their structural value? Would it not be better to enact that the value shall be computed on the rental of other similar houses in the vicinity not underlet—subject, however, to deductions for dilapidations, etc.; or that it should be based on its structural value? It is true that, in the first and second clauses of the schedule, it is stated that the schedules of the lands forwarded by the local authority to the confirming authority "shall be accompanied with an estimate of the annual value and saleable value of such lands"; the annual value to be the amounts stated in the last valuation-list, or the gross value or estimated rental in the last poor-rate. If the fair market-value should be assessed on this basis, with a deduction for dilapidations, and not on the rental realised by subletting, an unobjectionable award might be made, especially as the word lands in the interpretation-clause is defined to include "messuages, lands, tenements, and hereditaments of any tenure".

We would propose another amendment to which we attach considerable importance; viz., that the local authority should be empowered to include property adjoining the unhealthy area, if in their opinion the possession of such property were necessary for perfecting the scheme of reconstruction. Of course, in such cases, parliamentary sanction of the plans should be obtained, unless an agreement be entered into by arrangement between the local authority and the owners and others possessing an interest in the lands proposed to be taken. As the Bill now stands, an improvement-scheme can be compulsorily carried into effect only as regards the lands which are situated within the area declared to be unhealthy.

The provisions contained in the thirty-third clause of the schedule are, with the exception of the proposed arrangements for appeal from the decision of the arbitrator, so technically legal, that we do not propose any amendment thereon. But we must again express our opinion against an appeal from the decision of the arbitrator being carried to a jury, except for a larger sum than £500; and we would propose that the limit fixed should apply not only to the local authority as at present, but should extend to every person interested who shall be dissatisfied with the award. We also object to the local authority having to pay a sum not exceeding £20 as costs to the person appealing against the decision of the arbitrator, in the event of the verdict of the jury being for a less amount than the sum awarded by the arbitrator; and, on the contrary, would propose as an amendment, that the costs of a trial by jury, if allowed by the Act, should abide the issue of the trial, as in every ordinary case. It is true that this payment is required to be made only when the local authority is the appellant, but we do not perceive any good reason for making this distinction.

In conclusion, we must again express our opinion that the principle of the Bill is valuable, but that it is so weighed down by the cumbrous machinery and the enormous expenses to the local authority, that it will never be carried out to any extent, except by agreement, unless it be very much simplified in Committee.

## JABORANDI.

THE new drug, like other new drugs, is rising into notoriety. Fortunately for its ultimate position, it has fallen, from the first, into good hands. It has not attained, at a single bound to the proud eminence of a panacea, only to sink after a few months of popularity into deserved contempt.

The leaves, introduced to the notice of the Parisian medical world by Dr. Coutinho of Pernambuco, are derived from a plant growing in Brazil; their precise origin, however, has not as yet been satisfactorily ascertained. Botanists refer them to the natural order Rutaceæ (*Pilocarpus pinnatus*, Baillon); while pharmacologists are more inclined to believe that they are derived from some Piperaceous shrub. They contain a volatile principle, and a tasteless substance, soluble in water, both of which are physiologically inert; the active properties of the drug residing exclusively in a bitter extractive, soluble in alcohol, but insoluble in water. An alkaloid was searched for by Rabuteau, but none was found.

The original reputation of the drug as a sialagogue and diaphoretic may be said to have stood the test of inquiry by competent and independent observers. Gubler, Rabuteau, and Vulpian in France; Ringer, Gould, and Martindale in this country, have furnished adequate materials for a general sketch of its action. Though differing in minor points, observers are unusually unanimous as regards the more important of the effects produced.

Shortly after the administration of a dose of sixty grains of the leaves, a copious perspiration breaks out all over the body; the face is flushed, the pulse is usually quickened from twelve to forty beats, and the temperature falls from .4 deg. to 1.4 deg., the depression lasting from one to four hours. The sweating is very constantly associated with profuse salivation—the quantity of saliva in one case amounting to twenty-seven ounces. Nausea and vomiting sometimes occur, attended by pallor and prostration, and occasionally by drowsiness. The pupils are usually contracted, and vision may be impaired. On the day of administration, the quantity of urine is said to fall considerably below the normal standard; the reduction taking place not only in the urinary water, but in the urea, uric acid, and chlorides also. On the succeeding day, however, a corresponding excess of all these excreta is observed. Sphygmographic tracings, taken before and during the operation of the drug, show that it causes a marked lowering of the systemic blood-pressure, owing to relaxation of the arterioles. It was further noticed by Ringer and Gould, who have published a very careful and precise account of the results produced by the administration of jaborandi to thirty-seven persons, that children were far less susceptible to its action than adults. Even the nausea provoked by the drug failed to excite sweating in some of the younger subjects.

The facts just enumerated suggest the existence of a very curious relation between jaborandi and belladonna, a relation partly of analogy, but mainly of opposition. Jaborandi resembles atropia in quickening the pulse, flushing the face, and in exerting a more decided influence on adults than on children. On the other hand, it is diametrically opposed to atropia in its action on the salivary, sudoral, and mammary secretions, on the pupil, and on the minute arteries. Further, the tendency of belladonna to cause delirium, contrasts with that of jaborandi to cause prostration and sleepiness.

Several of these points have been studied in some detail, and merit further consideration. And first, as regards its sialagogue action: the influence of atropia in checking the flow of saliva from the submaxillary gland has been shown to be independent of the vaso-motor nerves. Heidenhain's experiments, which have since been repeated and extended by others, render it tolerably certain that this phenomenon is due to paralysis of the terminations of the secretory filaments of the chorda tympani. The effect of muscarin (the active principle of the *agaricus muscarius)* has been shown by Schmiedeberg and Koppe to be exactly antagonistic to that of atropia, *i. e.*, to cause profuse salivation by stimulating those nerve-ends which are paralysed by the latter alkaloid. The mode of action of jaborandi seems in this respect to be identical with that of muscarin. It has been proved, both experimentally and clinically, that atropia is able to arrest the flow of saliva caused by jaborandi; and Ringer found that a dose of the latter drug speedily removed the dryness of the mouth in a case of accidental poisoning by atropia. The antagonism between the two is quite as definite in relation to the secretion of sweat as to that of saliva. Sweating after jaborandi may be prevented or checked by the subcutaneous injection of one-hundredth of a grain of atropia. Vulpian has even gone so far as to found a hypothesis concerning the nervous mechanism by which the perspiratory function is regulated, on the analogy of the antagonism in the two cases. He thinks it probable that the activity of the sweat-glands is under the control of nerve-fibres analogous to those supplied to the submaxillary gland by the chorda tympani, and that it is more independent of the vaso-motor system than is commonly supposed.

Next, as regards the eye: belladonna acts, not only on those branches of the third nerve which supply the circular fibres of the iris, but on those which supply the ciliary muscle also. Hence the dilatation of the pupil is accompanied by palsy of accommodation, making near objects seem blurred and indistinct. Tweedy has shown, by experiments on his own eye, that the topical application of an extract of jaborandi causes, not only contraction of the pupil, but temporary myopia, due to spasm of accommodation. There is also some retinal weakness; but the effects are all transient, passing off in a few hours.

The antagonism between belladonna and jaborandi is thus many-sided; its precise limits, however, still remain to be determined. The relation of jaborandi to Calabar bean also requires to be worked out; so far, nothing seems to have been done in this direction. There is still plenty of room for researches like those of which Mr. Langley contributed an instalment in last week's JOURNAL; and such researches are quite certain to bear fruit.

But all this is physiology. We may know that jaborandi has well-marked powers, and yet be ignorant whether those powers admit of being turned to any useful end. To say that a drug is a potent sialagogue and sudorific, is to say very little about its value in the treatment of disease. Mercury is a most active sialagogue; but it is in spite of this property that we continue to give it in secondary syphilis. It may be that specific virtues of which we know nothing lie wrapped up in the new remedy; but such virtues cannot be discerned *à priori*; they blossom only at rare intervals, and when they are least expected. But short of this highest destiny, the new drug may still have an useful future open to it, not perhaps as a sialagogue—for the practical uses of sialagogues are few—but as a sudorific. At the outset of acute febrile disorders, such as simple pneumonia, when the skin is dry and pungent; in some forms of chronic Bright's disease, when the arterial tension is high, and the skin can hardly be made to act by hot air baths; in these and similar conditions, jaborandi may be expected to do good service. Its depressant influence on the heart should be remembered; it has been known to do harm in rheumatic fever, complicated by endocarditis. It may, perhaps, find a place in ophthalmic practice, by the side of physostigmin; it may turn out to be a trustworthy antidote in poisoning by belladonna. But these, and all other suggestions must be tested at the bedside; and we may hope that the same competent observers who have furnished us with so much accurate information about the physiological properties of jaborandi, will supply us with evidence of equal scientific value concerning its strictly *remedial* efficacy. The leaves seem at present to be almost unattainable; but the demand will, doubtless, speedily create an adequate supply.

## FALLACIES IN MEDICAL INVESTIGATION.

THE most valuable parts of the able address of Sir William Jenner to the Clinical Society, which we published last week, were, we think, those in which he indicated the true method to be followed in the advancement of medical science, and pointed out some fallacies to be avoided in the investigation of disease.

Of the latter, he mentions the statement of Wunderlich, that "we may exclude typhoid fever when between the fourth and sixth day, in a child or adult under middle age, the temperature never reaches 103.1 deg."—a statement which, Sir W. Jenner says, is evidently based on hospital experience, which, as regards enteric fever, is of little or no value, inasmuch as this fever is rarely sent to hospital earlier than the middle or end of the second week.

Another, and very common, fallacy is what Sir W. Jenner terms incomplete diagnosis. He tells us that the late Sir Benjamin Brodie had great confidence in the bichloride of mercury in the treatment of paraplegia, and that he and others prescribed it indiscriminately in all cases of loss of power in the lower extremities. Sir Benjamin failed to see that the paraplegic cases in which he found the bichloride successful were of syphilitic origin, whilst others who happened to administer the remedy in succession to non-syphilitic cases declared the remedy to be useless. Sir W. Jenner, referring to the want of facts concerning the early symptoms of specific diseases, points out the important service which may be rendered to medical science by the general practitioner; and we hope that Sir W. Jenner's words will not fail to stimulate those in general practice to contribute their quota to the general good.

Speaking of the origin *de novo* of enteric fever, he says:—"I do not say, nor do I think, that the arguments and facts able to be adduced in favour of the origin *de novo* of the contagious diseases are conclusive; but I do say, and I do maintain, that they are strong enough to make us pause before we accept the theory advocated by Dr. William Budd, and to which Professor Tyndall has lent the weight of his great name—a weight which would, however, be greater on the point in question, if he had himself studied the subject on which he has, I am sorry to say, addressed the public in a strain calculated to check unprejudiced individual inquiry." His remarks on the treatment of epidemic diseases ought to be seriously considered by every member of the profession. On this subject, he says:—"When any acute specific disease is epidemic, the educated public call loudly for a cure, and too often, I think, the members of our profession call out as loudly 'Eureka!' Now, to me it seems that there are no grounds for expecting that a cure will ever be found for diseases of this class; that is to say, for expecting that a drug or medicinal agent will be discovered capable of arresting the progress of the organic changes which, set in motion by a special cause, following each other in definite and ascertained order, constitute what we call an acute specific disease; for, in place of being diseased actions, these several organic changes, the evidence of which we call symptoms, are, so far as our present knowledge extends, processes, the first of which, being called into action by some external cause (for example, the poison of the disease), are essential for the restoration of the intimate organic changes to the order and intensity which constitute health."

## BEER AND THE ADULTERATION ACT.

A DEPUTATION of hop-growers and others interested in the purity of beer waited on Mr. Sclater-Booth on Tuesday last, to urge upon him the necessity of repressing the adulteration of beer with hop-substitutes.

For a long period, terminating in the year 1862, the adulteration of beer with hop-substitutes was forbidden under penalties; but in 1862, when the duty on hops was repealed, the penal clauses against the use of hop-substitutes lapsed; and since that time the adulteration of beer with bitters of various descriptions has assumed alarming proportions. The extent to which this species of adulteration is now practised may be judged of from the fact (alleged by the deputation) that during last week as much as a hundred and fifty tons of these substitutes were sold.

There is a great deal of mystery attached to these substitutes; but some varieties are believed to consist mainly of quassia. Some of them (we cannot tell with what degree of truth) are said to contain traces of strychnine.

Viewed from the sanitary standpoint, we would remark that, whilst we know that the habitual drinking of hop-beer in moderation is not injurious to the public health, we do not know that strychnine-beer, or even that quassia-beer, would be safe as a general and daily beverage. Hop-beer has been in use for a hundred and fifty years, and has commended itself to the general public; but when hop-beer was first introduced there was much prejudice against it, as there is now against strange bitters, and it would never do to prohibit the making of beer with strange bitters, otherwise we might perchance refuse a bitter better than hop, if such there be in existence.

What the hop-deputation asks is, not that the making of strychnine-beer or quassia-beer may be rendered penal, but that the selling of strychnine-beer or quassia-beer to a customer who wants hop-beer may be prohibited. The hundred and fifty tons of hop-substitute sold last week will by-and-by enter into beer, which will be offered for sale to the public, who will buy it as hop-beer.

Under Section 6 of the new Adulteration Act, it will be possible to prosecute a tradesman who sells quassia-beer under the name of beer (or hop-beer); and if that mischievous word "knowingly", and the perverse clause about "usages of trade" and the warranty-section be removed from the Act, we may hope for convictions.

AT a meeting of the members of the Royal Geological Society held on the 11th instant, Sir Robert Kane, M.D., F.R.S., was elected President for the ensuing year.

THE dignity of Knight of the Order of the North Star has been conferred by the King of Sweden and Norway on Dr. Leopold Wittelshöfer, editor of the *Wiener Medizinische Wochenschrift.*

THE cross of commander of the Russian order of Stanislaus has been conferred on Professor Zeissl of Vienna, in recognition of his services to science.

IT having been determined to close the accounts of the Anstie Memorial Fund this day (Saturday), it is urgently requested that all contributions should be sent immediately to the Honorary Secretaries, Mr. R. Brudenell Carter, 69, Wimpole Street, or to Dr. Wharton Hood, 65, Upper Berkeley Street, London.

PROFESSOR HESCHL of Gratz has been nominated Professor of Pathological Anatomy, and Professor Lieben of Prague Professor of Chemistry, in the University of Vienna.

THE Corporation of Kingston-on-Thames has accepted the offer of the Native Guano Company, to treat the sewage of the town at their own expense and risk, and undertake that no nuisance shall arise from the process.

AT a meeting of the Council of the Royal College of Surgeons on Thursday last, the fine portrait of Sir William Fergusson, painted by Rudolf Lehmann, was presented. The engraving from it is nearly completed. The portrait of another President of the College, Mr. Henry Hancock, painted by Richmond, was publicly presented to that gentlemen at the hospital last week. As a likeness, we cannot speak of it in such high terms as that of Sir William, which is excellent.

THE German Public Health Association will meet in Munich from September 12th to 15th. The meeting of the German Association of Naturalists and Physicians in Gratz will commence on September 18th. Visitors will, therefore, be able to attend both meetings. Several important subjects in sanitary science will be discussed in the Public Health Department of the latter Association.

### THE ARTISANS' DWELLINGS BILL.

AT a recent meeting of the Marylebone Vestry, the Chairman of the Parliamentary Committee drew attention to the Artisans' Dwellings Bill introduced into Parliament by the Government. A general opinion was expressed that it would have the effect of enormously increasing the rates in most of the large and well-built parishes of the metropolis, as it would hold out a premium to the owners of small and dilapidated property to get rid of it at prices which they could not otherwise obtain in the market; in fact, that it would tax the large suburban and West-end parishes for the reconstruction of the old and tumble down property at the East-end. It was ultimately resolved, to await the action of the other parishes, and co-operate with them in pointing out to the Government the evil effects of the measure as it stands.

### EXTRAORDINARY HIGH TEMPERATURE, WITH RECOVERY.

IT is ordinarily held in works on temperature, and especially by Wunderlich (*Medical Thermometry*, p. 7), that a temperature of 107.5 degs. is incompatible with recovery; that the temperature may rise, but the rising temperature is destructive to the patient. In an interesting and important paper in the January number of the *American Journal of the Medical Sciences*, on cerebral rheumatism, by Dr. Da Costa of Philadelphia, a case is given of recovery after a temperature of 110 degs. It occurred in an Irish girl with acute rheumatism in the Pennsylvania Hospital. The day after admission, the temperature was 105½ degs.; two days afterwards, the skin was moist, but not excessively damp; the pulse was 120, the respirations 24, the temperature 103.5 degs. In the evening, pulse 104, respirations 24, and temperature 110 degs, two observations confirming this record. This is probably the highest temperature followed by recovery upon record. The practical interest of it is to decrease the hopelessness which attaches itself to temperatures over 107.5 degs.

### ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE following gentlemen have been nominated as the Officers and Council of this Society for the year 1875-76. *President:* *Sir J. Paget, Bart., D.C.L., F.R.S. *Vice-Presidents:* *Edw. Ballard, M.D.; *Sir Wm. Jenner, Bart., M.D., K.C.B., D.C.L., F.R.S.; *Charles Brooke, M.A., F.R.S.; *J. Marshall, F.R.S. *Treasurers:* Wm. Wegg, M.D.; John Birkett. *Secretaries:* *John Harley, M.D., F.L.S.; J. Cooper Forster. *Librarians:* Francis Sibson, M.D., F.R.S.; Timothy Holmes. *Other Members of Council:* *Andrew Clark, M.D.; William H. Dickinson, M.D.; *Wilson Fox, M.D., F.R.S.; William O. Priestley, M.D.; Hermann Weber, M.D.; George W. Callender, F.R.S.; *George Gaskoin; John Gay; *Thomas Smith; John F. Streatfeild. Those to whose names an asterisk is prefixed have not held the same office during the past year. The annual meeting for the election of officers will take place on Monday next at 8 P.M.

### THE PROVIDENT KNOWLEDGE SOCIETY.

WE have received a copy of a tract upon Provident Dispensaries which has recently been published by the Provident Knowledge Society. This Society is under the patronage of Lord Derby, Lord Shaftesbury, and other distinguished men; and Mr. G. C. T. Bartley is the Honorary Secretary. Its object is "to endeavour to make *regular* weekly saving a national habit, and so to increase the facilities for saving that it shall be as easy for a man to put by a small sum as it is now for him to spend that sum in beer or spirits". The Society has published a series of tracts upon *Penny Banks*, *Pensions*, *Insuring One's Life*, and other subjects, which are intended to promote thrift and forethought among the working classes; and of these tracts many thousands have been circulated. The tract before us is the latest of the series, and an excellent pennyworth it is. It deals with the whole question of provident dispensaries, as they can be carried out in villages, in small towns, and in great cities; and a mere glance at the headings of the section is sufficient to show in what a clear, concise, and business-like manner the whole subject has been treated. The aim of the writer evidently is to get rid altogether of gratuitous attendance in sickness, and to bring the provident system within the reach of all. This, we believe, is what the opinion of the medical profession is tending to more and more distinctly; and there can be no doubt that, if it could be carried out, it would be much for the advantage of society at large, as well as an act of justice towards the doctors.

### ON SOME EFFECTS PRODUCED BY SEWER-AIR.

AMONGST the subjects which were brought under the notice of the Birmingham Sanitary Conference, in the discussion which followed on the reading of the papers which had been specially prepared, one of the most interesting was the experience which Dr. A. Fergus of Glasgow had acquired after a series of experiments as to the value of water-trapping as a means of preventing sewer-air from entering into dwelling-houses. The principal object Dr. Fergus had in view, was to show that the few inches of water, which are as a rule placed as a barrier between the sewers and the interior of houses, and which are dignified by the name of a syphon-trap, afford in reality no protection against sewer-poisoning. At one time, Dr. Fergus thought it quite possible to keep the results of the decomposition which is constantly going on in sewers out of houses, but he has abandoned this opinion with great reluctance, and he states that he has been led to the views which he now holds, after considerable experiment, observation, and reflection. Dr. Fergus exhibited at the Conference a number of decayed and perforated soil-pipes, the perforations being from within outwards, and being so situated on the upper surface of the pipes, that the destruction of lead could not possibly have been caused by any fluid which had passed through the pipes. The pipe, which was most frequently so affected, was stated to be the cross one, leading from the closet to the main descending soil-pipe; and if there were a bend or arch in the pipe, the upper surface of the bend or arch would become perforated. Now, how does such a destruction of good and well-made soil-pipes take place? Dr. Fergus answers, unhesitatingly, that it is due to the action of sewer-gas; and he supports this view by showing the increased rapidity with which the destructive action takes place, when the soil-pipes are unventilated. Attention, it appears, was first drawn to this condition by the frequency with which complaints were made of offensive odours arising near the water-closets, in houses where cases of enteric fever and diphtheria had occurred; and inquiry as to the general sanitary circumstances of these houses, and as to the history of the patients who were attacked, seemed to leave but little doubt that the offensive and dangerous effluvia emanating from these perforated pipes and the diseases in question, were related to each other as cause and effect.

But what is most striking is the fact that these house soil-pipes were in each case trapped before they entered the drains, and yet the sewer-air was able to get through the trapping and destroy the lead. The question naturally arises, Can this be due to some great tension in the sewer, either from its entering a tidal river or from any other cause, resulting in a temporary failure of the trap? Or, again, Can this state of the soil-pipes be peculiar to Glasgow, and has it been produced by some chemicals getting into the sewers? In answer to these questions, Dr. Fergus, who has dealt fully with this subject, in an address which he delivered before the Sanitary and Social Economy section of the Glasgow Philosophical Society, states that the cause must be one of pretty constant action, sewer-air being absorbed by the water on the sewer side of the trap and discharged on the house side of it, in sufficient quantities to produce the result described; and, with regard to the second question, many inquiries are stated to have been made, and the same thing was found existing in every water-closet town in reference to which Dr. Fergus obtained information. Speaking generally, it appears that where the soil-pipes are closed, or unventilated, this distructive action has been found to take place in about twelve years, the extremes of variation being from a minimum of eight to a maximum of twenty years; whereas when the soil-pipes are ventilated, as by being carried up to the roof of the house where they are left open to the external air, the time required for their perforation may be stated to be nearly double. Applying this experience to water-trapping in general, Dr. Fergus asserts that, however well drains may be trapped, sewer-gas will find its way through them into our houses; and with a view of illustrating this, certain experiments were made, the results of which were brought before the Birmingham Conference. A series of tubes were procured, bent so as to resemble the trap which is ordinarily, though erroneously, called a syphon-trap, and in the lower curve of each of these tubes water was placed to effect the trapping. Various gases were then admitted without pressure into the tubes. The first experiment was carried out with ammonia, and it was found that in fifteen minutes it had passed up the tube through the water, and had discharged the acid with which some litmus paper, suspended over the upper surface of the water, had been reddened. Very similar results were produced with other gases, quite irrespectively of their being lighter or heavier than atmospheric air; thus sulphurous acid passed through the water in an hour, and carbonic acid gas and sulphuretted hydrogen in about three hours. The same experiments were repeated after an open pipe had been inserted into the bend of the tube, so as to resemble the ventilating pipe of an ordinary water-closet soil-pipe, and the same results were obtained, although the reaction was in each case longer in showing itself. The results obtained by Dr. Fergus are extremely interesting, and they point out strongly how misplaced is the confidence which the public have been led to repose in the traps with which every house is provided, and how important it is not only thoroughly to ventilate our house-drains, but to subject our soil-pipes to periodical examination. How far similar results would be produced provided the public sewers were thoroughly ventilated by the admission of an abundance of atmospheric air into them, as well as by the provision of ample means of egress for the foul air, we do not know; but we should hardly be doing justice to Dr. Fergus, unless we stated that he has arrived at the conclusion that excreta should either not be admitted into our sewers at all, or if admitted, they should first be subjected to such chemical action as would render their decomposition impossible.

### THE HOSPITAL SATURDAY FUND.

A MEETING of the Council of the Hospital Saturday Fund has been held, to receive the final report of the Audit Committee, to agree to a scheme of distribution, and to make arrangements for this year's collection. The Treasurer's report showed that the total sum raised slightly exceeded £6,300; and, after deducting expenditure, there remained an available balance of £4,900. Out of this balance, the Council proposed that £4,500 should be distributed, while the remainder should be carried forwards towards the expenses of the current year. It will thus be observed that only a little more than two-thirds of the sum collected has found its way to the institutions which were to be benefited. Further, it was agreed that two-thirds of the amount should be allotted to hospitals, and one-third to dispensaries. This division does not, however, appear to have been strictly maintained, for we notice in the list of dispensaries the names of several special hospitals. The Committee of Distribution presented a report to the meeting, explaining the principles upon which they had made their awards. No grant was allotted to any institution which had not answered the questions sent out by the Council; and these questions, we may mention in passing, were of rather a troublesome and vexatious kind. In each instance, the amount awarded was regulated by marks. The hospitals and dispensaries were drawn up like schoolboys, and examined as to (1) the quantity of work they had done, (2) the economy they had practised, and (3) the efficiency they had shown. To each institution, marks were given under each of these three heads. We have no clue as to the way in which the Committee judged of the efficiency of a hospital, and we imagine that our readers will be considerably astonished at some of the awards which have been made on this score. For example, the Metropolitan Free Hospital stood high on the list, while St. George's and the Middlesex were entirely omitted. We are not surprised that the London Hospital receives the largest award of all; but we are unable to understand why nothing was given to the Charing Cross Hospital, or to the Brompton Hospital for Consumption. Another fact which calls for notice is the large proportion—one-fourth of the whole sum—which was given to special institutions; and among these special institutions are some of most doubtful utility—*e. g.*, the Hospital for Diseases of the Heart, St. Saviour's Hospital, St. Peter's Hospital, the Metropolitan Ear Infirmary, and the Infirmary for Diseases of the Legs. On the whole, neither the collection of the Fund nor its distribution can be deemed satisfactory. If the Committee were tried by their own three tests, how many marks would they receive under each head? The amount of work they have done has certainly not been great; the efficiency of their distribution is most questionable; and what can be said for their economy, since nearly one-third of the money at their disposal has been set aside for expenses?

### PURE TABLE WATER.

THE following report is, in many ways, one of very great public interest. It has more than once been shown lately, by the reports of Dr. Carpenter, Dr. Thorne Thorne, and other inspectors of the Local Government Board, that an apparently and usually pure town water-supply is liable to periodic pollution, so long as the supply is on the ordinary intermittent system. This, it will be remembered, afforded a key to the origin of the epidemics at Croydon, Lewes, and Over Darwen. We have, then, in the following report a crucial test of the fact, and a complete evidence of the subtle character of this danger. The instance in point occurred in the house of a well-known analyst, who had been thrown off his guard by the circumstance that the water supplied to his house happened to be tolerably pure at the time he took his first samples.

*Report to the Sanitary Committee of the Croydon Local Board of Health.*—In compliance with the request of your chairman and of your Medical Officer of Health, I append the more complete details of the pollution of the water-supply at Biggin Hill, together with the effects produced by it upon the health of those affected. On my return to Biggin Cottage after an absence of ten years, I found that my late tenant had left the house in what is termed "habitable repair". The drains gave no annoyance, and the water-pipes only required the attendance of the plumber to secure an ample supply. I was fully aware that the Lambeth Company's water is seldom perfectly wholesome or agreeable, and I was not surprised to find it somewhat turgid and unpleasant to drink. In a short time, however, a continuous disposition to diarrhœa, affecting every one on the premises, led me to take samples of the water to my laboratory for analysis. I found ammonia, free and albuminoid, present to the extent of three parts per million, and a residue of thirty-five grains per gallon, which blackened on ignition. These results, though decidedly objectionable, were scarcely such as to enable me to be sure that the symptoms of illness were due to the water alone, especially as looseness of bowels is not an uncommon complaint during autumn. I directed my attention to the drains, and saw that they were made good, after which every care was taken to keep them in thorough sanitary condition by means of disinfectants; but still the slight diarrhœa continued, increasing rather than otherwise. Again, I took several samples of the water at different times, and my analyses gave me but the same results. At last, when the late dry autumn was past and heavy rains set in, the continuous intestinal derangement became rapidly worse, and symptoms of low fever appeared. Even the occupants of the stable and kennel were not exempt from the prevalent disorder, and the peculiarity I observed in the fæcal discharge was the presence of quantities of columnar cells from the intestines, abortive cytoblasts, and ovoid cells differing in appearance from mucus-corpuscles. Large numbers of crystals of ammonio-phosphate of magnesia were usually evident, and cholestearin scales were frequently detected; the more severe symptoms besides purging being cramps, vomiting, and irritation of the liver and kidneys. I was then forced to the conviction that the mischief was in the water, my previous analyses notwithstanding. I ordered samples to be drawn every two hours during the day and night for several days, and this course enabled me to discover that at certain hours of the night the water flowing into my drinking water cistern contained of free and albuminoid ammonia, no less than 4.5 parts per million. The residue, amounting to eighty-five grains per gallon, was composed of nitrates, nitrites, and chlorides, and gave all the other indications of highly dangerous organic contamination. Inquiry soon informed me that much of this poisonous water entered the cistern after the Lambeth Company's water was shut off, and could only have entered the pipes through some defects in them near the top of the hill, the soil through which the pipes pass at that point, as your medical officer's report shows, being saturated with sewage from the adjacent houses and stables. Infiltration from this source undoubtedly does take place, and it only remains to show how it was that such serious contamination could not always be detected by the analysis of samples taken promiscuously. There are two cisterns, one outside the house used only for the garden and for closet purposes; when this is filled, and not before, the water flows from the mains directly into the house-cistern for drinking and culinary use; there is no connection whatever between the two cisterns. Such an arrangement prevents the possibility of any sewer-gases passing into the water and becoming absorbed, a proper and indispensable precaution; but, in this instance, it involved the whole question of the purity of the drinking water in doubt for a serious length of time. When the outer cistern is not full, the contaminated infiltrate flows into it and does not reach the drinking water; but, when there is not sufficient room in this closet-cistern to allow the whole of the infiltered water to enter there, a greater or lesser quantity of this most dangerous poison must flow into the drinking water. This certainly occurred with frequency enough to occasion long and serious illness in the entire household for some months, but it could not have happened on any of the seven occasions when the earlier samples were taken for analysis. I would impress upon your committee, and the public generally, that all water-pipes are liable to imperfections, and that the ordinary joints of house and stable drains are almost always so far pervious as to cause the surrounding soil to be imbued with sewage. Where, as in this case, water-pipes pass near the drains, and then descend to a lower level to supply cisterns, such an example may not unfrequently be anticipated. There seems to me to be but one absolutely efficient prevention—an invariably constant supply in the Company's mains.—I am your obedient servant, H. C. BARTLETT, Ph.D., F.C.L., Laboratory, 7, South Square, Gray's Inn.

### THE OUTBREAK OF ENTERIC FEVER AT LEWES.

THE report presented to the Local Government Board by Dr. Thorne Thorne, on the serious epidemic of enteric fever with which the town of Lewes has been recently visited, has been published. It commences with a general description of the town; it describes the systems of water-supply, sewerage, and excrement disposal obtaining in the place; and the circumstances of the epidemic are then dealt with. In a population of 10,753, as many as 486 cases of enteric fever occurred during the last five months of the past year; and the principal means by which the disease was spread, was, as we have previously pointed out, the passage of the contagium of the fever into water-pipes which passed directly from the mains into water-closet pans. The report contains some additional information which goes to prove that the suction of the contagium into the water-supply was rendered possible by the intermittent character of the water-service; and it shows, in a conclusive manner, how the provision of a constant water-service led to the arrest of the epidemic. A fortnight before this step was adopted, the fresh cases of fever, which came under observation, numbered 104 in the week; and a fortnight afterwards they had dropped to six only. This constant service, it is believed, will be permanently maintained in the town, and other defects in connection with the water-supply are to be remedied in such a way as to render the recurrence of a similar epidemic impossible.

### NEW ADULTERATION BILL.

A PALPABLE and distinctive defect of the amending Bill proposed by Mr. Sclater-Booth is that, by introducing the word "knowingly" into the Act, it will throw the onus of proving the amount of knowledge which the offender possesses on the prosecution. A tradesman under the present system becomes amenable to the penalties if he sell any goods which are adulterated; and, as ignorance of the law is held to be no excuse for breaking it, so ignorance of the exact nature of adulterated food is held to be no valid excuse to the vendor. The new Bill, however, entirely sets aside the old legal principle, and gives the very opportunity for which sharp unscrupulous tradesmen have been longing, and of which they will readily avail themselves—viz., the art of cultivating a wilful ignorance in order to evade the penalties of wilful adulteration. Dr. Lyon Playfair truly described this clause as one which invited the passage of the traditional coach and six; and there can be no doubt that the description is thoroughly applicable. The qualifying terms introduced—such as "shall knowingly sell", and "the usages of trade"—are so vague and general, that they can be readily made to cover every known variety of adulterating malpractice. The old plan, which assumed a man to know his own business, and the general constituents of the articles he dealt in, was far preferable; and the sense of the responsibility which it involved tended to make tradesmen careful of the quality of the goods in which they dealt.

### RECENT URBAN MORTALITY.

DURING last week, 5,573 births and 4,332 deaths were registered in London and twenty other large towns of the United Kingdom. The mortality was at the rate of 29 deaths annually in every 1,000 persons living. The annual death-rate was 31 per 1,000 in Edinburgh, 34 in Glasgow, and 33 in Dublin. In none of the eighteen large English towns was the rate less than 25 per 1,000. In Bradford, Liverpool, Newcastle-on-Tyne, and Leicester, it was 31; in Birmingham, 32; Norwich, 33 Salford, 33; Wolverhampton, 34; and Manchester, 35. The zymotic rate of mortality was 6.4 in Sunderland, 8.6 in Leicester. Whooping-cough was fatally prevalent in Sunderland, Leicester, and Birmingham; scarlet fever in Hull; and small-pox caused 10 deaths in Birmingham. In London, 2,386 births and 1,801 deaths were registered. The births were 102 below, the deaths 194 above, the average of the week. The annual death-rate was 27, and was highest (28) in the west group of districts. The zymotic deaths were 168, or 82 below the average; 38 were due to scarlet fever, 56 to whooping-cough. The deaths referred to diseases of the respiratory organs were 527, and exceeded the corrected average weekly number by 164. In outer London, the death-rate from all causes and from the seven principal zymotic diseases was 21.4 and 1.6 per 1,000 respectively, against 27.3 and 2.5 in inner London. At Greenwich, the mean reading of the barometer last week was 30.02 inches; the mean temperature of the air was 37.5 deg., or 1.3 deg. below the average. Rain or melted snow was measured to the amount of .25 of an inch.

### HOW WE DIE IN LARGE TOWNS.

THE large towns are becoming more and more alive to the importance of the education of the people in sanitary matters; and Birmingham has in several ways set a good example in this respect. Lately, a series of penny lectures on these matters has been given in the Temperance Hall in that town, the subject of the last one being "How we die in large towns", and the lecturer being Dr. Balthazar Foster. The "three great sanitary evils of town-life" were shown by mortality tables to be

—"1. The prevalence of preventable diseases; 2. The excessive mortality among children; 3. The high death-rate from lung diseases among adults." The first was considered to be due to the density of the population especially; and secondarily to defective water-supply and sewerage; and the compulsory isolation of persons suffering from infectious diseases was advocated. A person who has caught an infectious disease is no longer a harmless citizen, but a very dangerous one, and should be placed in some place where the harm he can do may be as much as possible checked. Such a place is a hospital. The fallacy of the ridiculous argument drawn from the interference with the liberty of the subject was exposed in a few forcible sentences. For children, playgrounds and open-air exercise are wanted, and, *àpropos*, we may hope that Mr. Cross's Bill will effect something for us in this direction. The death-rate among adults in towns depends, especially as regards lung-diseases, chiefly upon their occupations, sedentary occupations causing a higher mortality than those in which there is plenty of out-of-door work. The difference between the mortality in towns and in the country among persons over five years of age is not so great as might be expected, but we do not notice that Dr. Foster alluded to the chief cause of this, which is the continual emigration of healthy lives from the country to the town, by which the mortality of the latter is diminished, while that of the country is rendered somewhat higher than it would otherwise be, and so the towns appear to be healthier than they really are. Dr. Foster concluded with some excellent practical remarks about the advantages of pure air, and "plenty of exercise to make us breathe it freely", recommending the people to take care that the air was continually being changed in the rooms of their houses both by day and night. Lectures of this kind will do much good; for it is chiefly by educating the masses of the people in the laws of health that we must hope to awaken an intelligent interest in the most important matters which concern us all, both as individuals and as members of communities.

### ZYMOTIC DISEASES IN LONDON.

ON Saturday last, the Asylum District Small-pox and Fever Hospitals at Homerton and Stockwell contained 203 patients, of whom 97 were suffering from scarlet fever, 68 from fever, and 21 from small-pox. The Small-pox Hospital at Homerton was still empty.

### DEATH FROM CHLOROFORM.

WE publish to-day the particulars of another death from chloroform, for which we are indebted to Mr. Arthur Jackson of Sheffield. It is highly important that all such cases should be fully reported, and we have to thank our correspondent for promptly forwarding this notice of his case. The remarkable contribution which we lately published from Dr. Keith of Edinburgh must have done much to satisfy surgeons that ether is not only a much safer anæsthetic than chloroform, but one which answers all the indications of complete surgical anæsthesia. The claims of ether over chloroform are still, we think, not sufficiently recognised in this country.

### THE "SPERIMENTALE" PRIZE.

THE prize of five hundred *lire* (£20), presented annually by the editors of *Lo Sperimentale* to the author of the best original essay published in that journal during the year, has been awarded to Drs. Pietro Albertoni and Felice Lussana, for an elaborate memoir, entitled, "Experimental Researches on Alcohol, on Aldehyde, and on the Vinous Ethers".

### THE TOWN COUNCIL OF WOLVERHAMPTON AND THEIR MEDICAL OFFICER OF HEALTH.

A GENTLE breeze has passed over the Town Council of Wolverhampton, which has ruffled the equanimity of that important body. The time had come round for the re-election of the Medical Officer of Health, who has held the post for three successive years. But it appears that his duties have not been discharged in a way which secured the goodwill and approbation of his professional brethren. Accordingly, the medical staff of the Wolverhampton Hospital held a meeting at midday on Saturday, the 6th instant, and unanimously agreed to write a conjoint letter to the Medical Officer of Health, suggesting his resignation; and, as the re-election was to take place on Monday, the 8th, they asked for an immediate reply—a definite written answer before six o'clock on Saturday evening. It is not surprising that the Medical Officer of Health should have declined to surrender to such a peremptory summons. This was followed up by a memorial, addressed to the Mayor, begging the Council to postpone the election, in order that there might be time to consider the wide-spread feeling of dissatisfaction expressed by the profession as to the manner in which the responsible duties of the appointment had been discharged. This was signed by fourteen practitioners of good standing and high position in the town. On the 8th, the question was considered at the Town Council, the memorial forming the starting point of a very lively discussion. One councillor said, "My opinion about the memorial is that it is the greatest piece of impertinence I ever heard of. The proper mode to deal with it would be to tear it up, and cast it into the waste-paper basket". Other councillors spoke in high terms of the untiring industry and zeal which the medical officer had displayed in the discharge of his duties, and it was more than hinted that the opposition to his re-appointment arose from prejudice and personal animosity. "Trades unionism among medical men" was the mild term which was applied to the remonstrance of the memorialists. So strong, indeed, was the feeling in favour of the medical officer on the part of some members of the Town Council, that it was proposed to elect him—not for one year—but for three years, or even permanently. But wiser counsels prevailed. Sir John Morris, supported by the ex-mayor, "expressed a hope that the appointment would not be made for a longer period than twelve months, because he did not think it safe to assume that a body of gentlemen, like those who had appended their signatures to the memorial, would have done so without having some substantial grounds for taking the course they did". The amendment proposing a prolongation of the term of office was withdrawn, and the original motion for reappointing the medical officer for one year was carried unanimously. It now remains for the memorialists to make good their case. It is due to themselves, to the medical officer, and to the public of Wolverhampton that the subject should be more fully investigated. They could hardly expect on such short notice, and without entering into any particulars, either that the medical officer would resign, or that the Town Council would postpone his re-election.

### LONGEVITY IN GERMANY.

AT the last Prussian census, there were found to be living in Berlin 12,251 persons who were born before the end of the last century. Among them, 3 men and 6 women were 91 years old; 4 men and 9 women, 92 years; 1 man and 5 women, 93 years; 10 persons were 94 years of age; 4 women were 96 years old; 2 men and 2 women, 97; one man, 98; one woman, 99; and another woman, 101. Of the persons between 90 and 100 years of age, 5 were unmarried, 5 married, 57 widowed, and 1 divorced. A widow named Najelsky died on February 10th at Kamionken near Lötzen, at the age of 103. She is said to have been extraordinarily active even in her hundredth year. A man died a fortnight ago at the age of 105, at Horzitz in Bohemia.

## SCOTLAND.

### THE COLORADO BEETLE.

AT the last meeting of the Royal Physical Society of Edinburgh, Mr. Gibson exhibited a specimen of the Colorado beetle, and made some remarks as to its *habitat* and history. This creature is believed to be a native of Central America, where it has long been known, and lives upon the leaves and stems of the potato, tomato, and similar plants. About twenty years ago, it began to spread northward and westward, till now it extends from the Pacific to the Atlantic. Its ravages on the potato are quite as severe as those of the fungous disease. The eggs of the beetle are deposited on the leaves, where they develope into caterpillars, which greedily devour the green parts of the plant, which is thereby killed; the caterpillars then become chrysalides, and so develope into the full-grown beetle; there are several broods in the year. The great fear is that the beetle itself may be introduced into this country in the earth which often surrounds imported potatoes; there is less fear of the larvæ or eggs arriving in a living state. It appears to have great powers of acclimatisation. Two or three years ago, it was unknown in the Eastern States of America and in Canada; now it has a firm hold all over those regions.

### DECREASE OF PAUPERISM IN SCOTLAND.

THE report of the Board of Supervision of Scotland, which has just been published, brings out very clearly the interesting fact that, for the last four years, there has been a gradual decrease in the number of persons receiving parochial relief. Last year, the number, both of registered and of casual poor, was less than it has been in any year since the Poor-law Act of 1845, and that in spite of a very considerable increase in the population. In the report, this decrease is attributed to a more careful and stringent consideration of the claims for relief on the part of the parochial boards, and to a more firm and extended use of the poorhouse test. The Board has satisfied themselves by personal inquiries that this reduction has been effected without oppression or hardship to any proper object of parochial relief. The pauper lunatics, on the contrary, have steadily increased in number every year for the past ten years, the amount of increase last year being larger than the average rate of increase by nearly 50 per cent.

### PROSECUTION UNDER THE MEDICAL ACT.

FROM Airdrie was reported last week the trial of a so-called "medical professor", describing himself as "Professor Chadwick de Banzie, M.D., LL.D.", who was charged with a contravention of the 40th Section of the Medical Act by falsely and wilfully pretending that he was on the *Medical Register*. In answer to the charge, two diplomas, granted to Dr. de Banzie by the University of Philadelphia, were produced as proofs of his graduation. After hearing the Public Prosecutor on the one hand, and the defendant's counsel in reply, the justices found the charge proved, and inflicted the full penalty of £20, or three months' imprisonment. The accused, who had pleaded in defence that he had never pretended to be on the *Register*, gave notice of appeal.

## IRELAND.

SMALL-POX has not yet disappeared from Belfast, four deaths having been registered last week as occurring from that disease.

AT a late meeting of the Guardians of the Lismore Union, the salaries of the medical officers of the union were increased each by the sum of £20 *per annum*.

### VACCINATION IN BELFAST.

DR. PURDON, factory medical officer at Belfast, has lately published a report on the subject of vaccination in relation to that populous manufacturing town. During the epidemic of 1871, Dr. Baker, one of the inspectors of factories, stated that the directions issued by the Poor-law Board were insufficient to stop the spread of the disease, and, in consequence, was requested by the Secretary of State to draw up a circular for the use of certifying surgeons, suggesting an examination, with the purpose of vaccinating every young person under 16 applying for work; and recommending that employers should make vaccination a condition for employment. The result of these judicious measures has been that, since these directions were issued, 1,000 young persons were vaccinated who had not previously undergone the operation, and at the present time from two to four of those seeking work require to be vaccinated every week. This compulsory vaccination has been of considerable service; for example, in one mill in 1871 there had been 150 cases of small-pox, but in 1874 there were only 10, all being adults. In 1871, the persons employed in mills, factories, workrooms, etc., numbered 44,318, and of these 837 were attacked by small-pox; but, in 1874, out of 48,650 *employés*, only 176 were affected, 39 of whom were young persons. Stronger evidence than this could hardly be adduced of the benefits of compulsory vaccination.

### PORTRUSH WATER-SUPPLY.

A SPECIAL meeting of the Guardians of the Coleraine Union was held on Saturday last, for the purpose of receiving a deputation from the ratepayers of Portrush to take measures for obtaining a supply of pure water for that watering place. A report having been read from a county surveyor, who considered that £3,520 would be required to construct the necessary works, it was determined that the wishes of the deputation should be carried out, and it was resolved that a communication should be sent to the Local Government Board to obtain a loan to execute the works without any delay.

## MEDICAL ADVERTISING.

WE incline to think that, since the publication of Mr. James Lane's excellent address at the Harveian Society on this subject, there has been a perceptible tendency to restrict the amount of medical advertising in daily papers. We are, however, by no means disposed to consider that any merely fluctuating change in the character and extent of such advertisements will answer the object in view.

It may be well here to recall the precise words which Mr. Lane used in reference to the practice in which medical publishers have long indulged—and some medical authors exaggerate on their own account—of advertising in the *Times* and other newspapers medical works purporting to be intended only for professional edification. He said:

"I think there can be no doubt that a feeling adverse to the practice in any shape is pretty largely entertained throughout the profession. That being so, the custom seems fairly open to criticism and remark; and it may fairly be questioned whether the practice of advertising medical works on disease of all kinds in the daily journals is conducive to the credit and legitimate advantage of the profession.

"Far be it from me to presume to hint the smallest blame on those who have availed themselves of a custom which has undoubtedly become one of the established usages of the profession. Amongst them may be found many who are entitled to all honour and respect; it is against the custom only that I venture with all deference to enter an humble protest.

"Those who write *for* practice and those who write *from* it—those who only want to say *something*, and those who have something within them which they want to say, both have their representatives in the advertising columns of the daily papers. Will it be thought too presumptuous to suggest to the latter, whose works are really written for the profession and not for the general public, and many of which are an honour alike to their authors and to science, that they might fairly content themselves with the publicity afforded through the medium of the medical press? It cannot be contended that there is any demand for works of this class amongst non-medical readers: the only real effect, then, of such advertisements is to bring the names of their authors prominently before ordinary newspaper readers, an aim hardly worthy of those whose acquirements fit them to be our leaders and our teachers, of whose reputation and fair fame we are jealous, and whose character and motives we wish to see not only without reproach, but above suspicion.

"Now, it is a great encouragement to those who write books for practice, that they have the opportunity of introducing them to general notice in such respectable society, where they can at once flaunt it with some of the best amongst us; but if their betters could be induced to withdraw from the association, if it came to be understood that, to use a prevailing vulgarism, it was 'bad form' to resort to such modes of publicity. Perhaps in time even these notifications would cease to greet the public eye, and aspirants for practice might be led to turn their energies in more legitimate directions, and at all events to make themselves masters of a subject first, and write a book about it afterwards."

We had occasion to point out, in commenting favourably upon these views, that, as one result of the license now accorded to medical publishers, and taken by the publisher of a well-known medical paper, the names of the most eminent medical men—men who are models of professional delicacy, and whose professional career was typical of honour and dignity—were, entirely without their knowledge, paraded with extraordinary prominence across an evening paper, in connection with purely professional subjects, to promote the sale of the medical paper, or to bring it under public notice. It is quite clear, therefore, that Mr. James Lane was justified in saying that, under the present system, the most eminent men are liable to be dragged into the sort of puffing prominence which they would of their own will carefully eschew; and that they are thus forced into positions which less scrupulous persons thus seek as matters of profitable notoriety.

We have never heard any argument in favour of advertising technical medical books in the newspapers which seemed to have any weight. It has been suggested that not all medical men see medical papers, and an advertisement, say in the *Times*, may be necessary, therefore, to bring a new work under notice. It is, however—looking to the known facts as to the numbers circulated of the leading medical journals—clear that, although no one medical journal is read by the whole profession, yet the total circulation of the principal medical journals is very considerably in excess of the whole number of members of the profession; and, although there may be here and there an eccentric individual, it is difficult to imagine that there is any class of medical readers of books who do not see any medical journal. It would be difficult to find any number of medical men who do not see a medical journal; still more so to conceive that they should be buyers of medical books, and that it should be worth while to carry on a costly system of medical advertising to reach them. It will, indeed, we believe, be generally admitted that the object of advertising medical works in daily papers is to address the lay public, and not the medical public. That is a practice which is surely more honoured in the breach than the observance. A few striking examples will soon suffice to break it down, if we are right in supposing, with Mr. Lane, that it is not accordant with the general feeling of the profession, or conducive to its highest interests. If it be once known that some of the leading members of the profession have directed their publishers to withdraw all advertisements of their books from the daily papers, it will soon be held in this country as "bad style" to allow such advertisements to appear, as it already is in France and elsewhere abroad. We shall be glad when the day comes that we are authorised to make such an announcement, and shall be happy to have contributed to that end.

## PROFESSIONAL REMUNERATION.

An occasional correspondent in Lincoln writes:—"At a meeting of the Lincoln Medical Society held some time since, a Committee was formed for the purpose of discussing the question of professional remuneration, and reporting thereon to a meeting of medical men of the neighbourhood. The Committee, after considerable trouble in obtaining the opinions of the principal members of the profession in the county, have presented their report, which was read at the last meeting of the Society. The report states that while, in consequence of the many different kinds and modes of practice, the various old-fashioned customs, and the hesitation of the profession to base its title to remuneration on the abstract value of its services, it is impossible to advise a hard and fast line in the matter of professional charges, they are of opinion that some definite system of increased remuneration is very desirable; but unless the leading practitioners are united in carrying it out, it will be useless trying to obtain a proper recognition of their services. If we take into consideration the fact that in most places the amount of remuneration remains the same as for the last twenty years, the increased expense of education for the profession, the enormous increase in the cost of living, the decreased value of money, the greater expenditure by all classes, and the consequently greater difficulty of members of the profession holding their ground, it becomes a matter of the greatest importance that a scale of fees should be drawn up and adopted, calculated to mitigate the evils that arise from the causes indicated. Medical charges must of necessity vary in accordance with the pecuniary resources of the population amongst which the practitioner resides; it is hence impossible to draw up a scale of fees applicable under all circumstances, for clearly it would be useless and injudicious to charge that which patients were unable to pay; still the Committee feel convinced that much may be done towards improving the position of the profession in this respect, if its members will but agree among themselves.

"With regard to what is called 'Club Practice', the Committee are of opinion that there should be restrictions as to the persons eligible to receive medical attendance. These medical clubs were originally instituted to provide pecuniary and medical relief for the labouring classes, and thus prevent them from becoming chargeable on the rates and being pauperised; but of late years, and notably in the city of Lincoln, people of a different class altogether are admitted into clubs. Clubs have, of course, a perfect right to admit whatever class of men they choose; but when tailors, drapers, butchers, publicans, doing good businesses, and retired well-to-do tradesmen, become members, and expect to receive medical attendance at a charge of about three shillings and six pence a year, the Committee think that the various complaints about this kind of practice have foundation, and that such practice 'is objectionable in every way, and a great imposition on medical men'.

"At the present time in Lincoln, the majority of the friendly societies have joined themselves into two different dispensaries, each employing its own medical attendant, so that the complaint as regards the previous unsatisfactory state of club-practice is removed, and requires no further comment. The Committee understand that the societies and their late medical attendants are satisfied with the change. In country districts, club-practice will still have to be concurred in; but the Committee think that the payment of each member should not be less than four shillings and fourpence *per annum*; and that persons whose wages, salary, or income, exceeds thirty shillings per week, should not be entitled to medical attendance; and that a fee (not exceeding half a crown) should be charged for examining every new member of a club. The Report concludes by recommending the adoption of the tariff issued by the Shropshire Branch."

# SPECIAL CORRESPONDENCE.

## PARIS.

[FROM OUR OWN CORRESPONDENT.]

*Copper in the Human Organism.—Causes of Infant Mortality.*

In France, in cases of criminal poisoning, the medical expert is, as a rule, accompanied by a chemist to assist him; and, in giving evidence before a court of justice, each is required to give an account of his work in his own special department. Thus, while it is the duty of the chemist to search for the poison, the medical man looks for lesions in the body of the victim; notes are then compared, and, if they do not tally with the results of works on the subject, the criminal is generally let off, not with the charge of manslaughter, but with "extenuating circumstances". It is in this way that MM. Bergeron and L'Hôte, the former a medical expert and the latter a chemist, were engaged in the affair of Moreau, who was lately executed for having poisoned his two wives at St. Denis. It will be remembered that, on that occasion, it was discovered that copper was the substance employed, though, during the lifetime of the victims, poisoning by corrosive sublimate was diagnosed, as the symptoms bore more of the character of the latter than of poisoning by copper. The two experts, having recalled to mind the teachings of the celebrated Orfila, that mineral substances are generally found in the great organs of secretion, such as the liver and kidneys, at once examined these organs, and there detected copper; they, however, wished to ascertain whether the liver and kidneys, in their normal condition, contained this metal. In concert together, they then directed their investigations with the view of solving this question, and had an opportunity of carrying them out on fourteen corpses, which they were certain had no copper administered to them during the latter part of their lives. The result of their inquiry was lately submitted to the Academy of Sciences, which may be summed up as follows. In two of the bodies, aged respectively 17, copper was found, but the exact quantity could not be ascertained; in eleven bodies, whose ages ranged from 26 to 58, the maximum quantity found was one *milligramme*; in one individual, aged 78, the quantity was a little over one *milligramme*. MM. Bergeron and L'Hôte explain the presence of copper in the liver and kidneys, by absorption from constant contact with this metal in various ways, such as the use of copper utensils in cooking and other purposes, the handling of copper coin, etc. From these results, the above named gentlemen have come to the following conclusions, which are most important in a medico-legal point of view:—1. Copper is constantly present in the organism, but can be detected in appreciable quantity only in the liver and kidneys; 2. The quantity detected in the greatest number of cases does not amount to two *milligrammes* = $\frac{3}{100}$ths of a grain.

In referring to the population statistics of France in my last letter, I mentioned, as one of the causes of the depopulation of this country, the limited number of births in proportion to deaths. I cannot here enter into an explanation as to the cause or causes of this limitation in the number of births among the French; I may, however, observe that they are not to be sought in conditions beyond human control. I have heard many a Frenchman repudiate the idea of sterility in his countrywomen, but avow that he was compelled by circumstances to act up to the principles laid down by Malthus. This is certainly part of an explanation, and may be open to question; but there is another potent cause in operation, which cannot be denied, and which is now admitted by all who take any interest in the matter. I allude to the frightful mortality among the children in France, which, under certain social conditions, amounts to about 50 per cent. in the first year of their existence. M. Bouchut, a well known authority on children, has shown that the mortality among foundlings, now designated "enfants assistés", is nearly double that of the average of infants sent out to nurse, and treble that among infants in general throughout France. The causes of this great mortality are, according to M. Bouchut, to be found in the improper care of infants immediately after their birth, in the influence of the surrounding temperature, in insufficient lactation, which necessitate the having recourse to the "biberon" or feeding bottle; finally, in hereditary syphilis, which is more common among foundlings than among legitimate children. M. Bertillon, a celebrated statistician, has shown, in another report, that the mortality among infants is greater in the thirteen departments surrounding Paris, or rather, the Department of the Seine, than in the rest of France; he estimates it at one-fifth in these departments, whereas it is only a seventh in the rest of France. This difference is explained:—1. By the greater number of infants, legitimate as well as illegitimate, that are abandoned by their parents; 2. By the infants being sent out to nurse, away from the sight of their parents, where they are so ill-cared for; 3. By the great number of endemic or epidemic affections which radiate from Paris to the neighbouring departments. The mode of lactation or feeding has also a great influence on the rate of mortality among infants. According to M. Bouchut, the mortality in Paris is five times greater among infants fed with the bottle than those suckled by a wet-nurse; infants suckled by their mother yield half the number of deaths less than those furnished by infants brought up by wet-nurses; infants brought up by the breast by their mothers in Paris yield a smaller mortality than those brought up by wet-nurses in the country; the cause of the difference is obvious: in the one case, the infants are nursed by their own mother, whereas, in the other, the nurses are strangers to the child; but it is remarkable that, while infants in Paris who are brought up by the hand yield a mortality of 66 per cent., those in the provinces furnish only 44 per cent. This startling difference is ascribed to the better quality of the milk and the greater purity of the air. The conclusion to be drawn from this is, that maternal lactation preserves the lives of more children than mercenary lactation or artificial food, and the strictest attention to this fact would point to one of the most potent remedies against depopulation, and perhaps degradation, about which so much has been said and written within the last few years.

M. Gustave Lagneau, a candidate for the membership of the Academy of Medicine, presented a paper on a subject closely allied to the above; and, according to this learned gentleman, the mortality in the first year of infancy is nearly double in illegitimate children than in those who are legitimate. He ascribes this difference to much the same causes as those mentioned above, and recommends as a remedy the opening of working maternities (*maternités ouvroirs*, a sort of workhouse) to necessitous women in the family way, whether married or unmarried, where they should be admitted and cared for, not only until their confinement, but even after; where they shall be employed according to their individual capacity, physical as well as intellectual, and be remunerated according to their work. By this means, the women will be enabled to suckle their own children, and, when they leave, M. Lagneau recommends that work should be found them, or that they should have such assistance as would induce them to keep their children, instead of handing them over to strangers. The idea is, to say the least, very philanthropic and plausible in theory; but the question is whether it can be put into practice. M. Lagneau's paper is not confined to infant mortality alone, but it treats of the influence of illegitimacy on mortality at a far greater advanced age. Thus he shows that, out of 1000 registered births, 640 legitimate children reach the age of 20 years; whereas, among the illegitimate, there are only 238. In other words, more than three-fourths of the illegitimate are carried off before they reach the age of 21 years.

# ASSOCIATION INTELLIGENCE.

## YORKSHIRE BRANCH.

The spring meeting of this Branch will be held at the Infirmary, Huddersfield, on Wednesday, March 10th, at 2.30 P.M.

The members will dine together at the George Hotel at 5 P.M. Tickets, 6s. 6d. each.

Members intending to bring forward any communication, or to join the dinner, are requested to communicate with the Secretary.

W. PROCTER, M.D., *Local Secretary.*

24, Petergate, York, February 19th, 1875.

## SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.

The next meeting will be held at the Crystal Palace Hotel, Upper Norwood, on Thursday, March 11th, at 4 P.M; E. R. Ray, Esq., of Dulwich, in the Chair.

The following communications have been promised.

1. Dr. Galabin: On the Causation of Puerperal Convulsions.
2. Dr. Dalton: On a Case of Recovery from Tubercular Peritonitis, with Cerebral Symptoms.
3. Dr. Miller: On a Case of Cardiac Rheumatism.

Dinner will be served at 6 P.M.; charge, 6s., exclusive of wine.

JOHN H. GALTON, M.D., *Hon. Secretary.*

Woodside, Anerley Road, Upper Norwood, S.E., Feb. 23, 1875.

## BATH AND BRISTOL BRANCH: ORDINARY MEETING.

The fourth ordinary meeting of the session was held at the York House, Bath, on Thursday, February 18th; F. MASON, Esq., President, in the Chair. There were also present forty members.

*New Members.*—The following were elected members of the Association and of the Branch: E. T. Hale, Esq., Bristol, and Percy O. Jones, Esq., Bristol.

*Papers, etc.*—1. Mr. TIBBITS gave a *résumé* of his paper on Blood-Poisoning.

2. Mr. WAUGH read a paper on a case of Septicæmia. An animated discussion on the two papers followed, in which Drs. Brabazon, Swayne, Shingleton Smith, E. L. Fox, and Messrs. Dowson, Michell Clarke, Steele, and others, took part.

3. Mr. STEELE read an account of a Successful Case of Ovariotomy; and Messrs. Swayne, Clarke, and F. Parsons gave their experiences of the operation.

## BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ORDINARY MEETING.

The fourth ordinary meeting of the session was held at the Midland Institute on January 21st, 1875. Present—W. C. GARMAN, Esq., President, in the Chair, and thirty-five members and visitors.

*New Members.*—The following members of the Association were elected members of the Branch: Dr. Wyndham Crowe, Leamington; Dr. J. Johnston, West Bromwich Hospital; Mr. F. Ruffe, Tamworth; Mr. R. W. Edginton, and Mr. W. W. Wilson, Birmingham.

*Report on Medical Education.*—The amended report of the Committee on Medical Education having been referred to the Branch from a special meeting held on December 17th, the last two clauses of the report were adopted, on the motion of Dr. James Thompson, seconded by Dr. Fowler Bodington. The scheme of medical education appended to the Committee's report coming next under discussion, the Branch resolved to proceed to the next business.

*Communications.*—1. Mr. LAWSON TAIT showed a preparation of a sessile Ovarian Tumour, round the base of which coursed two ureters, a complication which would have been almost unrecognisable if ovariotomy had been performed during life.

2. Dr. PHILIP BINDLEY showed for Dr. B. FOSTER a specimen of Diseased Lung removed from a patient in the General Hospital, who had suffered from chronic interstitial pneumonia and bronchiectasis. There were very firm pleural adhesions on both sides, but especially at the upper lobes, which rendered the removal of the lung impossible without stripping off the parietal pleura. Except at the extreme bases, where the lung was collapsed and congested, the pleura was converted into a dense mass of fibrous structure, measuring on section at the thickest places, from a quarter to half an inch, and strong bands of fibrous tissue, of an iron-grey tint, and with a consistence almost cartilaginous, passed inwards from the pleura through the substance of the lung. The apex of the lung was broken down into ulcerated cavities of irregular shape, traversed by rugged fibrous bands. Below this, bronchiectasis was most marked. From the root of the lung to the periphery, irregular bronchial dilatations and pouches of various sizes were very numerous, and had so pervaded and encroached upon the true pulmonary tissue, that little of it remained. The bronchi could be easily followed up and slit with the scissors as far as the pleura, where many, even in this neighbourhood, were dilated to the size of a crow-quill. What did remain of the lung-tissue, between the fibrous bands and the dilated bronchial tubes, had entirely lost its spongy character, and was deeply pigmented. These changes had taken place to about an equal extent in each lung. An interesting point in the case was the fact that fibroid changes had not taken place in any of the other organs. Both the liver and kidneys were fatty.

3. Mr. G. H. EVANS read a paper on a case of Perinephric Abscess, with remarks on the diagnosis of such abscesses from those arising from spinal caries. An interesting discussion followed.

# REPORTS OF SOCIETIES.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, FEBRUARY 23RD, 1875.

C. J. B. WILLIAMS, M.D., F.R.S., President, in the Chair.

### CONTRIBUTIONS TO THE HISTORY OF LARYNGEAL PHTHISIS.

BY WILLIAM MARCET, M.D., F.R.S.

DR. MARCET divided his paper into two parts; the first being a short account of the history of laryngeal phthisis, and the second a record of his own observations on the subject. The second part began with a remark that laryngeal phthisis is both a symptom and an extension of a pre-existing disease. It is a symptom, because, when its existence is clearly established by laryngoscopic examination, there is no doubt that the lungs either are or will shortly become tubercular, if not obviously so at the time; it is an extension of a disease, because, as a rule (he did not say invariably, although it may be so), the pulmonary tissue first becomes the seat of tubercular growth, mischief appearing subsequently in the larynx. The author's former connection with the Hospital for Consumption and Diseases of the Chest at Brompton had given him a wide field for the investigation of laryngeal phthisis, of which he had availed himself; and he reported in a tabular form 70 cases of disease of the larynx in phthisis, in which both the physical signs of the chest and laryngoscopic appearances were faithfully recorded. This formed the groundwork of his communication. The author inquired into the main predisposing cause of laryngeal phthisis; and, after examining the various trades and employments recorded in 57 cases, came to the conclusion that excessive use of the vocal organ is hardly, if at all, a predisposing cause of that affection. Out of the 57 cases, 30, or a proportion of about 53 per cent., were employed on indoors or sedentary and home work; while, of 309 cases of phthisis attended by the author at the hospital in 1869, all of which were free from laryngeal disease, about 80 were employed on indoor and sedentary work, giving a proportion of 26 per cent. It would, therefore, appear that sedentary and indoor work has a marked influence as a predisposing cause of laryngeal phthisis. A case was recorded, however, where the disease broke out in a butcher's assistant, whose business it was to call out the weights of the meat on the scale; this appears to be a very laborious work for the vocal organ. It was remarkable that there was not a single hawker on the list of cases of laryngeal phthisis. Deficient out-of-door exercise and want of pure air together, it might safely be added, with neglect of the rules of hygiene and mental anxiety, are the main predisposing causes of laryngeal phthisis. The disease, therefore, appeared to be a low form of consumption, and requires as much attention to be paid to the general state of health as to the local mischief, if not more. The author next alluded to a state of weakness of the muscles of the vocal cords occasionally met with in consumption, without there being any organic change in the larynx; and observed that in these cases the tensor muscles of the cords appear more often affected than the adductors, while in hysteria the latter set of muscles are more commonly at fault. Cases were given illustrating both kinds of affections. He afterwards described the appearance of the larynx in laryngeal phthisis, and insisted on the presence of a whitey milky, probably purulent, mucous fluid, in the laryngeal cavity as a means of diagnosis of phthisis. The prognosis, where organic disease is detected in the larynx, in cases of consumption, is not favourable; still, much can be done towards relieving the pain and distress in the throat. The author then stated that there is nothing contagious in laryngeal phthisis, although the expired air from the chest of a person suffering from the disease may be peculiarly irritating to the throat of another in good health. He thought that this irritating property of inspired air equally applies to phthisis, without any affection of the larynx; indeed, he found the air expired by a healthy individual often irritating to the larynx of another person. He cited his own experience on the subject, and remarked that his throat frequently suffered from irritation in consequence of his being called upon to breathe near the mouths of his patients while using the laryngoscope in a succession of cases. Some remarks followed as to the unhealthy character of expired air in other respects; and the author then described the treatment. The application to the larynx of a solution of iodine in olive-oil, or of bromide of potassium in glycerine and gum-water, relieved the pain; and scarifications, when the larynx was much swollen, proved beneficial. Inhalations of iodine were also sometimes used with advantage. When the laryngeal mucous membrane was neither ulcerated nor much swollen, faradisation of the muscles of the larynx often succeeded in improving the voice. A few remarks were here introduced on climate. The author believed that, wherever those who suffer from consumption in an acute form may be living, except, perhaps, if residing high up in the mountains, they will, as a rule, derive benefit from removing to a place higher up, although, perhaps, not distant from their residence, and possibly not more than from one hundred to three hundred feet above it. The *post mortem* changes in the larynx were shortly noticed, and then the author considered the cases he had brought forward. He related the history of two patients, with laryngeal affections, who both recovered; one of them exhibited rather suspicious symptoms of phthisis, while the other case was one of acute laryngitis, with aphonia accompanying pulmonary congestion. The conclusions derived from the consideration of the table of 70 cases of diseased larynx in phthisis, in all of which the physical signs of the chest were reported, were as follows. 1. More men than women were affected, in the proportion of about two of the former to one of the latter. 2. The ages recorded in 55 instances appeared to show that most cases of laryngeal phthisis are met with between the ages of twenty and thirty years, or at that of thirty and above twenty. Dr. J. E. Pollock states (*Elements of Prognosis in Consumption*) that there is a large preponderance of cases of phthisis between those ages; and, therefore, as far as age is concerned, the predisposition appears to apply equally to consumption, whether the throat be affected or not. 3. Out of 70 cases of phthisis, in which the larynx was affected, eight of them exhibited no visible organic change, with the exception of slight redness with congestion in two of the eight cases; tension of the vocal cords was deficient in five; in the three other cases, adduction of the cords was deficient in two, and abnormal in one. 4. In 31 cases out of the 70, the epiglottis was affected (a statement of the nature of the change in every case was given). 5. Only 13 cases were recorded of positive ulceration of the larynx out of the 70—this proportion appearing rather smaller than might have been anticipated. Patients with laryngeal ulcerations are, as a rule, older than those whose larynx, although affected, is not ulcerated. The mean age of the patients suffering from ulcerations in the larynx was 38 years, while the mean age of those whose larynx was free from ulceration was 29.7 years; the author concluding that want of nutrition due to age appears to act as a predisposing cause of laryngeal ulceration. 6. Dysphagia, or difficulty in swallowing, was noted in 14 cases; but this symptom may, perhaps, have existed in others, although not recorded. As a rule, there is pain and dysphagia whenever the epiglottis is affected; although, where that organ is merely congested and streaked (without being indurated) by the presence of enlarged vessels, the discomfort may be very slight indeed, and hardly noticed by the patient. 7. Aphonia, or some alteration of the voice, was reported in 59 out of the 70 cases. Of the other 11, it was concluded from the state of the larynx that the voice was probably weak or otherwise affected in 9.

The PRESIDENT said that many cases of laryngeal phthisis had fallen under his notice. He agreed very much with Dr. Marcet, that it was rather a modification of ordinary phthisis than a disease in itself. The laryngeal complication was usually a serious aggravation of phthisis, and hastened the fatal termination by adding distressing symptoms and interfering with the treatment. The cough was very harassing; it might be called a fruitless cough, inasmuch as it was attended with but little expectoration. The loss of voice was also very distressing, and had a depressing effect on the patient. There was also, perhaps more frequently than Dr. Marcet seemed to think, difficult or rather painful deglutition, often from ulceration of the larynx rather than of the epiglottis. When the epiglottis was diseased, the passage of food over the glottis produced grievous irritation; and hence it was necessary in such cases to give food in as bland a form as possible, so that a sufficient quantity might be taken; for the fatal course of the disease was much accelerated by any interference with nutrition. The general tendency of laryngeal phthisis was to hasten death; but Dr. Williams had known some exceptions in which, after indications of pulmonary disease were present, the larynx was attacked, and became apparently the chief seat of disease. He referred especially to one case of the kind where, although there were at first distinct symptoms of pulmonary disease, nothing was found in the lungs after death but a few patches of withered tubercle, while the larynx not only presented extensive tubercular disease, but there was necrosis of the cartilages. Such cases, however, were exceptional. In the treatment, constitutional remedies were very important; cod-liver oil, etc., must be given. He had been much disappointed in treating laryngeal phthisis, and, indeed, chronic laryngitis, by local remedies. He agreed with Dr. Marcet that in most cases nitrate of silver and similar articles did more harm than good. In a few cases, the application of nitrate of silver by Dr. Horace Green's method had been useful; but he had met with so many failures from this treatment, that he had laid it aside. The use of spray was more applicable, and sometimes more successful; but even with this the results had fallen short of his expectations. He concluded that it was only in a limited number of cases that these remedies were useful. Spray should

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be used in summer and hot inhalations in winter; he had found the use of spray in cold weather injurious. It was useful to employ a weak solution of carbolic acid in the form of spray; it acted as a soothing agent, and as an alterative of the secretion. He agreed with Dr. Marcet as to the offensive and acrid nature of the exhalation from the larynx in the disease; and for the correction of this, creasote, carbolic acid, and the oil of the *Pinus sylvestris*, were useful. Sometimes a very weak solution of nitrate of silver, of sulphate of copper, or of acetate of lead, allayed the irritation for a time. Inhalation was useful in cold weather; but it must be remembered that it was liable to produce perspiration, and hence the patient should be cautioned not to use it except at bedtime and when he was not exposed to cold. The various forms of inhaling apparatus showed much ingenuity, but the tubes were generally too small; they ought to be twice or three times as large. A simple and useful form which he employed was a jug of hot water containing the medicinal substance to be inhaled, the patient inhaling under a napkin lying over his face and covering the jug. The medicinal substance to be inhaled must be volatile; it was sometimes recommended to add non-volatile metallic salts to the water; and even iodine was volatised with some difficulty. In general, creasote or carbolic acid, with hemlock, or in some cases chloroform, were most useful. The recommendation to use iodine both internally and externally deserved consideration. Many remedies might be given in oil or glycerine which were too irritating to be administered in other ways. Even water-vapour itself, in the form of spray, was irritating to the larynx, and of course more so when containing other substances; hence the addition of oil and glycerine was worthy of consideration.—Dr. **Drysdale** said that it seemed to him, from observation of many cases, that the prognosis in laryngeal phthisis was fatal, except where the patient could go to a warmer climate; and, under these circumstances, he had known a few cases where life had been prolonged for years, just as in other cases of phthisis. As a general rule, he thought that the course of laryngeal phthisis towards death was very rapid. He had seen relief produced by the inhalation of iodine vapour. As to the diagnosis, there was a difficulty, as had been well pointed out by Dr. Marcet, in distinguishing between laryngeal phthisis and syphilitic disease of the larynx; especially in such cases as one to which he referred, in which laryngeal phthisis occurred in a patient who presented distinct signs of syphilis.—Dr. **Thin** said that, in travelling in America, he had visited Salt Lake City, and had obtained some interesting information from a medical man there. The plateau on which the city stood was about four thousand feet above the level of the sea. Among the native white population, he was informed, phthisis never occurred. Among the converts to Mormonism who came from the eastern parts of America and from Europe, there were sometimes persons, especially women, who had slight symptoms of phthisis before setting out; during the journey, the disease often became much aggravated; but after their arrival, unless they were in the very last stage of the malady, arrest and cure of the disease almost invariably took place. He believed that this fact was not generally known. He doubted the propriety of making scarifications of the larynx in laryngeal phthisis, as he believed that the resulting effusion might become a source of tuberculous growth.

## OBSTETRICAL SOCIETY OF LONDON.

### Wednesday, February 3rd, 1875.

W. O. Priestley, M.D., F.R.C.P., President, in the Chair.

Professor Gustav Simon, M.D. (Heidelberg), and Professor Courty, M.D. (Montpellier), were elected honorary fellows of the Society.

*President's Address.*—The **President** delivered his inaugural address.

Professor **Casellan** of Milan presented his transfusion-apparatus.

*Adhesion of Uterus to Intestines.*—Dr. T. C. **Hayes** exhibited an uterus and appendages which were connected by adhesions in several places to the large intestines. The patient, aged 42, had had two children and four miscarriages; had been subject to frequent and copious menorrhagia, and latterly had three or four attacks of hæmatemesis. She lived in India several years, where she had ague and rheumatic fever. She was admitted into King's College Hospital, suffering from cardiac disease, contraction of the liver, and enlargement of spleen, associated with ascites and œdema of the legs. Death resulted after an attack of hæmatemesis. There was no reason to suppose that she had been intemperate, nor was there any clear evidence of her having had syphilis. In spite of the adhesions, the uterus was remarkably movable. The menorrhagia was doubtless passive, and was probably intensified by the serious obstruction to the return of blood from the uterus, caused by the adhesions.—The **President** inquired whether there was any history of previous pelvic peritonitis; to which Dr. Hayes replied in the negative. The President remarked that the amount of pelvic adhesions, and the absence of any history to explain them, was a point of interest.—Dr. **Edis** alluded to a case of his, recently published, where Bright's disease was the exciting cause of profuse menorrhagia, this latter being often dependent upon the most varied conditions, both general and local.

*The Couch-aid.*—Dr. **Edis** exhibited for Dr. E. Diver an apparatus designed to assist labour and economise force during parturition, enabling the patient, by pulling during her pains, to give comfortable pressure to the back, and support to the uterus at the same time. It consisted of a cushioned back pad, and another for the front, with two stirrups for the feet, and a series of connecting straps and cords.—Dr. **Aveling** thought the ingenious apparatus for accelerating labour, just exhibited, ought to be used with the greatest caution. He feared that, more particularly in the early stages of labour, if not carefully applied, it might have exactly the opposite effect to the one desired; and, as the patient herself had to use it, it was necessary that she should be at the time composed, or, at least, quite mistress of her own actions. A severe pain might either cause her to abandon it altogether, or use it too violently. He thought pressure by the hand preferable.—Dr. **Murray** objected to the apparatus, on the score that it would be advertised as recommended by the Obstetrical Society. He thought we had sufficient to attend to in looking after the mother and child, without complicating matters by applying any such apparatus.

*Aborted Ovum.*—Dr. **Edis** exhibited an ovum expelled about the eighth week, showing the villi of the chorion. The decidual membrane had not been passed.—The **President** remarked that it was a pity the outer coats had not been obtained, so as to make the specimen complete.

*Speculum Trough.*—Dr. **Edis** showed an India-rubber trough which he had designed to fit over any speculum, so as to prevent wetting the bed in cases where it was necessary to employ the syringe. He had tried it in several cases, and found it answered the purpose well. It was similar to the ordinary ear-trough, except that, being elastic, it could be readily attached to any speculum, and did not interfere with any manipulations that might be necessary.

*Report of Three Cases of Cephalotripsy.*—Dr. **Braxton Hicks** narrated the history of three cases in which he had resorted successfully to this operation, illustrating his remarks by the casts of two heads taken before the removal of the instrument. He employed it as a tractor as well as a crusher, and felt confident that it would, in the main, supersede the crotchet and craniotomy-forceps in all cases of severity. In the first case, the bony outlet was so small that the hand could not be passed up to the brim; delivery was effected by the cephalotribe, after the crotchet and craniotomy-forceps had failed. In the second case, the breech presented, and the labour was very tedious, the conjugate diameter of the brim being only about two inches. The third case occurred in a primipara, four feet three inches high, small sized in every way and hollow backed. The two latter recovered perfectly in a fortnight; the first case succumbed on the fifth day.—Dr. **Murray** inquired if Dr. Hicks had ever known the instrument to slip. It seemed to him (Dr Murray) that its principal value was that of a tractor; as to pressure on either side, it was merely a change in the bulk of the head. He had never used the cephalotribe himself, but if the head were not perforated, lessening it one way would only increase it in the other. Without wishing to disparage the instrument, he thought that if we were able to attain sufficient power with the hook and forceps, delivery would be quite as easy as with the cephalotribe, especially as Dr. Hicks said it would supersede the craniotomy-forceps or blunt hook after perforation.—Dr. **Hicks** stated that he always perforated first. If the head were too high, it was no case for cephalotripsy. It acted as a crusher and tractor; there was no outbulging.—Dr. **Playfair** thought Dr. Murray's objection was based on the fact he stated, viz., that he had never used the cephalotribe. Any one who had done so must at once admit its immense superiority; and it was strange that, even after many years of use, teachers recommended the crotchet and craniotomy-forceps for ordinary cases, instead of teaching, as they ought, that the cephalotribe was the proper resource whenever it could be used. No better proof could be given of its value, than the last of Dr. Hicks's cases, in which two experienced operators, medical officers to one of our largest obstetric charities, had failed to deliver with the older instruments, when the cephalotribe had succeeded. Could any evidence of its value be stronger? One particular value of the operation was also well illustrated by the paper, viz., the safety of the maternal soft parts, which were effectually preserved from injury by the spicula of bone, in consequence of their being within the scalp. Hence the dangers arising from picking away the broken bones was entirely avoided.—Dr. **Heywood Smith** said that one of the chief advantages of cephalotripsy was the rapidity with which delivery was accomplished; and this was an element of great importance, for the cases were generally those where labour had been prolonged until the mother's powers were becoming exhausted, and where every minute saved was of the utmost importance. He, unlike Dr. Murray, had never performed craniotomy proper, and, in all the cases where he had been compelled to perform cephalotripsy, the facility of delivery was one of the remarkable features. Perforation, of course, was first employed.—The President had often been struck, in operating, with the uselessness of many instruments. Where the skull was firm, even Sir James Simpson's cranioclast was useless. With the cephalotribe, the bones were broken down more readily, and a firmer hold was obtained than by other means. In some cases, the spinal hook of Dr. Oldham's was most efficient.—Dr. Hicks, in reply, stated that he had found the head expand after removing the instrument, not because of the brain within, because by passing the perforator three or four times through it, its resistance was overcome, but it expanded from its own elasticity tending to recover the globular form; this he had proved by frequent experiment, and, therefore, he had many times in this Society pointed out the advantage of drawing down by the cephalotribe, in opposition to the French recommendation that it should be removed, and the head allowed to be expelled by natural efforts, or drawn down by crotchet. With regard to the remarks which fell from the President, he said that till he had employed the cephalotribe, he was much indebted to the cranioclast of Sir James Simpson. But with regard to the use of Dr. Oldham's vertebral hook and the fixing the crotchet in the foramen magnum, he thought there had been much misapprehension. With regard to the crotchet, it could not pass into the vertebral opening, but if it could catch the sella Turcica, or if Dr. Oldham's hook were passed into the foramen magnum, this did not assist the descent of the head; for, if the cranial base measured three inches, and the brim only two inches, no amount of pulling would conquer the difficulty; all that was required was bringing the head side or face ways. From some unaccountable error, a constant answer from students to the question, how would you draw down the head after perforation, was, "by the vertebral hook!" No other instrument was thought of. The vertebral hook was invented by Dr. Oldham to seize the head which had been torn off the body in breech-presentations, by being passed into the spinal foramen of the remaining vertebræ. With regard to the advantage of the cephalotribe over the crotchet and craniotomy-forceps, it must be remembered that these instruments can only act by virtue of the compression of the mutilated head against the vaginal walls, and, therefore, the pressure was in direct ratio to the traction employed; whereas the cephalotribe, by compressing the head, directly removed all the pressure and friction in a fourth of the time, and even, in some cases, in a tenth, it would take to deliver by the old plan.—Dr. Hayes stated that some French authors advocated clearing out the brain before applying the cephalotribe. Dr. Hicks seemed always to stir the brain up well and so break it up.

*Uterus from a Case of nearly Sudden Death.*—Dr. Heywood Smith exhibited the uterus and ovaries of a woman, aged 26, who had died the previous day, within fifteen minutes of hæmorrhage into the pelvis. She had been confined sixteen days. On the third day, she had a sharp attack of puerperal septicæmia, from which she, with difficulty, recovered. She had been sitting up for two days, when suddenly, about 12.30 P.M., she became faint, struggled violently, became blind, and died in less than a quarter of an hour, retaining her consciousness until the last. At the *post mortem* examination, the pelvis was found full of blood. The uterus was insufficiently contracted—probably the result of the attack of septicæmia; the left oviduct was adherent to the broad ligament as the result of recent inflammation, and on the left ovary was a small opening. The right ovary was studded with small cysts. In reply to the President, he stated that the source of the hæmorrhage had not been discovered.—Dr. Bloxam remarked that, given the conditions stated by Dr. Smith, those who were familiar with the symptoms of pelvic hæmatocele, and with the fearful organic shock attending the outpouring of blood into the peritoneal cavity, would expect such a patient rapidly to succumb.—The President requested Drs. Playfair, Bloxam, and H. Smith, to examine the specimen further, with the view of discovering the source of hæmorrhage.

*Note on the Treatment of Chlorosis and Anæmia with the Phosphide of Zinc.*—Mr. J. Ashburton Thompson communicated a short paper exemplifying the advantage of employing this drug. It succeeded in relieving the symptoms where iron had failed, and that rapidly. Phosphorus was of great value in the treatment of patients recovering from uterine hæmorrhage, and in all cases of anæmia; and seemed to exercise a specific influence upon the neuralgia so often met with in these cases, encouraging the general nutrition of the body. Free phosphorus was not the treacherous poison it had hitherto been considered to be. It was a fatal and potent poison, it was true; but its therapeutic effects might be obtained with precision and perfect safety. If proper formulæ were employed, no apprehension of unexpected or uncontrollable poisonous effects of a therapeutic dose need hinder its general employment.—Dr. Routh said, it might be known to some members of the Society, that he had made several inquiries on the employment of phosphorus. In some cases it produced marvels, especially in cases like those detailed by Mr. Thompson, due to deficiency of phosphorus in the system. But it occasionally acted injuriously; producing headache and giddiness, and, in a few cases (of idiosyncrasy, perhaps,) it acted as a deadly poison even in the first dose, sometimes immediately, producing vomiting and syncope. The safest preparation was the phosphide of zinc, but it was a medicine to be closely watched when given.—Dr. Tilt inquired, what preparation of phosphorus Mr. Thompson recommended?—Mr. Thompson said, Dr. Routh had revived the old objection; not because it was a poison, but because we cannot calculate the results. These arose from decomposed phosphorus. —Dr. Playfair inquired, whether the zinc phosphide was not insoluble in pill?—Mr. Thompson replied, that some acid tonic given simultaneously would serve to assist the decomposition.

*The Treatment of Rigid Perinæum, and the Avoidance of its Rupture.*—Mr. Trestrail (of Aldershot) read a communication on this subject. In cases where the perinæum was long and firm, he materially shortened labour by hitching two or three fingers into the posterior commissure and keeping up extension, thus speedily enlarging the outlet and obviating the necessity for employing the forceps. He cited a case illustrating this method.

*Cases of Prolapsus Uteri treated by Dr. Vulliert's Pessary.*—Dr. A. Cordes (of Geneva) communicated the history of two cases treated by this instrument, which consists of a Hodge's pessary bent upon itself.

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## HARVEIAN SOCIETY OF LONDON.

February 18th, 1875.

W. H. Broadbent, M.D., President in the Chair.

*Treatment of Primary Diseases of the Heart.*—Dr. Milner Fothergill read a paper upon the treatment of primary diseases of the heart. He said that the successful treatment of diseases of the heart, perhaps more than that of any other class of ailments, rested upon an accurate diagnosis. It was of the utmost importance, then, to decide in each case as to whether the heart symptoms arose from some affection of the heart itself, or they were secondary, and due to some disturbance in the vascular system, standing in a causal relationship to them. The treatment of the first class of heart affections was directed to the condition of the heart itself. In the second division, the true line of practice was to remove the exciting cause, and thus to relieve the heart. The primary affections of the heart were valvular or muscular. When a valve was injured, a compensatory growth of the muscular structure usually followed. If the disease were stenosis, then hypertrophy of the muscular chamber behind the lesion enabled an equal amount of blood to be driven through a narrowed opening in an equal time—and thus perfect compensation was attained, as long as the muscular wall is structurally sound. This was best seen in aortic stenosis. Hypertrophy at other times was developed not to overcome some obstruction in front, but to limit dilatation when the muscular chambers were distended by an incoming current of blood of unwonted force. This was the case in aortic regurgitation very markedly; and was also common in mitral regurgitation when the left ventricle was distended by an inrush of blood from the gorged auricle and pulmonary veins. At other times the disease consisted of muscular debility, without valvular lesion. Cases were given illustrating the complete recovery of the heart from conditions of temporary dilatation. The line of treatment pursued in the cases was rest, at first, and the steady administration of digitalis and iron. The administration of digitalis might be continued for years uninterruptedly, without the production of those toxic symptoms which were supposed by older writers to indicate some cumulative action in this drug. As well as acting directly upon the heart in advanced cases with dropsical effusion, Dr. Fothergill spoke strongly in favour of the use of cathartics, to relieve the venous congestion. He gave a case where two scruples of compound jalap powder were given every alternate morning, till eight doses had been taken, with excellent effects. The depressing effect of free purgation is more than compensated by the relief afforded in these cases. Digitalis and iron were also given, and the carthersis was only supplementary to the direct treatment of the heart itself. To illustrate what might be attained by such direct treatment of the heart, Dr. Fothergill adduced a case of mitral regurgitation in a young man, in whom a murmur could no longer be heard, and the subjective symptoms of disease of the heart had also vanished. Here the vela of the mitral valve were injured, and when the left ventricle was dilated, the injured valves were no longer equal to closing the ostium on the ventricular systole. The reduction of the ventricle to its normal size had resulted in the valves being once more competent; and as long as the ventricle can be maintained in a normal and undilated condition, the equivalent of a cure is attained. In mitral disease the use of digitalis is almost universally admitted, but there is less agreement as to its use in aortic disease. In Dr. Fothergill's opinion, its utility in aortic stenosis was obvious. In aortic regurgitation in the early stages, it was contraindicated, and an agent of precisely opposite qualities—one that would lessen the force of the ventricular contraction, and at the same time increase the number of beats—should be adopted, if we possessed such an agent. In the later stages, however, when the muscular walls were failing, and death threatened from cardiac syncope, then digitalis was useful as a palliative agent. Valvular disease of the right side of the heart, and especially tricuspid disease, was little amenable to treatment, because no muscular hypertrophy could be brought to bear on it. Dr. Fothergill summed up the treatment of primary diseases of the heart as follows: 1. It is of the utmost moment in these cases to reduce the demand upon the heart to a minimum. 2. Much relief may be afforded where dropsy is present, by unloading the congested venous system; and for this end cathartics are very serviceable. 3. The heart must be acted upon directly, by means of agents which increase the vigour of the ventricular contractions, of which digitalis is the chief. 4. To improve the general condition by the use of chalybeates and suitable food is also very desirable. Digitalis and iron may be continued for years, not only without any evil consequences, but with much advantage in many cases. The treatment of secondary affections of the heart would form the subject of another paper.—A discussion followed, in which the President, Dr. Hare, and Messrs. J. W. Langmore, Lawrence, and Sedgwick took part.

## GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

TUESDAY, JANUARY 26TH, 1875.

W. T. GAIRDNER, M.D., President, in the Chair.

*Shred of Hydatid (?) or Raisin-Skin (?)*—Dr. MACLAREN showed a specimen like a piece of the skin of a raisin, said to have been passed *per urethram* by a man under his care at the hospital, who was supposed to have a hydatid tumour of the liver. This had been tapped twice, and about one hundred ounces of chocolate-and-cream-like fluid removed. No hooklets were found in this fluid. Inflammatory symptoms subsequently occurred; and, three weeks after the second tapping, the patient passed half a chamber-potful of dark fluid, similar to that removed from the tumour; the urethra had become obstructed, it was said, for a time; and, after this was overcome, the patient produced the specimen shown as the cause of the obstruction; since then, the grave symptoms had somewhat improved. Dr. Maclaren did not think the man guilty of imposition; but he had been eating yellow grapes, and possibly this might prove to be the skin of one.—Dr. Joseph Coats and Dr. Thomas Reid were appointed to examine the shred.—[At the next meeting, they reported that the structure was clearly vegetable; the cells were larger than animal cells, and by the iodine reaction starch was plainly made out.]

*Recurrent Tumour.*—Dr. HECTOR C. CAMERON showed the patient, from whose breast he had removed three tumours, formerly shown to the Society. A fourth had now grown, and it seemed much more adherent to the subjacent tissues than the former ones.

*Deficiency of Corpus Callosum in an Idiot.*—Dr. ALEXANDER ROBERTSON showed the brain of an idiot, in which the corpus callosum was absent.—A committee was appointed to report on the case to a subsequent meeting (in March.)

*Impacted Pessary for Five Years: Vesico-Vaginal Fistula.*—Dr. GEORGE BUCHANAN showed a pessary (apparently Zwanke's) crusted over with phosphates, which had remained in the vagina for five years, part of the instrument projecting from the vulva. Urine passed down by the side of the instrument; and, on its being removed, without much trouble, a large vesico-vaginal fistula was found.—Dr. GAIRDNER said he made a *post mortem* examination in 1851, in a case with long standing uterine symptoms, and in which death had resulted from acute pulmonary tuberculosis. In the lower part of the abdomen, there were the appearances of peritonitis, partly perhaps tubercular, with adhesions and matting together of the pelvic organs; and at the fundus uteri something hard was found. A "stem-pessary" was found at the top of the vagina, the stem being imbedded in the wall of the uterus just under the peritoneum. This had evidently given rise to chronic peritonitis, etc., and the pulmonary tuberculosis was no doubt secondary to the pelvic mischief. The case had been diagnosed during life as one of uterine fibroid, but the verdict after the *post mortem* examination should have been "Died of Pessary".—Dr. GEORGE BUCHANAN thought that in elderly women, without discharges of any kind from the womb, more or less complete occlusion of the vagina by operation was a procedure that should be more often carried out in bad cases of procidentia uteri than it was, as affording a better remedy than the use of pessaries.

*Hyperæsthesia of Fingers: Success of Galvanism.*—Dr. FINLAYSON presented the boy with hyperæsthesia of the fingers, shown to the Society this time last year (BRITISH MEDICAL JOURNAL, March 28th, 1874). He had since been treated by galvanism, and might now be said to be quite well. The treatment was begun at the end of January, and continued till the middle or end of March. A descending current from seventeen to twenty elements of Weiss's battery was applied two or three times a week at first, and latterly less often. The current was passed steadily from the spine to the hand immersed in salt water, or from the spine to the nerve-trunk, or from the nerve-trunk to the hand, about ten minutes for each segment, the whole proceeding occupying twenty or thirty minutes. After the first two or three applications, in which the current was more acutely felt in the affected fingers than in the others, a very marked improvement was noticed; this special sensitiveness to the current diminished and passed away, and ultimately the degree of hyperæsthesia became so slight that further treatment seemed superfluous. A fortnight ago, the state of the fingers was examined; the affected fingers bore irritation as well as the others; their tactile sensibility, which had been slightly impaired, was now as nearly as possible normal, and there was now no tenderness over the spine or over the nerve. Dr. Finlayson thought that, while part of the recovery might be due to the boy's leaving off his manual work and to the effect of time, the rapid improvement after a month's stationary condition, under rest and belladonna externally (before the electrical treatment began), pointed clearly to the beneficial action of galvanism, as, when shown to the Society last year, the case had a somewhat threatening aspect.—Dr. CAMERON, who had formerly presented the boy to the Society, said the best evidence of the cure was the ability of the boy to use his hands now as well as ever. —Dr. GAIRDNER thought the recovery of the tactile sensibility was the most satisfactory sign of cure; hyperæsthesia was a misnomer, the name should be paræsthesia, for with the painful sensations there was almost invariably a diminution of the tactile sensibility.

*Brain of an Aphasic.*—Dr. ALEXANDER ROBERTSON showed the brain of a patient long under observation, affected with aphasia.—The case was remitted to a committee for report.

*Croupal Membrane.*—Dr. ALEXANDER ROBERTSON showed a specimen from an infant, aged nineteen months. The illness seemed to be of five days' duration altogether. When he first saw the child, a few hours before death, the state of the chest and the general exhaustion precluded any prospect of relief by operation. The specimen showed a complete cast of both larynx and trachea. The false membrane did not extend higher than the rima glottidis, but below it was prolonged into both bronchi, although in them it was thinner and less complete. The connection with the mucous membrane was nowhere intimate, and in some parts there was a separation. Above the vocal cords, and on the under surface of the epiglottis, the membrane was thickened, but there was no morbid structure there, and no diphtheritic exudation on the tonsils, pharynx, or parts in the neighbourhood.

*Aortic Aneurism protruding into Right Auricle.*—The case was published in another connection in the BRITISH MEDICAL JOURNAL, April 18th, 1874, by Dr. ALEXANDER ROBERTSON, who then called attention to epilepsy being preceded by coloured vision in the patient, and followed by partial loss of recognition of the special colour, followed also by temporary aphasia and hemiplegia; no distinct pathological condition, however, was found in any part of the brain. The woman was forty-five years old at death; the cause of death was general dropsy, with effusion into the pleural cavities; there was undue præcordial dulness on percussion, and at the base the two sounds of the heart were merged into a loud murmur. The heart was very much enlarged. Just beyond the aortic valves, there was an aperture in the aorta about three quarters of an inch in diameter, leading into a cavity in the substance of the heart large enough to hold a large plum; its wall projected into the right auricle, and probably encroached on it considerably when distended with blood.

*Aneurism of Aorta perforating Right Ventricle.*—Dr. JOSEPH COATS showed an aneurism perforating the right ventricle. The aneurism was situated just above the aortic valve, and consisted of a shallow pouch, which projected into the right ventricle just below the pulmonary valve and between two of its semilunar folds. At the most prominent part of this projection, there was a minute perforation. Alongside of this aneurism, there was another shallow pouch which projected externally, and the aortic arch, as a whole, was very atheromatous.—Dr. Perry described the symptoms observed during life in this case, but they had no special reference to the peculiar lesion.

*Pericarditis and Endocarditis.*—Dr. Joseph Coats showed a specimen of pericarditis, in which, with very marked redness of the membrane, there was a layer of soft lymph on the surface, having the usual shaggy appearance. In the same case, there was acute endocarditis affecting the aortic valve chiefly, one of the semilunar folds of which was perforated by a round aperture, about one-eighth of an inch in diameter.

## MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

Wednesday, February 3rd, 1875.

Rutherford Haldane, M.D., President, in the Chair.

*Exhibition of Patients, Specimens, etc.*—Dr. P. H. Watson showed a girl, whose wrist he had excised, including the whole Carpus and Base of the Metacarpus, six months ago, by a single linear incision on the radial side of the dorsum of the hand. The result was admirable.

Dr. Finlay showed a boy, who had suffered from Suppurating Inguinal Glands for sixteen months, which speedily healed up, after the removal of an ingrowing toe-nail.

Dr. Finlay also showed a case of Forked Uvula.

Dr. Watson showed an Urethrotome for Internal Division of Stricture. The knife is protruded, acting upon a conducting rod in the thick part of the instrument, which in shape resembles a Syme's staff, from which a slender tenotomy-knife projects, which divides the stricture from behind forwards as the instrument is withdrawn.

Dr. Watson also showed some interesting specimens: one of proliferating cyst of the mamma; of sarcoma of scalp; of diseased wrist-joint; and an intracapsular fracture of the neck of the femur in an aged female, who had died somewhat suddenly from pulmonary embolism.

Dr. Littlejohn showed a specimen of Rupture of the Heart. A man fell accidentally from the roof of one of the tallest houses in the Old Town of Edinburgh, eight storeys, and was killed on the spot. The only external mark of injury was a laceration of the scalp in the centre of the forehead. The cranium was intact, and the brain, with the exception of slight subarachnoid effusion of blood, presented a normal appearance. The right cavity of the chest contained several pints of fluid blood, which had escaped from several apertures in the right auricle. There was universal adhesion of the pericardium from old standing inflammation. The heart and aorta were of normal size, and the cardiac substance was microscopically healthy. The liver was slightly ruptured on its under surface. The cavity of the pelvis contained about a pint of fluid blood, which had apparently come from a wound of the iliac vein, the result of a detached portion of the side of the sacrum being driven against it. There were no other injuries.

Dr. Littlejohn also showed the windpipe and a portion of the skin of the neck, from a case of Suicide by Hanging. The dark parchment-like appearance of the furrow, caused by the pressure of the ligature, was well seen, although the ligature employed was a soft cotton handkerchief. The skin on the thyroid cartilage showed a marked cicatrix, the remains of a suicidal wound inflicted seven years previously. Internally, the reparation of the wound was most complete, there being scarcely any vestige of a cicatrix.

Mr. Joseph Bell showed a specimen of Epithelioma, which he had removed from the lip of an aged female in the usual manner. He stated this was the seventh case of a similar nature on which he had operated in females, and that all of the patients were smokers.

Mr. J. Bell also showed two Incisor Teeth and a Gold Plate with hooks on it, which had been swallowed during sleep, after nearly suffocating their owner. He had managed to feel them in the stomach by a probang, but ordered bulky indigestible food, kept the bowels constipated for some days, and they passed without any trouble on the seventh day.

Dr. Haldane showed a specimen of Calcification of the Gall-bladder. The patient, aged 53, was ascitic on admission; and soon required tapping. She died in a week. Numerous hard masses which had been felt after the tapping were found to be cancer of the peritoneum and omentum.

Mr. T. Annandale showed the fragments of an Os Calcis, which he had removed from the foot of a patient, who had fallen forty feet upon his heel, and sustained no other injury.

Mr. Annandale also showed an example of Rupture of the Ligamentum Patellæ, the result of a violent twist in a railway accident.

Mr. Annandale also showed the parts removed in Excision of the Elbow-joint, in a case of Unreduced Dislocation of both bones of the forearm.

*Cancer of the Ovary.*—Dr. Foulis read a paper on cancer of the ovary. After noticing the researches of Waldeyer of Breslau on the development of the ovum and ova, he stated as his conclusion that the ova and epithelial lining of the Graafian vesicles were derived from the germinal epithelium on the surface of the ovary. He then described his own investigations on the same subject, and indicated where they coincided with, or differed from, those of Waldeyer. By means of careful microscopic research, he had shown that the epithelial lining of the Graafian vesicles was formed from the connective-tissue-corpuscles of the stroma. He regarded each Graafian vesicle as a cystic formation, the overdistension of which was the beginning of an ovarian tumour, and the excessive proliferation of their epithelial lining as the cause and explanation of their frequent malignancy. He then gave an account of two cases of ovarian tumour, which had been under the care of Dr. Thomas Keith. In the first case, tapping was necessary, and a large quantity of ascitic fluid was drawn off. In this fluid, Dr. Foulis detected, among other things, a large quantity of proliferating epithelial cells. The operation of ovariotomy proved that the case was one of malignant disease, with numerous adhesions. The second case was similar. The ascitic fluid, drawn off on two occasions, showed enormous quantities of similar proliferating epithelial cells, from which, aided by the experience of his former case, Dr. Foulis predicted malignancy; and, though the patient was, in other respects, in good condition, Dr. Keith did not operate. On her death, some time afterwards, the *post mortem* examination showed that extensive malignant disease existed. Dr. Foulis pointed out that the detection of masses of proliferating epithelial cells in large quantity in ovarian or ascitic fluid seemed to afford satisfactory evidence of the existence of malignant disease.—The President, in thanking Dr. Foulis for his paper, described it as an important addition to our knowledge of the diagnosis of malignant growths, as a valuable contribution from physiology to pathology, and an admirable illustration of the doctrine of the inoculability of tubercle and cancer.—Dr. Matthews Duncan recalled a discussion on this same subject, the diagnosis of ovarian tumours, in which Dr. Handyside, Professor Simpson, Professor Spence, and Professor Bennett took part. He alluded to Spiegelberg's researches in the subject of the diagnosis between ovarian fluid and that of chronic peritonitis, and the unsuccessful result of them. He alluded to the difficulty of the question, and the necessity of further observation; but believed that the relation of the masses of epithelial cells found free in the peritoneal fluid, was a new observation, and one of great value in diagnosis.—Dr. Grainger Stewart and Mr. Chiene continued the discussion, and Dr. Foulis briefly replied.

# CORRESPONDENCE.

## THE CONTAGIOUS DISEASES ACTS.

Sir,—I see I was too sanguine in hoping that any figures could convert Dr. Nevins, and I shall only ask for a few lines to reply to his arrangement of the Royal Engineer Statistics in his letter in your Journal of February 13th, for his other statements may safely be left to themselves.

Among the Engineers, Dr. Nevins says, "Primary syphilis had fallen before the Acts from 108.3 to 74.8 per 1,000, or one-third of its amount in six years, *i.e.*, above five per 1,000 yearly". In this statement it is implied that the fall had been from year to year, and that it was permanent. Now, the ratios per 1,000 for these six years (1860-65) are 108.3, 77.9, 109.3, 107.6, 82.9, 74.8; *i.e.*, there were, as usual, both falls and rises, from year to year, but there was no continuous decline. Between 1860 and 1865, taken as single years, there was, as Dr. Nevins says, a fall of thirty-three per 1,000, but, if he had taken the years 1861 and 1865, he would have found the difference to be only three per 1,000. If he had taken 1861 and 1862, he would have found a rise of thirty-one per 1,000. In fact, in such questions we cannot properly select single years at pleasure for comparison, and conclude as to rise or fall of admission for other years; we must take groups of years to neutralise the fluctuations.

Having thus erroneously implied that the ratio 74.8 was the lowest number of a continually declining series, and entirely neglecting the fluctuations, Dr. Nevins compares this ratio of a single year with the *mean* of the next three years (1866-68), when the Acts were in partial operation. In these three years, though there were fluctuations which bring the mean above the *lowest* ratio of the preceding six years, yet this mean was far below that of the six years before the Acts, and below the means of the first three, or the last three years of the six. To compare the mean of a fluctuating series with the ratio of a single year, is a mode which I should have thought no one conversant with figures would have adopted.

Passing to the six years (1869-74) when the Acts were in full operation, Dr. Nevins selects the highest ratio in these six years, viz., seventy-six per 1,000 in 1871, and affirms that it was "thirteen per 1,000 higher than before the Act was in full operation". I was at first puzzled tó see how he got this number thirteen, for the ratio of seventy-six per 1,000 (which was the *highest* in six years after the Acts) is only 1.2 per 1,000 higher than the *lowest* ratio (74.8) in the six years before the Acts. But I see he has got it by selecting the year 1868, when the Act was in partial operation, and when the ratio was 63.2, for comparison with 1871. Here, again, he neglects all the fluctuations, and never notices the fact that, if 76 is a higher ratio than 63.2, there are yet several much lower ratios than 63.2 in the years influenced by the Acts. The figures only entitle him to say that in a particular year, under the complete Acts, the ratio was thirteen to 1,000 higher than in a particular year under the partial operation of the Acts; but his expression conveys far more than this. His method is a sort of unnatural selection, by which he secures the survival of the fittest for his purpose. It may answer for those who will not refer to the figures for themselves, but for those who will look, the fallacy of his plan must be at once detected.

It would take up too much space to make a similar analysis of the statements on gonorrhœa, but the error of the method is the same.

With regard to the ratios per 1,000 of primary syphilis and gonorrhœa in the home army for 1861, 1866, and 1872, to which he refers me, I cannot make my numbers agree with his; but this is of little consequence. He here again selects years, makes no account of fluctuations of intervening years, and in the last year to which he refers (1872) makes confusion worse confounded by taking the whole army, and therefore concealing the statistics of the protected stations by mixing them with those of the unprotected, and then arguing from this "incompatible mixture" for the failure of the Acts.

I may also add that he has made a wrong quotation, or, at the very least, would lead his readers to a wrong inference, from the fifty-fifth section of the Report of the Royal Commission.—I am, Sir,

Netley, February 24th, 1875. E. A. Parkes, M.D.

P.S.—There is a slight misprint in my letter on the above Acts in the Journal of Feb. 20th. The number of non-commissioned officers and men in the 58th Regiment who are married with leave is forty-four, and not fifty-four, as given in the letter. I was afraid of occupying too much space, or I should have pointed out that, if the numbers of married men in the two regiments are deducted from the mean strength, the calculation of syphilitic and gonorrhœal admissions becomes still more adverse to the 106th Regiment in the unprotected stations.

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Sir,—Your paper of the 13th instant contains a letter from Dr. Nevins, wherein he says, with reference to the arrangement of the stations, adopted in the returns of primary venereal affections from the Army Medical Department, "The fatal objections to clubbing 'the stations under the Acts' together, and 'those not under the Acts', are fully shown in my statement to the Home Secretary; and, as these objections have not yet been answered, it is useless to discuss the question on that basis". Dr. Nevins is under a misapprehension here; and I beg to refer him, and such of your readers as may be interested in the subject, to the *Medical Times and Gazette* of 26th December last, where they may see, at page 706, not only that there is no ground for Dr. Nevins's criticism, but that the illustration he himself gives, when written out, is at variance with his own rule.

It will be seen also that the comparison between the frequency of primary venereal sores at the stations now "under the Act", and what it was before they came under the Act, has there been made, as far as the published returns would admit; though the stations have not been taken singly, but all those which came under the Act the same year were put together, for the double purpose of neutralising minor fluctuations of the description noticed in the paper, and of rendering the table clearer to general readers.

The opponents of the Contagious Diseases Acts lay great stress on the reduction of primary sores from 1860 to 1866, and argue as if that should have gone on without check. There is not the slightest support for this position. The only data as to the frequency of primary venereal sores available for comparison with those since 1860 are contained in the statistical reports on the health of the cavalry and Foot Guards at home between 1830 and 1846; and these present fluctuations similar in character and extent to those found at the stations "not under the Acts" since 1860.

Robert Lawson, Inspector-General of Hospitals.

February 1875.

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Sir,—To those of your readers who may have taken an interest in the correspondence which has been published from time to time in the British Medical Journal on the influence of the Contagious Diseases Acts in diminishing disease, or otherwise, the following facts may prove of some value, in addition to those brought forward by Drs. Parkes and Myers, as I can vouch for their accuracy, having been present with the regiment during the whole period under consideration.

The 50th Regiment arrived at Colchester from Aldershot on September 16th, 1872, and remained at that station till July 3rd, 1874, when it was again moved to Aldershot, to take part in the "summer drills", after which it embarked for Ireland, and arrived in Dublin on August 8th, where it has been stationed up to the present date.

The following table shows the total number of admissions into hospital at Colchester and Aldershot from January 1st, 1873, to August 7th, 1874: both stations are under the Acts.

| Year. | Average Strength. | Gonorrhœa. | Primary Syphilis. | Recruits who joined in Year. |
|---|---|---|---|---|
| 1873 | 655$\frac{11}{12}$ | 43 | 19 | 53 |
| 1874 (7 months) | 573 | 24 | 4 | 44 |
| | | 67 | 23 | 97 |

Out of the above number, there were seven cases of gonorrhœa and seven of primary syphilis, which were contracted in places not under the operation of the Acts, and ought not in fairness to be included in the above figures.

Let us now see what effect a residence of six and a half months in Dublin has had on the health of the regiment. The result is given in the following table.

| Year. | Average Strength. | Gonorrhœa. | Primary Syphilis. | Recruits who joined in Year. |
|---|---|---|---|---|
| 1874 (5 months).. | 550 | 15 | 25 | Nil. |
| 1875 (1½ ,, ).. | 517 | 10 | 10 | Nil. |
| | | 25 | 35 | Nil. |

Any person curious on averages may easily work them out from the data already given; I simply confine myself to a bare statement of facts, and from them I have no doubt what will be the opinion of every person whose mind is not already biased by a foregone conclusion. It has been stated that the operation of Clause 126 of the Royal Warrant, dated September 26th, 1873, has rendered the Army Returns of little use, in consequence of the men concealing their disease; that argument does not hold good with respect to the above returns, as the clause was in force from October 1st, 1873, to the present time, and a comparison of the first half of the year 1874 with the latter will show that the admissions for primary syphilis in Dublin was six times more numerous than at Colchester. Every medical officer in the Army with whom I have served has remarked to me the mildness of the disease in the protected districts in comparison with the unprotected, and this has been my own experience.

It is the duty of every member of our profession to weigh well the arguments and facts set forth on each side of the question, before lending the influence and weight of his name to those who are determined on repealing the Acts at all hazards.

I am, sir, your obedient servant,
N. Ffolliott, Surgeon-Major, 50th Regiment.

Dublin, February 22nd, 1875.

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Sir,—It is now nearly two years since Mr. Fowler brought in his Bill for the repeal of these useful and excellent Acts, which Bill, however, was rejected by a very large majority. Much to the surprise and regret of many, the task of moving the amendment was not undertaken by the late Government (though a Royal Commission had reported favourably on the Acts), but was left to a private member.

As it is very desirable that a different course should be pursued when Sir Harcourt Johnstone's Bill comes forward for second reading in June next, I would suggest that a circular-memorial in favour of the Acts be forwarded to every member of the British Medical Association, and that the memorial, when completed, should be forwarded to the Home Secretary. I have not the slightest doubt that several thousand signatures will be obtained, and that other memorials from those who are not associates will follow. Fortified with such an expression of opinion from the great body of medical practitioners throughout the country, I feel sure that the present Government will come forward in defence of these much abused Acts, and that the duty of moving an amendment to Sir H. Johnstone's Bill will be undertaken by a Cabinet minister.

Among the members of our profession, the opponents of the Acts are really very few in number, though, from the peculiar tactics of the party to whom they have allied themselves, their number has been made to appear much larger. A very much larger number of our professional brethren would be glad to see the Acts extended to the civil population; many others, not ready to go quite so far as this, would be very sorry to see them repealed; while a certain proportion have been hitherto indifferent. The admirable letters of Dr. E. A. Parkes, and those of Surgeon-Major Gore and others, have gone very far to remove this indifference, as well as to convince all who are capable of conviction that the Acts have been instrumental in reducing disease; while the able leaders which have appeared in your columns have shown conclusively that they have been equally beneficial in a social and moral point of view.

Why Liverpool should be the great stronghold of the opponents of these Acts, I cannot conceive. It would be very easy to give numerous and weighty reasons why, on the contrary, this should be the next town to which the benefits of the Acts should be extended. This would occupy too much of your space now, though I trust, in a future issue, you will permit me to do so. For the present, it will suffice to quote the words of Mr. J. D. Lewis (the late member for Devonport, when seconding the amendment to Mr. Fowler's Bill), which seem to me very apropriate: the italics are mine. "Sir, in conclusion, let me assure the House that the agitation on this subject is slowly, but surely, dying out. *It was always loudest, or, perhaps, I should rather say shrillest, in proportion to the distance of the persons who raised it and the localities where they lived from the places where the Acts were practically known and appreciated.* It was never greater than that which was raised against vaccination on its first introduction by old women of both sexes. But the House of Commons of that day stood firm, and I trust that the House of Commons of this day will stand equally firm, and not proceed to decree the unrestricted circulation of venereal poison to the detriment of posterity, whose curses we should incur, and, what is worse, we should merit. I trust there will be no successful effort to tamper with these Acts, which, in localities where they have been in force, have done more in a few short years to alleviate one of the most frightful scourges which can afflict humanity, to improve the condition of the towns, *to eradicate juvenile prostitution, to bring to bear a moral influence on the unfortunate women* who are subject to them, than all the voluntary efforts of all the philanthropists who have ever existed."

The "last expiring shriek" is proverbially loud; hence, perhaps, the recent agitation in Liverpool and elsewhere.

I am, yours faithfully, FREDERICK W. LOWNDES.

Liverpool, February 20th, 1875.

SIR,—In the JOURNAL of January 23rd, it is stated that "nearly the entire staff of the medical school" of this town signed a memorial in favour of the retention of the Contagious Diseases Acts in seventeen garrison towns and ports, the fact being, that five of the lecturers, or more than one-third of the entire staff, did not sign. All these gentlemen have been consulted, and they all concur in the opinion that the statement was not warranted by the fact, and that, in justice to them, it should be corrected. I am, sir, yours faithfully,

WILLIAM CARTER, M.B., Lecturer on Botany.

74, Rodney Street, Liverpool, February 21st, 1875.

# MEDICO-PARLIAMENTARY.

## *HOUSE OF COMMONS.—Friday, February 19th, 1875.*

*Adulteration of Food and Drugs Bill.*—Mr. SCLATER-BOOTH moved the second reading of this Bill. After some preliminary remarks, he said that the measure was framed in five parts. It described the offences, and lays down rules for the appointment and duties of analysts: it had some provision with regard to expenses, important clauses having reference to some new duties imposed on customers, and it prohibited the sale of articles not of the nature, substance, and quality demanded by the purchaser, with certain exceptions, viz., "Where any matter is mixed therewith for the purpose of rendering it portable or of preserving it; where a harmless ingredient is mixed with it for the purpose of rendering it palatable or of improving its appearance; where, according to the usage of trade, it is sold in a mixed state; where it is the subject of a patent in force, and is supplied in the state required by the specification of the patent; where British, colonial, or foreign spirits are reduced from their ordinary strength by persons licensed and paying rates under the Excise; where a drug is compounded rather in conformity with the prescription of a registered medical practitioner, or otherwise, according to the usage of trade; where the article is unavoidably mixed with some extraneous matter." A new provision had been added, making it an offence where any property was abstracted from an article that affected its quality, as well as by the mixture of others deleterious to it, provided that if the articles were mixed in proper proportions for the convenience of all parties, the retailers would not be required to declare the same orally to the customer, but he would have to attach a proper label to the mixed article, which would relieve him from the penalty. The appointment of analyst would rest with the local authorities, and it would only be compulsory when the Local Government Board called upon them to make such appointment. Power would be given to districts to join in the appointment of one analyst for the whole. A refusal to allow samples to be taken for analysis would be a punishable offence, and the certificate of the analyst was to be *primâ facie* evidence of the charge, the obligation of showing that it could not be supported being upon the defendant. Clause 25, providing for the discharge of the defendant under certain circumstances, had been very carefully prepared. It was as follows:—"If the defendant in any prosecution under this Act prove to the satisfaction of the justices or court that he sold the article in the same state as when he himself purchased it, and that he bought it as the same article in nature, substance, and quality as that demanded of him, and with a warranty in writing to that effect, he shall be discharged from the prosecution." A clause had been added, making it a duty of the Customs to examine, and, if necessary, to analyse articles of food brought from abroad. One half of the controversies under the Act had arisen in regard to importations alleged by the defendants to have been adulterated abroad. It was obvious that in some cases the retail and wholesale dealer, or the importer, might be innocent, except so far as they had been culpably negligent, and he believed this provision would meet the difficulty. The select Committee had been of opinion that an investigation by the Customs would, in a short time, put an end to the adulteration of tea. Perhaps this expectation was too sanguine, but he felt sure the adulteration of tea would, by these means, be much diminished. It was provided that the analyst should not appear as a witness unless expressly desired to do so; and that samples of adulterated articles might be sent through the post under regulations prescribed by the Postmaster-General.—Mr. SANDFORD suggested that the number of analysts who were to be appointed, as at present, should be reduced. The Bill rather favoured wholesale dealers, on whom ought to rest the responsibility for introducing an adulterated article.—Mr. MUNTZ hoped the Bill would be made to extend to Ireland and Scotland, and regretted that there was no provision for preserving the purity of wine. There were other articles than tea which could be examined with advantage upon importation.—Mr. PELL, Mr. WHITWELL, Sir H. W. PEEK, and other hon. gentlemen suggested various amendments which might be made in committee, but at the same time expressed a general approval of the measure of the Government.—Dr. PLAYFAIR was afraid the Bill required very serious alteration in committee if it were to be beneficial. It abolished the Acts of 1860, 1867, and 1872, which had produced great effects in favour of the public. Those Acts had prevented the adulteration of milk, and compelled the sale of pure bread. The present Bill, however, was defective in several important respects. It gave a definition of food, from which coffee and tea were excluded. In the previous Acts it was assumed that the persons selling any article ought to know whether it was pure; but the present Bill was to be regulated by ignorance rather than by knowledge, for a man was only to be punished if he knowingly sold an adulterated article, and that word "knowingly" would neutralise, to a very great extent, the public advantage to be gained under the Bill. Then the usages of trade were allowed to be set up under the Bill, and that would enable any dealer to drive a coach and four through its provisions; for the usages of trade allowed the adulteration of drugs, the mixing of oil of vitriol with vinegar, the putting of alum in bread, and the addition to milk of 21 per cent. of water. He also objected to the provisions of the Bill which related to analysts, as they would lead to the appointment of a large number of inefficient analysts, instead of the appointment of a few competent ones with good salaries.—Mr. MUNDELLA believed the Bill would be effective for the purpose intended—namely, the protection of the public—and that it would, at the same time, get rid of many of the vexatious restrictions which had been imposed on the retail trader.—Mr. RAMSAY suggested that the right hon. gentleman who had charge of the Bill should explain to the House in Committee the means by which the scientific knowledge and attainments of the gentlemen appointed as analysts were to be determined. The analysis of organic substances was not a subject on which chemists themselves were agreed, nor were they agreed as to the tests to be employed for finding any particular substance in any particular combination.—Mr. YEAMAN hoped that the Bill would be extended to Scotland.—After a few words from Mr. SCLATER-BOOTH in reply, the Bill was read a second time, and ordered for Committee on Thursday, March 4.

## *Monday, February 22nd.*

*Water-Supply.*—Mr. SCLATER-BOOTH, in reply to Mr. P. A. Taylor, in reference to a statement made by Dr. Sandwith, that at a large west-end club the drinking-water supplied by a certain water company left such abundant deposits of mud in the cisterns that it was necessary frequently to clean them ; and that this mud was found by an eminent analyst to consist of various unwholesome *débris* and of human excrement, said that the statement referred to attracted his attention, and he had since had frequent communications on the subject with the water examiner of the metropolis. He was not in a position to make a statement of a reassuring character to those who did not attend to their cisterns, pipes, and boilers, within their own houses ; but, according to the analyst, the company that supplied the water had been supplying good wholesome water during the last month, and was continuing to do so. Before this statement, great complaints had been made against the same company, but the water supplied by them was peculiarly liable to pollution during a flood. From the action he felt it his duty to take, the company had prepared a private bill, which was now before the House, by which they intended to take powers so as to greatly improve their machinery, and construct large reservoirs of an expensive character, which would have been done two years ago, had not the bill been thrown out on the second reading.

*Scotch Lunacy Grants.*—In reply to Mr. Ramsay, the CHANCELLOR OF THE EXCHEQUER said that it was intended to make the Scotch Lunacy Grant applicable to all patients who are subject to, and under the inspection of, the General Board of Lunacy, with two qualifications: 1. That the lunatic shall have been sent to an asylum or lunatic ward of a workhouse, etc., under orders of the Lunacy Board, and (2) that the lunatic is charged upon the parochial rates.

*Wednesday, February 24th.*

*The Canal Population.*—Mr. CROSS, in answer to Mr. W. Price, said his attention, he was sorry to say, had been called to the very sad condition, with regard both to sanitary matters and the education of what might be called the floating population on the canals of this country. As these children were not engaged in any workshop or labour affected by the Workshops Acts, there would be some difficulty in including them under the commission, but he would take some other means to inquire into their exact condition.

*Second Readings.*—The second readings of the following bills have been fixed for the days mentioned :—Agricultural Labourers' Dwellings (Ireland) Bill (Mr. Bruen), Wednesday, March 10; Contagious Diseases Acts Repeal (Sir Harcourt Johnstone), Wednesday, June 23rd ; Coroners (Ireland), (Mr. Vance), Wednesday, May 12th ; Infanticide (Mr. Charley), Wednesday, May 12th ; Labourers' Cottages, etc. (Scotland) (Mr. Fordyce), Wednesday, May 26th ; Universities of Scotland : Degrees to Women (Mr. Cowper-Temple), Wednesday, March 3rd.

*Committees.*—Artisans' Dwellings Bill (March 4th) ; Adulteration of Food and Drugs Bill (March 4th).

# PUBLIC HEALTH
AND
# POOR-LAW MEDICAL SERVICES.

THE Medical Officer of Health for Neath, Mr. E. R. Morgan, is determined that the provisions of the Sanitary Act shall be thoroughly comprehended in the district under his care, by having plain instructions of a sanitary nature printed in English and Welsh for gratuitous distribution. In adopting this plan, Mr. Morgan has shown that he at least thoroughly understands the *Cymry* and their requirements.

THE Sculcoates Board of Guardians have increased the salary of Mr. W. Holder, medical officer for the Sutton district, from £60 to £100 *per annum.*

THE Bedford Rural Sanitary District has hitherto been divided, and held by two medical officers of health at £120 *per annum* each ; but upon the recent death of Mr. Stedman, the officer for the northern subdistrict, it was determined to appoint one officer for the whole district, at £210 *per annum* ; and it was intimated at the last meeting of the authority, that Dr. Prior, whose appointment as officer for the southern subdistrict would expire on March 25th, would be willing to undertake the duties.

## SANITARY INERTIA.

A CORRESPONDENT of the *Sheffield and Rotherham Independent* of February 6th writes : "Dr. Mackintosh is not one of those blessed individuals who expect nothing, and are consequently spared the pain of disappointment. His sanguine temperament has just been wounded by the *sang froid* with which the Dronfield Local Board treat his reports of the unsanitary condition of their town, and frustrate his efforts to lift its inhabitants from the slough of despond in which they are wallowing. In a letter read at the board meeting on Wednesday evening, he says, 'I have to-day visited various places in the district of Dronfield, and, greatly to my disappointment, found none of the thirty nuisances reported to you November 2nd, 1874, were either abolished or abated, though some of them are of a serious nature, and cannot fail to prove more or less injurious to the inhabitants surrounding them. I would again impress upon you the importance of strictly enforcing the provisions of the sanitary Acts as to nuisances ; otherwise, it will be my duty to make a special report of the unsanitary condition of your district to the Local Government Board'. It is not one of the failings of the public bodies in Dronfield to be too precipitate about making improvements. Most people would suppose, however, that the threat of being reported to head-quarters would have led to some definite steps being taken, in order to make up for lost time; but, if Dr. Mackintosh cherished such a hope, he is again doomed to disappointment. Instead of the officer of the board being ordered to take out summonses against the offenders, the report was shelved, with the usual understanding that the officers would be as strict as possible, or, in other words, that matters will remain as they are until the Local Government Board interferes."

## POOR-LAW MEDICAL APPOINTMENTS.

ALDRICH, Frederick E., M.R.C.S.Eng., appointed Medical Officer and Public Vaccinator for the No. 7 District of the Thingoe Union, Suffolk, *vice* F. G. Lawrence, M.R.C.S.Eng., resigned.

BASTABLE, Daniel H., L.K.Q.C.P.I., appointed Medical Officer for the South District of the Poplar Union, *vice* J. Sarjant, L.R.C.P.Ed., resigned.

BRUMWELL, George W., L.R.C.P.Ed., appointed Medical Officer for the Scalthwaiterigg District of the Kendal Union, *vice* John T. Brumwell, M.R.C.S.Eng., resigned.

CRESSWELL, Thomas H., M.R.C.S.Eng., appointed Medical Officer and Public Vaccinator for the Maresfield District of the Uckfield Union, *vice* S. Brown, L.R.C.P.Ed., deceased.

## APPOINTMENTS OF CONSULTING MEDICAL OFFICERS OF HEALTH IN IRELAND.

BROWNE, Samuel, L.K.Q.C.P.I., appointed Consulting Sanitary Officer for the Belfast Urban Sanitary District.

CREAN, Charles E., L.K.Q.C.P.I., appointed Consulting Sanitary Officer for the Claremorriss Rural Sanitary District.

DAVIS, Hugh A., M.D., appointed Consulting Sanitary Officer for the Newport Rural Sanitary District.

FALKINER, Frederick J., M.B., appointed Consulting Sanitary Officer for the Naas Rural Sanitary District.

FALVEY, Francis Joseph, L.R.C.P.Ed., appointed Consulting Sanitary Officer for the Tralee Rural Sanitary District.

KELLY, Dillon, M.R.C.S.Eng., appointed Consulting Sanitary Officer for the Mulingar Rural Sanitary District.

# MILITARY AND NAVAL MEDICAL SERVICES.

## THE ARMY MEDICAL DEPARTMENT.

SIR,—The officers of the department must agree with the opinion expressed in your leader of the 6th, that some definite statement of what they require should be made. It is almost impossible to do this owing to existing regulations and conditions; but, if one can form an opinion from the numerous communications to the press, pamphlets, etc., one cannot fail to be struck with the fact, that the majority of the writers are against the so-called "unification". The following points seem to embrace briefly the views of a large number of writers.

1. The restoration of the Royal Warrant of October 1858, with such increase of pay, half-pay, and retirement, as may be deemed fair, considering the decreasing value of money. (Various scales are mentioned.)

2. Restoration of the old regimental and staff system, and as far as practicable, the restoration to their regiments of all medical officers removed therefrom, who have not since been promoted. (Various opinions about army hospital corps, compounders, etc.)

3. A fixed and easily ascertainable scale of allowances, subject to one interpretation only.

4. Promotion to the rank of surgeon-major after the completion of twelve years' service, as in the Indian service, or previously for merit.

5. Compulsory retirement of surgeons-general after five years in that rank. Appointment to director-general to be made by selection from the ranks of surgeon-general, whether on full or half-pay.

6. Staff appointments, such as professorships at Netley, secretaries of Branches at War Office, etc., to be held like similar appointments amongst combatant officers, for a period not exceeding five years.
7. Compulsory retirement of all ranks at sixty years of age.
8. Removals of present restrictions as to leave, sick leave, etc.
9. Amalgamation of the Indian and British medical services; or, at least, a fair share of the medical appointments in that country, as combatant officers have of the military appointments.
10. Relative rank of administrative officers, as in the Control.

I am, Sir, your obedient servant,
DISESTABLISHED.

### THE ARMY MEDICAL SERVICE.

SIR,—Allow me, in continuation of a previous letter, an extract from which you kindly published in your JOURNAL of February 14th, 1874, again to draw your attention, and that of the profession, to the continued diminution of the Army Medical Department. By the *Army List* of January last (in which are several errors), it will be seen that there are 2 administrative and 38 executive officers less than in January last year, and 176 executive officers less than in January 1869—a steady decrease of nearly 30 *per annum*.

Might not this be urged as a plea for quicker promotion—say, at twelve years' service—as the decrease, and consequent saving of expenditure, is almost entirely in the junior ranks?

On April 14th next, there will be about one hundred surgeons who have completed twelve years' service; and, as recent promotion has been at the rate of one *per mensem*, it cannot be said that an acceleration is not wanted. The pay of thirty-eight surgeons, at the average of the various rates, according to length of service (13s. 9d.) would be £26 2s. 6d. *per diem*—increase of 2s. 6d. in pay and 1s. 6d. in allowances *per diem* above previous rates; to one hundred surgeons-major, would be £20—a considerable balance in favour of the State on the transaction. Or let the money be expended in giving a better retirement to our seniors, and thereby quicken promotion indirectly, and make us bear with more equanimity the increased burdens of our present mongrel system. Yours, etc., A. M. D.

February 1875.

## OBITUARY.

### JOHN ROBERT TRAIL, M.D., MONYMUSK.

DR. TRAIL died at Aberdeen on February 12th, at the age of fifty-six. He was born at Udny in Aberdeenshire, and educated at the school there, which then enjoyed a high reputation amongst the education institutions of the north of Scotland. At King's College and University Aberdeen, he gained by competition a high bursary or exhibition; passed with distinction through the Arts' Faculty; and took the degree of A.M. in 1835. He subsequently pursued his medical studies, partly in Aberdeen and partly in Edinburgh, where he obtained the degree of M.D. of the University, and the diploma of the Royal College of Surgeons, and settled in practice at Monymusk, a thriving agricultural district of his native county. Dr. Trail was known as a highly accomplished and successful practitioner, and speedily secured for himself the esteem and confidence of his numerous patients, while his co-operation was much sought after and highly valued by his professional brethren. He took a deep and intelligent interest in agricultural matters. Last year, he resigned the post of Extra-Academical Examiner in Aberdeen University, after holding it for three years.

Though, till within the last three months of active habits, Dr. Trail had long suffered from an affection of the heart, the foundation of which had been laid by rheumatic fever while engaged in his medical studies at Aberdeen. His funeral was attended by a large concourse of friends and patients, along with several members of "The Garrioch and Northern Medical Association".

PRESENTATION.—A deputation of the inhabitants of the Auchtergaven district, Perthshire, on the 9th instant, presented to Dr. Yeats, as a mark of their respect and esteem, a splendid brown mare pony, fully accoutred with saddle and bridle, and every other necessary, along with a purse of sovereigns. Dr. Yeats then proposed, "The Agricultural Interests of the District", coupled with Mr. Paton, as a specimen of one of our most enterprising farmers, and Mr. Paton replied in a short speech. The Doctor next proposed, "The Interests of the Village of Bankfoot", coupled with Mr. M'Kenzie, who replied. Mr. Paton proposed, "Mr. John Murray", who made a suitable reply. The proceedings of a very pleasant evening were then brought to a conclusion.

## MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Licentiates on February 20th, 1875.

Davies, John William, Ebbw Vale, Monmouthshire
Frost, William Adams, 47, Ladbroke Square
Hardman, William, Blackpool
Lyons, Alfred de Courcy, 15, Vicarage Gardens
Mason, Henry William, 19, Granville Square
Stocker, Charles Joseph, Stratford Green
Thomas, Robert Thomas, 34, Great Percy Street

The following candidates, having passed in Medicine and Midwifery, will receive the College License on obtaining a qualification in Surgery recognised by this College.

Edwards, David, University College Hospital

APOTHECARIES' HALL OF IRELAND.—At the professional examinations, held in January 1875, the following gentlemen obtained the licence to practise Medicine and Pharmacy.

John Moore Nichols and George Michael Cuffe.

At the examination in Arts, the following passed.

Patrick Joseph Boland, Benjamin Burland, Matthias Butler, Michael Joseph Cohen, John Donaldson, John Joseph Hayes, Patrick Joseph Leinham, Richard Michael Ralph, James O'Dwyer, and Charles Wall.

UNIVERSITY OF DUBLIN: Hilary Term, 1875.—At the examination for the Degree of Bachelor of Medicine, held on Tuesday and Wednesday, February 2nd and 3rd, the candidates passed in the following order of merit.

MacDowel, Effingham Carroll
Doyle, Bernard
Moran, James J.
Robinson, Leland
Fleming, Hans B.
Banks, Alfred
White, Patrick Henry
Erskine, John
Blood, Joseph
Carleton, Arthur W.
Irwin, John A.
Hughes, George A.
Stanley, William H. R.

At the examination for the Degree of Master in Surgery, held on Friday and Saturday, February 5th and 6th, the successful candidates were placed in the following order.

MacDowel, Effingham C.
Carleton, Arthur
Doyle, Bernard
Farrell, Peter J.
Blood, Joseph
Blood, Matthews
Taaffe, Robert
Pollen, Henry

In consequence of having obtained double First Place, Mr. Mac Dowel was recommended to receive the Degree of M.Ch. *stipendiis condonatis*.

### MEDICAL VACANCIES.

THE following vacancies are announced:—

ALDERBURY UNION—Medical Officer for the Fourth District and the Workhouse.
BARONY PAROCHIAL HOSPITAL, Barnhill, Glasgow—Dispenser.
BECKETT HOSPITAL AND DISPENSARY, Barnsley — House-Surgeon. Salary, £140 per annum, with furnished rooms, gas, and coals.
BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN—Resident Medical Officer. Salary, £80 per annum, with board, washing, and attendance. Applications to be sent in not later than March 3rd.
BRADFORD INFIRMARY AND DISPENSARY—Physician. Applications to be sent on or before June 12th.
BRAMPTON UNION—Medical Officer for the Union and Workhouse. Salary, £50 per annum, and extras, £31 : 15.
CLINICAL HOSPITAL AND DISPENSARY FOR CHILDREN, Manchester—House-Surgeon. Salary, £60 per annum, with board and residence. Applications to be made on or before March 6th.
COVENTRY AND WARWICKSHIRE HOSPITAL—House-Surgeon and Dispenser. Salary, £100 per annum, with board, lodging, and attendance. Applications to be made on or before March 25th.
DERBYSHIRE GENERAL INFIRMARY—Assistant House-Surgeon. Board, lodging, and washing, but no salary. Applications to Secretary.
DORSET COUNTY HOSPITAL—House-Surgeon. Salary, £70 per annum, with £10 additional as Secretary. Applications to be made on or before March 18th.
DOVER UNION—Medical Officer for the St. Mary's District and the Workhouse. Salary, £180 per annum.
DURHAM COUNTY ASYLUM—Assistant Medical Officer.
FLAX MILLS FRIENDLY SOCIETY—Medical Officer. Salary, £110 per annum. Applications to A. M'Keeman, 7, Hunston Square, Johnstone, N.B.
GRANTHAM UNION — Medical Officer for the Ropsley District. Salary, £26 : 10 per annum.
HAILSHAM UNION—Medical Officer and Public Vaccinator for the Parish of Heathfield. Salary, £44 per annum, and fees. Applications to be made on or before March 8th.
HARRIS, Parochial Board of—Surgeon. Salary, £66 per annum, including vaccination and medicine for the poor. The gentleman elected will get £90 per annum for attending the ratepayers and cottars within South Harris. Applications to be made to the Chairman of the Parochial Board of Harris.
HEADINGTON UNION—Medical Officer for the Wheatley District. Salary, £70 per annum.
HENDON UNION—Medical Officer for the Willesden District. Salary, £40 per annum.
HOSPITAL FOR WOMEN, Soho Square—Physician and two Assistant-Physicians. Applications to be sent in on or before March 2nd.

KILBURN DISPENSARY—Senior Resident Medical Officer. Salary, £120 per annum, with apartments, coals, gas, and attendance. Applications to be made on or before March 8th.—Assistant Resident Medical Officer. Salary, £80 per annum, with apartments.

LANGPORT UNION—Medical Officer for the Babcary District. Salary, £27 per annum, and fees. Applications to be made on or before March 2nd.

LONDON FEVER HOSPITAL—Resident Medical Officer. Salary, £200 per annum, with residence, coals, gas, and attendance. Applications to be made on or before March 6th.

MANSFIELD UNION—Medical Officer for the First District, and the Work house. Salary, £50 and £40 per annum, respectively.

MILFORD UNION, co. Donegal—Medical Officer for the Ramelton Dispensary District. Salary, £100 per annum, and fees.

MORVEN, Parish of, Argyleshire—Medical Officer. Salary, £100 per annum. Applications to H. A. Fraser, Morven, N.B.

NAAS UNION—Medical Officer for the Clane and Tunahoe North Dispensary District. Salary, £125 per annum, and £15 as Sanitary Officer. Applications to be made on or before the 27th instant.

NEWMARKET UNION—Medical Officer and Public Vaccinator for the Third District. Salary, £45 per annum, and fees. Applications to be made on or before March 8th.

QUEEN'S HOSPITAL, Birmingham—House-Surgeon. Salary, £50 per annum, with board, lodging, and washing. Applications to be sent in on before March 11th.

REDDITCH and DISTRICT MEDICAL ASSOCIATION—Medical Officer. Salary, £150 per annum, with fees and unfurnished house.

ROYAL EDINBURGH ASYLUM—Assistant-Physician.

ROYAL INFIRMARY FOR WOMEN and CHILDREN, Waterloo Bridge Road—Physician.

SAFFRON WALDEN UNION—Medical Officer for the Seventh District. Salary, £86 per annum.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY—Assistant House-Surgeon. Salary. £65 per annum, with board, lodging, and washing.

SOUTHPORT INFIRMARY—Resident House-Surgeon. Salary, £100. Applications to be made on or before March 1st.

ST. BARTHOLOMEW'S HOSPITAL—Two Casualty Physicians. Applications to be made on or before March 3rd.

ST. LUKE'S HOSPITAL FOR LUNATICS—Second Clinical Assistant. Board and furnished apartments.

ST. THOMAS'S HOSPITAL—Assistant Obstetric Physician.

SOUTH ESSEX DISPENSARY—Surgeon.

TORBAY INFIRMARY—House-Surgeon. Salary, £100 per annum, with board and lodging.

ULVERSTONE UNION—Medical Officer for the Hawkshead District. Salary, £20 per annum.

UNIVERSITY COLLEGE, London—Curator of the Museums of Anatomy and Comparative Anatomy. Salary, £200 per annum. Applications to be sent in on or before March 6th.

WORCESTER DISPENSARY AND PROVIDENT MEDICAL INSTITUTION—Dispenser. Salary, £70. with furnished apartments, coals, and gas. Applications to be made on or before March 1st.

## MEDICAL APPOINTMENTS.

*Names marked with an asterisk are those of Members of the Association.*

*Brunton, John, M.A., M.D., appointed Surgeon to the Artists' Amicable Fund, *vice* J. Templeton Kirkwood, L.F.P.S., deceased

Draper, W., M.R.C.S.Eng,, appointed Surgeon to the York Dispensary, *vice* W. Procter, M.D., resigned.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.*

### DEATH.

Brown—On October 19th, 1874, of acute laryngitis, at Inverell, New South Wales, Francis Marshall, fourth son of the late Baker Brown, F.R.C.S., aged 30.

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Bequests.—The late Mr. Roger Lyon Jones, amongst many other benevolent institutions, has bequeathed the following sums to the medical charities of Liverpool and the neighbourhod—viz., to the Liverpool Medical School, to found a scholarship, £2000; to the Liverpool Bluecoat Hospital; the Royal Infirmary, Liverpool; the Royal Southern Hospital, Liverpool, £1000 each; the Northern Hospital, Liverpool, £500; the Children's Infirmary, Myrtle-street, Liverpool; the School for the Deaf and Dumb, £250 each; to the Eye and Ear Infirmary, £200; to the Liverpool Hospital for Cancer and Skin Diseases, and the Liverpool General Hospital for Consumption and Diseases of the Chest, £100 each, all free of duty. In addition, the large residue of the personal estate is to remain on trust for all or any of the charitable and religious institutions mentioned in his will, or such other religious and charitable institutions in Liverpool and the neighbourhood, and in such a manner as the executors think fit.—Miss Harriette Mary Berwick has bequeathed £700 towards the funds of the Convalescent Home, Stillorgan; £600 to the Hospital for Incurables; and £200 to St. Vincent's Hospital, Dublin.

Longevity.—The obituary of the *Times* of the 23rd instant, contained amongst others, the deaths of no less than twenty-three persons, whose united ages amounted to 1,864 years, giving an average of more than 81 years of age to each. The oldest, a lady as usual, had reached the great age of 99 years, the youngest being 71.

## OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

WEDNESDAY..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.

FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

## MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 7 P.M. Ballot for the election of Officers and Council; to close at 8. 8 P.M. Dr. Farquharson, "A Case of unusually rapid Action of the Heart"; Dr. Carpenter (of Croydon), "On the Rational Treatment of some Forms of Hemiplegia".—Odontological Society. Dr. Bathurst Woodman, "On the Colouring Material of the Pink and Red Vulcanite or Rubber manufactured for the use of Dentists, and on some Cases of Chronic Poisoning apparently due to this Pigment".

TUESDAY.—Pathological Society of London, 8.30 P.M. Mr. Hutchinson: Drawings and Casts illustrating the kind of Teeth usually met with in Zonular Cataract. Dr. Barlow: Aneurism of the Heart. Mr. Hulke: Specimens of Epithelioma. Mr. Howard Marsh: Malignant Disease of Testis. Dr. Douglas Powell: Aneurism of Aorta. Mr. Barwell: Myeloid Sarcoma of Humerus. Mr. Godlee: Blood-Cyst in Sarcoma. Mr. John Wood: Tumour of Scapula. Mr. Knowsley Thornton: Ovarian Cyst with Papillomatous Growths. Dr. Julius Pollock: Worms in Head of Dog. Dr. Crisp: Tubercle in Pheasants. Dr. Crisp: Cancer in Common Fowl.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Dr. Oswald, "Notes of a Case of Suppurating Tumour of the Left Ovary, with Specimen": Dr. Liebman (of Trieste): "Clinical Notes on the Early Course of Cancer of the Cervix Uteri"; Dr. Savory, "Case of Epithelioma of the Cervix Uteri complicated with Pregnancy; Removal of Diseased Portion; Subsequent Delivery of a Healthy Child; Recurring Pregnancy"; Dr. George Roper, "On Prolapse of the Funis during Labour"; and other communications.—Royal Microscopical Society, 8 P.M.

## NOTICES TO CORRESPONDENTS.

Correspondents not answered, are requested to look to the Notices to Correspondents of the following week.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

Authors desiring reprints of their articles published in the Journal, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

We cannot undertake to return Manuscripts not used.

Communications respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the Journal, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

Ignorant.—1. Billroth's Pathology: H. K. Lewis, 136, Gower Street, W.C. 18*s.* 2. Maunder's Operative Surgery, second edition: J. and A. Churchill, New Burlington Street. 6*s.*

### Medical Etiquette.

Honestas.—As far as can be judged from the statement before us, the conduct of the practitioner referred to has been far from courteous. But, as we know nothing of any extenuating circumstances which he may have to urge in defence, it is scarcely possible to pronounce a decided opinion on the matter.

### Provident Medical Clubs.

Sir,—I should be glad if some of my medical brethren would kindly let me have a scale of annual payments to ensure medical attendance in illness for the wives and children of labouring men, mechanics, and small tradesmen, in an agricultural district, with rules of such a club, and any hints as to the mode of working it

It appears very desirable to save such people from hopeless, sometimes ruinous, accumulation of debt in illness, for their own sakes as well as for that of their doctors Yours very truly, J. Lee Jardine.

Capel, Surrey, 24th February, 1875.

W.M.—A C.M. of the University of Edinburgh is entitled to call himself "Surgeon" on his doorplate and elsewhere.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

### NOTE ON FUNGUS MEATUS AUDITORII EXTERNI (ASPERGILLUS).

D. McD. has replied to my request of the 6th inst. The three specimens which he sends are beautiful examples of *aspergillus nigricans*. This proves that the ear disease he suffered from was fungous in its character.

Dr. Macnamara, of Bruff, county Limerick, likewise forwarded a specimen of supposed fungus. This, on examination, proved to be not a fungus, but a portion of a steatomatous tumour.

May I again be permitted to ask my professional brethren to forward specimens as requested in my communication of the date above mentioned.

JAMES PATTERSON CASSELLS.

2, Newton Terrace, Glasgow, Feb. 25th, 1875.

WILL Dr. Bond kindly supplement his paper on Disinfectants by giving the formulæ for cupralum and ferralum? H. F. SMITH.

### MEDICAL DEGREES AND TITLES.

SIR,—In a letter on Medical Degrees and Titles in last Saturday's JOURNAL, signed "A Country Practitioner", I read the following: "He must remember that the standard required for University honours differs at each of the Universities of the United Kingdom, and it would seem, therefore, as sensible to deny a B.A. of Aberdeen the right of using the title because he did not obtain it after the same ordeal as at Oxford." "A Country Practitioner" will oblige by answering the following questions in next week's BRITISH MEDICAL JOURNAL. 1. What is the ordeal at Oxford, and what is the ordeal at Aberdeen, for obtaining the degree of B.A.? Explain and compare the two. 2. State and compare the course of study, the standard of examination, and the number of years required to obtain a degree both in Arts and in Medicine at the several Universities of the United Kingdom.

Accept my apology for this note, and believe me, yours truly,

February 8th, 1875. DUM SPIRO SPERO.

SIR,—If your readers are not quite tired of this discussion, will you allow me to prolong it with a practical suggestion? Your correspondents have alluded to some degrees as higher than others. In the present state of confusion it is difficult to say what degree or license ranks the highest. In general society, whatever costs most money is most highly esteemed; and, therefore, an Oxford or Cambridge degree, representing an outlay of a couple of thousand pounds, is estimated more highly than a London license or Scotch degree costing a quarter of that sum, and nothing that the profession can do will alter this general opinion. What degree stands highest in professional estimation is very doubtful. Every man swears by his own place of education, and patients in general consider their own medical attendant the perfection of wisdom and attainments. That certain degrees and diplomas differ in the kind of knowledge they represent is true enough; but that one is always superior to another, except in expense, is very questionable.

As regards the title of Dr., an M.D. is no more a physician than an LL.D. is a barrister or an M.A. a clergyman. A degree is merely a certificate of competency more or less according to its origin; but a license to practise is, or at any rate used to be, given by totally different bodies in each of the three professions. If the L.R.C.P. is not a Doctor, neither is the M.D. a physician, any more than he is barrister or a clergyman. If the L.R.C.P.s covet the title of M.D., so may the M.D.s that of L.R.C.P.: and if one would have taken the degree, if when young he had been aware of its value, so would the other the Fellowship, if his frends would have paid the fees.

To a very young man beginning practice a good degree is certainly of value, but after a few years every man establishes a position independent of academical distinctions. Indeed, since examinations of all kinds have become so common, the persons one meets in society consider them but indifferent tests of knowledge. In Universities, students, if moderately diligent, are sure to pass at the conclusion of their residence, because the examiners are the teachers, and a student knows exactly what is required of him. In the case of the mere examining boards, the result is very different: the hardest working men, even with the best abilities, are not the most successful; but those come out the best who have been most fortunate in their grinders.

But, practically, can anything be done for the L.R.C.P.s who covet the title of M.D.? An Oxford man objects to his University granting them honorary degrees; and it would be unfair to place pressure on the Scotch Universities to satisfy Englishmen. They were established for the benefit of Scotchmen, who are perfectly satisfied with their rules. The peculiarity of the Scotch Universities is the goodness of their professorial. Notwithstanding their poverty and want of endowment, they have always paid their professors so well as to draw away the best men from England. The Universities of Scotland have always on this account been considered good places for study, whatever value may have been attached to their degrees; indeed, residence and diligent attendance at lectures have been more insisted on than cleverness in answering at an examination. It would obviously be unfair to the existing graduates to give degrees from such Universities without the statutary residence. But the University of London was founded for the benefit of the residents in that town; and as that corporation is merely an examining body, it would be perfectly fair to bring parliamentary pressure to bear upon it, to compel it to perform the duties for which it was established. Those who wish for a degree "after a good practical examination" should apply to the University of London, and, on refusal, petition Parliament. If, however, the graduates of London should object to their degrees being conferred after a "good practical examination", there yet remains a method of obtaining the coveted letters without lowering the degree. The only difficulty in graduating in London is in passing the matriculation. When that asses' bridge is passed, the remainder of the course is sufficiently easy. The real difficulty of this examination arises from the uncertainty of the subjects required; and certain obvious reforms would render it as easy as the matriculation of any other University or examining body.

First, the examinations might take place four times in the year, so that a man ploughed at one should not lose half a year's, or more, residence at a medical school. Second, a man passing the greater number of the subjects, should be allowed to begin his proper medical course on condition of passing the remainder of the subjects at the next examination. Third, the examination should be made more public. Every candidate should give in the names of his tutors during the lass twelve months there; the examination-papers should be filed, and these tutors allowed to look over all the papers—those of the successful as well as of the unsuccessful candidates. Fourth, the names of the examiners and of the assistant-examiners should be published, or at least hung up in the examination-hall. Fifth, no private tutors should be examiners, either for their own pupils or for those of others.

Those who know anything of corporate bodies will be aware of the strenuous opposition that each of these regulations would call forth; but the University of London, being under the authority of Government, it would be comparatively easy to bring pressure to bear upon it. The British Medical Association, if united upon this subject, might effect some such reforms in a very short time.—I am, sir, your obedient servant, M.D.EDIN., M.A.DUBLIN.

P.S.—Medical men are either so busy that a degree more or less would be of no consequence, or are only partly occupied, when the getting up of their old subjects of study would be a good discipline: and any one who has tried will be aware how easily this may be done,

### PRELIMINARY EXAMINATION FOR THE FELLOWSHIP OF THE ROYAL COLLEGE OF SURGEONS.

MY son has passed the preliminary examination for membership, and wishes to present himself for the fellowship, next June. Will some of your readers kindly say, if he presents himself for Chemistry, in addition to the Greek, and passes, will he be entitled to the Certificate of Fellowship so far as the Preliminary is concerned? The official circular is somewhat vague upon the point as far as regards optional subjects.

I should also be glad to know if I can obtain some of the "back papers" of the examination, so that my son may have an idea of what the Chemistry embraces, and what is the character of the Greek examination. INQUIRER.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Gazette; The Midland Counties Express; The Hull and Eastern Counties Herald; The South Eastern Gazette; The Alcester Chronicle; The Auckland Times and Herald; The Western Daily Press; The Manchester Guardian; The Ulster Advertiser; The Sussex Coast Mercury; The Broad Arrow; The Surrey Advertiser; The Bedale and Northallerton Times; The Hackney Express; The Liverpool Porcupine; The Scotsman; The Liverpool Mercury; The Glasgow Herald; The Stroud News and Gloucestershire Advertiser; The Bradford Observer; The Morpeth Herald; The Portsmouth Times; The Western Daily Press: The York Herald; The Sheffield Evening Star; The Brighton Guardian; The Sussex Daily News; The Wrexham Advertiser; The Newton Directory; The Sussex Coast News; The Berkshire Chronicle; The Hull News; The Southern Times; The Worthing Intelligence; The Hampshire Telegraph and Sussex Chronicle; The Sheffield Daily Telegraph; The Hereford Times; The High Peak News; The Brighton Daily News; The Bath Argus; The Pembrokeshire Herald; The West Briton and Cornwall Advertiser; The Glasgow Herald; The British Mail; The Indian Medical Gazette; The West Country Lantern; the Ripon Gazette; The Airdrie Advertiser; The Manchester Courier; The Wolverhampton Chronicle; The Cork Constitution: The Sheffield and Rotherham Independent: The Liverpool Daily Post; The Redruth Times; The Hackney Express; The Hour; The Paddington Times; The Newton Directory; The Wolverhampton Chronicle; etc.

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COMMUNICATIONS LETTERS, ETC. have been received from:—

Dr. Burney Yeo, London; Mr. E. Steiger, New York; Dr. W. F. J. Turner, Ryde; Dr. C. E. Underhill, Edinburgh; Mr. W. Carter, Liverpool; Mr. F. W. Lowndes, Liverpool; Dr. Moore, Harlesden; Mr. W. Reeves, London; Dr. Balthazar Foster, Birmingham: Mr. M. O. Townsend, Clapham; Mr. Gaylor, Belper; Sir William Jenner, London; Dr. Sayre, New York; Dr. S. W. Cobbold, Preston; Dr. W. Munro, Cupar Fife; Dr. H. S. Hounsell, Torquay; Dr. Tripe, Hackney; Dr. Walter Smith, Dublin; Mr. P. H. Bartlett, London; Mr. J. Scabe, London: Mr. G. Griffith, London; Dr. E. B. Baxter, London; The Registrar of the Royal College of Physicians, London; Dr. Galton, Anerley; Mr. J. Brown, Dorchester; Dr. F. Ogston, Aberdeen; M. E. Alglave, Paris: Dr. G. Johnson, London; Dr. Goldie, Leeds; Dr. Dudfield, London; Mr. Stefan Poles, London; Mr. H. Sewill, London; Dr. C. F. Hutchinson, Scarborough; Dr. Procter, York; Mr. Fowler, Bath; Mrs. Dalrymple, Norwich; Army Surgeon; The Secretary of Apothecaries' Hall; The Registrar-General of England; The Registrar-General of Ireland; The Registrar of the Medical Society of London; X. Y. Z.; Dr. E. T. Wilson, Cheltenham; Mr. Passmore, London; Dr. Graily Hewitt, London; Dr. Melville Thomson, Newport, Salop; Mr. Chapman, Oxford; Mr. J. B. Pitt, Norwich; Mr. J. L. Jardine, Cassell; Mr. J. Smithson, Dewsbury; Dr. J. Cassells, Glasgow; Mrs. Garrett-Anderson, M.D., London; Mr. Alfred Eddowes, Shrewsbury; Dr. J. W. Moore, Dublin; Dr. H. F. Smith, London; Dr. Tripe, London; Mr. Draper, York; Dr. Laidlaw Purves, London; Mr. Fairlie Clarke, London; Dr. Corfield, London; Mr. A. Jackson, Sheffield; Dr. Collie, London; Mr. Mayhew, Norwich; The Secretary of the East Dorset District of the Southern Branch; Mr. H. B. Scoones, London; Dr. Wiltshire, London; Dr. J. Brunton, London; Mr. Marshall, London; Dr. Middleton, Taunton; Mr. Poole, London; Dr. Tuxford, Boston; Dr. Edwards Crisp, London; Dr. Brett, Watford; Dr. Fisher, Lytham; Captain Mercier, London; Mr. Southam, Manchester; Dr. Parsons, Dover; Mr. R. Johnson, Southport; Mr. P. Stewart, Langley Moor; Dr. S. O'Sullivan, Cork; Dr. Goodridge, Bath; Dr. T. G. Stewart, Edinburgh; Dr. Laycock, Edinburgh; Dr. Wade, Birmingham; Mr. A. Baker, Birmingham; Dr. Littlejohn, Edinburgh; Dr. A. A. Gore, Dublin; Dr. A. Smart, Edinburgh; Dr. W. Stewart, Barnsley; Mr. Forsayeth, Fleetwood; Mr. Nunn, Bournemouth; Mr. C. S. Jones, Weston-super-Mare; Dr. Buszard, Lutterworth; Mr. F. Alderton, Fairfield; Mr. J. Lawton, Meriton; Mr. G. Jones, Birmingham; Dr. J. Sibbald, Edinburgh; Mr. S. J. Baker, Abingdon; Mr. J. Pratt, Markethill; Dr. D. C. Menzies, Inverkeithney; Dr. Sawyer, Birmingham; Mr. T. V. Jackson, Wolverhampton; Dr. J. M. Duncan' Edinburgh; Dr. Kelly, Taunton; Dr. J. Goodman, Southport; Dr. A. Sheen, Cardiff; Mr. J, W. Legge, Aberdeen; Mr. F. Alsop, Edinburgh; Dr. W. Johnston, Aldershot; Mr. R. Torrance, Newcastle-on-Tyne; etc.

# THE CROONIAN LECTURES ON DISEASE OF THE SUPRARENAL CAPSULES.

*Delivered at the Royal College of Physicians, London.*

By E. HEADLAM GREENHOW, M.D., F.R.C.P., F.R.S.,
Physician to and Lecturer on Medicine at the Middlesex Hospital.

## LECTURE I.

MR. PRESIDENT AND GENTLEMEN,—Upon my appointment to the honourable position of Croonian lecturer of the present year, I selected for my subject Addison's disease. The first, and perhaps the chief, reason which induced me to make this selection was, that the study of this disease has always been to me a matter of special interest, and has engaged my attention at every available opportunity ever since the announcement of its discovery. But another reason which also weighed with me in making a choice of my subject was, that the discovery, which must be accounted among the great medical discoveries of the present century, and which may with propriety rank side by side with Dr. Bright's discovery of the relation between dropsy and disease of the kidneys, has never to this time been made the subject of any of the lectures delivered before this College, of which the discoverer was an eminent Fellow. And now, sir, before I address myself to my proper subject of Addison's disease, permit me to say a few words respecting Dr. Addison himself. For it seems to me that to show—though of necessity but briefly—from what and how Thomas Addison rose to become one of the most eminent physicians and ablest clinical teachers of the day, is on the present occasion only a fitting tribute to his memory.

Dr. Addison belonged to that class of men, numerous in this country, who, by their abilities and energy, have raised themselves from the lower ranks of society to the most exalted position in their respective callings. He was born in the year 1795 at Long Benton, a small village in Northumberland, three miles and a half from Newcastle-upon-Tyne. His father was a grocer and flour-dealer. Though of humble station, he must have been a man of enlarged views, for he not only gave his son the best elementary education within his reach, but he aspired to start him in life on a higher social level than his own. Dr. Addison himself told me that his father designed him for the law; but personal predilections induced him to embrace the profession of medicine. He was first sent with his brother to a school kept at a roadside cottage by one John Rutter, a parish clerk, from whom, some years later, Robert, the son of George Stephenson, received elementary education in the same house, whilst his father was engaged as an engine-worker at the neighbouring Kebworth collieries. He was subsequently removed to a school of the higher class, and thence he went to Edinburgh, and became a medical student. Fortunately, his father had both the means and the desire to afford his son every possible advantage for acquiring a knowledge of his profession. The opening out of collieries in the parish had largely increased his custom among the good folks in the neighbourhood, and he had become rich for his station. Addison, therefore, after passing through the necessary curriculum of medical study, took the degree of M.D., and was enabled to come to London, where he first became House-Surgeon to the Lock Hospital, and subsequently Physician to the Carey Street Dispensary, and also, I think, to the Royal Infirmary for Women and Children in the Waterloo Road. Soon after his arrival in London, he entered as a pupil at Guy's Hospital, and, in a comparatively short time, he was raised to be a member of the medical staff. In this position, he speedily made for himself a great reputation as a practical physician and clinical teacher. A wide experience acquired in such various fields of study, together with his own great natural powers of insight, sufficiently explain the apparently intuitive knowledge of disease, and the almost unrivalled powers of diagnosis, which formed the basis of his great and real success in professional life. For his success was real; it was not small, if estimated in the lower sense by pecuniary results; but, if estimated in the far higher sense by his achievements and reputation, his success was great indeed, and such as only a favoured few can hope to equal. In some subjects, he was far in advance of his day. Pathological truths which he enunciated thirty years ago, with respect to diseases of the lungs, have only recently won their way to general acceptance. The discovery with which his name will ever be associated was published to the medical world nearly twenty years ago, and has not yet been generally accepted, nor even generally understood. Dr. Addison died at Brighton in June 1860, and was interred in Cumberland, from which county his family had sprung, and where his maternal grandfather had been a respectable yeoman. I trust that this slight sketch of one of the most eminent members of this body will not be deemed an unsuitable prelude to lectures devoted to the elucidation of his most famous work.

Dr. Addison had been nearly thirty years on the medical staff of Guy's Hospital when he discovered the disease to which you, sir, if I mistake not, were the first to apply the name of Addison's disease. To quote his own words, he had for a long period observed a form of general anæmia occurring without discoverable cause in cases in which there had been no previous loss of blood, no exhausting diarrhœa, no chlorosis, no purpura, no renal glandular tumours or malignant disease, and which he, therefore, designated idiopathic anæmia; a disease which presented in every instance the same general character, pursued a similar course, and, with scarcely a single exception, was followed at a variable period by the same fatal result. He further stated that the leading characteristic features of the state to which he directed attention were anæmia, general languor and debility, remarkable feebleness of the heart's action, irritability of stomach, and a peculiar change of colour in the skin, occurring in connection with a diseased condition of the suprarenal capsules. The characteristic discoloration, he said, pervade the whole surface of the body, but commonly most strongly manifested on the face, neck, superior extremities, penis, scrotum, flexures of the axilla, and round the navel. It presented a dingy smoky appearance of various shades, deep amber or chestnut-brown; and in one instance the skin was so universally and deeply darkened, that the features of the patient might be taken for those of a mulatto. This discoloration was never attended by any harsh dry condition of the surface. To complete the picture, he added that there were occasional actual vomitings, palpitation and breathlessness on exertion, indications of a disturbed cerebral circulation, a strongly marked tendency to the formation of fat, in striking contrast to the failure and exhaustion observable in every other respect. He had, therefore, before his eye a distinct definite morbid state, the nature and cause of which he sought to discover; and his discovery, when made at length, was no chance hit, but the result of long and careful investigation. Accurate clinical observation had first led him to discriminate in the living patient a remarkable train of obscure and apparently causeless symptoms, always of fatal augury; and, while searching out the hidden pathological cause, it was only after the careful exclusion of all other morbid conditions that he referred them to a disease which he found seated in the suprarenal capsules.

It is necessary to dwell upon this point, because at a subsequent period, when he came to publish his monograph, Dr. Addison deviated from his own accurate conception, and subjoined to his own cases several others which he had not seen during life, which, so far as could be known, had presented no constitutional symptoms that could not be accounted for by malignant or other obvious disease, and in which there was only very partial discoloration of skin, or discoloration not at all corresponding with the graphic description I have quoted from his pages. These mistakes of Dr. Addison's were the more remarkable, because, in the first place, as we have seen, he himself states that the chief motive of his investigation had been to determine the cause of symptoms which could not be accounted for by any discoverable disease; and, in the second place, his great knowledge of skin-affections must have made him familiar with the fact that various organic and cutaneous diseases are attended by more or less pigmentation of the skin, though none of them by a pigmentation presenting all the peculiar characters of the discoloration which he had described. These mistakes were doubtless due to the enthusiasm of mind attendant on his discovery, which led him to endeavour to include as much as possible within its scope; but, unfortunately, their effect has been to confuse his own true clinical and pathological description, and to give rise to misconceptions which are still far from being eradicated. We have Dr. Wilks's authority for the fact that, at a later period, Dr. Addison's views were more in accordance with present knowledge; but unfortunately he died, and did not revise his monograph.

As with respect to most other discoveries, several previous observers had stumbled upon the facts which Dr. Addison had discovered. His eminent colleague Dr. Bright had observed, and recorded in reports of medical cases, a case of Addison's disease. It was in all respects a well marked example, and Dr. Addison included it in his monograph, where it stands as Case 5. Mr. Sibley also in 1854 recorded in the

*Medical Register* of Middlesex Hospital a case of Dr. Seth Thompson's which presented all the main features of Addison's disease, including the discoloration of the skin. Dr. Kirkes likewise reported a case in St. Bartholomew's Hospital several years before the publication of Dr. Addison's discovery, in which the asthenia, nausea, and vomiting had been observed in life, and in which, after death, the only lesion was the lesion of the suprarenal capsules which I shall hereafter describe. At a more remote period than any of these, a case in the Hull Hospital was recorded, almost typical as regards its clinical history, and also its pathological appearances, and closely resembling the case of a girl who died under my own care in 1865. It is true that in neither of these early cases was any discoloration of the skin noted; but we need not infer that it was necessarily absent, seeing that in my own case the discoloration, though characteristic, was so slight that it might have been easily overlooked, more especially at a time when its importance as an indication of the nature of the disease was totally unknown. In such circumstances, we may be quite sure that the discoloration of the skin in Dr. Bright's and Dr. Thompson's cases must have been well marked, or it would not have held the prominent place it does in the description of the symptoms. I refer to these two last cases with special pleasure, because more striking illustrations can scarcely be used of a truth which I have always felt, and which was so well expressed by Dr. West, the last Harveian orator: that the mere details of which, when we have ascertained them, we cannot see the purport or the uses, will sooner or later surely find their place.

I cannot close these introductory remarks without some reference to two distinguished living members of the profession, but for whose labours Dr. Addison's discovery might possibly have attracted at the time but little attention. Soon after the publication of the monograph, Mr. Jonathan Hutchinson gave a wide-spread impulse to the discussion of the subject, by collecting and publishing all the cases he could obtain, bearing upon the question of the reality of the disease and its relation to a morbid process in the suprarenal capsules. To Dr. Wilks, we are even more deeply indebted for much of the advance towards our present knowledge of the disease. In a succession of papers published in the *Guy's Hospital Reports*, he described all the chief symptoms of the disease, and more especially the pathological appearances in the suprarenal capsules, in a large number of cases which had either occurred in the practice of the hospital, or had been submitted to him by other medical men for examination; and he further brought forward the truth obscured by the admission of spurious cases in Dr. Addison's monograph, that all genuine cases of the disease are due to one and the same characteristic lesion of the suprarenal capsules.

Notwithstanding the misconceptions which have prevented the general recognition of Dr. Addison's discovery, we have made, as I have said, much advance in the knowledge of the disease since Dr. Addison's time. More than three hundred cases have now been recorded, some in almost every country in which medical science is cultivated. Of these, many are so imperfectly reported that no conclusions can be fairly drawn from them as to the existence of the disease, and others again, which present neither the clinical nor the pathological conditions described by Dr. Addison, are obviously not cases of Addison's disease at all, although published as such. But, on the other hand, by far the larger number are true cases of the disease, having presented, in a more or less developed form, its characteristic clinical phenomena, together with the particular lesion in the suprarenal capsules; while a considerable number are what I may term typical cases, *i.e.*, cases in which no pathological lesion of any importance was found, except the one particular lesion in the suprarenal capsules. Eight of these typical cases have come under my own care or observation, several of them in the Middlesex Hospital; and I pass now to the delineation of the living picture of Addison's disease, as it has repeatedly presented itself to me in these and other cases, unmistakable at first sight to one who held the key of the mystery supplied to Dr. Addison's discovery. There are progressive asthenia, having often originated without any apparent cause, seldom dating from any definite period; an indescribable aspect of listlessness or depression; great languor and indisposition for exertion; almost invariably a remarkable weakness of the heart's action; a small, feeble, compressible pulse; loss of appetite; irritability of the stomach; nausea and retching. There are usually more or less severe and frequent pains in the loins and epigastrium, and not uncommonly tenderness on pressure in one or both hypochondria; a rigidity of the abdominal muscles, as if instinctively contracted to protect deep-seated parts from pressure. In advanced cases, vomiting is seldom absent, and it is sometimes spontaneous and irrepressible. There are usually breathlessness, palpitation on making any muscular effort, frequent sighing or yawning, and sometimes a persistent hiccough; generally, faintness or giddiness on rising, or even on being raised up in bed. Notwithstanding, however, the great feebleness, which is one of the invariable symptoms of the disease, there is, in uncomplicated cases, comparatively little or no real emaciation; but, on the contrary, together with some appearance of partial wasting, there is always a fair amount, and often a considerable excess, of subcutaneous fat, and the skin remains soft and smooth. The temperature, as a rule, is below the normal. The skin and extremities are cool, if not cold, to the touch. The urine is often small in quantity, and generally of low specific gravity, and deficient in solid constituents. The bowels are mostly confined, the tongue usually ruddy and moist until the advent of typhoid symptoms during the last days of life. The mind is often clear to the last; but so great is the prostration in the later stage of the disease, that the patient lies in a drowsy and semicomatose state, from which he can only be roused by questions addressed to him, and he then gives pertinent, though slow and monosyllabic, answers. In this stage of the disease, the temperature falls considerably below the normal, and death takes place by asthenia, and sometimes at the last almost suddenly, apparently in syncope. There is, on the other hand, in many cases towards the close of life, incoherence or delirium, sometimes low muttering, sometimes more loud and active, and in these cases death often takes place in coma. In one of my own most typical cases, the patient had a convulsive fit, and lay for hours before death with firmly closed jaws and great rigidity of the muscles of the abdomen and extremities. He was seemingly unconscious, but whenever he was touched convulsive twitchings took place, either of the face or of the whole body. Various other symptoms equally referable to the disturbance of the nervous system, such as vertigo, numbness or anæsthesia of the face and arms, and more rarely of the lower extremities, dimness of sight, flashes of light before the eyes, noise in the ears, deafness, tremors, rigors, and even epileptiform and other seizures, have been recorded in many cases as occurring in the course of the disease, and in a few as having been the principal symptoms observed during life, except the invariable languor and general debility.

To this sketch of the characteristic constitutional symptoms of Addison's disease, I must add the description of the peculiar change of colour in the skin as it has struck my own eye in every advanced case. This consists, as is generally known, in a gradual darkening of the skin on various parts of the body, or even the whole body. The aspect of this discoloration, when fully developed, is very remarkable, and gives the patient the appearance of belonging to one of the dark races of mankind. Most frequently it has a dusky, smoky, or yellowish brown hue; sometimes it is of a green brown colour, and when deepest approaches in parts the tint of negro skin. The discoloration is never uniform over all parts of the body. It commences paler, and becomes deeper on all or some of the exposed parts, the face, neck, dorsum of the hands and fingers, and all those parts which are naturally the seat of pigment on the general surface. Sometimes there is universal discoloration, but more frequently it is only distinctly obvious on certain parts of the body. Even in the latter case, however, it probably affects in some degree the whole cutaneous surface; for, on a microscopical examination of parts of the skin, which, by contrast with the darker parts, appeared normal, I have found in them small quantities of the pigment which imparts an abnormal colour to the skin. The transitions from the dark to the paler shades of discoloration on different parts of the body are never abrupt. The darker parts are never in defined patches, but merge into the other and lighter parts of the surface. There is, however, one marked exception to this. When the skin has suffered any superficial abrasion or injury, or when the patient has been blistered at a recent period, the injured parts not only become much darker than the surrounding portions of the surface, but present defined margins, coinciding with the extent of the cutaneous injury. In the case of two patients of my own, I found abrupt dark defined patches on the epigastrium, and I ascertained that they were the seats of blisters which had been applied a short time before. In the case of the second patient, who survived nearly two years, the dark patch gradually faded way, and before death ceased to be visible. In the other patient, the deep cicatrices caused by cupping more than twenty years before remained perfectly white. Each little scar was surrounded by a distinct border of dusky discoloration. It does not require, however, actual abrasion of the skin to excite a greater deposit of pigment in certain parts. Slight local irritation of the surface appears in a few cases to have produced the same effect. I have seen dark streaks on the skin corresponding with the lines of pressure exerted on particular parts by petticoat strings and garters, and the same circumstance has been noticed by others. In a case recorded by Dr. Nicholson in 1873, it is stated that the patient, a baker's lad, presented on his shoulders dark stripes corresponding to the bands by which the basket he carried was slung at his back. I was anxious to show some drawings illustrative of this remarkable discoloration of the skin, but it is most difficult to procure good drawings of it. The fact is, that the discoloration is so like the colour of a dark person, that it is almost impossible to get a thoroughly good illustration. I have had, therefore, to fall back upon the two lithographs before you, one of a patient of Dr. Hughes of Dublin, and the other of a patient in Guy's Hospital. The dark picture represents a colour much darker than any that I have seen, but I was assured that it is not darker than the patient really was during life.

The discoloration of Addison's disease is not entirely restricted to the skin; it is also frequently observed upon the mucous membranes of the cheeks and gums, also upon the tongue, and on the lips, where it takes the form of an irregular bluish-black streak, running longways near the junction of the mucous membrane with the outer skin. It is seen on the gums and buccal mucous membrane in the form of irregular stains and patches, mostly brownish, with an ill-defined border. In two of my own cases, the stains on the buccal mucous membrane have corresponded with seats of irritation produced by the pressure of protruding teeth; but, in other cases, I have been unable to verify any such cause. These stains on the gums and buccal mucous membrane form another point of analogy between the discoloration in Addison's disease and the pigmentation natural to the dark races of men; for several Lascars who have come under my own care in hospital have presented on the same parts stains similar to those that I have described. The discoloration of the tongue appears usually in the form of sharply defined stains of a purplish blue, or somewhat inky hue. In my own cases, these stains have always been situated near the free margin of the organ. The conjunctivæ always remain normal, and the contrast between their pearly whiteness and the dusky hue of the discoloured skin is striking, and involuntarily recalls the similar contrast in the mulatto or negro countenance.

We see, therefore, that the discoloration of the skin in Addison's disease usually begins and eventually becomes deepest on those parts which are naturally most liable to become pigmented, either by exposure to the sun and air, or by the excitement of certain physiological processes. To these may be added such parts as may accidentally be subjected to the excitement of local irritation. In other words, this peculiar change of colour is, like many other pathological processes, merely an exaggerated, and therefore a morbid, development of a natural physiological process. On a microscopical examination of sections of discoloured skin, the discoloration has seemed to be due to a deposit of yellowish brown pigment in the deeper layers of the epidermis, more especially in the layer in immediate contact with the papillæ, while the more superficial layers of the outer skin mostly remain free from pigment. Here is a drawing, highly magnified, of a portion of the skin, showing the hair and some deposit in the papillæ; and there is also another drawing of the skin of a negro, which will show that the discoloration in Addison's disease is in the same part as the discoloration seen in the negro and Lascar. The deposit is generally seated in the layer immediately in contact with the papillæ; nevertheless, I have found in several cases traces of pigment in some of the more superficial scales of the epidermis, and also pigment-granules deposited here and there in the cutis. There is a specimen here under the microscope which shows very well the ordinary arrangement of the discoloration over the papillæ, and also shows some of these pigment-granules in the true skin: they are not usually found in that situation, but fortunately I have one specimen which shows that they are sometimes found more deeply seated than is usual. Dr. Sidney Coupland also microscopically observed pigment-granules, both isolated and in groups, in the connective tissue of the cutis at some distance below the epidermic layer. The principal part of the pigment, however, is in every case deposited in the cells of the rete Malpighii; it is accumulated round nuclei, but some of it is generally free and irregularly distributed; this latter portion of pigment has also been originally contained in cells, which have disintegrated and allowed the colouring matter to escape. A physician at Halle, in the case of two patients, on a sectional examination, found many pigmented connective tissue-cells in the papillary portions of the cutis; and Mr. Schäfer observed in the same portion of skin a number of irregularly shaped corpuscles containing a considerable amount of pigment. The colouring matter in the patches on the tongue is deposited in a corresponding situation with the stain on the skin, being seated in the lower cells immediately overlying the papillæ; the superficial layer of epithelium remaining quite free from pigment.

To those who have carefully examined the skin of negroes and Lascars, or persons belonging to other dark races of men, it would be obvious, from this description, that the differences between their normal colour and the abnormal pigmentation of Addison's disease are merely differences of degree; although in the former physiological conditions, and in the latter pathological causes, have operated to produce them.

(*To be continued.*)

# CASE OF ACUTE OTITIS MEDIA: SUPPURATIVE INFLAMMATION OF THE MASTOID REGION: DEATH.

By F. M. PIERCE, M.D., L.R.C.P.Lond.,
Honorary Medical Officer, Manchester Ear Institution.

THE following case presents some features of especial interest to aural surgeons, though not partaking of a very uncommon character. I regret that I had not the opportunity of making more detailed observations of this case; it was seen by me once only, and the rapid termination did not allow a second examination.

C. M. L., aged 16, mechanic, was admitted to the Hulme Dispensary on January 16th, 1875, under my colleague Dr. Railton, one of the surgeons to the charity. He had always enjoyed good health, and seemed a well made youth. He never had any fall or blow upon the head. One month before admission, he noticed slight deafness and pain in the right ear. About a fortnight later, the mastoid process became swollen and tender. A week before admission, after severe pain in the ear and about the temple, a purulent discharge came from the right auditory meatus. On admission, Dr. Railton, knowing my interest in aural diseases, requested me to see the patient with him. I found the boy complaining of severe pain in the depth of the ear, about the mastoid, and down the neck. There was a profuse purulent discharge from the right ear; the mastoid region was greatly swollen, red, and soft, and causing great projection of the auricle. The hearing distance for a watch was 48 c. No tuning-fork was at hand to test by that means. There was no paralysis or affection of any of the cranial nerves. A lotion of sulphate of zinc, with carbolic acid, was ordered to be instilled warm into the ear every two or three hours, and the entire part bathed with it. An incision was made into the mastoid swelling half an inch from, and parallel to, the auricle, without liberating any pus, and followed by linseed poultices, etc. When seen by Dr. Railton on the 19th, the patient had slept very little, owing to severe pain at the back of the head, which had been temporarily relieved by the incision, from which there was now considerable discharge of pus. There was no vomiting nor delirium, or any hæmorrhage from the external meatus. On the 21st, the discharge from the mastoid region was very offensive and profuse, that from the auditory meatus much diminished. The patient was very restless, frequently tumbled down, and kept his head clasped between his hands, which he said "relieved the pain at the back of his head and neck". Convulsive movements of his left arm and leg were now very noticeable. The left arm and leg were constantly being jerked about in an involuntary manner. His appetite and vision remained good to the last.

On the 22nd, the symptoms grew worse, though he still ate well, and was quite conscious, answering questions put to him. The convulsive twitching of the left extremities continued, and he sat with his head upon a pillow placed over the back of a high chair. About 8.30 P.M., his face changed colour very frequently; the left ear and side of the head suddenly became of a dark purple hue, his head dropped forward, and, after a few groans, he died. On carefully questioning his mother, she was certain that there was no squinting or facial paralysis; that "she was sure there was nothing the matter with his face at any time during his illness". No signs of cerebral irritation were present when he attended at the dispensary. Unfortunately, permission to make a *post mortem* examination could not be obtained.

REMARKS.—The above account gives all the facts of the case; but, in the absence of any pathological examination, some caution is necessary in accounting for the exact mode in which death ensued in this patient. This fatal attack of mastoiditis was unlike most cases, in being the result of an acute aural catarrh, and not of a chronic otorrhœa. Toynbee speaks of having seen but one case of abscess of the brain due to acute ear-disease. There was no history of any throat-affection, but it is probable that such existed to a slight extent at first. Want of opportunity did not enable me in this case to discriminate between mastoid periostitis and caries at the outset: a distinction often difficult to determine. The discharge from the right meatus did not suddenly cease, as it usually does, on the development of cerebral complications. If death arose from ulceration into the lateral sinus or carotid canal, there would probably have been hæmorrhage from the nose, mouth, and ear. Abscess of the cerebrum is scarcely probable in the absence of coma, vomiting, and delirium. May we not conclude that examination after death in this patient would have disclosed partial meningitis, with abscess in the right cerebellar lobe and purulent effusion about the medulla oblongata?

# THE GOULSTONIAN LECTURES
## ON PUERPERAL FEVER.

*Delivered at the Royal College of Physicians, London.*

By ROBERT J. LEE, M.D., F.R.C.P.,
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### LECTURE II.

ONE fact, as Cullen's remarks have suggested, had gradually become evident in his day to those who were interested in the question of the cause of the disease; it was the great mortality that characterised its occurrence in public institutions and hospitals. Long before 1788, when Tenon gave a report of the serious condition of the wards in the Hôtel Dieu, several epidemics, as they were termed, had been heard of. For more than a century before Cullen's *Practice* was published—that is, between 1652 and 1783—we have notices of this kind. Every author referred to them more or less directly when writing on the subject in the latter part of last century. One of the most distinguished observers of the disease almost commenced his treatise with the words: "The mortality attending the puerperal fever is truly lamentable. In the year 1750, at Paris, none who were seized with it recovered. In one hospital in London, in the space of two months, thirty-two patients were affected with that disease, and all except one fell victims to it." (Gordon's treatise on the *Puerperal Fever.*)

This fact did not, however, appear in the same light to all. We have, among many other examples, that of an excellent physician, Dr. Hulme, whose work I have already mentioned, who makes the following benevolent remarks in the dedication of his treatise on puerperal fever to the Governors of the City of London Lying-in Hospital:—"Public hospitals", he says, "for the reception of the sick and hurt are the grand seminaries of practical knowledge in the art of medicine. The utility of these institutions is so apparent, that they are now universally received all over Europe. Great Britain in particular hath not been behindhand in promoting such humane designs. Buildings of this kind, or which incidentally promote the same end, are to be seen in almost every part of this great metropolis. Among the rest, the City of London Lying-in Hospital rises up a simple, yet elegant monument of her beneficence." There is a foot-note, to the effect that "this hospital is entirely supported by a voluntary annual subscription, whereby four or five hundred poor objects are admitted every year, and relieved with all necessaries during childbed".

As Hulme was an authority on puerperal diseases, we may briefly notice that "the immediate cause" of the fever, in his opinion, was an inflammation of the intestines and omentum, and the "chief predisposing cause the pressure of the gravid uterus against the intestines and omentum". On similar principles of what we should hardly agree to call humanity, but with the additional object of teaching his pupils to "acquire true practical knowledge", Dr. Leake founded a hospital in Westminster, and Dr. Osborn and Dr. William Hunter both enjoyed opportunities of studying the disease in special hospitals.

We may conclude from this that, though Cullen's views were probably generally entertained, yet in the minds of many who were engaged in active professional duties, and who were certainly not deficient in intellect and benevolence, there was no distinct idea that the mortality in lying-in institutions might depend on causes over which there could be exercised very considerable control; so that the question of treatment appeared to be much more important than that of the etiology of the disease. I have mentioned one example of this in the recommendation of doses of ipecacuanha by Dr. Doulcet. The report of the French Government on this plan concludes with the observation, that "the cure of a disease so active, and generally fatal in the Hôtel Dieu, and which allows so little time for reflection or hope from medicine, performed by a method so simple as that practised by M. Doulcet, the success of which has proved so certain and uniform, is one of those extraordinary phenomena of nature which form an epoch in medicine".

We are not told exactly what other remedies M. Doulcet employed; but, from the remark, "that those medicines most frequently administered in putrid diseases approach nearest to the method practised by M. Doulcet", it would seem probable that his success may have depended on some other principle than that of promoting the action of the liver and intestines by emetics, which was one method, in his opinion, by which the effects of a poison might be eliminated.

As it is our object to trace the progress of exact knowledge rather than to review ephemeral views, we may content ourselves with the list of remedies which Dr. Meigs has introduced into his well known work as a quotation from M. Baudelocque, the younger of that name. This is the list:—Blood-letting, emetics, purgatives, sudorifics, antiseptics, tonics, particularly camphor and bark; blisters and other revulsives, cold douches and cold stupes or hot stupes to the belly, subcarbonate of potash, oil of turpentine, mercurials: he ought to have added opium. Such were the differences of opinion on the subject of treatment.

As we have brought our review of the theories and different kinds of practice which prevailed at different periods, from the time of Hippocrates to the latter part of last century, when William Hunter, Cullen, Denman, and many other celebrated men, were contributing in their several departments to the advance of medical science in this country, I shall ask your careful attention to a work which apparently produced no great impression at the time it was published, but which has since had an important influence on our views of the nature of puerperal fever.

This work is by Dr. Alexander Gordon, and contains evidence that the fever depends on a particular poison, which may be communicated by direct contact from one person to another, and that the occurrence of a number of cases of the disease is to be explained in that way rather than by atmospheric or other conditions; that is to say, that the disease does not occur epidemically. It is usual for modern authors to mention the names of Denman in England and Semmelweiss in Germany as the chief contributors to this important fact. When I say that these names are associated by modern authors, I mean simply that in our text-books we find some such sentence as the following:—"As a result of clinical observation, on the one hand, the febrile puerperal diseases were proved with certainty to be due to secondary infection first by the English (Denman), afterwards by the Germans (Semmelweiss)."

I am now quoting from the German text-book on *Pathology* by Klebs. It may be presumed that the gratifying priority thus acceded to us by German authorities has induced our own writers on the subject to be content with this division and distribution of fame. If it were just, it would be still more gratifying. By way of a little diversion from the direct path of investigation we have been pursuing, I shall ask your attention to this question of priority; not so much because it is of any great importance to determine how or when the fact was first brought to light that puerperal fever depends on a special poison, as to relieve the mind from an uncomfortable feeling that somebody may have suffered neglect. It always appears to me to be better to omit in educational text-books as much as possible all mention of names; but, if they be mentioned, it is necessary that whatever is stated about them should be as certainly true as possible. It is a subject deserving of the consideration of the learned Fellows of this College, why there is such a scarcity of really good works for educational purposes at the present day. It will be answered probably, that science has made such rapid progress as to render it difficult to compose such works as text-books. This is not the case in other sciences; and I have not the slightest doubt that, if there were a general feeling of gratitude to those whose practical knowledge most fits them to undertake such difficult and thought-requiring labour, we should not be long before we could boast of possessing first-rate works of the kind I allude to. But to return to the question of Denman and Semmelweiss. Let us take Denman first.

It appears that we have more than one edition of his works, and that considerable periods intervened between their publication. In the last of these, there are the following remarks. "There is another consequence of an epidemic, or even a sporadic puerperal fever, on which it would be criminal to be silent. This is the contagious nature of these fevers, it having been long suspected, and being now fully proved, that they may be, and often have been, conveyed by midwife or nurses from one patient to another. This fact explains the reason why persons practising for many years with the most enviable success have at one or more periods of their lives, without any change in the principles or manner of their practice, met with a number of unfortunate cases when perhaps an adjoining neighbourhood has been entirely free from such diseases," etc. (Denman, p. 644, ed. 1805.)

There is no doubt about the meaning of this passage; and, as it is contained only in the third and last edition, and not a word is said upon the subject of contagion in the former two, we may conclude that our German admirers have quoted from the most recent one. We can easily understand that such a general statement as "having been long suspected, and being now fully proved" is not quite satisfactory to their love of detail. However, Denman was quite right in saying so; for, in the very year (1795) that he published his second edition, which preceded the third by ten years, the work of Dr. Gordon appeared, and, curiously enough, was dedicated to his intimate friend Dr. Denman. Now, Gordon's treatise contained the results of his observations on an outbreak of the fever in Aberdeen, which continued from 1789 to 1792, and then he allowed between two and three years to elapse before he wrote upon it. It is very probable that he communicated those results to Denman before the year 1795, when, as we have seen, his own work and Denman's second edition were published. If this were true, it would certainly lead us to conclude that Denman was not very willing to believe in Gordon's contagious theory when first proposed to him. If it be asked why did he not refer to Gordon's treatise in his last edition, we can only reply that, as he followed the example of the dogmatic teachers of his day, he omitted on principle the mention of names, restricting himself closely to careful judgment of reported facts, applying to them the test of extensive personal experience. We may also conclude, from the circumstance that Denman was satisfied with the reasons adduced by Gordon for his contagious theory, that, in the interval of nine years between his second and third editions, that theory had been more or less generally accepted.

A very considerable change, in fact, had taken place in the state of knowledge of the nature and cause of puerperal fever. A careful analysis of the kind of evidence brought forward by Gordon to prove his point will show that it was much of the same character as that furnished by Semmelweiss. Neither of them used pathology or morbid anatomy to any great extent. The method they both employed was a species of close clinical observation, assisted by correctly logical deduction, and was rather of the nature of proof by circumstantial evidence than of actual demonstration.

It is impossible, however, on comparing the works of Gordon and Semmelweiss, to resist the conclusion that, although they were both possessed of powers of original thought and admirable truthfulness and courage, there was a considerable difference in their mental calibre. It requires a full appreciation of that peculiar instinct which is so rarely exhibited, and to which we owe all important advances in scientific knowledge, to estimate the great superiority of Gordon's intellectual and moral character. We can measure various kinds of force, but this mental force has never yet been properly valued. We cannot, of course, but admire the talent and industry which enable one man to work out such a problem as whether or not puerperal fever depends on a contagious poison; but, when the idea is the suggestion of another, we cannot admit that he has any claims at all equal to those which we must accede to the one who first conceived the idea, and who, as far as he was able, applied experimental tests to it.

This was the great difference between the total results of Gordon's observations and those of Semmelweiss: the one possessed original powers of perception, which led him to trace such a connection between the various phenomena of the disease as to enable him to deduce a general principle or law by which they were controlled.

Now it is necessary, before we allow to Gordon the merit of this superiority, to examine whether his theory was simply a conjecture, or well supported by observation. I should not have introduced this subject to your notice, if I had not felt pretty well assured that you would agree with me after such an examination. I had another reason, and that was, that I wished to prove a fact of which we ought to feel certain as well as properly proud, and that is, that no country in the world can surpass ours in the production of men of that peculiar genius which in all departments of science characterises their chief pioneers.

Some recent authors have not been so generous to Denman as Klebs. The author of one text-book, which has been translated into English, gives to us the credit of ascertaining the fact, that puerperal fever is contagious or specific; but he claims for Semmelweiss the merit of having worked out the subject carefully, and of being essentially the author of all we know of the etiology of the fever (Schroeder). The growing tendency to copy such statements from foreign authorities into our own literature, many will agree with me, is not likely to encourage that kind of work and thought among us upon which the scientific merits of our profession depend.

Let us examine the data on which Gordon established the fact, that, to use his own words, "the cause of this disease was a specific contagion or infection", of which he asserted "he had unquestionable proof". He first undertakes to lay before us evidence that "every person who had been with a patient in the puerperal fever became charged with an air of infection, which was communicated to every pregnant woman who happened to come within its sphere". He submits to us a table of seventy cases, containing the name, age, and residence of each patient, and the name of the midwife or practitioner by whom she was delivered. Of course it is the latter column of this table which we are tacitly required to analyse. We are expected to notice certain names, either that of Dr. Gordon himself or those of midwives, in connection with several cases of the disease. Thus we find one midwife entered as having attended three cases on days closely following one another, and the same thing we observe to have happened to two others. It cannot be said that this table is altogether conclusive. It is not difficult to perceive that it only contains one part of the evidence which is necessary to make it so. At the time that these cases of puerperal fever occurred in a place like Aberdeen, it must have been, and was, remarked that there were other practitioners and midwives to whom such accidents did not occur, as Gordon mentions in his work; but it was impossible to reduce this important negative evidence into a tabular form. To make up for this deficiency, we have the evidence in another part of the treatise. As one instance, we may take the following:—"Now it may seem remarkable that the puerperal fever should prevail in the new town, and not in the old town, of Aberdeen, which is only a mile distant from the former; that it should prevail at the Printfield, Gilscomston, and the Hardgate villages, in the parish of the old town of Aberdeen, and not in the old town itself. But the mystery is explained, when I inform the reader that the midwife, Mrs. Jeffries, who had all the practice of that town, was so very fortunate as not to fall in with the infection, otherwise the women whom she delivered would have shared the fate of others."

It appears, from this and other parts of his treatise, that Gordon fully appreciated the importance of being able to account for apparent exceptions to the principle he was working out, and that he proceeded with the caution characteristic of his countrymen in venturing to publish the very important conclusions at which he had arrived. It is impossible for any one to analyse Dr. Gordon's treatise fairly, for it is made up of the closest reasoning and the most distinct data. He never supposes anything, but looks carefully to see that his premises are correct, and leaves the reader to draw his own conclusions.

A few extracts from the work will show you what sort of a man he was. Of the nature of the poison, he says simply:—"With respect to the physical qualities of the infection, I have not been able to make any discovery.". Of himself, he remarks: "It is a disagreeable declaration for me to mention that I myself was the means of carrying the infection to a great number of women."

He says of typhus, as compared with puerperal fever: "The cause of both is undoubtedly infection; but the two infections are of a very different nature." Of the cure, he says: "There is no disease in which less is done by nature or more may be done by art." As he based his treatment on the view, that the chief effects of the poison were of an inflammatory nature, he directs attention strongly to the benefits which follow early bleeding and purgatives. In his own words: "On this head, I speak with proper confidence, because I speak from experience—the surest test of medical truth. And, as I have already mentioned, I found myself disappointed when I trusted to those means which have been recommended by some authors of considerable respectability; for neither antiseptic nor tonic medicines, nor such as obviate sensibility or irritability, were found effectual."

I must not omit to mention that, as far as the pathology of his time allowed him, Gordon was correct in saying on that subject: "The puerperal fever is a disease which principally affects the peritoneum and its productions, and the ovaria". He distinguishes between "the most effectual means of preventing the infection from being communicated" and the method of "preventing the action of that infection after it has been communicated". He gives sensible hygienic rules to gain the first point, recommending in particular the purification of infected chambers and the fumigation of infected apparel. We can judge, now that three-quarters of a century or more have passed, of the value of this work of Gordon's. It is just the result of that kind of rare combination of originality, energy, patience, and good feeling, which makes us dissatisfied with inferior productions, and is peculiarly characteristic of the leading minds of this country.

We might reflect a little upon the singular fact, however, that every point, except the most important one in this treatise, has been taken up, first by one author and then by another, and all have praised Gordon's work in the very respects for which he least deserved it. We might pause, I say, to reflect upon the question why it is so difficult to get rid of old notions and accept new ones, when they are true and important, or why it happens that error is so much more favourably received than truth when presenting itself as a candidate for support. With what kind of a feeling do we read the conclusion to Gordon's preface? "The benevolent reader must observe with displeasure the ungenerous treatment which I met with from that very sex whose sufferings I was at so much pains to relieve; for, while I was using my best endeavours to mitigate the calamities of many miserable sufferers, several others were busy in traducing my character, who, prompted by prejudice, very uncandidly proclaimed the deaths and concealed the cures, to raise an odium against my practice."

*(To be continued.)*

# ON THE MEDITERRANEAN COAST OF THE SOUTH OF FRANCE IN ITS MEDICAL ASPECT.

By WILLIAM MARCET, M.D., F.R.S.,

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THE subject of the present communication has lost, I fear, some of the freshness and attraction it used to possess, from the extent of its literature. My apology in troubling the reader on the present occasion is a desire on my part to show which are the resources of the Mediterranean coast in a medical point of view, and to what extent a winter residence in the sunny South can and will benefit those who suffer from consumption. I shall in no way propose to establish the comparative merits of any particular localities, but endeavour to point out and insist on certain rules which, in my humble opinion, might be useful in the selection of a winter-station on or near the Mediterranean coast. A residence of over three winter seasons on the Riviera has given me a fair number of opportunities of judging of its climate and its influence on the progress of disease; hence, in the following communication, I am writing from personal experience.

The usual circumstances inducing, on the part of a medical adviser, a recommendation to winter in the South, will probably be first of all the fact that his patient is invariably worse in winter than in summer. This will apply to chronic cases of phthisis, or cases of threatened consumption, chronic bronchitis, asthma, debility from long continued rheumatism or gout. Many patients apply to us, in some of the usual resorts on the Mediterranean coast, broken down in health from business, anxiety, and mental work. The tide of invalids moving south in November, and northwards again about the end of April, brings with it sufferers of every description, in fear and trembling of cold, which, indeed, their weakened frame has no power of resisting. They leave home upon the first signs of autumn setting in, with the enjoyable prospect of country life in winter, and exercise in the open air, under a bright sun, and without either frost or snow.

It is with consumptive patients that we are mostly concerned, and to that class of sufferers let us now turn our attention.

A certain number of those who come to us for medical advice are anxious to avert an attack of bronchial inflammation, which might lead to the softening of a pneumonic deposit. The applicant may be in apparent good health, strong, able to go about, and fairly full in flesh, although exhibiting a suspicious dulness at one apex, and perhaps some slight laryngitis, attended with a purulent secretion. He or she has been seen by several medical practitioners, and, after obtaining varying opinions, is advised to go south, rather as a means of precaution than with any other object in view. These patients reach their destination often considering themselves in perfect health; and, acting upon that erroneous assumption, subject themselves to many risks, or rather dangers, joining dinners and evening parties, and taking no precautions against the powerful rays of the sun or the sudden cold at sunset. The result is an attack of hæmoptysis, and the disease assumes at once a very serious aspect. If, on arrival, a residence be taken up in a proper locality, and certain rules be strictly observed, the case will, in all probability, do well, the patient returning home in the spring with many a pleasant recollection of his winter season abroad.

Another class of phthisical subjects frequently appear amongst the winter visitors in the South. They have had one or more attacks of hæmoptysis, and are often troubled with more or less shortness of breath, especially on going up hill; still they appear in a very fair state of health. An inquiry into the physical signs of their chest reveals a harsh respiratory murmur, perhaps some fine crepitation in one or both lungs; while the low and indistinct sound of the murmur shows a deficient supply of air to the pulmonary organ. On percussion, no dulness whatever can be detected. Cases of this kind appear to me as instances of deficient nutrition of the pulmonary tissue, with temporary congestion of the lungs. As a rule, patients exhibiting these symptoms do not progress satisfactorily at the seaside, where a return of the hæmoptysis is always to be dreaded; but they do well on the hills which skirt the Mediterranean coast, at an altitude of from fifty to five or six hundred feet above the sea. On condition of their selecting such a place for their winter residence, and observing certain rules of hygiene, these patients are pretty sure to be free from hæmorrhage; while their strength and general state of health will improve materially. The prognosis in these cases is very uncertain: some of them recover perfectly; others remain in the same state. They reappear in the South year after year, with an account of several fresh attacks of hæmoptysis, but looking much the same as in the previous winter. The physical signs do not vary, the same harsh murmur or crepitation either at the apex or the base being observed.

It may be, however, that the physical signs of simple congestion, or what I imagine to be a state of deficient nutrition, have another meaning, and are symptomatic of tubercular disease, even without the occurrence of dulness on percussion. Harsh breathing and fine crepitation are but a variety of one and the same sound; and fine crepitation at one apex, without any dulness, may certainly be a sign of incipient phthisis. In such instances, the seat of the abnormal sound is an important consideration. If it be heard at the base of one or both lungs, the inference will be a state of temporary congestion; while the same appearance at the apex will rather favour the idea of early phthisis; and here the thermometer comes into use as an important diagnostic means. In case of an increased temperature of the body and quick pulse, the object of the treatment will be to check these symptoms with as little delay as possible. Should they persist, the weight of the body will be observed to fall off rapidly, together with muscular power, the function of nutrition participating in the general state of debility; and diarrhœa setting in will, of course, seriously complicate the treatment of the case. These various changes for the worse may set in without any dulness on percussion of the chest supervening, and without there being much alteration of the physical signs in other respects. Under favourable circumstances, especially if the patient be sent up to the hills, a great change for the better will ensue, the accessions of heat becoming less severe, shorter in their duration, and perhaps entirely disappearing; while the pulse is reduced in frequency. Strength returns; appetite improves; and food is taken with relish, and readily digested. These cases of phthisis return South on the approach of winter, a little thinner, a little more anæmic, than the year before. Still they keep on, till we hear of their fatal termination in summer or in autumn. The progress of the changes in the lungs is very difficult to trace from the physical signs. In one case which I have closely observed for two successive winters, the most careful examination showed no consolidation or softening. The cough was very urgent, accompanied at times with severe attacks of spasmodic dyspnœa; and the patient died in England four months after I had last seen her. Diarrhœa had set in some months before, and I was informed that a cavern in her right lung had been diagnosed when she died.

In some cases, I really do believe that hæmorrhage may be the cause of phthisis, but not unless a phthisical disposition exist in the patient.

We are constantly asked on a first visit, and naturally enough, what amount of benefit we expect a patient to derive from the climate of the South; and how difficult it often is to give a positive answer! Suppose just such a case as that last considered: we must rely on its history, age, hereditary tendency, pulse and temperature, condition of other organs, and general state of health, as the physical signs of the chest belong, perhaps, to a state of simple bronchitis. The age, condition of the organs of digestion, and muscular power, may yield, however, important indications towards the present object. "Age," according to Dr. Pollock (*Elements of Prognosis in Consumption*), "must enter as a distinct element into all our calculations regarding the prolongation of any chronic disease, or the duration of the pauses between the attacks, which we have been noticing." Again, Dr. C. T. Williams (*Med.-Chir. Trans.*, vol. lv) remarks, that the duration (of consumption) is longer in proportion as the age of the attack is later; the retarding influence of age being more conspicuous among males than among females.

I need not insist upon the importance of taking into consideration the state of the organs of digestion and muscular power. A failing in these functions, although perhaps unattended with any change in the physical signs, is invariably an indication of a downward tendency; and the weighing-chair, which tells no tales, will at once detect a falling off in the weight of the body. This last remark not only applies to obscure, but to all cases of phthisis.

We have to consider, finally, the state of pulmonary consolidation with softening, and also that attended with cavities in the lungs. One of the earliest cases I had during my first season in the South (autumn, 1871), being then at Nice, was that of a lady aged about 35, whom I found very much fatigued with the journey from England. There were signs of softening in her lung, and a few days later a cavern had formed. The case, to say the least, did not look promising. There was, however, one satisfactory sign—the absence of a high temperature of the body. Relying on this circumstance, I ventured upon expressing a hope that, as soon as the patient would be rested from her journey, a marked improvement in her health would take place. Shortly afterwards, in accordance with my advice, she took up her residence on the Cimiès hill, about three hundred feet above the sea. The case progressed most satisfactorily, the cavity remaining dry, and showing a tendency to contract. I saw this lady in summer 1873, at Geneva, in the enjoyment of fair health. Thus, as a rule, cases with softening or a cavity do well on the Mediterranean coast on the sea-level, so long as they are free from febrile symptoms; but, should a high temperature and quick pulse set in, together with a rapid loss of weight, then a change of residence must be insisted upon without any delay. This alteration for the worse is much more likely to occur at the seaside than at an elevation of a few hundred feet above the sea; and the probability is, that it will be less marked if the patient be residing at the time in some high locality. But, should the experiment be made of moving down to the seaside while in this febrile condition, with the object, perhaps, of seeking a more cheerful neighbourhood, it will be attended with very great risk, and even perhaps with danger, to the patient.

I do not mean to state that phthisis is not fatal in winter in elevated regions near the Mediterranean coast; but it is certainly less so than in England or on the Mediterranean seaside. In the following case, life was certainly prolonged from a residence on the hills. This lady, aged 40, had been ill for six years. She was in a very low state of health when I first saw her at Nice, on December 4th, 1872; her lungs exhibiting a state of consolidation, with cavities on both sides. I advised her to move up to Cimiès. There the pure light air of the hills revived the patient; she improved to some extent, and recovered her spirits, naturally buoyant and cheerful. The winter proved much less trying to her than might have been anticipated; she went out for daily walks in the garden of the hotel without suffering any pain, and hardly conscious that her life could not last much longer. After a time, a Bath chair had to be sent for; then she took to her bed, and in April sank peacefully. No doubt, in this case a residence on the hills preserved life throughout the winter, and succeeded in mitigating pain and mental distress to a considerable extent.

Thus it is that a pure air, possessed of a genial warmth, with a comparatively low barometrical pressure, are beneficial, as a rule, to all cases of phthisis with a high temperature and a quick pulse. Occasionally, these symptoms are arrested; in most instances, they are relieved; and, where a fatal termination cannot be averted, life is either prolonged, or, at all events, carried on under the most favourable circumstances.

Some consumptive patients, however, do well at the seaside. The main character of these cases is the absence of febrile symptoms; they enjoy a fair state of health, although with deficient breathing power. All the other functions are equally weakened, although normal in other respects, thereby re-establishing the balance of energy which should exist between them. I am inclined to believe that the most suitable resort for this kind of cases is some warm sheltered spot on the Mediterranean coast. These invalids live a comfortable painless existence, taking a moderate amount of exercise on the level ground, but unequal to any real exertion.

To the question, Are consumptive people, as a rule, better or worse on the Mediterranean coast at the end of the winter season than at the beginning? I would answer: They are sometimes better, and often much the same, but would probably have been worse had they wintered at home. In general, especially if a residence be carefully selected, consumptive patients undergo at first a marked improvement. The following case may be cited, amongst many others, as an illustration of the favourable change which occurs in health on arrival in the South. A young lady with consolidation and softening in progress in one of her lungs gained over one stone of weight in two months and a half after her arrival at Cannes. She weighed on November 9th, 1874, 7 st. 1¾ lb., and on January 23rd, 1875, 8 st. 4½ lbs. It is true that she was in a tolerably fair state of health on leaving home; still this increase in weight is truly remarkable. She now (January 30th) looks the picture of health; but softening has returned, after having been completely arrested for some weeks. An early improvement under proper management often meets with a check from some unaccountable cause in the middle of the season, or about the middle or end of January, when a mild damp weather succeeds to a fine, clear, and bracing atmosphere. Consumptive patients often begin falling off in health rapidly, and it is very difficult to arrest this downward progress. The only plan I know is to insist on an immediate change of residence, moving uphill to an altitude of a few hundred feet above the sea, if possible.

Here is the greatest difficulty we have to contend with. Not only is there a want of accommodation for invalids on the hills near the Mediterranean coast, but an objection, on the ground of such a residence being lonely and dull, has very often to be overcome. My usual answer is, that the pleasure derived from the consciousness that health is improving will greatly outweigh any drawback consequent on a removal from a centre of social attraction.

With respect to the influence of a winter season near the Mediterranean upon the progress of laryngeal phthisis, I have not met in the South with any instance of its acute form. Several of my consumptive patients, however, had their larynx affected. This extension of the disease was usually attended with little or no pain, although accompanied by more or less discomfort and aphonia. When the aphonia is complete, I question whether the voice can be recovered; when only partial, the voice may improve under treatment. The climate which suits best in cases of laryngeal phthisis is also that most likely to benefit the pulmonary affection. The laryngeal disease, as I have seen it in the South, had nothing of the virulence I often found it to exhibit in London amongst hospital patients. But then it must be remembered that those who can afford to resort in autumn to the mild climate of the Mediterranean coast would also be likely to suffer least at home from laryngeal phthisis.

In my next communication, I shall allude to the subject of climate, and explain, by having recourse to physiological considerations, how it is that stations at some elevation above the sea are those which are most likely to benefit consumptive invalids.

*(To be continued.)*

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## IMPERFECT TEETH AND ZONULAR CATARACT:

### BEING THE SUBSTANCE OF OBSERVATIONS AT THE PATHOLOGICAL SOCIETY, MARCH 2, 1875.

By JONATHAN HUTCHINSON, F.R.C.S.,
Surgeon to the London and Royal Ophthalmic Hospitals.

FOR some years past, it has been a matter of general knowledge amongst ophthalmic surgeons that, when children are the subjects of cataract, they usually show also badly developed teeth. I do not know with whom this observation originated, but it is acknowledged in most of our standard works. By some, the malformations have been supposed to be connected with inherited syphilis; and by others they have been associated with rickets and with general defects of development. My object in the present paper is to endeavour to give a little more precision to our knowledge in respect to the coincidence of these conditions. In attempting to do so, it is necessary first to state that I believe that imperfect teeth are, as a rule, met with in connection with one form only of the cataract of childhood. The form to which I allude is known as the "lamellar" or "zonular" form, and is very peculiar. In it, neither the nucleus nor the peripheral part of the lens is opaque; a thin layer of fibres, at a greater or less distance from the nucleus, and completely surrounding it, being alone involved. The defect is compatible with very fair vision, and is often not detected until the child attempts to learn to read, sometimes not even till adult life. It is, I believe, almost invariably symmetrical, and is in a large number of cases quite stationary. It is not associated with any special diathesis, and it is very exceptional to meet with it in more than one member of a family. All these facts would suggest that it is probably the record of some temporary disturbance in the nutrition of the lens, rather than the result of any permanent peculiarity in the patient's state of health. It may be added, in support of this view, that lamellar cataract has not, I believe, ever yet been recognised at the time of birth, but is generally discovered at earliest during the first few years of the child's life. The *congenital* cataract belongs probably to a wholly different category, and is not lamellar. Whilst the congenital forms are often attended by other defects in the development of the eye, and with very imperfect vision, the lamellar opacity is, I believe, as a rule, the only defect to be found in the organ.

I must next describe the kind of defect in the development of the teeth which it is usual to meet with in connection with these curious cataracts. It is wholly different from that met with in congenital syphilis, and consists not so much in alteration of the form of the teeth as in defective development of the enamel. It is very often met with in association with the malformations which characterise hereditary syphilis, and hence probably some of the confusion which has resulted. The incisors, the canines, and the first molars, are the teeth which suffer most; and as a rule, with but very few exceptions indeed, the bicuspids escape entirely. The contrast between the clean, white, smooth enamel of the latter, and the rugged discoloured spinous surface of the first molar, is often very striking. The first molars may, indeed, be counted as the test teeth as regards this condition; just as the upper central incisors are in that which is due to syphilis. In these teeth, it occurs equally in both jaws. They are sometimes affected when all the other teeth escape, and I believe they never escape when the others suffer. I have been speaking throughout of the *permanent* set of teeth; for here, as in syphilis, although the temporary teeth often show unsoundness, they do not, I believe, exhibit any changes upon which it is safe to rely for purposes of diagnosis. The drawings which I hand round will convey a good idea of the kind of defect which is meant. They show the incisors and canines in various degrees pitted, dirty, and broken, often presenting very sharp edges, and sometimes almost spinous. In some cases, a horizontal line crosses the crown of the incisors and canines at one level; the part of the tooth below the line being narrower from before backwards, sharp, and broken. Non-development of enamel and erosion of the exposed dentine appear to be the essential features.

In the first molar, it is usually the surface alone which is affected, the sides of its crown being often covered with good sound enamel, whilst its surface is denuded, brown, and rugged.

I must next state that, although lamellar cataracts are generally attended by defect of teeth, yet the coincidence is not invariable. I have before me the notes of three cases, characteristic examples of lamellar cataract, in which the permanent teeth are stated to have been quite sound. The converse statement, that these peculiarities of teeth are often met with in patients who have not lamellar cataract, is a fact with which all will be familiar. In the face of these facts, it becomes difficult to entertain the hypothesis that there is any direct correlation between the nutrition of the lens and that of the permanent teeth, by which the coincidence adverted to might be explained.

Some years ago, Professor Arlt of Vienna made the important clinical observation, that those who suffered from lamellar cataracts usually had the history of attacks of convulsions during early periods of infancy; and my belief is, that it is in connection with this fact that the dental defects are to be explained. As the result of a considerable amount of inquiry amongst those whose teeth presented the peculiarities described, my conclusion is, that the defects generally result from attacks of inflammation of the gums occurring in early infancy; and that, amongst the causes of such stomatitis, mercury holds by far the chief place. There seems reason to believe that, in a large number of cases in which infants suffer from fits, mercury is given, and not unfrequently in large and repeated doses. I believe that it also enters into the composition of some of the most popular teething-powders.

My suspicion is, then, that when malformed teeth are met with in connection with cataract, they prove only that the patient has taken mercury in infancy, at a period when the enamel of the teeth was undergoing calcification. On this supposition, we have a ready explanation of the order in which the teeth suffer, since it is precisely that of their priority of development. A very considerable collection of facts justifies me in the inference which has just been stated. Of late years, in cases of lamellar cataract, I have always made it a rule to examine the teeth, and to inquire as to the history of fits, and as to the measures of treatment to which the patient was subjected in infancy. The connection between fits and cataract seems almost universal; that between cataract and malformed teeth general, but with marked exceptions; whilst, when the cataracts and malformed teeth are found together, it is very exceptional, provided the mother of the patient can be seen, not to obtain testimony as to the treatment of the fits by means of mercury. Of course, in some cases, the evidence on the latter point is either not forthcoming, or imperfect, but in many it is most strong.

I wish it to be distinctly understood that nothing which I have stated above has any claim to novelty, excepting, perhaps, the attempt to explain the connection between the different conditions mentioned. It is more than ten years since Arlt published his observations respecting the connection between fits and lamellar cataract; and, exactly ten years ago, Dr. Davidsen, then a student at Zürich, embodied the views of Professor Horner of that university in an inaugural thesis, in which most of the questions which I have discussed are entertained. I was not aware of the existence of this thesis (which was never published) until a few months ago, when it was obtained for me by the kindness of my friend Dr. S. L. Frank. Dr. Davidsen arrives at conclusions very similar to my own on most subjects, excepting the possible influence of mercury in producing the deformities of the teeth. This he does not even discuss, but speaks throughout of the dental defects as characteristically those of rickets. His table of cases does not place the coincidence between convulsions and lamellar cataract in such a strong light as do the facts collected by Professor Arlt and my own. It is obvious, however, that a considerable margin must be left here for cases in which no trustworthy history of the patient's infancy was obtainable. Of these, Dr. Davidsen makes no mention, but he appears to count all cases in which no history of fits was given him as if their absence had been proved; and, as most of his patients were adults, a serious source of fallacy in the calculation of percentages is here introduced.

Professor Horner has favoured me, through Dr. Frank, with the statistics of seventy-eight cases observed by himself. In these, he found a history of convulsions in 76 per cent., deformities of the teeth in 85 per cent., asymmetry of the head in 35 per cent., imbecility in 2 per cent., and rachitic malformations of the extremities in 4 per cent. The remark which I have just made as to the difficulty of obtaining accurately the history of the patient's infancy applies also to these percentages; and the 76 per cent. with history of convulsions must be distinctly understood to mean that, in this proportion, convulsions were proved, whilst probably they were by no means disproved in all of the remainder. Professor Horner, who has given great attention to the subject, still believes in rickets as the cause of the dental malformation, and does not think that the hypothesis of mercurial treatment as the cause would hold good in Switzerland.

Although it seems to me probable, as already stated, that the convulsions stand in the relation of cause to the cataract, and the mercury given for the convulsions in that of cause to the dental malformation, yet I by no means wish to imply a belief that these associations are invariable. Certain apparent exceptions occur which require further investigation before we are justified in entertaining confident opinions on these points. Thus I have several times seen sets of teeth which I should have considered characteristically mercurial, in cases in which all history of drug treatment in infancy was denied; and it must be admitted to be quite possible that other forms of stomatitis will produce similar results. There are also certain rare cases in which zonular cataracts are met with in several members of the same family in the same or in different generations, and in some at least of these I believe that there is no history of convulsions, and that the teeth are not malformed. Upon the peculiarities which attend this class of cases, however, more detailed information is required.

In reference to the suggestion of the Zürich investigators, that the peculiarities in the teeth, in the skull-bones, and in the general development, are all due to rickets, I must be allowed to say, that it is as yet wholly unproved. I am not aware that any author has described what are so freely spoken of as "rachitic teeth", if that term be applied, as it is by Dr. Davidsen, to the permanent set. Professor Vogel of Dorpat, in his work on *Diseases of Children*, states, in reference to the effects of rickets on the teeth, that, "as the disease disappears before the second dentition commences, these phenomena are not observed in the permanent teeth". Yet it is upon the state of the permanent teeth almost solely that the diagnosis of rickets in the Zürich *clinique* is based; for in only 4 per cent. did Professor Horner find evidence of rachitic malformation in the extremities. The irregular formation of the skull, defects in symmetry of the face, and mental peculiarities when present, are perhaps quite as easily explained by reference to the preceding attacks of convulsions as by the hypothesis of rickets.

By way of summary, I think it may be stated—

1. That it is exceptional to meet with lamellar cataracts, excepting in association with an imperfect development of the enamel of the teeth; but that definite exceptions, in which the teeth are quite perfect, do occur.

2. That the kind of defect observed in the teeth consists in absence of the enamel, and is shown in the incisors, canines, and first molars of the *permanent* set, to the almost invariable exemption of the præmolars. That, for purposes of diagnosis, the first molars are by far the most important, and may rank as the test teeth, since they not unfrequently show the defect when the others escape.

3. That it is highly probable that the defects in the development of the teeth are usually due to the influence of mercury exhibited in infancy; although it is quite possible that other influences, attended perhaps by inflammation of the gums, may occasionally produce similar results.

4. That teeth of the kind alluded to are met with very often in persons who are not the subjects of zonular cataract.

5. That the very important observation made by Arlt, that the subjects of lamellar cataract have usually suffered from convulsions in infancy, is fully borne out by further examination; and that it is very unusual to find lamellar cataract without such history.

6. That it is probable that there is a direct connection between the occurrence of convulsions in infancy and the development of lamellar cataract.

7. That, whilst there is every reason to believe that the defective teeth which are met with in connection with lamellar cataract are the

results of mercury, the evidence seems opposed to the belief that the lenticular opacity is also due to the influence of the drug. The great frequency of mercurial teeth without lamellar cataract, and the not very infrequent occurrence of lamellar cataract without mercurial teeth, are opposed to this view.

8. That the very frequent coincident occurrence of lamellar cataract with defective teeth, is to be explained by reference to the frequency with which mercury is given for the treatment of convulsions in infancy.

9. That there is no reason whatever for supposing that lamellar cataracts have any connection with hereditary syphilis.

10. That, whilst it is certainly true that lamellar cataracts are commonly met with in young persons who show general defects of development, short stature, ill-shaped heads, defective intellect, dwarfed lower jaws, or other physiognomical peculiarities, yet there is seldom any proof of the existence of rickets; whilst it is quite possible that the peculiarities mentioned may be due to the disturbance of the nervous system in infancy in connection with the convulsions.

11. It is very important to distinguish between mercurial teeth and syphilitic teeth, and the peculiarities presented by each usually render this easy; the two are, however, as might have been expected, not uncommonly met with together.

## THE CLINICAL THERMOPILE.

By T. CLIFFORD ALLBUTT, M.A., M.D.,
Physician to the Leeds Infirmary.

Leisure, as Mr. Seymour Haden says, presents itself to the busy man in an ever diminishing quantity; and hence it is that I have long deferred the publication of my experience with a thermo-electric apparatus closely resembling that described by Dr. Lombard in a recent number of this Journal. In the years 1866 and 1867, I was engaged, with the assistance of Messrs. Harvey and Reynolds of Leeds, in perfecting a clinical thermometer, which, being portable, should find its way into general practice. I was also wishful to obtain an instrument to record surface-temperatures; and to this inquiry I gave a good deal of time. Mercurial thermometers for this purpose gave very imperfect results. Instruments were made with button bulbs, with spiral bulbs, with bulbs guarded above by non-conductors, and so forth; but little came of them. I, therefore, turned my attention to a thermo-electric apparatus; and Messrs. Harvey and Reynolds constructed for me in 1868 an instrument far less perfect and elegant, but substantially the same as that of Dr. Lombard.

It consisted of piles attached to handles, exactly identical with those figured by Dr. Lombard, of a rheostat, and of a galvanometer. The piles were of bismuth and antimony, but they resembled those figured so closely as almost to startle me when I saw them represented. The rheostat was far inferior to Dr. Lombard's, and the galvanometer less perfect in detail. I am told by physicists that my instrument was as good as could be had at that time; and so I must think, for I constructed it with the help and advice of the first physicists of the day. I am also told that much of the excellent detail in Dr. Lombard's calculations was scarcely possible before the date of some publications by Professor Tait, of which, I regret to say, I know little. My galvanometer was provided with stops to prevent deflections of the needle beyond the points which give true indications. But, although I found it easy to calculate relative temperatures with great accuracy, I found a difficulty in expressing these accurately as absolute temperatures in the centigrade or any other scale.

I have had my machine, such as it is, in work since 1868, and have gained a great deal of experience with it. For some time, I used it in the wards of the infirmary; but the connecting wires, etc., made the instrument too cumbersome for ward-work. Still, I made many very valuable observations in the wards, which I have supplemented in my chambers. The general outcome of this is, that even a very imperfect instrument is thoroughly trustworthy as a means of recording surface-temperature, and is very easy to work and to keep in order. As to results, I fear I cannot say much that is of high clinical value. Perhaps the most valuable results I have obtained are the relations between superficial and internal heat. I have found that there is little, if any, constant ratio between the two. I have found superficial heat to ascend with the increase of internal heat; I have found it stationary during such ascent; and, on the other hand, I have found it to descend, making the contrast between the two greater and greater. Again, I have found that the ratio between internal and superficial heat varies with the parts examined. While internal heat is fairly constant, superficial heat is very variable. I have often found superficial heat rising on the abdomen while it was falling in the extremities, facts which admit a tolerably probable explanation. I have also made some curious observations upon the localities of sweating in hectic and similar states. Some patients sweat on the limbs, others on the trunk, fore or back, others about the head or neck; and I hope to be able to correlate these observations with other facts. The chief point, however, which I have before me at present is, to say that some outbreaks of sweat are preceded by a rise of surface-temperature, while others are preceded by a fall. During the sweat, a fall of surface-temperature is nearly constant. But, not to occupy too much space, I may go on to say that I have not found that inflammation as such raises local temperature, but that local afflux of blood does so raise it, whether this be a congestion or a blush. Finally, in nervous diseases I have used the piles more, perhaps, than in any others, with very various but no definite results. I have found that in neuralgic districts the surface-temperatures sometimes rise and sometimes fall, that in other cases a rise may precede a fall, while in a fourth class a fall precedes a rise. Upon all this, I must dwell more fully another time. In palsies, the surface-temperatures are often very interesting, not clinically so much as physiologically, but I have not yet obtained any constant results. As to railway cases, the more I see of them, the more I find them unfit for scientific investigation; and I have found that common clinical sense is a far more useful organ for us in them than minute instrumental research.

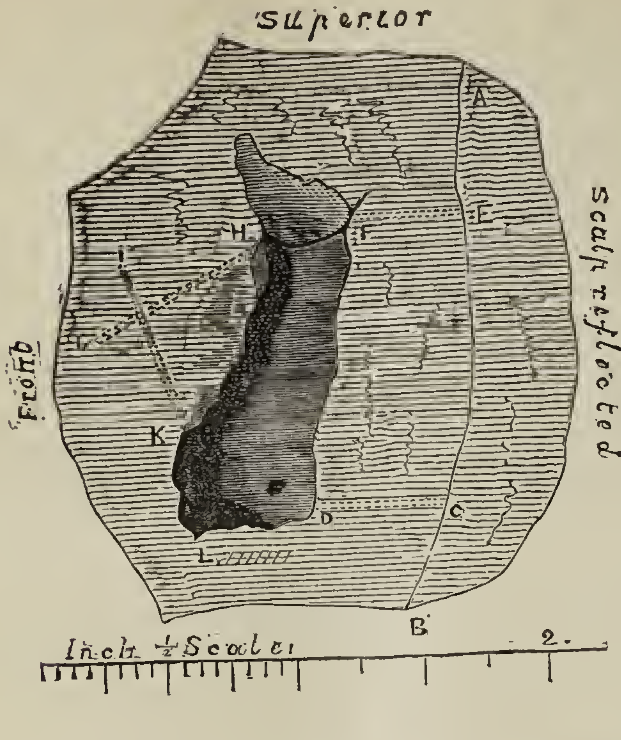
## CASE OF COMPOUND DEPRESSED FRACTURE OF THE CRANIUM, WITH LACERATION OF BRAIN-SUBSTANCE, CAUSED BY A BLOW FROM A QUOIT.

By R. W. FORSAYETH, Surgeon 95th Regiment, Fleetwood.

On the morning of September 12th, 1874, as I had concluded my visit and was about to leave the hospital, I met in the passage a man bleeding from a wound in the head. He was brought in by two comrades, but was quite able to walk without their assistance, and seemed so little affected by the injury he had received, that at first sight I was inclined to take a trivial view of the case. However, I ordered him to be placed in bed; and, being provided with sponges and tepid water, proceeded to examine the wound: a deep laceration, triangular in plan, severing the scalp for a couple of inches, and situated at the anterior superior border of the left parietal bone. Considerable oozing of blood was going on, which obscured the view; so, introducing my index finger as a probe, I distinctly felt a deep oblong depression, bordered by sharp edges, and, at the same time, was dismayed to see small particles of brain-substance escaping with the blood from the wound. At this time, no other symptoms existed to denote the serious nature of the injury. Countenance, pupils, pulse, respiration, and consciousness were alike unaffected. The patient himself also seemed to think it of little consequence.

Notwithstanding this apparently quiescent state of affairs, on consideration, I determined to operate as soon as possible for the removal or elevation of the depressed bone, and not to await the supervention of symptoms of compression, which, from the serious nature of the injury, I felt certain would sooner or later set in. As I had no military medical colleague on the spot, I sent for Dr. Orr of Fleetwood to assist and advise me; and, while waiting his arrival, learned the history of the case. The man was playing a match at quoits. Two pins, or marks, being placed in the ground at a distance of twenty-one yards, he and his opponent threw from one end of the space thus marked out, his partner and opponent from the other, alternately; using six-pound quoits. On one occasion, thinking that the quoits had all been delivered from the opposite end, he ran in and stooped to raise them from the ground. Simultaneously with his movement, another quoit was thrown by one of the players at the far end; and, as he bent towards the ground, it struck him on the head. Hurled to the earth, he remained unconscious for a few seconds; then, being raised by his comrades, behaved as if drunk, resisting their endeavours to lead him to the hospital; but, in a few seconds more, he became quite himself again, and walked thither with little or no assistance.

About 3 P.M., Dr. Orr arrived. The patient's state was then indicative of commencing mischief. He was inclined to sleep, breathing was more laboured, and the pulse slower and weaker. Dr. Orr consequently, after examining the injury, agreed with me that immediate action was desirable. As the man was unable to bear the pain caused by handling the wound, Dr. Orr kindly administered chloroform; and, when anæsthesia supervened, I proceeded to expose fully the seat of injury; the nature of which will be understood by reference to the diagram.



The shaded surface H, K, L, D, F, represents the depression, the deepest part of which was at K L, where the lacerated brain-substance was visible. Some small fragments of bone were removed from this and the superior angle of the fracture, by means of a small dental elevator and a dressing forceps; but the greater portion of the depressed bone was in one piece, and its sides so overlapped by the edges of the skull H K, and F D, that a purchase for the elevator could not be obtained. Observing a line of simple fracture running from A to B, I connected it with the edge of the depression, to which it was parallel, by two saw-cuts F E, and D C; intending to remove the oblong piece thus marked out, and thereby be enabled to expose the edge of the fragment in front. After sawing through the outer table, I found it quite detached from the inner, and removed it. Then the outer table of the depressed portion, H, F, K, L, D, also came readily away. The whole of the inner table from E C to H K, was found to be depressed *en masse*; the curve commencing at the line E C, and becoming greater as it advanced forward, the anterior free margin was deeply fixed under the edge of the sound bone at H K, and quite immovable. Therefore, making two saw-cuts H G and I K, which intersected, I removed the triangular portion of solid bone included. The elevator was then inserted under the depressed edge now exposed, and the portion of the inner table corresponding to the space H, F, D, K, came away, detaching itself from the remainder at the line F D. Here, the elevator being again applied, the rest of the bared inner table was raised to its normal level.

Some small fragments were then extracted from the brain-substance, into which they had been driven by the blow of the missile, at the corner K L. No others being apparent or perceptible by cautious and limited investigation, the wound was dressed with lint and cold water. When the patient had recovered from the effects of the chloroform, a saline purgative was administered.

No bleeding of any consequence occurred during the operation; the small vessels divided were readily controlled by torsion. Great care was taken to dissect the periosteum from off all bone removed, so as to preserve every chance of eventual reproduction.

7 P.M. He felt better. He was quiet and inclined to sleep. He could not retain the saline draught. The skin was natural, and the pulse fuller, and of more normal velocity. He was ordered to have five grains of blue pill.

September 13th, Morning. He passed a quiet night. Pulse 75, rather labouring. The pupils and skin were natural. He complained of no pain. He stated that he felt easy, but was unable to eat anything. Tongue whitish. He vomited the pill, but retained a little tea. The wound was healthy looking; the cavity was filled with a sanguineous clot. While I was in the room, he yawned, and turned about two or three times in a listless way, but answered all questions rationally, and in his natural manner. He was ordered to have an effervescing saline draught, as the bowels had not been moved since the operation.

Evening. He took some arrowroot during the day. The saline was rejected, but an enema of castor-oil and turpentine produced a satisfactory motion. Dr. Orr kindly visited him with me; and calomel in two-grain doses every second hour was prescribed.

September 14th. He slept fairly. He had but little pain in the head. The pupils continued natural; but the conjunctivæ were slightly suffused. He could take no food other than milk and arrowroot. The calomel was omitted after twenty grains had been taken.

September 15th. The bowels were opened freely this morning. Pulse 64, soft, and regular. Pupils natural. Stomach settled. He had had a good night. The wound was healthy looking, and presented no appearance of fungus. The diet still consisted of milk, etc., but little of any solid was attempted, as he expressed great disinclination for food, and I did not desire to press him. Some Condy's fluid was ordered to be added to the water used in dressing the wound.

It is unnecessary further to follow the daily notes of this case. The man continued to improve without a single bad symptom. I was very apprehensive of the occurrence of fungus cerebri, but at no time was there any disposition towards its production. The wound filled rapidly with healthy granulations, no exfoliation of bone taking place, and cicatrisation was complete on November 25th. The man was retained under observation for some time further, and finally discharged to duty on December 3rd.

The only abnormal symptom which presented itself during the case was considerable weakening of the heart's action. Soon after the operation, the pulse at each wrist became almost imperceptible, though the heart's sounds and action were normal; and no faintness, or coldness of the extremities, was complained of. Even up to the date of his discharge, the pulse at the wrist continued extremely feeble, but the man looked and felt as well as ever; and was, long before I discharged him, anxious and able to go to his duty. On discharge, the cicatrix was perfectly firm, and did not yield in the slightest to pressure, as if the bony gap had been quite refilled.

I cannot but think that the careful preservation of the periosteum had much to do with this good result.

# OBSTETRIC MEMORANDA.

## OVARIAN DISEASE: TAPPING: CURE: SUBSEQUENT ACCOUCHEMENT.

MRS. B. consulted me five months after her marriage as to her condition, which, to outward appearance, seemed to be that of a woman far advanced in pregnancy. As she had some doubt on the subject, I proposed seeing her at home for examination. The non-existence of pregnancy was not difficult to diagnose, and, for confirmation of my opinion that the swelling was ovarian, I sent her to Mr. Cadge, who kindly offered, if it met my views, to take her into the hospital. The patient herself was unwilling, and time passed on, till the swelling of the body had increased so much, her general health was so impaired, her emaciation had become so great, and her breathing so distressing, that relief in some way was urgent. Mr. Cadge being absent for a season, Dr. Beverley saw her in consultation with me, and it was determined that tapping should at once be resorted to. The result was the emptying of the cyst of three and a half gallons of a greenish yellow, somewhat glairy fluid. The usual compress with the flannel roller was applied afterwards. She recovered without an untoward symptom, and no reaccumulation of fluid took place. I visited her some months afterwards, and found her so hale and hearty, that I did not recognise her, and she had to assure me of her identity. Four months since, she again consulted me, and this time there was no doubt of her pregnancy. She was delivered of a healthy child on February 2nd, after a natural labour of twelve hours' duration, and, up to the present date (25th), has made a good recovery. The tapping took place in July 1872.

WILLIAM H. DAY, Norwich.

## A NEW FORM OF INDIA-RUBBER BALL-PESSARY.

HAVING experienced great difficulty in the management of cases of displacement of the uterus, from the pain occasioned by pessaries made of hard material, and from the escape from the vagina of ordinary India-rubber pessaries, I procured an India-rubber ball, hollow, about the size of a small orange, with a wall about half an inch in thickness, having a hole about the size of an undried pea on one side, and capable of expanding itself, and of overcoming considerable resistance in this act. I expected that this instrument would readily resume its original size in the pelvis after having been diminished in bulk by efforts of coughing, defæcation, etc.—causes which lead to the expulsion of ordinary air-pessaries.

A case suitable for its trial occurred in my practice six weeks ago in Mrs. D., aged about 56, who had suffered from procidentia uteri for several years, but who was in other respects in good health. Mrs. D. is a thin active woman, who has had several children, and whose ailment has never obliged her to wholly relinquish her employment, which is that of attending to a village grocer's shop and household work; but it has often compelled her to go to bed early in the afternoon, on account of pain and discomfort at the bottom of her body and leucorrhœa. On examination, the cervix uteri was found one inch outside the os vaginæ, and was the seat of superficial ulceration. The organ was returned without difficulty; complete rest in the recumbent posture, the use of an astringent lotion, and tonic medicine, were prescribed. At the expiration of a fortnight, the ulceration of the cervix had healed, and the leucorrhœal discharge had almost ceased; but the protrusion of the cervix uteri outside the vagina occurred whenever my patient assumed the erect posture. At the expiration of another fortnight's rest, her condition had not materially altered. I, therefore, again returned the cervix uteri to its proper position, and introduced the pessary above described, having first completely emptied it of air by forcible pressure; and, after its introduction, I expanded it with air to its utmost extent by means of a syringe. My patient has now worn this pessary above a fortnight with the most complete satisfaction. The cervix has never protruded. The leucorrhœa has not returned. The pessary has never become displaced. No pain or discomfort has occurred, although Mrs. D. has attended to her ordinary employment.

PALEMON BEST, M.B.Lond., Louth, Lincolnshire.

## CLINICAL MEMORANDA.

### POISONING BY COKE, FROM ITS USE FOR DOMESTIC PURPOSES.

ON February 19th, I was called to two cases of poisoning from coke, which was being used that day in the still-room of a gentleman's house for the preparation of marmalade. In the first instance, the still-room maid, whose duty it was to manufacture this preserve, after having inspired the vapour for a short time, was seized with giddiness, headache, and vomiting; but, as she was a chlorotic girl of about 17, and had been ailing for some time previously, little attention was paid to these symptoms by her superior domestic, and she was simply removed to another room, where she gradually rallied, the whole symptoms, indeed, being attributed to the intense heat. The housekeeper, who had but recently recovered from an attack of acute bronchitis, now thought she might complete the preserving of the marmalade herself; but she also was soon affected with the same symptoms, accompanied with the sensation of great weight in the head, ringing in the ears, and a strong tendency to sleep. Following these, her muscular power seemed to be diminishing, and, taking advantage of this, she thought she had better ring the bell for some one to come, which she had barely time to do, when she fell as if struck to the ground. On my arrival, which was almost immediately, I found that the steward had carried her into her own room, and had her placed on a chair, while the breathing was difficult and stertorous, and the action of the heart very feeble. The countenance also was livid, especially the eyelids and lips. Under these circumstances, there was no chance at that time of getting a history of the case, and consequently she was treated as symptoms presented themselves. We had her placed on her back, with the head somewhat elevated, and bottles of hot water applied to the feet, while stimulants were employed in the form of frictions, and aromatic spirits of ammonia held to her nose; under which treatment she recovered. Both patients, after their recovery, alluded again and again to the sensation in the head and the tendency to sleep; so that these, coupled with the other symptoms which were manifested in the case of both patients, leave little room for doubt, I think, that they were cases of poisoning by carbonic acid gas from the burning of this coke.

At certain seasons of the year, I have reason to believe we may be called upon not unfrequently to treat cases similar to that described, without knowing the direct cause at the time; and, as we already know that a weak solution of potash or lime, applied by means of a handkerchief or a piece of flannel to the mouth and nostrils, allows the oxygen to enter the lungs, it has suggested itself to me that possibly some of our scientific mechanicians might devise a respirator or other apparatus to be worn when necessary, which would undoubtedly in course of time become a *sine quâ non* for the kitchen and still-room.

ROBERT TORRANCE, L.R.C.S.E., Matfen, Newcastle-on-Tyne.

# REPORTS
OF
# MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

## ST. MARY'S HOSPITAL.

### TWO CASES OF PARALYSIS OF THE SERRATUS MAGNUS.

(Under the care of Mr. EDMUND OWEN and Mr. S. J. KNOTT.)

THE nature of the lesion giving rise to that peculiar position of the shoulder-blade, which was formerly described as a "dislocation of the scapula", does not seem to have been understood until it was explained by Duchenne.

Liston, in 1832, in his work on *Surgery*, speaks of "luxation of the scapula" as being caused by the inferior angle of the bone slipping from under the upper border of the latissimus dorsi; and, having briefly described a condition of the parts analogous to that which is given below, he suggests treatment by bandaging the chest. He does not, however, speak very cheerfully of the result, but says that matters will gradually settle down, and that little inconvenience will result.

Now, if the prominence of the vertebral border and of the inferior angle of the scapula, which is characteristic of the affection, were really due, as Liston supposed, to the bone slipping from beneath the latissimus dorsi, caused "by raising the arm above the head to an unusual extent", the symptoms would *suddenly* supervene, whilst the cure, when effected, would also be rapid. The lesion could hardly be bilateral without there being a decided history of violent exertion or injury. Moreover, if it were the office of the latissimus dorsi to strap down the shoulder-blade, it would probably take a firmer and more secure attachment to that bone; and its position over the angle would be more constant than observation in the dissecting-room shows it to be. The muscle which binds the shoulder-blade to the chest is the sheet-like serratus magnus, which, attached to the ribs and to the costal aspect of the base of the scapula, is ever ready under stimulus to approximate these parts.

The following reports show a *gradual* invasion of the symptoms (in one case on both sides), with a gradual termination in recovery.

In February 1873, a married woman, aged 39, became an out-patient at St. Mary's Hospital, complaining of pain and weakness in the right shoulder, which had been coming on during the preceding six months. There were also some pain and tingling in the middle of the back, and along the costal attachment of the serratus magnus. She attributed her troubles to the fact of her having been for some years in close attendance upon an old lady, whom she used to rub for chronic pleurisy. At last, the arm became so powerless that she could only just manage to dress herself. Her mistress then sent her to seek the advice of one of that anomalous class of unqualified consultants, of recent growth, called "surgical mechanicians", who proceeded to remedy the weakness by an apparatus, which proved to be as useless as it was, no doubt, expensive.

When she came under observation, there was great prominence of the vertebral border and of the inferior angle of the scapula, and the finger could be pushed up under the venter for fully two inches. The deformity was greatly increased when the patient endeavoured to raise the arm above the head, for the muscle so much concerned in accomplishing that action, the lower part of the serratus magnus, being out of working order, the trapezius, the levator anguli scapulæ, and the rhomboids were called upon to support the extremity; whilst the weight of the limb, which was unopposed below, caused the inferior angle of the scapula to be rotated upwards and backwards. When the limb was supported by the hand, these muscles were set at rest, and their prominence disappeared. Faradisation being deemed advisable, the patient was placed under the care of Mr. Knott, who saw her, on an average, twice a-week for the next two months. When one pole of the battery was placed in the root of the neck, near the origin of the nerve of Bell, whilst the other was applied along the costal attachment of the serratus magnus, the scapula was at once dragged into its proper position, and there remained so long as the currents were passing. Marked improvement followed each application of the battery; the pain and deformity gradually disappeared; and, the usefulness of the arm having been restored, the patient left off attending at the end of April.

The other case was that of a boy, whose constant amusement had been derived from the skipping-rope. He was a thin, sickly looking fellow, of eleven years, when he came under treatment, in April 1873. There had never been any pain or weakness in the shoulders, and it was only by accident that his mother discovered that both his shoulder-blades were growing out. For two months after this, the deformity was allowed to go on increasing before advice was sought. The patient was exhibited by Mr. Owen at a meeting of the Harveian Society, when the bilateral deformity was very perceptible. The right scapula was, however, more prominent than the left, and the fingers could be pushed up beneath the inferior angle nearly half way to the glenoid cavity. The boy was certainly able to raise his hands high above his head, the deformity increasing the while. This action was, no doubt, accomplished by the action of those higher scapular muscles enumerated above, with the addition of the supraspinatus and deltoid. A large flabby bundle of the serratus magnus could be picked up between the fingers and thumb, ascending from the lower true ribs; the ribs had dropped considerably; and a tap from the finger set up a peculiar quiver in the muscle. Faradisation had the same effect upon this patient as upon the other, at once bracing up the scapulæ into their proper position; but, as the boy lived at Peckham, his attendance was less regular, and his improvement less rapid than in the other case; nevertheless, he made a steady progress to recovery.

## MANCHESTER ROYAL INFIRMARY.

### TRAUMATIC RUPTURE OF LEFT COMMON FEMORAL ARTERY: LIGATURE OF THE TORN ENDS: RECOVERY.

(Under the care of Mr. Bowring.)

[Communicated by Mr. Jones, Pathological Registrar.]

J. R., aged 30, collier, was admitted into the Infirmary June 15th, 1874, and gave the following history. Five weeks before admission, he was at work in a coal-pit, assisting to push trucks up an incline. He was violently exerting himself, with legs extended and feet fixed, when he heard a snap in the left groin. This was followed by pain and a small pulsatile swelling. He, however, continued at his work for some days. At the end of a fortnight, he consulted a surgeon, who tried in vain to control the swelling. The tumour did not increase very rapidly, and at the end of a month it was only the size of two closed fists; but, as he was being removed to the Infirmary from his home, which was at some distance, the limb became enormously distended.

On admission, a large semifluctuating elastic swelling was found in the upper part of the left thigh, reaching upwards beyond Poupart's ligament, and downwards nearly to the knee. There was no pulsation or *bruit* in the tumour, and no pulsation in the arteries of the leg; the latter was much swollen and œdematous.

June 16th. At a consultation this afternoon, a diagnosis of ruptured artery was agreed upon, and it was determined to cut into the tumour and secure the divided ends of the artery. After the administration of chloroform, and the application of Lister's aortic tourniquet, an incision in the course of the femoral artery was made. Large clots were cleared out, and the ends of the torn artery were discovered at least an inch apart; these were secured by catgut ligatures. The vein was intact. The edges of the wound were brought together by metallic sutures, and the wound dressed with dry lint and limb wrapped up in a flannel bandage.

June 17th. He slept from the time of the operation last evening (7 P.M.) till 1 A.M. this morning; was restless till 3 A.M.; then had fifteen minims of Battley's solution, and slept three hours. He took plenty of milk, and an occasional egg, together with ten ounces of brandy in the twenty-four hours. Temperature 100; pulse 98, quiet.

June 18th. He had a good night after the administration of an opiate. There was very little pain. Pulse 130, bounding; temperature 100.4; skin hot and moist. The wound was dressed; there was a little sanious discharge.

June 20th. Pulse 128; temperature 100.1. He passed a restless night, and complained of shooting pains down the thigh and leg. Most of the sutures were removed. He had fish for dinner. The tongue was clean and moist. The wound was syringed out with Condy's fluid several times during the day, and dressed with warm spirit.

It is hardly necessary to continue the daily report; suffice it to say, that the patient made an uninterrupted recovery, and that, when discharged, at his own request, on July 30th, the wound had almost entirely cicatrised over. The patient presented himself at the Infirmary about the middle of December. The limb was perfectly strong, and he was able to walk a long distance without any inconvenience.

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Mr. William Hewitt has been presented with a life-size portrait of himself, painted in oil, in appreciation of his valuable services and general kindness to the members during a period of fifteen years, as surgeon to the Court Pride of North Walsham, No. 3308, of the Ancient Order of Foresters, North Walsham.

# SELECTIONS FROM JOURNALS.

## ANATOMY.

Comparative Length of the Spinal Cord.—C. Fehst (Inaugural Dissertation, 1874) found that, in bodies of twelve adult men, the average length of the spinal cord was 45 centimètres (nearly 18 inches, or 1.476 feet); that of the vertebral column, 73 centimètres (28.7 inches); the average length of the body being 168.6 centimètres (a little above 5 feet 6 inches). In twelve women, the measurements were respectively 43.8 centimètres (17¼ inches or 1.43 feet), 68.2 centimètres (25¼ inches), and 157 centimètres (5 feet 1⅘ inches). Thus, in men, the length of the spinal cord was, to that of the vertebral column, as 1 : 1.62, and to that of the whole body as 1 : 3.76; while in women the ratios were 1 : 5.6 and 1 : 3.58. Except in one case, the spinal cord terminated in the men either at the middle or at the lower border of the first lumbar vertebra; in the women, it reached in three cases to the lower end of the first, and in three to the lower end of the second lumbar vertebra, and in the remaining six cases to the middle of the second. Hence the first lumbar vertebra in men, and the second in women, may be assumed as the lower limit of the cord. The conus medullaris (lumbar enlargement) extended further down in women than in men. In children, the sexual difference in the length of the spinal cord and in its relation to the vertebral canal is almost entirely absent. In the bodies of male children between one and three months old, the ratios of the length of the spinal cord to the vertebral canal and to the length of the body were 1 : 1.59 and 1 : 3.26; in female children, 1 : 1.58 and 1 : 3.20. In both sexes, the conus medullaris ended at the lower border of the second lumbar vertebra. Additional measurements on the bodies of older children lead to the conclusion that the relations between the length of the spinal cord and of the vertebral canal correspond to those of adult females, and that in males there is a growth of the vertebral canal in greater proportion than of the spinal cord.—*Centralblatt für Chirurgie*, No. 18, 1874.

## SURGERY.

Treatment of the Wound after Extirpation of Tumours of the Breast: Metallic Sutures.—Dr. Vibert of Puy describes in the *Lyon Médical*, No. 26, the following process, which he has employed with advantage during the last eight years. When the tumour has been removed, and all the arteries taken up with the help of thick *serre-fines*, a series of fine silver wires are passed at a distance of about four-fifths of an inch, or less, from each other, by a slightly curved packing-needle, about six inches long, and as thick as a large knitting-needle. The needle is inserted about four-fifths of an inch from one of the lips of the wound, perpendicularly to the skin, and deeply, so as to take up a good thickness of the tissues. It is then carried under the floor of the wound, and brought out under the skin on the other side at the same distance from the edge. The ends of each thread are then drawn together and tied in a knot, care being taken to produce an exact approximation of both the deep and the superficial parts. The *serre-fines* are removed as the suture of the wound proceeds. When all the threads are drawn tight, the junction of the edges of the wound where it might gape a little, is completed by means of pins, and the whole is covered with a pledget of lint spread with ointment. Dr. Vibert has obtained, in about thirty cases to which he has applied this plan, firstly, immediate union completed from the eighth to the tenth day, when the conditions of approximation are favourable; secondly, a partially immediate union, entirely completed from the fifteenth to the twentieth day, in instances where part of the wound has not escaped suppuration; thirdly, a more tardy, but relatively shortened union, in cases where the gaping of the edges of the wound has only allowed them to be partly approximated.

Radical Cure of Hydrocele by Electro-puncture.—Ehrhard (Betz's *Memorabilien*, Heft 8, 1874) has employed electro-puncture with permanent good effect in four cases of hydrocele. He uses the interrupted current from a small Gaiffe's apparatus. In three of the cases, the hydrocele was only of short duration, and absorption took place in from three to four days, without any reaction. The hydroceles had not been previously tapped. In the fourth case, the patient was a man aged 52, who had had hydrocele eight years, and had been tapped many times. Under the use of electro-puncture, absorption of the fluid took place in three weeks. Four months afterwards, there was no indication of a return of the malady.

## BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1875.

SUBSCRIPTIONS to the Association for 1875 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, MARCH 6TH, 1875.

## MANSLAUGHTER BY INFECTION.

THE case of the Coventry midwife, Elizabeth Ingram, who has just been acquitted of the charge of having caused the death of Catherine Johnson, by communicating to her puerperal fever, possesses several points of interest. In Mrs. Ingram, we have a fair specimen of the English midwife, an useful, well-intentioned woman, but, as Mr. Commissioner Maule, who tried the case at the Warwick Assizes, said, "an ignorant person"; so much so, indeed, that until puerperal fever came and killed four of her patients, she frankly confessed she had never heard of such a disease. Doubtless, if these poor women had died under her hands from placenta prævia, the same absence of knowledge as to the cause of death would have been admitted. Death in childbed is such a disastrous accident, that the news of it spreads with great rapidity. The coroner of Coventry heard of the deaths in Mrs. Ingram's practice, and sent a police-officer to warn her not to continue her occupation until two medical men had given her permission to do so. This was certainly a step displaying great humanity; and perhaps, in the absence of other proper machinery, it was to a considerable extent justifiable. Would it not, however, be a dangerous precedent to admit; for, were we to acknowledge that the coroner had legal right to act in this way, what might not follow? Suppose, upon hearing of the death of a patient, say from *post partum* embolism, this officer were to send a police-inspector to the medical man who attended the case, with an order to abstain from all midwifery practice until two of his medical brethren, who might be friends or foes, should give him permission, what would be the astonished practitioner's feelings? Coroners, unfortunately, are not always medical men. In this particular case, he might be a lawyer, and public opinion might report to him the embolic case as one of puerperal fever. The unfortunate individual who had attended the case would then have thrown upon him the burden of disproof; and, if he succeeded in convincing the coroner that his case was one of a non-contagious character, he would probably fail in disabusing the minds of a majority of his neighbours, who, giving themselves the benefit of the doubt, would, in a case of need, rather employ some one upon whom the puerperal taint had not been cast. It is evident, therefore, that the admission of the coroner's power to enforce prolonged quarantine upon obstetrical practitioners would be a serious mistake; and the actual exercise of such authority, were it ever granted, would most certainly prove extremely vexatious and insupportable.

But it may be fairly asked what should be done in a case such as is on record, where a medical man who attended ten labours, eight of the women dying of puerperal fever, or in a case also on record where a midwife who delivered twenty women, sixteen of whom died,—determine, in spite of fatal experience, to continue their practice. Is a medical man who recklessly, or a midwife who ignorantly, continues to attend cases of labour immediately after the occurrence of puerperal fever in his or her practice, to be allowed to proceed unchecked? In such cases as these, the coroner might rightly interfere, and, in his inquiry into the cause of death, elicit from experts the degree of responsibility incurred by the practitioner, and accord a salutary verdict in conformity with the evidence. So little doubt now exists as to the contagiousness of puerperal fever, that it is scarcely possible to believe that any medical man would wilfully expose his patient to danger, or himself to remorse, by conducting a labour shortly after being in attendance upon a woman suffering from contagious fever. If, however, he should have the hardihood to do so, public safety demands that some legal method should exist for staying his death-dealing career.

Another point of interest in this Coventry case is, that it has aroused the attention of the *Times* newspaper. In a leading article which appeared on the 2nd instant, the insufficiency of the law for preventing the propagation of contagion is pointed out, and the fatal course now pursued is very justly attributed to ignorance. The writer says: "If sanitary legislation were for a short time to be guided by knowledge, and by considerations of public safety and economy, the conveyance of puerperal fever by midwives would be prevented as part of the application of sound general principles, and without any special enactment. If such a prospect is too remote to be waited for with resignation, it would not be difficult to find a remedy for the particular evil. Midwives are a very useful class of persons; but in too many instances they are lamentably ignorant of the duties they undertake. They ought to be placed under the control of one of the medical corporations or societies, so that they might be properly instructed and duly licensed. It would then be easy to enact that the local health authority, on the report of the coroner, or on other due cause shown, should have power to suspend the midwife's license for a stated period, until she could resume her practice without conveying to her patients the germs of fatal disease." It will be observed that the proposals here made are very much in accordance with those suggested by the Joint Committee of the British Medical Association and the Obstetrical Society of London. Every day the fact presents itself with increasing importunity, and sometimes hideous vividness, that midwives must be improved or abolished. The latter plan is undesirable and impossible; the former is practicable, urgently demanded, and, to our shame be it written, has been adopted in every European country but Great Britain.

## ZYMOTIC POISON.

AN able address delivered before the Glasgow Chemists' Association, and published in the *Pharmaceutical Journal*, by Dr. John Dougall, raises anew the question of the causes of Putrefaction and of Zymotic Disease, asked, in the first instance, by Hallier; inquired into afterwards by Pasteur, Bastian, and others; and now being investigated by many physiologists and men of science. Of the two theories which have been held on the subject, Dr. Dougall forcibly advocates that supported by Bastian, that germs may appear *de novo*, and without being caused by pre-existing germs. For our own part, we are strongly inclined to agree with him. It has, indeed, for some time appeared to us a rather crude assumption that, because there are many points of agreement between, for instance, the phenomena of the growth of the yeast-plant, and the inoculation of small-pox or infection by scarlatina, that therefore the cause of the latter as of the former set of phenomena must be similar germs or spores. That is the precise point in question; and the argument from analogy, or, as we may in this case express it, the argument by Mr. Mill's "Method of Agreement", seems by no means to warrant the conclusion drawn from it. When we come to apply the same writer's "Method of Difference", we are the better able to realise the fallacy underlying the argument. Thus, the two sets of phenomena agree in many respects, but they differ in at least one important particular; namely, that in fermentation the spores of the yeast-plant are at once easy of demonstration, and their source from pre-existent germs is matter of observation; while, in the case of zymosis, either no such organisms are found at all, or, if they be, it has yet to be proved that they are introduced into the organism in that form. When this is all the proof advanced in support of the theory, it manifestly becomes a duty to suspend judgment at least till such time as further corroboration of its truth is offered us. And when Dr. Bastian tells us that organisms appear readily in organic solutions which have been boiled and otherwise treated so as to destroy any con tained microzoa, provided only the solutions contain organic matter of a high order of complexity, the probabilities become rather strong that such organisms and their spores also are formed, not from pre-existing germs, but arise *de novo* simply from the interactions among themselves of the contained organic particles of complex composition, and unstable equilibrium.

The view which medical men take of a question like this is of the utmost possible consequence, and affects speedily the manner in which they will be disposed to view the whole subject of zymotic disease. According to the prevalent opinions, a specific disease can arise only if the specific poison or germs have by some means been taken into the organism of the person affected. If this be true, the question, how the first case of the specific disorder under consideration originated, becomes impossible, or nearly so, to answer. Besides, the argument when pushed, implies the eternal existence of the germs in question, a supposition which, of course, may be correct, at the same time that it is one whose opposite is a good deal more likely in a world characterised at all points by the constant perishing of existing organisms, and the equally constant formation of new ones. But if the other view be taken, that matter in a state of change can, when introduced into suitable conditions, as, for example, the human or other animal organism, induce a new set of changes, which we call a specific or zymotic disease, we venture to think that a good deal of obscurity and difficulty in understanding specific disorders disappear. The only addition which it is necessary to make to this theory is, that the new disorder once produced is capable of reproducing itself. And it may do this in one of two ways; either by the detachment of actual germs, formed in the supposed manner; or by particles of organic matter in a state of change, which, being introduced into a new organism, affect it by setting its particles into change or motion, and so inducing the condition now known as zymotic disease.

But the power of self-perpetuation possessed by zymotic disorders, though a very noticeable and a very interesting one, is accompanied by so many deviations and irregularities as to make it more than worth our while to pay a good deal of attention to them. For we do seem to have, in common medical experience, not unfrequent instances in which a given infection produces not itself but another, to which it is recognised to have relations. For instance, there seems to be a good deal of evidence to show that the same matter in a state of unstable equilibrium which will induce diphtheria in one individual, may induce malignant and low typed scarlatina in another; and it seems very likely indeed, that peritonitis or metritis, or some similar affection, is frequently caused by the same power in lying-in women. If this be not so, it is very difficult to account for the frequent co-existence of these disorders in time. There are other relations, as, for instance, that undoubtedly subsisting between hospital sore-throat among nurses and medical officers, and the condition called erysipelas among the inhabitants of the wards, which are very difficult of explanation on the commonly received notions, but become much more intelligible if some such view as we have enunciated be held concerning them. Nor are other instances wanting in which a given cause produces different morbid states. Most medical men, for instance, who have seen much of fever, must have seen instances such as have come under our own observation, where a whole family suffer from the same infection, yet the symptoms vary immensely in different members. We have an instance of this kind before us, in which typhoid fever in the father has run on for nearly sixty days, being characterised by diarrhœa and rose-coloured spots, while, in other members of the family, there has been neither diarrhœa nor eruption, and the duration of the disorder has been only ten or twelve days; while in yet others of the family, it has lasted twenty-one days. The source of the infection in all these cases being the same, it surely cannot be maintained that the originating germs, if such they were, are capable of producing only their own development, in any sense at all analogous to that in which, for instance, the yeast-spores produce spore-bearing penicillium, or the acorn produces the acorn-bearing oak. It is, we believe, just here that the fallacy of the prevailing views becomes apparent. Because in all the higher animals and plants, and in a great number of the lower, which have been examined, the mode of propagation is by spores or germs; and because the penicillium, a spore-produced fungus, bears a considerable number of resemblances in its phenomena to the condition known as zymosis, it is assumed that the latter resembles it also in being propagated by spores which are in turn invested with the power, like those of penicillium, of reproducing only themselves. So long, indeed, as nothing more was intended by this than the pointing out of interesting analogies, the reasoning might pass. But surely not when it is attempted to found on mere analogy a conclusion based on the assumption of fundamental facts in the nature of zymosis—facts which cannot be received as such, until their existence has been verified. From our point of view, indeed, it appears extremely probable that germs may originate *de novo*; and we cannot help thinking that a large amount of the obscurity attaching to the subject has arisen from the extreme unwillingness which investigators have exhibited to think such a condition a possible one. To put the matter shortly; it certainly seems to us that if there be not sufficient evidence to warrant us in holding with Dr. Dougall, that "bacteria and fungi in dead matter, also the various animal and vegetable parasites of living organisms, are absolutely non-zymotic, the result, and not the cause, of the morbid conditions of their habitat", there does seem sufficient to warrant us in saying that hitherto too much attention has been paid to the cause or so-called germ, and too little, by a long way, to the habitat or nidus on which it chanced to settle. Nor would this view, we think, be found to militate against the investigation of the causes of zymotic disease, since, though the contention is that there may be an origination of specific disorder *de novo*, it is still admitted that by far the commonest source of specific disease, as we meet it, is a pre-existing case of the same kind. We shall await with considerable interest the results of the investigations now being undertaken by such men as Dr. Burdon Sanderson into this matter, feeling, as we do, that on this important question the proper attitude is one of caution and reserve, and that we shall not be in a proper position to come to a conclusion on the matter till a large mass of new evidence has been well digested and allowed its fair weight in the controversy.

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## HOSPITAL SATURDAY v. HOSPITAL SUNDAY.

Last week, in commenting upon the distribution of the Hospital Saturday fund, we pointed out with surprise the high place which was assigned to the Metropolitan Free Hospital on the score of efficiency, and the relatively large sum which had been awarded to it. This gives the managers a ground for congratulation, of which they have not been slow to avail themselves. Mr. Joseph Fry writes as follows to the papers:—

> "After the lengthy correspondence which you obligingly inserted on the difficulty of understanding upon what basis, if any, the insignificant sum of £78 : 3 : 1 had been awarded to this hospital by the Sunday Fund Distribution Committee out of a total collection of £29,678 : 13 : 2, and subsequently the serious charge made against this hospital of extravagant cost of management, etc., it is very gratifying to have to inform your readers that the Saturday Fund Council have thought proper to award us, out of a first year's collection of £4,521 : 15 : 10¾, no less a sum than £76 : 1 : 2. It is, however, made doubly gratifying by the announcement contained in Captain Mercier's letter, which has been published, that the distribution of the Saturday Fund has been made upon the bases of 'relief', 'economy', and 'efficiency', and 'upon a plan which obviated the possibility of partiality'. A more complete vindication of this hospital from an independent source, and its claim to public support, which is now much needed, it would be difficult to adduce."

Against this is to be set the statement of the Hospital Sunday Fund in their last report, to which Mr. Fry alludes. "From the information furnished by the authorities of the Metropolitan Free Hospital, it appeared that the cost of management was rather more than 34¾ per cent. of the amount spent upon the maintenance of the patients. Now, the instruction of the Council was to the effect 'that no institution be permitted to participate in the distribution of the fund if the Committee of Distribution find the cost of its management exceed a reasonable percentage of the whole current expenditure'. If the Committee had acted strictly upon this instruction, they would have made no award at all to the Metropolitan Free Hospital. . . . They express their regret that their invitations to the Committee of this hospital to send a deputation to attend a conference at the Mansion House should have been twice declined."

We confess that we have more confidence in the manner in which the awards of the Hospital Sunday Fund have been distributed than we have in the absurd system of marks adopted by the Hospital Saturday Fund; and the candour with which the Mansion House Committee twice invited the managers of the Metropolitan Free Hospital to discuss the matter with them, contrasts most favourably with the way in which the latter shrank from any such conference. They avoided an interview with those who were best able to enter into details, and who were perfectly willing to alter the award, if good reason for so doing could be assigned, whilst they indignantly appealed to the public in the newspapers against the injustice of their decision.

But not only have the Committee of the Metropolitan Free Hospital made the distribution of the Hospital Saturday Fund an occasion for venting their displeasure against the Hospital Sunday Fund, but they have recently issued a pamphlet, addressed to their own Governors, consisting of an indignant "refutation" (as they consider) "of the injurious charges against this hospital contained in the report of the Hospital Sunday Fund". It appears to us, however, to be no refutation at all. The assertion of the Hospital Sunday Fund was that "the cost of management was rather more than 34¾ per cent. of the amount spent upon the maintenance of the patients". The whole question seems to turn upon the words *management* and *maintenance*. The Mansion House Report, in a foot-note, explains that maintenance includes the sums paid for provisions, wines, drugs, and surgical appliances, domestic expenses, salaries, wages, etc. (except as below), rent, taxes, etc., repairs, furniture, and miscellaneous charges; while management includes salaries paid to secretary, office clerks and collector, including poundage and other payments, printing, advertising, stationery, postage and law charges, and incidental expenses. It would appear, then, that it was under this last head—management—that the extraordinary amount of 34¾ per cent. of the whole income of the hospital was expended. Of this fact, the pamphlet offers no explanation whatever. It gives an abundance of statistics, and compares itself, with great self-complacency, with eight other hospitals, but it carefully abstains from giving us any insight into the relative cost of maintenance and management, as those terms were most properly explained and insisted upon by the Hospital Sunday Fund. The sums which are set down for each hospital as the total cost of its in-patients include in every case both maintenance and management. In the other hospitals, the Mansion House Committee considered that due economy was shown in the management; but, in the case of the Metropolitan Free, they deemed the proportion so extravagant that, if they had acted according to the letter of their instructions, they would have made no award to it whatsoever. For the Metropolitan Free Hospital to give its in-patient expenses in a lump is no answer to the allegations of the Mansion House Committee.

THE *Times* obituary column of the 4th instant, announces the death of a young man from misadventure in taking an overdose of chloral. The constant recurrence of deaths from this cause ought to teach nonprofessionals caution in the use of narcotics.

TRICHINÆ, according to a Nordhausen paper, have recently been found, on microscopic examination, for the first time, in the flesh of a wild boar. Hitherto, it has been believed that these parasites infected the domestic pig alone.

FROM an official report prepared by the Prussian Minister of Instruction, it appears that there are in Prussia 1,050 blind children between the ages of eight and sixteen (both inclusive); and 6,521 deaf and umb of the same age. Of the latter, the province of Prussia furnishes 2,076; while in Brandenburg, the population of which is scarcely less than that of Prussia proper, the number of deaf and dumb children is only 472.

### THE BRITISH MUSEUM.

WE learn, with great pleasure, that speedy redress is to follow the representations which it was our duty to make recently, concerning the unhealthy atmosphere of the apartment in which the junior assistants in the library of the British Museum were confined, and from the effect of which the health of the late Mr. Warren gave way, and that of others has been suffering. The "tank" is condemned, and the assistants, we understand, are to be removed to healthy quarters. The course which the trustees have taken in personally investigating the matters of complaint, and redressing them by their direct action, is worthy of all praise, and is of happy augury. We shall not be doing more than justice, if we add that public thanks are especially due to Dr. Hooker for the course which he has taken in the matter.

### THE INQUEST ON SIR CHARLES LYELL.

THE new coroner for Central Middlesex has incurred very severe blame for insisting on holding an inquest on the late Sir Charles Lyell, under circumstances which, it is alleged, rendered any inquest unnecessary. It ought, however, we think, to be noted in mitigation of the very severe judgments which have been publicly pronounced, that the death was not remotely connected with a serious injury, which does not appear to have been mentioned in the medical certificate of the cause of death, and that the unfortunate circumstances which have caused most comment were brought about by the leaden coffin being soldered down after the notice of the inquest had been served by the authorised officer. This is obviously an undesirable method of frustrating the coroner's interference. It must be remembered, also, that it is the coroner's duty to inquire into cases of death, violent or accidental, and that more public injury is likely to accrue from defect than from excess of zeal in the performance of those duties. We cannot help thinking, that it was much to be regretted that any opposition was made to the holding of the inquest. The prejudice against such an inquiry is wide-spread, but it is opposed to the public interest.

### SANITARY AREAS.

THERE is, we believe, reason to expect that Mr. Sclater-Booth's forthcoming Public Health Bill will now include a more important revision of the clauses of the Public Health Act of 1872, relating to consolidation of sanitary areas for authorities than might be gathered from his recent speech at the first reading. In this respect, the failure of that measure, which was amply foretold by the British Medical and Social Science Associations, has been so conspicuous that an amendment is urgently called for.

### ADULTERATION MADE EASY.

THE more the Government Bill for amending the Adulteration Act is considered, the deeper the condemnation which it is felt to deserve. It elevates ignorance into a fine art, and intimates to the facile retailer that 'tis indeed the height of folly to be wise. If he will only henceforth plead ignorance, his servants or his purveyor may skim the milk or add water to it, may mix sand with sugar, alum with bread, lard with cocoa, flour with mustard, and chicory with coffee. The retailer need only plead that he had his back conveniently turned, that he sold it as he bought it, that he really did not do it "knowingly"; or, if that should openly fail, then he may plead that "mixture" is the custom of the trade, and adulteration the badge of all his tribe. He may sell a mixture as cocoa, another mixture as mustard, a third as pepper, a fourth as ground coffee; and, if he have only the very small artlessness to plead that it is the usage of trade, that he sells as he buys, or that he "knows" nothing beyond that, he may safely adulterate under the shade of his own counter, and in the secrecy of his back parlour. The enactment is equally calculated to favour tampering with drugs; and it ought unquestionably to be entitled an Act to protect from all penalties the adulteration and deterioration of food, drink, and drugs. It must go beyond the wildest hopes of the gentlemen who were suffering from the very mild prohibitions of the Adulteration Act, and who procured the appointment of a select committee to hear their prayers.

### SMALL-POX AND REVACCINATION.

A REPORT of the Small-pox Hospital, Blackwell's Island, in the *New York Medical Journal*, of February 1875, states that one of the most interesting facts brought out by the hospital cases is, the value of vaccination as a preventive. The vaccination of childhood is of no value, unless repeated at intervals of three years. This is proved by the fact that all, or nearly all, of the cases have good pock-marks; though, at the same time, it is true that the cicatrix does not prove the validity of the vaccination. Again, the fact of having had the disease does not preclude the possibility of again taking it, and should not preclude the necessity of revaccination. It not unfrequently happens that a patient enters who is strongly pitted; and a patient in the Jersey City Charity Hospital had the disease three times. The strongest argument in favour of frequent revaccination is that, of all the cases under observation, not one can be found who has been successfully revaccinated within four years; and there are only a few even who were vaccinated four years ago. But while this is considered a rule, it is not without its exception, the case is mentioned of a child who was vaccinated successfully at a dispensary on the east side, and in a year from that time took small-pox. Another interesting fact occasionally noticed in hospital is, that small-pox and cow-pox run their course together in the same patient, each entirely uninfluenced by the presence of the other.

### BIRMINGHAM WATER-SUPPLY.

AMONG other matters more or less intimately connected with the sanitary condition of Birmingham, which have recently attracted considerable attention, it is satisfactory to find that the quality of its water-supply is not being lost sight of. Month after month, Dr. Alfred Hill, the medical officer of the borough, has reported that the amount of "previous sewage contamination" in the water supplied to the town, either "continues very high", or is "higher than in the previous month". One of the results of the recent Conference has been the organisation, in Birmingham, of a course of lectures on sanitary subjects, and Dr. Alfred Hill recently delivered one of the series, entitled "Good Water". In the course of the lecture, by the aid of a number of interesting chemical experiments, he exposed the polluted state of the water which was being drank, and then proceeded to point out the danger of drinking impure water, and its especial tendency to disseminate cholera, diarrhœa, and typhoid fever. Such efforts to educate the public in the real importance of these matters, will no doubt assist in strengthening the hands of the Town Council in its efforts to improve the sanitary condition of Birmingham, whether in the improvement of its water-supply or any other direction.

### ACTION OF SALICYLIC ACID IN BACTERIA.

DR. LUDWIG LETZERITZ has lately tested the effect of salicylic acid on bacteria and micrococci, by placing under the microscope portions of fluid containing these organisms in abundance, and allowing solutions of salicylic acid to come into contact with them. He used solutions of four degrees of strength; viz., one part of salicylic acid and one of spirit, in 120, 90, 60, and 40 parts of water. The first two (the weaker solutions) arrested the movements of the bacteria gradually; while, with the two stronger solutions, the arrest of movement was instantaneous. He has used salicylic acid locally and internally in two cases of diphtheria, he thinks with good effect; but he observes that more extensive observations are necessary in order to determine its value in this disease.

### THE ABOLITION OF VIVISECTION.

THE following advertisement appeared in *The Times* a short time ago.

"Society for the Abolition of Vivisection, or putting animals to death by torture, under any pretext whatever. The object of the Society is a law for the total suppression of vivisection. To call on the legislature for less would be to admit the principle (and thereby perpetuate the enormity) that man is justified in selfishly inflicting agony on the innocent. The opponents of the Slave Trade agitated, not for restriction, but abolition. The wrongs perpetrated by man on animals are even more dire than those inflicted by him on his own species. Persons desirous of joining the Association can communicate with George R. Jesse, Esq., Henbury, Macclesfield, Cheshire."

### ROYAL ALBERT HOSPITAL, DEVONPORT.

WE are glad to learn that the provident out-patient department of this hospital continues to make steady progress. The Report just issued says: "The Provident Dispensary is still worked in a very satisfactory manner. The annual subscriptions are increasing, and the fines for the non-payment of subscriptions are diminishing." In 1873, the payments of members amounted to £432 11s. 10d., while last year they had risen to £491 16s. In 1873, £147 13s. 6d. were divided among the four medical officers, while last year £256 14s. were similarly distributed. The following extract from the Report for 1873 expresses the opinion of the Committee as to the general working of the system, and the experience of another year has only served to strengthen them in it. "The Committee are more than ever confirmed in their view of the advantages arising from the institution; there can be no doubt whatever that its principal merit is to establish and increase habits of providence and forethought among the working classes, but great relief is also afforded to the suffering poor. Several cases have been admitted as in-patients of the hospital on the recommendation of the junior surgeons—not as a matter of charity, but as a part of the relief purchased by their original subscriptions. In this way the members have the benefit of the superior appliances of the hospital, and the latter is a gainer as a medical school by being supplied with a succession of important and selected cases."

### NATIONAL HEALTH ADMINISTRATION.

THE following lines from the pen of Sir Arthur Helps deserve careful consideration. They confirm an opinion which we have long since advocated, and come from one of the ablest and most thoughtful of our public servants.

"I distrust the agglomeration of offices and functions which has been so frequently effected in modern times. It seems to me that the health of the nation is a subject sufficiently large in itself to require a separate branch of administration, with a minister at the head of it; and that it has been unwise to add this branch to the Presidency of the Poor-law Board. The functions seem to be essentially different. In the one case judicious restraint appears to be the principal function; in the other, judicious enlargement and development of action. I should imagine that it would rarely happen that any one man would possess the requisite qualifications for filling, as a minister, both these high posts of president of the Poor-law Board, and president of my imaginary Board of Health. But, indeed, the allotment of official work is, at present, very ill-managed throughout most of the departments of the State."

### HYDROPHOBIA IN DENMARK.

A CORRESPONDENT of the *Pall Mall Gazette*, writing from Copenhagen, directs attention to the fact that rabies exists to an alarming degree in nearly all the towns of Jutland. As a proof of the feeling in Copenhagen on this subject, he mentions that the press is insisting upon the necessity that the Minister of the Interior should by a short bill make it an offence for any one to bring a dog from Jutland to any of the islands, thus trying to limit this terrible scourge to the Peninsula, whither it has been brought, to all appearances, from Germany, and especially Berlin, where rabies existed a short time ago to an alarming extent. There is hardly a day when the Danish papers do not cite one or more cases; and several people have already died from this terrible disease.

### THE WORDING OF ACTS OF PARLIAMENT.

MR. FORSYTH, in a recent speech, called attention to the vague manner and involved language in which Acts of Parliament were drawn up. As an instance, he alluded to the Public Health Act of 1872. Of late years, he said, there had been a constant habit of making enactments, not by plain and distinct words expressed on the face of the Act, but by referring to other Acts passed in previous years, and by incorporating a portion of preceding Acts, so that it was necessary to go back to those Acts to ascertain what, in fact, the Legislature meant. But that was a hopeless task; one became involved in a perfect chaos. There was also this habit—an Act was repealed, not bodily, but only a section or a portion of a section; and annexed to the new Act was a schedule which stated that so much of former Acts as were not repealed remained in force, and one had to go back from Act to Act. Even to a lawyer the task was almost hopeless. The Public Health Act, passed in 1872, was for the purpose, among other things, of establishing a new Sanitary Authority, and laid down the powers and duties of that authority. How was that done? By referring to five distinct classes of Acts of Parliament, one class containing five Acts, and the whole making a total of sixteen Acts of Parliament, from which the rights, the duties, and the obligations of the new Sanitary Authority had to be ascertained.

### NECROPSIES IN PUBLIC INSTITUTIONS.

A FEW weeks ago, it became our duty to comment rather severely upon the action taken by the Board of Guardians of the Portsea Island Union Workhouse, in respect of *post mortem* examinations made by the medical officer. A somewhat similar affair has lately occurred at the Hackney Workhouse, where the House Committee have been called upon to investigate "alleged improprieties on the part of the medical officer of the workhouse, in the matter of making an unnecessary number of *post mortem* examinations". The committee ascertained that this officer had made nineteen *post mortem* examinations in all during the time that he had held office there, and that of these, one had been ordered by the coroner, and eighteen had been made at the request of the friends of the deceased, and that the committee decided to admonish the medical officer, and to frame a rule that in future no deceased inmate should be "dissected", excepting by order of the coroner or the guardians, or by a written request of the friends of the deceased. We fail to see what change this rule was intended to effect. Possibly it was framed simply to calm the instigator of the proceedings, who "considered that it was incumbent on the board to express its decided disapproval of the conduct of the young officer who had dissected the dead", and who, to the last, prevaricated that the "dissections" alluded to had not been made at the request of the friends, though he finally admitted that the friends had given permission. It leaves things, however, in exactly the same position as they were before. The medical officer had invariably obtained the consent of the friends, and it would not be difficult to have that consent or request in writing. We have no great complaint to make, provided the matter rests here. We think it desirable that, whenever an opportunity occurs of making a necropsy, the opportunity should not be neglected, but we would not willingly hurt the feelings of relatives who, from prejudice of whatever kind, have objection to necropsies. We must, however, assert that the report of the House Committee proved that the medical officer had been careful not to make any examination of the deceased without the sanction of those who had the right to give it. And if, by so doing, he broke no law of the institution with which he was connected, to admonish him was a deliberate and gratuitous insult.

### TRIAL OF A MIDWIFE FOR MANSLAUGHTER.

AT Warwick, on February 27th, before Mr. Maule, Q.C., Commissioner, Elizabeth Ingram was charged with manslaughter. Mr. Ewins Bennett appeared for the prosecution; and Mr. Buszard defended the prisoner. The prisoner is a midwife practising in Coventry; and, during the month of December 1874, she attended seven women, five of whom had puerperal fever, and two escaped. Four of the women died. The prisoner was charged with having, by gross negligence, caused the death of Catherine Johnson, upon January 8th, 1874. On December 18th, a police-sergeant saw the prisoner, and told her he was directed by the Coroner to warn her not to practise for two months, in consequence of the death of a woman whom she attended. The prisoner replied that a medical man had promised to see to her work for her, and had told her she might go into the patients' rooms, but was not to take any part in the delivery. Dr. John Brown of Coventry had told the prisoner that her patient, a Mrs. Williams, had died from puerperal fever, and that the prisoner ought not to attend other patients for at least two months, for they would probably all die, as the fever was so contagious. In cross-examination, Dr. Brown said he had himself abstained from attending other cases for six or seven weeks after attending a case of puerperal fever. He and Dr. Dewes explained at length the nature of puerperal fever; and, from their evidence, it would appear that there are three forms of the fever. The first is that which appears sporadically, or as an original disease; the second (this case) is one which is eminently contagious and deadly; and the third form is one in which there are no inflammatory symptoms and no contagion, but which is of a typhoid character. A midwife would not know from which class the patient suffered. This fever has no doubt been epidemic lately, and such epidemic form may arise from the peculiar condition of the atmosphere, as in the case of other fevers. A medical man cannot tell in any particular case whether or not it arose originally or from contagion. The mother of the deceased, acting on the advice of the prisoner, sent the husband to fetch Dr. Middleship, who came about two o'clock in the day and said that he would be wanted again about six o'clock. The husband went for him about that time, and urged him to go directly. According to the husband's account, Dr. Middleship said: "You go back and tell her (the prisoner) from me she had better go on with the case." The prisoner had not touched the patient; but, after receiving this message, she delivered the woman on December 24th, and she died on January 8th, of puerperal fever. Dr. Middleship stated that he attended the deceased four or five hours before confinement. The prisoner was in the room. On December 18th, he had a conversation with the prisoner about attending her cases. He said he would attend to the cases for her. She told him she had been stopped from attending by the inspector and by the coroner, and was not to attend any more for two months. He had attended a Mrs. Chapman six days. She was attended by the prisoner, and died of puerperal fever. He had attended her two or three days after her confinement. He recollected the deceased's husband coming for him at six o'clock. He said to him: "Go and tell her that I am going to a case of my own, and if she should get any worse to let me know; and, if I have returned from my own case, I will come directly." He made no suggestion that any other medical man should be called in. He did not go to the house of the deceased that evening. He believed the prisoner said that her patients had died of childbed fever. His lordship, addressing the learned counsel for the prosecution, said: Can you support this charge? Here is this woman, who is an ignorant person, and cannot know of herself whether the form of complaint she has been dealing with is contagious or not, who receives a warning from the police and the coroner, who communicates with a doctor and states the reason why she has been warned, and is told she may be present in the room. Then, when the labour comes on, the doctor leaves her to herself, and the husband delivers a message to her to the effect that the doctor, who knows all the circumstances, has given her authority to act in the matter. The learned counsel for the prosecution stated that, from the depositions taken in the case, he had thought that the charge could not be substantiated against the prisoner at the bar. His lordship then directed the jury to find a verdict of not guilty.

### RECENT URBAN MORTALITY.

DURING last week, 5,449 births and 4,454 deaths were registered in London and twenty other large towns of the United Kingdom. The rate of mortality was 30. The rate was 26 in Edinburgh, 34 in Glasgow, and 29 in Dublin. Portsmouth had the lowest rate (21) of eighteen large English towns. In Bristol, Leicester, and Norwich, the rate was 31; in Wolverhampton, Liverpool, and Birmingham, it was 33; in Salford, 35; Nottingham, 38; Manchester, 39: and Oldham, 41. The zymotic rate in these eighteen towns was 3.1; it was 5.6 in Birmingham, and 5.8 in Hull. Whooping-cough caused 15 deaths in

Birmingham, and scarlet fever again showed fatal prevalence in Bradford and Hull. In London, 2,348 births and 1,854 deaths were registered. The births were 148 below, the deaths 173 above, the average. The death-rate rose to 28. The deaths referred to the seven principal zymotic diseases were 176, being 78 below the average. To whooping-cough, 71 deaths were referred; which number was, however, slightly below the average. The mortality from this disease has increased rapidly during the past few weeks. Under the influence of the continued low temperature, 576 deaths were referred to diseases of the respiratory organs, which exceeded the corrected average weekly number by 191. In outer London, the death-rate from all causes and from the principal zymotic diseases was 22.3 and 1.6 respectively, against 28.1 and 2.7 in inner London. Typhoid fever is said to be prevalent in Moor Cottages, High Street, Ilford. At Greenwich, the mean reading of the barometer during the week was 29.54 inches. The mean temperature was 33.5 deg., or 5.9 deg below the average. The general direction of the wind was E.N.E. Rain or melted snow was measured on Wednesday and Thursday to the amount of .20 of an inch.

### TRIAL OF A SURGEON FOR MANSLAUGHTER.

THE following is a condensed report from the daily papers of the trial of a surgeon at Warwick Assizes, for causing the death of a woman whom he attended in her confinement, by cutting away many feet of intestine, which protruded through a rent in the vagina. Strenuous endeavours were made to save the accused, Dr. Barnes making a strong effort to put forward all the palliating circumstances. Unfortunately, the weight of evidence could not be resisted; the sentence of the court was mitigated by the facts that the poor woman would, in any case, have died. On March 13th, before Lord Coleridge, Mr. Edwin Peacock, a surgeon, was indicted for the manslaughter of Ann Woodward, on June 19th last—under very painful circumstances, to which we have previously referred.—Mr. Fitzjames Stephen, Q.C., and Mr. Buszard appeared for the prosecution; Mr. Digby Seymour, Q.C., and Mr. Dugdale for the defendant.—Last June the prisoner attended Ann Woodward, wife of a labourer at Chilvers Coton, during her confinement. An internal rupture was caused, which resulted in the protrusion of fifteen feet of intestines, which the prisoner cut away. Medical witnesses were called on both sides, but even those who appeared for the defence said that personally they would not have severed the intestines. The coroner's jury acquitted the prisoner of blame, but the present prosecution was ordered by the Attorney-General.—Mr. Fitzjames Stephen, Q.C., in the course of the opening of the case for the prosecution, stated that this case had been prosecuted under the direction of the Treasury, and the details of it would give as much pain and disgust to the jury as they would give him to state. The prisoner, who is a surgeon practising at Chilvers Coton, had attended the deceased Ann Woodward, during her confinement, and the question for the jury to consider was whether his conduct on that occasion amounted to manslaughter. It was the law that, if a person undertakes a difficult and delicate task, he is bound to bring to the execution of that task the required knowledge, skill, and care. If he fail in any one of these, he is liable to a charge of manslaughter if death supervene.—Though the medical evidence differed on some points, it agreed in affirming the impossibility of the patient's life being saved after the operation performed by Mr. Peacock, who cut away and removed fifteen feet of the intestines. After an hour's deliberation, the jury returned a verdict of guilty, with a strong recommendation to mercy. Lord Coleridge said, he entirely concurred with the finding, but, as there was an absence of all aggravating circumstances, the sentence would be six months' imprisonment without hard labour.

### THE FOOTBALL CHALLENGE CUP.

ON Wednesday last, notwithstanding the bitter coldness of the weather, some four hundred spectators assembled at the Oval, Kennington, to witness the decision of the final tie for this prize. The match lay between the Guy's and St. George's Clubs, and excited much interest amongst the partisans of those two medical schools. The game was admirably contested throughout. The St. George's men scored two touches down during the first half of the match, when the Guy's men were kicking against the wind; but, after the change of ends, the advantage rested with the latter team. Gray ricked a goal from a run in by Mutch, and their adversaries were once forced to touch down. In the end, the Cup went to Guy's; the Borough men having scored a goal and a touch down to two touches down. Mr. W. Pinching was captain of the Guy's team; and Mr. W. E. Collins acted in a similar capacity on the St. George's side.

### DISCUSSION AT THE PATHOLOGICAL SOCIETY.

THE Council of the Pathological Society have arranged that a discussion shall be opened, by Dr. Charlton Bastian, F.R.S., at the meeting of April 6th, on the Germ-Theory of Disease: being a Discussion of the Relation of Bacteria and allied Organisms to Virulent Inflammations and Specific Contagious Fevers. It is expected that Dr. Burdon Sanderson, whose lectures on a part of this subject are now appearing in our columns, will take part in the discussion; and it is hoped that, besides the members of the Society interested in this important subject, Professor Lister of Edinburgh, and it may be Professor Billroth of Vienna, will find opportunity of being present and taking part in the debate.

## SCOTLAND.

### LEITH HOSPITAL.

AT the annual meeting of the subscribers to the Leith Hospital, it was reported that the ordinary revenue of the institution, during 1874, had been £1,779, and the expenditure £1,641. Upwards of £8,100 had been, up to the close of the year, expended on the new buildings. These being now ready for the reception of patients, the directors were authorised to make arrangements for their formal opening.

### DRAINAGE OF THE NEW INFIRMARY, EDINBURGH.

THE drainage of the New Infirmary continues to occupy a prominent place as an important public question, and has been made the subject of several reports and counter-reports on the part of the Committee of Managers on the one hand, and the Town Council on the other. The former party consider that the ratepayers of the St. Leonard's district "have fallen into error in representing the sewage of the New Infirmary as peculiarly noxious and charged with infection, inasmuch as the number of cases of the most infectious diseases, such as small-pox and scarlatina, is always very limited, and those of common fevers, which are much less virulently infectious, rarely exceed thirty and cannot surpass fifty". They further point out that it had never up to the present time been suspected that any spread of infectious diseases had been caused by drainage communication at times when epidemics were raging in any of the public institutions in the city, and that the proposed ventilation of the drain seemed perfect, as the air from all the hospital drains is to be drawn through a furnace kept burning for other hospital purposes. The Town Council Committee, on the other hand, believe that, on the evidence before them that the sewage is specifically infectious, it would be unreasonable to give it a passage through the main sewer which, to be rendered safe, would require the thorough trapping and entire reconstruction of all the collateral drains, and the rearrangement of a very large number of the sink and closet arrangements over the whole drainage area. They also relied on the opinion of Mr. Haywood and Mr. Austen of London, that the system of ventilating sewers by furnaces was likely to prove a failure. At a special meeting of the Town Council, it was agreed that the ordinary sewage of the infirmary should be allowed to enter the St. Leonard's drain, while that from the infectious wards should be disinfected and disposed of as might be found most convenient. The matter was from them adjourned, that an arrangement to this effect might be made with the infirmary authorities. The infirmary managers accepted the offer of the Town Council, with the promise that the sewage from the fever-house shall be disinfected to the satisfaction of the Town Council before it is allowed to enter the St. Leonard's sewer. The matter will probably be settled on this basis.

### ROYAL EDINBURGH ASYLUM FOR THE INSANE.

AT the annual meeting of the Corporation of the Royal Edinburgh Asylum for the Insane, Dr. Clouston, the medical superintendent, read a report, from which it appeared that the number of patients admitted to the asylum during the past year had been greater by 14 per cent. than the average for the previous ten years, and that increase had taken place equally in the private and rate-supported class of patients. Under the heading "Melancholia", there were 70 per cent. more cases admitted last year than the average number in that class for the previous ten years.

### HOSPITAL FOR INCURABLES IN EDINBURGH.

THE temporary hospital for incurables is now open, and is under the professional care of Dr. J. Bell as surgeon, and Dr. G. W. Balfour as physician. The wards are comfortable and convenient, and will contain, at present, accommodation for about twenty persons. The rules as to admission are stringent, and the committee of management desire to take in, as far as possible, only the most urgent cases, in the face of the limited number of beds. The following is an abstract of the principal rules. Patients applying for admission must procure medical evidence that they labour under incurable disease of such a kind as requires nursing and care which cannot be provided at their own homes. Such cases as seem fitted for general infirmary treatment will not be received, without a certificate from a medical officer of such institution of unfitness for further treatment there. A preference is to be always given to those who apparently have not long to live, especially such as suffer from aneurism, cardiac, cerebral, or carcinomatous diseases in their advanced stages. No one subject to mental disease is to be admitted; and the phthisical only under peculiar circumstances. The claims of those desiring admission are to be sent to the Secretary, and are, together with the opinion of the medical officers on the case, to be laid before the acting committee, who have absolute power of admission or rejection, unless the medical officers unanimously object to a case, when it shall not be admitted. Judging from the urgent want of such an institution in this part of Scotland, the home will soon be overflowing with applicants.

### THE UNIVERSITIES AND FEMALE GRADUATES.

AT a meeting of the University court, held last week, it was unanimously resolved to petition Parliament against the Bill for removing doubts as to the powers of the Universities of Scotland to receive women as students and admit them to degrees, from several reasons: 1. Because all doubts have now been removed by the decision of the Court of Session, and, consequently, the admission of women would be inconsistent with their charters. 2. Then, in the face of so much difference of opinion as has been expressed in the matter, and the quesions themselves being serious, no legislation should take place until he whole subject had been inquired into by a Royal commission or otherwise. The Bill has since been rejected.

### ROYAL SOCIETY OF EDINBURGH.

THE Council of the Royal Society of Edinburgh have awarded the Makdougall Brisbane prize for the biennial period, 1872-74, to Professor Lister, for his paper on the Germ Theory of Putrefaction and other Fermentative Changes, which was communicated to the Society on April 7th, 1873.

### THE CHAIR OF NATURAL HISTORY AT ST. ANDREWS.

T is announced, that the Chair of Natural History in the University f St. Andrews, vacant by the death of the late Dr. W. Macdonald, as been offered to and accepted by Dr. Alleyne Nicholson, who, a w months ago, was elected to a similar Chair in the College of Physical Science at Newcastle-on-Tyne. Dr. Nicholson was, we understand, in no way a candidate for this appointment, which was offered to him by the Marquis of Ailsa, with the cordial approval of the University authorities.

## IRELAND.

AT a meeting of the Governors of Simpson's Hospital, Dublin, held on Monday, the 22nd ult., Dr. H. Kennedy was elected a physician to that institution.

MR. WILLIAM COLLES, ex-President of the Royal College of Surgeons in Ireland, Surgeon to Steevens's Hospital, has been elected to the Professorship of Surgery in the University of Dublin.

AT a late meeting of the Council of the Royal College of Surgeons, a resolution was passed expressive of their regret at the death of the distinguished surgeon Mr. Robert Adams, lately a member of their body, and of sympathy with his family in their bereavement.

### THE SUNDAY CLOSING MOVEMENT.

A DEPUTATION, consisting of many of the most influential citizens of Dublin, waited on the Lord Lieutenant on Saturday, with a view of urging upon His Grace the importance of supporting the Bill for Closing Public-houses in Ireland on Sundays. His Grace, while seeming to approve of the movement, of course only promised the measure due consideration. We are much afraid that the cause of temperance has been much injured in this, as in other similar movements, by the injudicious zeal of teetotalism and its supporters.

### DUBLIN MAIN DRAINAGE.

IN consequence of the information elicited from the Government by the questions of Sir A. Guinness and Mr. Hankey in the House of Commons, it is reported that the Dublin Corporation will make an attempt to carry out the main drainage of the city with such moneys as they are able to obtain. As the Corporation can only legally carry out the scheme of 1871, and as that scheme will cost (if efficiently carried out) at least a million of money, it is seriously proposed by the municipal authorities to reduce the cost by substitution of rubble masonry, and other imperfect forms of work, for that originally proposed. Such a proceeding will ultimately cost the ratepayers a great deal more money in repairs and reconstructions than could possibly be expended on any efficient, though costly, scheme. We hear that a meeting of the ratepayers will be summoned in a few days, to consider what steps should be taken in the present crisis. A Bill has been prepared, to be submitted to the meeting, which would have the effect of taking the matter out of the hands of the Corporation, and entrusting it to a newly constituted body, somewhat similar to the Metropolitan Board of Works.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE annual meeting of this Society was held on Monday, March 1st, at 8 P.M.: the President, CHARLES J. B. WILLIAMS, M.D., F.R.S., in the Chair.

Dr. Samuel Gee and Mr. Fairlie Clarke were appointed Scrutineers of the Ballot for the new officers and council.

The abstract of the income and expenditure of the year 1874 was read.

The *Report of the President and Council* was read. It gave an account of the present state of the Society as to the number of its Fellows and the condition of its finances. The total number of Fellows was 654—the same as last year. The deaths had not been so numerous as in the previous year; they included two honorary Fellows (Jean Cruveilhier and Sir Charles Lyell), eight resident and five non-resident Fellows. The number of new elections to the Fellowship had been twenty-one. The ordinary income, £1363 15s. 7d., was slightly, and the expenditure, £1174 4s. 2d., considerably below, that of 1873; the latter decrease being chiefly in the cost of the library and *Transactions*. The report referred to the funded property of the Society, and to the state of the investment for the Marshall Hall Fund, and also congratulated the Society on the success of the second *conversazione* held last

June. The library had been increased this year by purchase and donation to the extent of nearly 500 works.

The adoption of the report was moved by Mr. GEORGE POLLOCK, seconded by Mr. OLIVER CHALK, and carried unanimously.

*President's Address.*—The PRESIDENT addressed the meeting. After congratulating the Society on its even prosperity, with a deduction on account of the scanty attendance of the Fellows at its meetings, and, on the other hand, a creditable reference to the great success of the biennial *conversazione*, the President proceeded to give brief biographic notices of fifteen Fellows deceased in the past year; acknowledging his obligations to the medical journals, from which much information was derived. Professor Cruveilhier of Paris, Foreign Honorary Fellow, by his illustrations of pathological anatomy, had done more for that study than any other author during the last half-century. Sir Charles Lyell, honorary Fellow, was also foremost, not only as an author in his department (geology), but likewise as one of those who have done most to place geology on a scientific foundation. The President also referred to the death of Surgeon-Major John Wyatt, C.B.; Richard W. Tamplin, F.R.C.S.; John Burford Carlill, M.D.; Thomas Ballard, M.D.; Edward W. Duffin, M.D.; Richard T. Tracy, M.D., of Melbourne, Australia; James Dawson, F.R.C.S., who began to practise in Liverpool nearly seventy years ago; was concerned in the famous trial of Mr. Angus for the murder of Miss Burns in 1808, and, retiring twelve years ago to a large castle in Windermere, attained the age of 96 years—a prosperity and longevity rare in the medical profession; James H. Pickford, M.D., of Brighton, who attended especially to diseases of the eye; George Ford Copeland, M.R.C.S., of Cheltenham; Archibald Douglas, M.D.; and Alexander Halley, M.D. (Biographical sketches of several of these gentlemen have appeared in the JOURNAL.) The notices of Dr. Anstie and Sir Ranald Martin were taken last. The energies and abilities of Dr. Anstie did not display themselves until he reached man's estate. The innovations in the practice of medicine introduced by Dr. Todd aroused his interest; his attention was directed especially to the nervous system and its maladies. The benevolence of his disposition directed his taste for measures of reform towards the relief of the helpless and the mitigation of distress. The precocious exercise of a spirit of criticism gave a somewhat censorious bias to his mind, and a tendency to distrust and disparage the views and practices of the past. Yet he was no mere dogmatist, but also a diligent worker; and, although his labours were unremunerative to himself, they were beneficial to others, and would have laid the foundation of his future success, had he lived to build on it. Sir Ranald Martin, throughout his long and busy life, both in India and after his return to England, was quite as much occupied in honorary and gratuitous employment as in making provision for his large family; but, though his numerous and eminent services were acknowledged by honorary distinctions, there was little substantial return for the devotion of nearly sixty years of his life to unceasing and anxious toil. Merchants, planters, and civil officials of high rank, return from India with large fortunes after much less labour and shorter terms; but the most distinguished military medical officer, when obliged by ill-health to return after twenty-three years of active service, finds himself obliged to resume practice for thirty-four years more, without any enjoyment of that *otium cum dignitate* to which he was so fully entitled. Yet his services, far beyond those of routine, included a work of sanitary reform initiated in India, and carried on by himself and others in England, the effect of which has been to preserve many thousands of lives, and to save millions of money. The honour of having been an instrument in this noble work was his only earthly reward.

"Thus do the lives of Anstie and Martin reflect honour on their profession by their noble and unselfish exertions in the cause of humanity. Nor are their histories singular; nay, do they not represent the general character of the lives of medical men who find themselves called on, and refuse not, to toil night and day, often sacrificing their health, and sometimes their lives, for the relief of suffering, without, or with very inadequate, remuneration? Doubtless, it is a noble and a godlike work, and assuredly they have their reward; but this comes, not from the gratitude of the public, or from the appreciation of their services by the upper ranks of society, because unfortunately the numbers and needs of medical men are commonly so great, that some are ready to proffer their services at any or at no price; the public expects from them gratuitous work, which would not be thought of with any other profession or trade. Against such injustice, we cannot too strongly or persistently protest."

The recent proposition from the Royal Society for the Prevention of Cruelty to Animals also implied (Dr. Williams said) something like an indignity to our profession. They asked that their secretary, with two others, might be present whenever the Society had to perform experiments on living animals. The Council had replied; That, if the Society should undertake any scientific investigations rendering such processes necessary, they would certainly decline the presence or interference of any unqualified witnesses. Those only profoundly acquainted with physiology could be competent judges of the necessity of making experiments on living animals, and of the most merciful modes of conducting them; and such experts, being also practitioners of the healing art, a great aim and constant object of which is to relieve pain and to mitigate suffering, might be implicitly trusted without the espionage and surveillance of impulsive and unqualified observers. In justification of vivisection for strictly humane and scientific ends, it had been fairly argued that, if whole hetacombs of animals are habitually and ruthlessly sacrificed, not only for food, but for luxury and for sport, and often with little or no consideration for their individual tortures, there is a much more rational and cogent plea for the use of a few for instructive investigations, which have intimate bearing on the relief of suffering humanity. Dr. Williams further argued that there is a warrant on higher grounds. The primæval command to have dominion over animals, coupled with the Christian injunction, "Heal the sick", showed that we are not merely permitted, but absolutely enjoined, to make such use of animals as science points out for the advancement of the healing art. And to whom could this "dominion" be so safely and beneficially confided as to the members of that profession of whom Ranald Martin and Francis Anstie were types?

In conclusion, the President expressed his obligations to the Council and secretaries for their aid, and to the Fellows for their kindly support, and heartily thanked them for the honour conferred on him by making him their President—an honour which he prized above all others in his professional career.

*Votes of Thanks* were moved, and carried by acclamation: to the President, by Mr. FAIRLIE CLARKE, seconded by Dr. ALTHAUS; and to the retiring Secretary, Dr. Symes Thompson, and the retiring Vice-Presidents and other members of Council, by Mr. JOHN BIRKETT and Dr. W. M. ORD.

Dr. C. J. B. WILLIAMS and Dr. SYMES THOMPSON returned thanks, and, after the declaration of the ballot for officers and council for the ensuing year, the meeting adjourned. (The names of the new officers and council were given at page 283 of last week's JOURNAL.)

## EXAMINATION IN STATE MEDICINE.

AN examination in so much of State Medicine as is comprised in the functions of Officers of Health will be held in Cambridge in October 1875, beginning on Tuesday, October 5th. Any person whose name is on the *Medical Register* of the United Kingdom may present himself for this examination, provided he is twenty-four years of age. The examination will be in two parts.

Part I will comprise: Physics and chemistry; the principles of chemistry, and methods of analysis with especial reference to analyses (microscopical as well as chemical) of air and water; the laws of heat, and the principles of pneumatics, hydrostatics, and hydraulics, with especial reference to ventilation, water-supply, drainage, construction of dwellings, and sanitary engineering in general. Part II will comprise: Laws of the realm relating to public health; sanitary statistics; origin, propagation, pathology, and prevention of epidemic and infectious diseases; effects of overcrowding, vitiated air, impure water, and bad or insufficient food; unhealthy occupations, and the diseases to which they give rise; water-supply and disposal of sewage and refuse; nuisances injurious to health; distribution of diseases within the United Kingdom, and effects of soil, season, and climate. Candidates may present themselves for either part separately or for both together at their option. Every candidate will be required to pay a fee of four guineas before admission to each part of the examination. Every candidate who has passed both parts of the examination to the satisfaction of the examiners will receive a certificate testifying to his competent knowledge of what is required for the duties of an Officer of Health. All applications for admission to this examination, or for information respecting it, should be addressed to Professor Liveing, Cambridge.

ANIMAL VACCINATION.—Since 1872, there has existed in the *abattoirs* of Bâle a vaccine establishment, headed by a veterinary surgeon, which is used by all classes of society. Bulls are inoculated with vaccine from children, and in their turn serve as foci for vaccination. After having shaved the posterior face of the testicles of these animals, about twenty superficial incisions, from two to three *centimètres* long, are made with the instrument charged with vaccine matter. If done carefully, the operation always succeeds, and, at the end of the sixth day, it is possible to collect vaccine, which, mixed with glycerine in the tubes, preserves its properties longer than human vaccine.

# ASSOCIATION INTELLIGENCE.

## COMMITTEE OF COUNCIL: THE JOURNAL AND MR. CHRISTOPHER HEATH.

THE Committee of Council of The British Medical Association have had their attention directed by Mr. Christopher Heath to certain articles which have appeared from time to time in the pages of their JOURNAL; and, in particular, to certain expressions made use of in an article contained in the issue of July 11th, 1874, having reference to the election at the Royal College of Surgeons.

The expressions used, and the statements made in the articles referred to, are, in the opinion of the Committee, beyond the fair limits of controversy, and might be understood to reflect upon the honour, integrity, and candour of Mr. Heath.

The Committee, under the circumstances, feel that it is due to Mr. Heath that the remarks which have given him any pain and annoyance should be withdrawn; while, at the same time, they express their sincere regret that they should have ever appeared.

## YORKSHIRE BRANCH.

THE spring meeting of this Branch will be held at the Infirmary, Huddersfield, on Wednesday, March 10th, at 2.30 P.M.

The members will dine together at the George Hotel at 5 P.M. Tickets, 6s. 6d. each.

Members intending to bring forward any communication, or to join the dinner, are requested to communicate with the Secretary.

W. PROCTER, M.D., *Local Secretary.*
24, Petergâte, York, February 19th, 1875.

## SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.

THE next meeting will be held at the Crystal Palace Hotel, Upper Norwood, on Thursday, March 11th, at 4 P.M; E. R. Ray, Esq., of Dulwich, in the Chair.

The following communications have been promised.

1. Dr. Galabin: On the Causation of Puerperal Convulsions.
2. Dr. Dalton: On a Case of Recovery from Tubercular Peritonitis, with Cerebral Symptoms.
3. Dr. Miller: On a Case of Cardiac Rheumatism.

Dinner will be served at 6 P.M.; charge, 6s., exclusive of wine.

JOHN H. GALTON, M.D., *Hon. Secretary.*
Woodside, Anerley Road, Upper Norwood, S.E., Feb. 23rd, 1875.

## BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE next meeting will be held in the Council Room of the Midland Institute, on Thursday, March 11th, 1875. The Chair will be taken at three o'clock P.M. precisely.

The following papers are promised:—Dr. Mackey: Remarks on the Treatment of Skin-Diseases at General and Special Hospitals. Mr. F. E. Manby: On Rheumatic Hyperpyrexia.

Members are invited to exhibit pathological specimens at the commencement of the meeting.

BALTHAZAR FOSTER, M.D.,
JAMES SAWYER, M.D., } *Honorary Secretaries.*
Birmingham, March 1875.

## SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEETINGS.

THE next meeting will be held at the Harp Hotel, Dover, on Thursday, March 18th, 1875, at 3 o'clock; FRANCIS E. BARTON, Esq., in the Chair. Dinner at 5 o'clock precisely. Charge, 5s., exclusive of wine.

The Chairman kindly invites members and their friends to luncheon at his residence, 6, Cambridge Terrace, at half-past one.

Gentlemen who wish to make communications to the meeting are requested to inform me at once, in order that a notice thereof may be included in the circular convening the meeting.

EDWARD WHITFELD THURSTON, *Honorary Secretary.*
Ashford, March 2nd, 1875.

## WEST SOMERSET BRANCH.

THE spring meeting of this Branch will be held at the Royal Clarence Hotel, Bridgwater, on Thursday, March 18th, at 5.15 P.M. The following question has been settled by the Council as the one on which each member should be asked to express his opinion at the said meeting: "What in your opinion is the best mode of treating habitual drunkards?"

*Communication Promised.*—Dr. Alford: On the Causation of Typhoid Fever.

W. M. KELLY, M.D., *Honorary Secretary.*

## NORTH WALES BRANCH: INTERMEDIATE MEETING.

THE North Wales Branch held its intermediate meeting at the Castle Hotel, Conway, on Tuesday, February 16th, T. EVANS JONES, Esq., President, in the chair.

*Letters of Apology* for non-attendance were received from several members.

*Officers of the Branch.*—On the motion of Mr. T. DAVIES, Colwyn Bay, seconded by Mr. R. DAVIES, Llanfairtalhaiarn, it was resolved that D. Kent Jones, Esq., be requested to act as President for the ensuing year. Dr. Lloyd Roberts, Denbigh, was elected Treasurer, in the room of Dr. Turner Jones, resigned. Mr. T. Eyton Jones was elected Secretary.

*The late J. Conway Davies, M.D.*—Attention having been drawn to the death of Dr. Conway Davies, Holywell, who was President of the Branch in 1866-67, a warm vote of condolence with his widow in her bereavement was passed.

*New Members.*—The following gentlemen were elected members. Dr. Edward James Lloyd, Denbigh; Drs. Heaton and Davies, Wrexham; and Dr. Evans Hughes, jun., Llanrwst.

*Papers.*—The following papers were read. 1. Broken Bougie incrusted with Lithic Acid Deposit. By E. James Lloyd, M.B. (Denbigh). 2. New Steel Catheters. By E. J. Lloyd, M.B. 3. Fibrous Polypus of Uterus. By T. E. Jones, Esq., Llanrwst. 4. Craniotomy. By W. M. Williams, Esq., Llansantffraid. 5. Inversion of Uterus. By R. Davies, Esq., Llanfairtalhaiarn. 6. Mortification of Fingers. By R. Hughes, M.D., Conway. 7. Fœtal Bones found in Uterus. By A. B. Steele, L.K.Q.C.P., Liverpool (read by the Secretary). 8. Gangrene. By R. Arthur Prichard, Esq., Conway. 9. Case of Opisthotonos, and Use of Ivory Dust as Nervine Tonic. By T. Eyton Jones, Esq., Wrexham. 10. Case of Paraplegia. By R. Hughes, M.D., Conway. 11. Case of Spina Bifida. By R. Davies, Esq., Llanfairtalhaiarn. 12. Case of Difficult Turning. By R. E. Owen, Esq., Beaumaris.

*Dinner.*—In the afternoon, the members dined together. The chair was taken by the President, and the vice-chair by the Honorary Secretary, Mr. Eyton Jones. A few friends, among them the Rev. R. Ellis (Gyffin), Mr. W. L. Banks (Bodlondeb), Mr. Warren (Llandudno Junction), and others, joined the professional gentlemen at the repast.

## SOUTHERN BRANCH: EAST DORSET DISTRICT.

THE first general meeting of this district was held, by the kind invitation of H. D. ELLIS, J.P., President, at his residence, Beech-hurst, Poole, on Thursday, February 18th. There were present H. D. ELLIS, Esq., J.P., President, in the Chair, and fifteen members of the Association and one visitor.

*New Members.*—J. E. Brine, Esq., Rowlands, Wimborne; W. Turner, Esq., and Hatton Smyth, Esq., M.B., Poole; James C. Leach, Esq., Sturminster-Newton; Woodruffe Daniel, Esq., Wareham; and G. W. Graham, Esq., Wimborne, were elected members of the Association, Branch, and District, James Tarzewell, Esq., of Sturminster-Newton, a member of the Branch and District; and P. W. G. Nunn, Esq., of Bournemouth, a member of the District.

*Letters of Apology* for non-attendance were read from Inspector-General Smart, C.B., President of the Branch, Dr. Ward Cousins, Honorary Secretary of the Branch, and others.

*Introductory Address.*—An admirable introductory address was then delivered by the President, "On the Advantages of the British Medical Association". After enumerating the more prominent of these, specially mentioning the part taken by the Association in obtaining the new warrant for the naval medical service, he went on to speak of the especial social benefits derived from the assembling of medical men at these district meetings in giving them opportunities of becoming better acquainted with each other, and promoting a spirit of fairness in their dealings with, and friendship between, professional rivals.

A short statement of the accounts for the past year was read by the Honorary Secretary.

*Proposed Union with Bournemouth and West Dorset.*—It was stated that the medical men of Bournemouth had formed a local society of their own, and that very few of them would join the Association and Branch; so that any union with them would be impossible, at any rate for the present. There was a general feeling of regret that the members of the profession at Bournemouth should hold themselves aloof; and a hope was expressed that they would soon be induced to form themselves into a district of the Southern Branch. There was a better hope of union with West Dorset; and the Honorary Secretary was instructed to write to Dr. Lush, Honorary Secretary of the West Dorset District, on the subject.—Other matters entered for discussion could not be settled until the question of union with West Dorset be answered.

*A Vote of Thanks* was proposed, and carried unanimously, to the President and the Honorary Secretary, and the meeting then terminated.

*Dinner.*—The members subsequently dined together at the London Hotel; H. D. Ellis, Esq., in the chair, supported by Dr. L. O. Fox of Broughton and J. E. Brine, Esq.

## SOUTH OF IRELAND BRANCH: ORDINARY MEETING.

An ordinary meeting of this Branch was held in the Theatre of the Royal Cork Institution on Wednesday, January 6th, 1875: Dr. Thos. Gregg, President, in the Chair. There were present several members of the Branch, and a large number of students.

*Removal of Necrosed Bones.*—Dr. H. M. Jones detailed the particulars of a case of removal of half the ulna, which was taken away (Dr. Gregg assisting) in consequence of extensive phlegmonoid erysipelas of the arm, and diffuse suppuration, resulting in necrosis. The want of early incisions had nearly resulted in the loss of the arm, which would have been most serious to an engine-driver, it being the right one; the man had now, however, returned to work, and the limb was nearly restored. The subsequent treatment consisted in the free use of permanganate of potash dressings, and support to the limb.

*Removal of Cranial Bones.*—Dr. Hayes of Tralee exhibited a patient from whom the parietal and frontal bones had been removed, in consequence of a severe burn received while in a drunken state last May. The particulars of the case have been already before the Branch (see British Medical Journal, January 2nd, p. 28). The President said, that the thanks and congratulations of the members were due to Dr. Hayes for his kindness in bringing forward the case, and the trouble he took in coming so great a distance to exhibit it.

*Enucleation of the Eye.*—Dr. Jones exhibited two eyes recently enucleated. In one, the operation was done for considerable staphyloma. The other was a case in which an eye, having been lost from choroid-iritis, was producing symptoms of sympathetic ophthalmia in the fellow eye. They presented the appearance usually seen in such cases.

*Retroversion of Gravid Uterus.*—Dr. P. J. Cremen read the notes of a case of retroversion of the gravid uterus. The woman, aged 30, was attended in the out-patient department of the Cork Maternity. Dr. Cremen was urgently summoned to deliver her. She had been there in labour over twelve hours; the nurse in attendance was puzzled as to the nature of the case, and the patient had not passed urine for nearly twenty-four hours previously. Surprised at not finding the os, and at the nature of the tumour (a large non-fluctuating mass, filling the entire cavity of the pelvis, not permitting the fingers to pass posteriorly between the tumour and rectum, and barely between it and the symphysis pubis in front), Dr. Cremen introduced a long gum elastic catheter, and drew off over half a gallon of urine. On the consequent reduction of the tumour, Dr. Cremen, on examining with the stethoscope, could find neither the fœtal pulsations nor placental *bruit.* However, passing the flat hand, with considerable difficulty, above the tumour, he reached a large cavity or *cul-de-sac*, in which, discovering the limbs of a fœtus, he seized them, and, after much labour and delay, succeeded in delivering the woman of a fœtus about four months and a half old. The fœtus evidently lay in this *cul-de-sac* after expulsion from the uterus, the mouth of which, on subsequent examination, he found turned completely upwards, and from which protruded the funis of the retained placenta. The subsequent steps of the delivery were completed. Dr. Cremen then, with comparative ease, replaced the retroverted uterus, and she recovered without a bad symptom. She remained in bed for a fortnight after labour, and the subsequent treatment consisted in cold vaginal douches, the administration of strychnine and iron internally, and the application of a Hodge's pessary. She menstruated regularly at the end of the second month from the labour, until the fifth, when she again became pregnant. In the third month of her pregnancy, the pessary slipped out, and, as she described it, "the lump came down". On examination, Dr. Cremen again found the uterus retroverted, and readily replaced it by putting her in the knee-and-shoulder position, and introducing a Greenhalgh's spring pessary, which she wore for the ensuing two months. He withdrew it, and she went to the full time, and was confined naturally of a healthy child. She is at present again pregnant, the uterus now retaining its normal position.

*Unilateral Convulsions in Typhus.*—Dr. Cremen read the notes of a case of unilateral convulsions in a woman, aged 30, who was admitted in typhus fever to the Cork Union Hospital in the fourth month of pregnancy, on December 31st, 1874. The fever was complicated with pneumonia. On the fifteenth day, she was seized with clonic convulsions confined to the left side; and these continued until the evening of the following day, the head being arched completely back (the fever at the time subsiding, and the maculæ disappearing). On Jan. 6th, she had four severe attacks of convulsions; and, on the night of the same day, had a sharp attack of hæmorrhage, which resulted in extreme prostration. On the 7th, she had two attacks of convulsions, from which date they ceased. She aborted on January 10th. There were intervals of complete consciousness between the attacks, and a complaint of a feeling of intense cold, great headache, and well-marked tenderness in the region of the cervical and upper dorsal vertebræ. The temperature and pulse were not much affected during the periods of the attacks, being nearly always 96 and 98 respectively. There was no albumen in the urine. The treatment, in the addition to the local measures necessary for the pulmonary and uterine complications, consisted in free support, stimulants, enemata during the convulsions, leeches, succeeded by warm poultices along the tender spine, and bromide of potassium and ammonium internally.

# REPORTS OF SOCIETIES.

## CLINICAL SOCIETY OF LONDON.

Friday, February 26th, 1875.

George W. Callender, F.R.C.S., F.R.S., Vice-President, in the Chair.

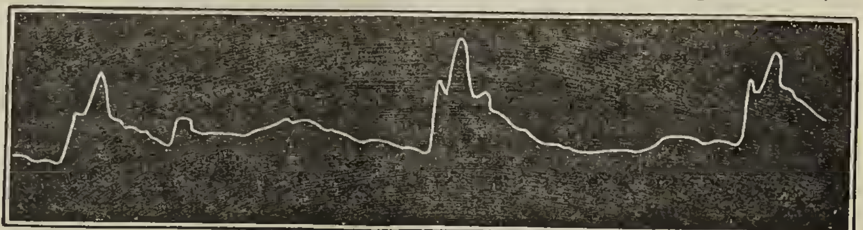
*Antiseptic Japanese Paper as a Dressing for Wounds and Ulcers.*—Mr. Callender said that his friend Dr. Wallace of Colchester had forwarded to him some samples of Japanese paper, with a request that he would see if any use could be made of the material as a dressing for wounds. Only one of the samples appeared to him to be suitable for this purpose; but the qualities of this specimen of paper made it very serviceable as a substitute for lint, whilst it had the advantage over lint of being very much less expensive. He had tried it as a dressing for various wounds and ulcers, and in a case of deep-seated inflammation of the hand, with very good results. It had been used in all instances as prepared by Mr. Jepps, superintendent of the apothecaries' department at St. Bartholomew's Hospital, with antiseptic solutions in one of the two following ways. 1. Solution of salicylic acid and mastich. Take of salicylic acid forty grains; mastich sixteen grains; rectified spirit one fluidounce; dissolve the mastich in the spirit, add the acid, and shake till dissolved. 2. Solution of carbolic acid and mucilage of acacia. Take of carbolic acid one ounce; mucilage of acacia one ounce; water twenty ounces; dissolve the acid in the water, add the mucilage and mix. The strength of this solution might be varied, but it was desirable to prepare it for keeping of a greater strength than would be required for immediate use; first, to allow for the loss of carbolic acid from evaporation, and secondly, to permit the dipping of the prepared paper in water before it was applied as a dressing; a process which necessitated some further dilution of the acid. The mastich and the mucilage were added to increase the softness of the paper. Two sheets of the paper were placed together, a single sheet being rather too fragile, and were saturated with one of the above-mentioned solutions. They were then rapidly dried, and stored with others in tin boxes. When used, they might be applied dry to the surface of the skin or of a wound; or they might be moistened with water or with any kind of lotion after such application; or they might first be dipped in water or lotion, and then placed over the diseased or injured parts, just as lint was ordinarily used. The paper answered best when covered with oiled silk, so as to act as a warm water dressing. It appeared to be agreeable as an application. It was very readily adapted to irregular surfaces; and wounds and ulcers had healed rapidly under its protection. It was also available for carrying unguents and similar remedies, and seemed to be well adapted for use in various skin affections.

*Elephantiasis Græcorum.*—Dr. DUCKWORTH exhibited a patient, who was the subject of this affection in a severe form, as a contrast to Dr. Southey's case of anæsthetic leprosy shown at the last meeting. He was a well grown young man, aged 21, and was born in Calcutta. His father was born in Bordeaux, and his mother was of French extraction, born in Madras. He was suckled by his mother. When nine years of age, he came to England, and remained in good health, with the exception of the outbreak of some brown patches upon his arms and face. When twelve years old, his feet and legs began to swell, and some anæsthetic patches occurred upon them. Tubercular growths appeared upon the legs, face, and arms in succession. He now presented the leonine aspect and all the typical features of true tubercular leprosy, the face being covered with thick tubercular folds, and the lobes of the ears being greatly enlarged and thickened; numerous tubercular patches, some of which were softening, occurred over the wrists, arms, legs, and feet. The ulnar and the right peroneal nerves were enlarged. There had been albuminuria for the past two years. The case had been fully reported by Dr. Liveing in the Goulstonian Lectures for 1873, also by Dr. Duckworth in the tenth volume of *St. Bartholomew's Hospital Reports.* The man was for some time in Guy's Hospital under Dr. Habershon, and in the Glasgow Royal Infirmary under Dr. McCall Anderson. He was probably the first patient who in this country had been treated with Gurgun balsam, both as an outward application in the form of a lotion, and taken internally with lime water. The tubercles seemed to break down more readily under the drug, but the remedy could not be regarded as specific, as Dr. Gubler had affirmed it to be. Steel and a good dietary appeared to produce the most improvement. The patient had gained weight during his five months' stay in St. Bartholomew's. He passed on an average one-third less than the normal amount of urea daily. No renal casts were at any time found in the urine.

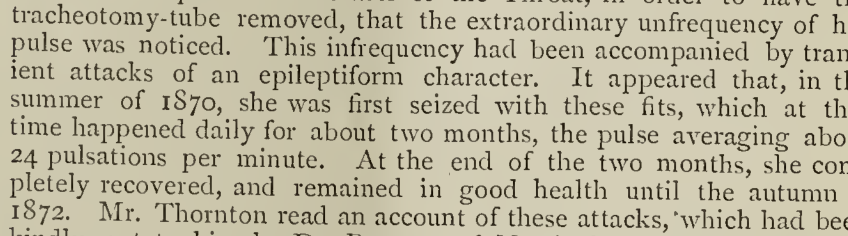
*Discussion on Dr. Poore's Case of Paralysis of the Serratus Magnus Muscle.*—Dr. BUZZARD said that he was disposed to doubt that the muscle was totally paralysed. Circumstances had prevented him from examining the patient, but Dr. Poore had mentioned that the arm could be readily raised above the shoulder, and this Dr. Buzzard thought was inconsistent with total paralysis of the serratus magnus. Moreover, the lesion was of traumatic origin; and it was, therefore, unlikely that both the nerve-supplies of the muscle—that from the intercostal nerves as well as from the long thoracic—had been obstructed. Agreeing that the paralysis probably arose from neuritis of the long thoracic nerve, he did not find the difficulty which Dr. Poore did in accounting for the delay which occurred in the appearance of the paralysis after the injury. It would be only when induration had succeeded to the serous effusion first resulting from the inflammatory process that sufficient compression would be exerted upon the nerve to obstruct its function. In Dr. Buzzard's experience, such a delay was most common. He referred to some cases, and amongst them to one in which paralysis and wasting in the extensor group of the forearm had commenced four weeks after a blow on the back of the shoulder in a railway accident, causing injury to the musculo-spiral nerve. It might be well, he said, to add that the condition had been verified by the measuring tape and electrical examination.

Dr. ALTHAUS agreed generally with Dr. Buzzard's observations. From his readings and personal observation of two cases, he could affirm that no complete paralysis of the serratus magnus could exist without interfering sadly with the motion of the arm. The chief symptom was the dislocation of the scapula, as already noticed, whilst, if the lower angle of that bone were pressed to the chest-wall, the patient, who was previously unable to lift the arm above the shoulder, could then do so at once. In a child who had bilateral paralysis of the serrati magni after whooping-cough, and in a man suffering from the disease, these points were in each case particularly noticed. In the child, the trapezius and other opposing muscles of the serratus were much hypertrophied. Niemeyer had recorded a case, in which a carpenter, who had carried heavy weights upon his shoulder, had thereby produced the disease. In another case, a tumour in the neck, by pressing on the nerve of Bell, had paralysed the serratus.—Dr. POORE said, that he thought there was complete paralysis in his case at the time when he had showed the man to the Society, and yet that man could raise his arm above the level of his shoulder. He had been unable to elicit any evidence of the slightest action on the part of the right serratus. Neither the base of the scapula, nor the ribs of the right side (the two points of attachment of the muscle) underwent the least change of position when that muscle should have been acting. This point was most clearly shown by means of the drawing and diagrams exhibited at the previous meeting. Possibly, at some previous time, the patient had exhibited the disabilities insisted upon by Niemeyer. The man was recovering from his trouble by compensation; there being now considerable hypertrophy of the rhomboids and uppêr part of the trapezius, by which the base and spine of the scapula were fixed, and the raising of the arm accomplished. He had met with another case which presented certain points of similarity to the case now under consideration. Firstly, in the projection of the scapula; secondly, want of expansion of the chest on the paralysed side; thirdly, the bulging of those eight lower ribs to which the muscle was attached; fourthly, the absence of digitations of the serratus magnus. The two differed, however, in some particulars; this second case was not an uncomplicated one, as there was wasting of the upper part of the trapezius, and of the rhomboid muscles; and, as there was no compensation for the loss of the serratus magnus, therefore, the inability to completely raise the arm was well marked until the scapula had been pressed against the chest-wall. The second difference existed in the cause originating the mischief. This man slipped, and fell on his shoulder, and the paralysis followed in one week.

*Case of Exceeding Unfrequency of Pulse.*—Mr. PUGIN THORNTON brought forward a case in which the pulse had at one time made only 16 beats in the minute, and which for some weeks did not reach higher than 24 per minute. He showed a sphygmographic tracing of it when at 20 beats. The patient was a young married woman, upon whom, in 1872, Mr. Thornton had performed tracheotomy for syphilitic laryngitis. Her pulse at the time of the operation was making 40 pulsations, and it was not until six weeks later, when she was re-admitted into the Hospital for Diseases of the Throat, in order to have the tracheotomy-tube removed, that the extraordinary unfrequency of her pulse was noticed. This infrequency had been accompanied by transient attacks of an epileptiform character. It appeared that, in the summer of 1870, she was first seized with these fits, which at that time happened daily for about two months, the pulse averaging about 24 pulsations per minute. At the end of the two months, she completely recovered, and remained in good health until the autumn of 1872. Mr. Thornton read an account of these attacks, which had been kindly sent to him by Dr. Ransom of Nottingham, under whose care she had been in 1870. According to his account, a severe fit began with a sudden pallor of face, complete loss of consciousness, and motor power, the heart's action ceasing for several seconds (on one occasion, cessation of the heart's action was noted by stethoscope and watch for eighteen seconds). The respirations then became quickened and almost stertorous; the face flushed and the eyes suffused, fixed, and turned upwards. She foamed at the mouth. After a time, consciousness returned; the expression became calm, no signs of distress remained, and the intellect became clear. After recovery, the pulse returned to its normal rate of 24 beats per minute. During the latter part of the illness, she had hallucinations, which, after the fits were over, she clearly recognised as having been spectral illusions. The intensity of the fits was variable; they were sometimes so frequent that she had twelve in a quarter of an hour, and so transient that she was able on recovery to take up the thread of conversation. On one occasion, forty-five were counted in one hour. They occurred equally when she was in or out of bed, asleep or awake. Mr. Thornton remarked, that the woman, at the present time, was in good health, her pulse being constant at 48. She was still periodically obliged to take iodide of potassium to stop the recurrence of the laryngitis, which occasionally threatened. He was at a loss to account for the curious phenomena, unless that the pneumogastric nerve might be presumed to be in some way affected by the specific poison. Unfortunately, the time of the syphilitic infection was in no way clear,



Tracing taken on January 4th, 1873, when there were twenty beats per minute.
The small beat took place after every tenth pulsation.



Tracing taken in April 1873, when there were forty beats per minute.

for Dr. Goddard of Pentonville, and Dr. Ransom, had no recollection of her suffering from any of the usual sequelæ of syphilis. In his own mind, there was no doubt that the unfrequency of the pulse was to be attributed to it. The instrument by which the tracings had been taken was one manufactured by Mayer and Meltzer. A pressure of 350 *grammes* was used in each observation.

Mr. CALLENDER asked, if in any earlier observations any notice had been taken of the frequency of the pulse. Was the unfrequency only recent, or had it occurred early in life? There were cases of extreme slowness of pulse associated with some injuries to the head; in such a case one always tried to ascertain the frequency of the pulse before the accident. In some cases of slowness of circulation, the patient seemed to suffer greatly from cold; but a patient of Mr. Callender's recently (St. Bartholomew's) had a pulse of 32 only, whilst a more robust man there could not be.—A MEMBER mentioned that in one of the earlier volumes of the *Medico-Chirurgical Transactions* there was a case recorded in which the pulse ranged from 25 to 7. After death, it was found that the foramen magnum was so contracted that it would hardly admit the tip of the little finger; and there was hypertrophy of the superior cervical ganglion of the sympathetic nerve.—Dr. SYMES THOMPSON remarked, that the late Mr. Hodgson had a pulse which rarely exceeded 32; he was wont to draw especial attention to the fact that a slow pulse might exist for years without the production of any manifest symptom. He combated the notion that it meant a fatty heart. When the action was slow, any great exertion was apt to be exhausting, and exposure to cold was very hurtful.—Dr. SOUTHEY would like to ask whether Mr. Thornton had noticed that micturition was very frequent, or the quantity of urine very large. When digitalis was used, the action of the heart being very slow, the quantity of urine was often very large, the pressure on the renal capillaries being great. A man, aged 80, whose pulse had always been slow, usually from 18 to 20, and rarely reached 26 after exertion, had noticed the slowness for many years. Were fits associated with slow pulse? In this case the epileptic convulsions would seem to be associated with diminished supply of blood to the brain.—Mr. MAHOMED had taken sphygmographic tracings of a very slow pulse in a woman. The systole was not prolonged; but the diastole was much prolonged. Her pulse had been 65 before she was shut up in Paris during the siege, to which she attributed the change. Weakness, tendency to fainting fits, and the slow pulse had since ensued; the fainting being, perhaps, due to emptiness of the vessels of the brain.—Dr. ARCHIBALD HEWAN mentioned his own case. Twenty years before he had studied greatly; his pulse then was 72 in the minute. Afterwards it was found to be 55; from that point it had gradually decreased. Eight years ago, it was 24. Then Dr. B. Sanderson traced it with the sphygmograph. He had been abroad, never had a fit nor fainted, and could bear cold well. He had lately climbed a mountain many thousand feet high, and his pulse at the top was 40. His urine had not altered in any way; his digestion was very good, and he was in good health.—Dr. ALTHAUS said that the Emperor Napoleon the First had a slow pulse, and always felt uncomfortable, except in the excitement of battle, when it would rise to 60 in the minute.—Mr. THORNTON stated, that the pulse of his patient had not before her illness been noticed to be very slow. At the time of the operation it was 40; a few weeks afterwards it was 16. There was no valvular disease in this case. He had never heard that the urine was very copious, and would judge it was not so.—Dr. A. HEWAN mentioned that he had had rheumatic fever eight years ago, when his pulse did not rise above 32. Eight weeks ago he had gout and rheumatic pains, when his pulse quickly rose to 64 and 68; and then fell slowly to 32 and 28, at which it stood at present.

*Excessive and Long-maintained High Temperature after Injury to the Spine: Recovery.*—Mr. J. W. TEALE read notes of this case, in which a temperature ranging from 108 to 122 deg. and upwards had been maintained for a period of nearly nine weeks. The patient, Miss G., was thrown from her horse on September 5th, 1874, as the animal was trying to take a five-barred gate at a standing jump. The horse fell upon the lady, and rolled two or three times backwards and forwards over her chest, as she lay on the ground, which was covered with large rough stones. Temporary unconsciousness followed the accident, after which the patient was at once taken to Scarborough, and placed under the care of Mr. Teale. Her fifth and sixth left ribs were found to have sustained a simple fracture in the middle of their length; she was conscious, but collapsed, complained of great pain in the back, and was severely bruised at various parts of the body. For several days after the accident, there was some feverishness; the temperature reached 101 deg., but became normal in a fortnight. The ribs united readily; and the patient was apparently convalescing, though she had pain and tenderness over the spine, especially about the sixth dorsal vertebra. On October 3rd, Mr. Pridgin Teale of Leeds saw the case in consultation; and it was considered that the pain, and the slight feverishness which was again present, were due to subacute inflammation of the spinal ligaments. Perfect rest on a water-bed was advised. During October, the temperature remained at 100 or 101 deg.; there was pain, with tenderness, over the spine; sleep was disturbed; occasional twitchings of the legs occurred; and there was a feeling as of a cord tied tightly round the waist. The arms were unaffected. Leeches and ice-bags to the spine were employed; but the temperature slowly rose until, on November 3rd, it was 103.5 deg.; on November 6th, 106 deg.; and on the 7th, 107 deg. The respirations were unaffected; the pulse did not exceed 100. On November 7th, Mr. Pridgin Teale again visited the patient, and it was then thought that she had inflammation of the spinal ligaments and intervertebral substances, and possibly of the membranes of the cord, but that the cord itself was not primarily affected, except by pressure of neighbouring inflamed parts, as there was no paralysis of sensation or motion about the legs or sphincters. It was determined to bring the system gently under the influence of mercury, by means of ointment applied to the thighs. On November 8th, the temperature was 110 deg.; on the 11th, 12th, and 13th, it was 111, 113, and 114 deg.; whilst on the 14th, the index of the thermometer was buried in the bulb at the top of the instrument at a point above 122 deg. The pulse rose to 120, and became small, thready, and at times scarcely perceptible. Rapid emaciation occurred; there was intense pain along the spine, which was relieved by frequent hypodermic injections of morphia, and death from exhaustion seemed imminent. At times, the power of swallowing was lost, once for forty-eight hours; nutrient enemata were given, and ice-bags applied to the spine. On November 16th, the mercurial ointment was removed, the gums being slightly tender; and there was from that date an improvement in the general symptoms, though the temperature remained still as high as ever. The power of swallowing returned; the pulse fell to 110, and improved in quality; the spinal pain diminished; the twitchings in the legs were less frequent, and the patient could raise the legs more freely. The extraordinarily high readings of the thermometer ceased now to cause alarm, the patient having lived so many weeks with a temperature hitherto supposed to be incompatible with life. On December 12th, the tongue became suddenly swollen, causing great distress, which subsided in about twenty-four hours. Thenceforward more decided improvement set in. The appetite increased; flesh and power were regained more rapidly, though the temperature still ranged from 110 to 114 deg. On January 7th, 1875, the temperature fell to 104 deg.; on the 8th, to 102 deg.; and, on the 10th, it was normal. On the 12th, the patient could take a few steps about the room, a slight drag of the left leg being perceptible. On the 22nd, she walked one hundred yards in the open air. Mr. Teale thought that the result proved that the cord itself had not been seriously implicated, and that an excessive and long-maintained high temperature was not necessarily destructive of life. In some further remarks, he said that seven thermometers had at different times been used to register these high temperatures, four of which had been since verified at Kew. He exhibited the instruments and the accompanying certificates. Only one thermometer could be found which registered a temperature above 118 deg.; that one was marked up to 122 deg., and with that instrument the highest readings were taken. On December 1st, for the fifth time the index was buried in the bulb; as it was then found it still remained, and had been brought to the meeting for inspection. It was marked to 122 deg.; the index was in length equal to 3 deg., so that the temperature on December 1st would appear to have been at least 125 deg. The temperature was often taken in both axillæ at the same time; the instruments being reversed at each visit. The temperature between the thighs was generally found nearly to correspond with that registered in the armpits. Once, on December 10th, the temperature in the rectum was taken, and was found to be 111 deg., that in the axillæ at the same time being 110.4 deg. The patient could never bear the thermometer to be placed beneath the tongue. The thermometers were inspected by two or three trustworthy witnesses before and after each application, and the results were always immediately recorded in writing. No hot-water bottles were near the axillæ, as had been good-naturedly suggested. Sometimes when the thermometrical readings were highest, the hands, feet, and forehead were icy cold. The urine, during the period of high temperature, was very scanty, and a mass of lithates; it was passed with difficulty into hot towels, so that neither the amount of urea it contained, nor the specific gravity, could be estimated. It was found to be free from albumen on three or four different occasions. The bowels were relieved every third day by enemata; the menses recurred once after the accident at the proper date, and were then suppressed until January 26th, when they commenced and pursued a normal course. A large chart of the thermometric readings was exhibited to the members of the Society, and showed the rapid alteration of temperature which had occurred, without apparent alteration in the condition of the patient; thus, on November 12th, at 10.10 P.M., the temperature was 113.6 deg.; on the 13th, at 4 A.M., it was 122 deg.; on the 13th, at 10 A.M., it was 114.3 deg. During seven weeks the temperature never fell below 108 deg., and rarely below 110 deg. Whether the high temperature was due to lesion of the ganglia of the sympathetic, Mr. Teale could not venture to surmise. There was never at any time distinct loss of sensation. The temperature was usually higher in the left than the right axilla; the left leg was now slightly the weaker; and it was the left ribs which were broken.

At the close of the paper, Mr. J. W. **TEALE** said he regretted that, since his paper had been forwarded to the Secretary, his patient had had a relapse, from which she was still in some degree suffering. After Miss G. had been convalescent for five weeks, he had reluctantly consented to her return home, and the effect of the railway journey, of 100 miles, had been in some measure to bring back the pain in the back, and a return of the high temperature, which had ranged from 105 degs. to 110 degs., and which was now again slowly falling. There had been no relapse of the more serious symptoms which had previously caused so much anxiety.—Mr. **CALLENDER** said that the temperature, pulse, and respirations of all his cases in St. Bartholomew's Hospital were taken twice daily. In no case of injury to the spine, with recovery, had he known the temperature to be above 107 degs. If the pulse and respiration, as well as the temperature, had been inserted on the chart, it would have been of service in elucidating the case.—Mr. **THORNTON** said that, in the case just narrated by himself, when the pulse was ranging from 16 to 24 the temperature was normal.—Dr. **GREENHOW** said, that rarely before had a case so unique or interesting been related to that Society. Cases of hyperpyrexia in rheumatic and typhoid fevers had been often under his care, but a rise of temperature so high as that in this instance he had never witnessed. He had seen a patient with a temperature of 110 degs., but never one to recover. If a patient with fever had twitchings and a rising temperature, he had felt that, unless the temperature could be reduced by cold, death was almost certain. This case negatived all he had taught for years.—Dr. **FARQUHARSON** said that the case afforded a very remarkable contrast to a case observed by Van der Kolk, in which, with dislocation of the first dorsal vertebra and injury of the spinal cord, the temperature fell to 82. Some observers held that, if the cord was injured near the brain, the temperature was high; others asserted the contrary.—Dr. **MURCHISON** had laid it down that in fever a temperature of 107 degs. was incompatible with life, even for a day. At *post mortem* examinations in such cases, fatty degeneration of the brain and heart was found to have occurred.—Mr. **HUTCHINSON** expected that one would have to take into consideration the cause of the high temperature in the different cases, and that the maximum temperature laid down by authorities as compatible with life in fevers would not apply to cases of injury to the spine. There were amongst these cases of injury two apparently opposite classes. After injury to the spine low in the neck, there might be very high or very low temperature without apparently any reason. A man who had received an injury to his cervical spine, producing paraplegia, had a temperature which never rose above 4 degs. below the normal. He was quite cold, even to the penis, which was turgid with blood, so that there was continual priapism; his face was quite cold, although he looked to be very well. He died on the fifth day. In such cases, however, there was mostly an exaltation of temperature, often to 110 degs. within twenty-four hours after the accident. He thought the mischief in Mr. Teale's case was in the spinal cord, although it was not a seriously disorganising disease.—Mr. **PRIDGIN TEALE** wished to add his testimony to the accuracy with which the case had been recorded. He himself took the temperature when it was at 110 degs, and three weeks subsequently at 114 degs. It was clear that we must give up the idea that temperature *per se* was an element of high danger. No injuries apparently were capable of raising the temperature so quickly to a high degree as those of the nervous centres. A gentleman, who at 5 A.M. received a compound fracture of his skull with crush of brain, was found at 5 P.M. to have a temperature of 109 degs., and was then dying. With apoplexy the temperature of the body often rose enormously. He hoped the time might shortly come when physiology might be able to throw some further light on these various points.—Mr. J. W. **TEALE** in reply said, that the pulse of his patient never exceeded 120, and was usually between 90 and 100. The respirations were never anything but normal, hough sometimes excessively feeble.

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## PATHOLOGICAL SOCIETY OF LONDON.

### TUESDAY, MARCH 2ND, 1875.

GEO. D. POLLOCK, F.R.C.P., President in the Chair.

*Molluscum Contagiosum.*—The **PRESIDENT** handed round a photograph of a case of Molluscum Contagiosum, at present under his care in St. George's Hospital, and on which he proposed on the following Thursday to operate. In this case the disease commenced at the age of six, and since then it has gone on increasing. These masses sometimes attain a surprising size, and a photograph of such a case was also handed around. These growths are very vascular, and the vessels are long and tortuous. He should proceed first to ligature that portion of the mass he proposed to remove, by passing needles through its base, and then tie the ligatures tightly. Without such precautionary measures dangerous hæmorrhage might result.

*Imperfect Teeth and Zonular Cataract.*—Mr. **JONATHAN HUTCHINSON** introduced this subject in some remarks which are printed in another page.—The **PRESIDENT** inquired if all the teeth in the drawings exhibited were mercurial teeth. The answer was, All but two, which are syphilitic.—Dr. **EDWARDS CRISP** gave it as his opinion that the mercury had not much to do with the production of these teeth. In these children there was a history of fits, and he thought that the cause might lie in the condition of the nervous system. He had met with a French family, in all of whom there was mercurial trembling, and yet the teeth were entirely unaffected. In the case of a child of his own, which had been permitted to fall out of a perambulator, there had been fits, and its teeth were like those described.—Mr. **HULKE** said that he had listened to Mr. Hutchinson's remarks with great interest, but he ventured to think that other agencies were at work. Lamellar cataract occurred in the lower animals, and he remembered it in a cut of Mr. Bowman's years ago. There was no history of mercury there. Often only a single zone is affected; at other times there are several zones affected, with clear tissue betwixt them. A number of these, he believed, were produced early in intrauterine life, and are not produced afterwards.—The **PRESIDENT** said that, though feeling indebted to Mr. Hutchinson for his communication, for his own part he was inclined to follow Dr. Crisp's view. Inflammation in children would mark the nails, as his own experience in two illnesses showed. In the same way acute illnesses in children might mark the teeth, as he had observed in his own children, and in these cases there was neither mercury nor syphilis in action.—Dr. C. J. **HARE** thought that these teeth were associated with rickets. In rickety children the teeth were very liable to be marked, and that too in a form very like those exhibited. No mercury ought to be given in rickets, though it was often very useful in the treatment of infantile disorders. These teeth were not always seen where mercury had been given.—Mr. **HUTCHINSON** inquired if these teeth marked by rickets were the teeth of infants or of adults. The answer was, Of infants.—Mr. **PUGIN THORNTON** asked if there was any connection betwixt these mercurial and the syphilitic teeth.—Mr. T. **SMITH** said that mercury might be given to syphilitic infants, and they might grow up with these diseased teeth. As the last opponent of the use of mercury in syphilis had abandoned his position, these mixed teeth might be expected to be more common.—Mr. **WARRINGTON HAWARD** had seen in the Lancashire factory districts many children with marked teeth which could not be accounted for. There was no syphilis and no rickets, and probably they had not had mercury. Rickets were associated with convulsions, and mercury was given for the convulsions, not so much by medical men as in the teething powders sold so generally. He had seen a case of salivation produced by these teething powders.—Mr. **HUTCHINSON**, in reply, said that Dr. Crisp has raised a most important question; but in many cases where these teeth were found there were no convulsions. As to the production of lamellar cataract in cats, he thought they were more likely to have fits than to have had mercury. In cases where fits were long continued there might be two zones produced at two different periods. A small zone might occur in intrauterine life. Usually, however, these zones were infantile and not congenital. A small zone might easily be overlooked in early life. He did not think that mercury was the only cause of these diseased teeth. Stomatitis of a non-mercurial character, if severe, might produce them. Mercury was one, and also a most common, cause of these teeth. As to Dr. Hare's statement that rickets might occasion these teeth, Dr. Hare had admitted that the disease was in the temporary teeth, whereas his remarks applied to the permanent teeth. In rickets, the infantile teeth are much affected, but the adult teeth were good. There was no lamellar cataract in rickety children. The mercury given to syphilitic children was a common cause of these mercurial teeth. Often the teeth presented a mixed form. It was only when mercury was given in large amounts that the teeth became affected. They were quite different from those teeth called by dentists "craggy teeth", where large plates of enamel were defective. Craggy teeth ran in families.

*Aneurism of the Heart.*—Dr. **BARLOW** exhibited an aneurism of the heart, in a man aged 40, a plasterer, who had syphilis five years ago. For three years he had attacks of angina pectoris, and latterly he had had dropsy.

There were dulness in the third left intercostal space, and a systolic mumur at the apex, extending towards the axilla. The pulse was feeble, there was orthopnœa, and the man gradually sank. At the necropsy, the pericardium was found adherent. There was regurgitation in the tricuspid, mitral, and aortic valves. The left ventricle was hypertrophied, and at the base there was a sac of the size of a small orange, to the left of the aorta. The edges of the aneurism were smooth. The sac consisted of fibrous tissue, much like an artery. This sac communicated with a sinus of Valsalva. There were only two patches of atheroma in the aorta. Both curtains of the mitral valve were thickened.

*Cases of Epithelioma.*—Mr. **Hulke** showed three specimens of epithelioma. In the first case, the site was uncommon. It occurred in a woman who was admitted into the Middlesex Hospital in November 1873 with a cauliflower tumour behind the ear. It commenced as a knot and increased in size quickly. There was also giddiness, and she was deaf in the left ear. An abscess ultimately formed. The specimen showed a portion of the skull to be deficient, and the dura mater to be affected. The second specimen was from a man of fifty-six, whose hand and fingers were simply "dangling", from disintegration of the bones by cancer. At the time when he was vaccinated an abscess formed in his left hand, which broke and healed, and then broke again, all through life, until this ulcer formed. Old scars were very apt to become cancerous. The third case occurred in the forearm of a man of sixty-two, who had his hand crushed in childhood, and the wound did not heal for five years. The scar was tender, and then a wart grew. He used to pare this wart with his knife. At last, however, it formed a tumour.—The **President** asked if the same held good of psoriasis of the tongue.—Mr. **Hulke** said that the tough leathery covering almost always passed into epithelioma.

*Malignant Disease of Testis in a Child.*—Mr. **Howard Marsh** exhibited a case of malignant disease of the testis in a child of twenty-two months. In October last, the right testis was found to be enlarged. It was egg-shaped, ¾ of an inch by ½. It was smooth. The epidydymis was large and knotted. The swelling was firm but non-elastic. The cord was healthy; there was no pain. The case was watched, and as the swelling increased, two grains of grey powder were given daily. The testis grew rapidly, so it was removed, and the child went away into the country in a fortnight, quite well. The testis in structure was mottled and tawny. There were no traces of tubules anywhere. On microscopic section, it was found to consist of fibrous stroma with large cells. Such disease of the testis was not very uncommon in early life.

*Aneurism of Aorta.*—Dr. **Douglas Powell** showed a case of aneurism of the aorta, which came under his care in April last. The man was cachectic, and suffered from dyspnœa. Six years ago he had lifted a heavy weight; he felt pain at the time, and had been ill ever since. The pulse was quiet. The arteries generally were diseased. there was a double murmur, and the area of cardiac dulness was large. In Dec. last, there were intense dysphagia, dyspnœa, and orthopnœa. There was a tumour in the front of the chest, extending from the third rib to the ensiform cartilage. Two points were very prominent. The pulse was quick and irregular, but there was now no murmuur. On the necropsy, a tumour was found full of coagulated blood. The pericardium and left lung were adherent to the tumour. The œsophagus was generally contracted from compression. There was a globular aneurism of the aorta. The aortic valves were healthy and competent. There was a globular dilatation of the aorta about an inch above the valves, about six inches in circumference. From the point of this by an opening sprang an aneurism. It was flattened, about an inch in depth, while it was 3½ in diameter. It was full of clots. The loss of the apex-beat, found in life, was due to this fluid tumour getting in front of the heart. There were no nerve-symptoms in life. The point of interest in the case was the large size of the aneurism. The dyspnœa was due to it filling up so much of the chest-space. The man died ere the aneursim burst. Valsalva's treatment was carried out thoroughly, so that the man died of starvation. The man was a potter, and was often exposed to a temperature of from 200 degs. to 300 degs. Fahrenheit. There was much dust in the air, and he was always coughing. He drank much whisky, and had often to lift heavy weights. There was no history of syphilis. In 1856 he had rheumatic fever, but the heart was unaffected. There was a large area of dulness, a thrill at the third costal cartilage, a systolic murmur, and a very accentuated second sound. There was hypertrophy with dilatation of the right heart, general heart-symptoms, dropsy, etc. On the necropsy, the right ventricle was found to be greatly enlarged, but the pulmonary valves were healthy. The pulmonary artery was pinched, and there was an aperture in it. A scar, like a healed ulcer, was found above the anterior valves of the pulmonary artery. The left ventricle was hypertrophied, and the aorta diseased throughout: it was pinched above the valves. There were several shallow pinches, and a scarlike surface in the aorta. There was general atheroma, much resembling that found with syphilis. Aneurisms opening into the pulmonary artery were recorded by Peacock and other writers.—The meeting then adjourned.

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## PATHOLOGICAL SOCIETY OF DUBLIN.

Saturday, January 30th, 1875.

Robert McDonnell, M.D., F.R.S., President, in the Chair.

*Elephantiasis Arabum.*—Dr. **Wheeler** showed the specimen described in the Report of the Surgical Society of Ireland, December 4th, 1874 (see page 146). Among the morbid appearances of the affected limb, was a marked thickening of the tunica adventitia of the popliteal artery.

*Disease of Knee-Joint.*—Mr. **Hayes** laid on the table portions of the bony structures of the knee-joint, which he had excised. The patient was a girl, aged 18, who had met with an accident to the joint eight years previously. The joint was externally globular in shape, and felt soft and pulpy. The patella was movable. The circumference of the limb at the knee was one inch and a quarter greater than that of the other leg. The morbid appearances were not well marked. Over the outer femoral condyle the cartilage was eroded, and below the cartilage generally lay a stratum of enlarged vessels. There was pulpy degeneration of the synovial membrane, and the posterior aspect of the patella was eroded.

*Death shortly after Thoracentesis.*—Dr. **Nixon** presented the thoracic viscera of a man, aged 22, who suffered from right pleuritis, with effusion. Bronchitis supervened. The apex-beat of the heart was displaced towards the left, being audible exactly beneath the nipple. The pleural effusion having rapidly increased, thoracentesis was performed, the point of puncture being between the sixth and seventh ribs and just within the axillary line. Four and a half pints of clear straw-coloured serum were drawn off. Vomiting set in during the evening, the respirations ran up to 70 per minute, the pulse to 150, and the patient died after a few hours. A large quantity of fluid lay in the pleura, and eighteen to twenty ounces of bloody serum in the pericardium. The heart was attached to the sternum by old lymph bands. Dr. Nixon considered that the fluid in the pericardium was due to *hydropericardium è vacuo*; and that collapse and *engouement* of the right lung with blood, consequent on the drawing off of fluid from the pleura, had been the chief cause of death.

*Giant-Celled Sarcoma of Lower Jaw.*—The **President** showed a tumour of the lower jaw, which he had removed from a boy, aged 11. Eighteen months before, a small tumour was first noticed at the root of one of the canine teeth. It grew rather rapidly, and was an example of myeloid sarcoma. The normal bone was expanded so as to cover a large part of the growth. Microscopical examination showed the tumour to be a giant-celled sarcoma (Virchow).

*Fractures of the Cranium.*—Dr. **Bennett** showed the skull of a man, aged 67, who had received a lacerated wound of the scalp in the left parietal region. A weight of thirty pounds fell thirty-four feet, and, having been checked in the fall at a distance of nine feet above the ground, struck the man over the temple. He died in a short time. There was an ordinary depressed fracture of the parietal bone, and a "fracture by radiation" was marked by a fissure extending from the depression to the orbital plate of the sphenoid bone, and passing into both optic foramina. The left lateral sinus was lacerated. The base of the cranium was fractured over each occipital condyle, and an oblique fracture passed outwards from the foramen magnum to end in the petrosal sinus. The transverse process of the first cervical vertebra was detached, the spine had been driven upwards, and was actually impacted into the cavity of the cranium. The posterior clinoid processes were also detached.

*Ovarian Cyst.*—Mr. **Croly** exhibited a large unilocular cyst, which he had that morning removed by operation from a woman, aged 50. A second small cyst was attached to the sac.

*Excessive Hypertrophy and Dilatation of Heart.*—Dr. **Yeo** presented the thoracic viscera of a labourer, aged 41, who had suffered from repeated attacks of rheumatic fever. He ultimately became the subject of aortic patency and weak heart; anasarca set in, and bronchial *râles* were general. Suddenly, a succession of attacks of hæmoptysis caused his death. Although the area of precordial dulness did not seem to be enlarged during life, the heart was found to be of enormous size. The left side was much hypertrophied and dilated. The right chambers were dilated and slightly hypertrophied. Both lungs were emphysematous, and a bladder-like mass of inflated lung overlapped the pericardium, thus concealing the dulness caused by an enlarged heart. Some hard clots occupied the right ventricle. Localised, hard, airless spots existed in the lungs. These hæmorrhagic infarctions were probably the source of the fatal hæmoptysis. The arterioles leading to them were plugged. An embolon had evidently passed into the pulmonary artery, producing hæmorrhagic infarctions in the lungs and hæmoptysis.

*Disease of Knee-Joint.*—Mr. HAYES showed a second set of morbid specimens from a girl, also aged 18, who had fallen on the affected knee four years ago. The changes were much more advanced than in the first case, scarcely a trace of cartilage being left over the tibial and femoral articulating surfaces.

### SATURDAY, FEBRUARY 6TH, 1875.

ROBERT MCDONNELL, M.D., F.R.S., President, in the Chair.

*Central Necrosis of Shaft of Humerus.*—Dr. STOKES presented a remarkable specimen. A man, a weaver by trade, aged 30, sustained a compound and comminuted fracture of both bones of the forearm. Amputation was in consequence performed just above the elbow-joint. The wound did not heal satisfactorily, and, unfortunately, the man was knocked down in the street, falling on the stump. Inflammation of the periosteum was set up, being accompanied by pain and great increase of size of the limb. Amputation through the shoulder-joint was practised after some time, but anasarca and albuminuria ushered in Bright's disease, to which the patient has since succumbed. The periosteum was most remarkably thickened, and in the masses of bone which had been laid down secondarily the osteogenetic properties of inflamed periosteum, as pointed out by M. Ollier of Lyons, were well exemplified.

*Double Lesion of Aortic Valves.*—Dr. HAYDEN laid on the table the enormously hypertrophied heart of a man, aged 53, who was admitted to hospital with œdema of the lower extremities, and *erythrosis*, or a reddish hue of the face, as distinguished from cyanosis. His respiration was irregular, and presented the Cheyne-Stokes' phenomenon. The area of precordial dulness was considerably increased, and at the base of the heart a loud and harsh systolic murmur was heard near the sternum. At the base was also heard a blowing slightly post-diastolic murmur, which was faintly audible at the apex. After death, the heart was found greatly hypertrophied; it weighed thirty-three ounces. A thrombus lay in the pulmonary artery. The right ventricle was not much thickened, but the left ventricle was greatly hypertrophied except at the apex, where its walls were attenuated. The mitral valve was healthy. The anterior aortic valves were incompetent, while from the posterior valve large calcareous masses projected into the opening, and evidently interfered with and postponed the regurgitation of the blood. Hence the postdiastolic second *bruit*. Dr. Hayden laid stress on the occurrence of Cheyne-Stokes' respiration in the absence of fatty change in the heart, calcareous deposits in the coronary artery, or atheroma of the aorta—the three pathological conditions supposed to be essential to the development of the phenomenon. Dr. Hayden considered that this form of breathing depended on dilatation of the aorta, a condition which was present in this case. He also alluded to Dr. Foster's views bearing on the indications afforded by the position where the diastolic murmur was heard (whether at the apex or at the ensiform cartilage) as to the valve which was incompetent in aortic valve disease. These views were directly opposed by the conditions in the present case.

*Ulcer of Stomach.*—Dr. FINNY showed the stomach of a man, aged 52, who on January 29 dined heartily off bacon and cabbage, having been previously in good health. Pain in the stomach occurred early next morning. He came into hospital with very little delay. On admission, there was pain in the hypogastrium and suppression of urine, with semicollapse. He died after a few hours. There were signs of recent peritonitis. In the anterior wall of the stomach, and just within the sphincter of the pylorus, there was a small round perforation. At the upper border of the stomach, an old cicatrised ulcer was found. This was especially remarkable, seeing the man had enjoyed good health.

*Fracture of Os Calcis by Ecrasement.*—Dr. BENNETT showed an os calcis, which had sustained a comminuted fracture. The patient leaped from a window in acute mania, and met with the accident. The soft parts were extensively lacerated, and gangrene set in, resulting in death. The specimen was illustrative of the second form of fracture of the calcaneum described by Malgaigne under the name *fracture par écrasement.* The other form was evulsion of the posterior portion by spasmodic action of the tendo Achillis: of this injury, Dr. Bennett also showed a specimen, and illustrated his remarks by Malgaigne's plate of the injuries of this bone.

# CORRESPONDENCE.

## THE CONTAGIOUS DISEASES ACTS.

SIR,—Dr. Parkes has again written in favour of the Contagious Diseases Acts, and, after calling upon me "to look at *all* the Army Statistics", has again quoted statistics himself of two small regiments in two stations for a few months only: statistics privately obtained, and which I have no means of checking, and which may or may not be more accurate than Mr. Myers's private statistics of his own battalion, which gave exactly one-half the real amount of disease. It is strange that the advocates of the Acts, instead of appealing to the official reports of the whole army and navy, favourable and unfavourable alike (which are open to the profession), in order to prove their sanitary success, are continually putting forward private unauthentic figures of small bodies of men, which are, of course, supposed to be favourable, or they would not be selected, though, when figures were given by one of your correspondents (Mr. Myers) which did admit of comparison with the army reports, what was the result? Why, that in Windsor, which he had selected as a very strong proof of the efficiency of the Acts, the army reports showed that venereal sores had risen from the time of the introduction of the Acts, and were, at the latest published date, nearly twice as high as they were before the Acts were in operation. Dr. Parkes's own figures about the Royal Engineers at Chatham showed that primary syphilis had fallen 33 per 1000 in six years, or one-third, before the Acts were introduced; whilst it only fell 30 per 1000 in eight years afterwards. In Malta, by the two army reports, syphilis exceeded three-fold the average for the three years from 1869 to 1871; but this change is naturally not mentioned by the advocates of the Acts, though it is at least as striking as the difference between Portsmouth and Parkhurst in Dr. Parkes's last letter.

If, instead of taking two small regiments in two stations for less than one year, Dr. Parkes had followed his own advice to me, and examined all the army reports for the last twelve years, and also the navy reports since the Acts were in force, he would have found that, instead of gonorrhœa being double in the unprotected stations, it is the highest in the protected army stations, and has more than doubled in the protected home and Mediterranean navy stations since the Acts. He would have found that, whilst secondary syphilis fell from 31.26 per 1000 in the whole army in 1861, to 23.39 per 1000 (or more than one fourth) in 1866, it rose largely after the Act was passed, and is now higher (24.26 per 1000) than in 1866, and that the average of the six years has been 25,4 per 1000, or above one-twelfth higher than before the Act. In the Mediterranean station primary syphilis has nearly doubled since 1866, and in in the home station there is less improvement than in any part of the world. Secondary syphilis has not increased in the home station in the navy it is true, but has fallen from 15.7 to 15.3 per 1000, *i. e.*, it has fallen in the navy, on the army, one-thirtieth, while it has risen in the army one-twelfth; and in Hong Kong, which is protected to an extraordinary degree, by the British government actually licensing the brothels, secondary syphilis bears a much higher proportion than it does in the army or navy at home. Instead of the introduction of the Act causing an abatement of disease, primary syphilis rose in Windsor from 58 to 136 per 1000, in Canterbury from 45 to 152 per 1000, in Shorncliffe from 42 to 77 per 1000. In Winchester it is now 16 per 1000 higher than it was before the introduction of the Act, and in Cork it has never been so low as it was two years before the Act. It is simply impossible to base accurate conclusions upon such a small number of men as the 1300 taken by Dr. Parkes for a few months in only two stations; and the average of 60,000 men or more in twenty-eight stations at home, and as many more stationed abroad, and taken for twelve years instead of twelve months, shows a sanitary failure which I put before Dr. Parkes in my last latter, and which he has not yet attempted to answer. The reply to Dr. Gore's letter is substantially the same as above. He writes about the periods of six months and one month, which are so short as to be quite inconclusive. As, however, he speaks strongly about the Curragh, it is necessary to mention that primary syphilis fell in it from 129 to 77 (or 52 per 1000) two years before the Act was introduced, after which it rose again for three years, and that it has fallen 53 per 1000 in two years since the Act, and is now again rising. Dr. Gore's reference to the comparative severity of the cases in the protected and unprotected stations, is one upon which the army returns give no information; but the navy returns do give the average number of days sickness from each form of venereal disease in every station in the world, and from the tables on this point laid before the Home Secretary last autumn in my "statement" on the subject of the Contagious Diseases Act I extract the following.—"As regards duration of primary syphilis, the home station occupies the worst position but one in the world, and the Australian (unprotected) the best; the Mediterranean is midway between best and worst. In gonorrhœa, the Mediterranean is the worst in the world, and the Cape of Good Hope and East Indies (partially protected) the best; the home station is midway. This certainly says little in proof that protection has reduced the severity of disease below its degree in unprotected places.

Yours faithfully, J. Birkbeck Nevins, M.D.

3, Abercromby Square, Liverpool, February 25, 1865.

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Sir,—The important letter of Surgeon-Major Ffolliott of the 50th Regiment, in your last number, would have been even more valuable if the numbers had been stated per thousand; so I have thought it useful to respond to his invitation, and have worked them out, giving also the error (by Poisson's formula), and the range within which the truth would lie.

I.—50*th Regiment at Colchester and Aldershot, under the Acts.*

| Year. | Average Strength. | Gonorrhœa. | Primary Syphilis. | Recruits who joined in Year. |
|---|---|---|---|---|
| 1873 (12 months) | $655\frac{11}{12}$ | 43 | 19 | 53 |
| 1874 (7 months). | 573 | 24 | 4 | 44 |
| Average strength 625.37 Total | | 67 | 23 | 97 |
| Average for a year of 12 months | | 42.32 | 14.53 | 61.26 |
| No. per 1,000 ,, | | 67.67 | 23.23 | 97.96 |
| Error by Poisson's formula (ratio to unity) | | 0.02841 | 0.01704 | — |
| Range within which the numbers might vary per 1,000 | | 96.08<br>39.26 | 40.27<br>6.19 | |

II.—50*th Regiment at Dublin, not under the Acts.*

| Year. | Average Strength. | Gonorrhœa. | Primary Syphilis. | Recruits who joined in Year. |
|---|---|---|---|---|
| 1874 (5 months).. | 550 | 15 | 25 | Nil. |
| 1875 (1½ ,, ).. | 517 | 10 | 10 | Nil. |
| Average strength... 542.38 Total | | 25 | 35 | Nil. |
| Average for a year of 12 months | | 44.44 | 64.44 | -- |
| No. per 1,000 ,, | | 81.93 | 118.81 | — |
| Error by Poisson's formula (ratio to unity) | | 0.03331 | 0.03929 | |
| Range within which the numbers might vary per 1,000 | | 115.24<br>48.62 | 158.10<br>79.52 | |

It will thus be seen that, as regards syphilis, the superior limit of possible ratio in the period under the Acts is only *one-half* of the inferior limit, and only *one-fourth* of the superior limit in the period not under the Acts; whilst the simple average per thousand is more than *five* times in favour of the Acts. Even in gonorrhœa, which is obviously less under control, the numbers are considerably in favour of the Acts, to the extent of about 22 to 25 per cent. Again, taking the numbers as given in the successive periods, we have

I.—*Period under the Acts.*

| Year. | Average Strength. | Admissions per 1,000 per annum. Gonorrhœa. | Admissions per 1,000 per annum. Primary Syphilis. | Ratio per 1,000 of strength. Recruits. |
|---|---|---|---|---|
| 1873 (12 months) | $655\frac{11}{12}$ | 65.56 | 28.97 | 80.6 |
| 1874 (7 months) | 573 | 71.80 | 11.97 | 132.0 |

II.—*Period not under the Acts.*

| Year. | Average Strength. | Admissions per 1,000 per annum. Gonorrhœa. | Admissions per 1,000 per annum. Primary Syphilis. | Ratio per 1,000 of strength. Recruits. |
|---|---|---|---|---|
| 1874 (5 months) | 550 | 65.45 | 109 09 | Nil. |
| 1875 (1½ months) | 517 | 154.74 | 154.74 | Nil. |

Here we see that, during the period under the Acts, syphilis diminished 57 per cent., in spite of a mean amount of nearly 10 per cent. of strength as recruits. Gonorrhœa slightly increased (about 10 per cent.), probably due to the recruits, as the increase in their number was considerable (56 per cent.) in 1874. On the other hand, in the period not under the Acts, the syphilis shot up, in the end of 1874, more than 800 per cent.; whilst the first month and a half of 1875 showed an increase of over 40 per cent. even on this large number, or no less than *twelve hundred* per cent. above the ratio of the first seven months of 1874. In the gonorrhœa, although there was at first a slight diminution (about 9 per cent.), due probably to no fresh recruits being taken, a large increase (more than 240 per cent.) took place in the beginning of 1875. It may be objected that the length of the second period is only one-third of the first, and the objection is so far a legitimate one; yet it may also tell another way, as showing the great rapidity with which the evil influence acted in the time. But, if we compare the seven months of 1874 at Colchester and Aldershot under the Acts with the six and a half months at Dublin (1874-5) not under the Acts, we shall have two periods of almost the same length, and very fairly comparable.

| | Average Strength. | Admissions. Total. Gon. | Admissions. Total. Syph. | Admissions per 1,000. Total. Gon. | Admissions per 1,000. Total. Syph. | Recruits. Total. |
|---|---|---|---|---|---|---|
| 1874 (7 months under the Acts) | 573 | 24 | 4 | 71.80 | 11.97 | 44 |
| 1874-5 (6½ months not under the Acts) | 550 | 25 | 35 | 81.93 | 118.81 | Nil. |

Here we have most telling figures, for the mean strength is almost the same, as well as the length of the periods, and we have a rise of 14 per cent. in the gonorrhœa and no less than 900 per cent. in the syphilis, although the first period was under the adverse influence of 13 per cent. fresh recruits, whilst none were enlisted during the second.

I am, Sir, your obedient servant,

F. De Chaumont, M.D., Surgeon-Major.

Army Medical School, Netley, March 2nd, 1875.

# MEDICO-PARLIAMENTARY.

## *HOUSE OF LORDS.—Monday, March 1st.*

*Water-Supply.*—Lord Cadogan inquired whether the Government intended to take any steps for the introduction of a measure during the present session with a view to obtaining a better and purer supply of water for the metropolis.—Lord Belper referred to the bad state of the water supplied by the Chelsea Waterworks Company, and thought that some pressure should be put on them in order to compel them to provide water of a purer description.—The Duke of Richmond replied that it certainly was not the intention of the Government to introduce any measure for the purpose of acquiring all the waterworks in the metropolis; and, with regard to Chelsea, a Bill was now before Parliament for the improvement of the supply of water there, and it would, therefore, be premature to introduce at present any compulsory measure with respect to that district.

## *HOUSE OF COMMONS.—Monday, March 1st.*

*Rivers Pollution Bill.*—In reply to Mr. Stevenson, Mr. Sclater-Booth said he hoped to be able to introduce the Pollution of Rivers Bill before Easter.

### *Tuesday, March 2nd.*

*The Inquest on Sir Charles Lyell.*—In answer to Mr. W. Cartwright, the Home Secretary observed that the accounts which had appeared in the public press relating to the circumstances under which an inquest had been held on the body of Sir Charles Lyell were entirely true; and that if he (Mr. Cross) were sitting as chairman of quarter sessions, and had to consider whether the inquest ought to have been held, he should strike it out of the list as, in his opinion, a great outrage upon decency. The Secretary of State had no jurisdiction over any coroner, and the power of dismissal rested with the Lord-Chancellor. He had, however, felt it to be his duty to write to the coroner for an explanation of his reasons for holding the inquest. The letter he had received in reply, however, gave no reasons that seemed to justify his proceedings. Feeling strongly on the matter, he had written to the Lord-Chancellor on the subject, and left it in his hands to deal with it as he thought proper.

*Burials in Westminster Abbey.*—Mr. Cross, in answer to Mr. Neville-Grenville, said he had communicated with the authorities of the Abbey and with other persons; and he was told that the average number of burials had not, for the last two-and-twenty years, exceeded one a year; and that every possible precaution was taken to prevent damage to the fabric, and also to prevent injury to the health of anyone. He believed there was not the slightest danger arising from burials.

### *Wednesday, March 3rd.*

*Universities (Scotland) Degrees to Women Bill.*—Dr. Lyon Payfair presented a petition from the University of Edinburgh against the Bill. —Mr. Cowper-Temple moved the second reading of the Bill, which he explained to be in the nature of a simple declaratory Act. The Universities of Scotland Act empowered the University of Edinburgh, with the consent of the Chancellor, and after communication with the Senate, to make internal regulations for the government and guidance of the institution, and in the belief that they were authorised to extend the teachings and examinations to women, regulations had been made accordingly. Doubts had, however, arisen as to the legality of those regulations, and it appeared that, if such a power was to be established, it must emanate from the Crown or the legislature. All this Bill did, therefore, was to declare the desirability of extending the benefits of the universities to female students, leaving it to the authorities to do so or not. Opposition to the proposal had come only from the medical profession, who were jealous of admitting females to compete with them in the practice of medicine and surgery. At the present moment, all the universitities of Europe were open to female students; even Russia was in advance of us in this respect; and if young women would qualify themselves to practise medicine, it was strange that, in a country like England, they should be deprived of the legal rights and status belonging to the profession.—Mr. MAITLAND moved the rejection of the Bill. He said that if it were passed into law the Scotch Universities would become the scene of perpetual agitation. It was altogether wrong to say that doubts existed respecting the power of the Universities to admit women as students and grant them degrees. His principal objection to the Bill was, that it asked Parliament to hand over its power to the University Court. Parliament was the only proper judge of a matter that affected the position of women. Moreover, a serious financial charge was involved; for if the Bill passed they would next have the University Court coming to the legislature for money to enable them to provide separate buildings and additional professors for teaching female students.—Sir W. ANSTRUTHER seconded the amendment. He stated that the admission of ladies was a result of a pardonable anxiety on the part of the University to meet their wishes, and of a mistaken exercise of power. What had been granted as a favour, however, the ladies now claimed as a right; but the claim, on being legally tested, was found to be untenable, and now Parliament was asked to reverse the decision of the highest court of law in Scotland. In his opinion it would be better for the ladies and their friends to establish a medical college of their own.—Dr. CAMERON pointed to the fact that women were prepared to pay whatever expenses were necessary, whilst their friends had subscribed £60,000 for new buildings for the University of Edinburgh.—Mr. FORSYTH spoke in support of the Bill, and combatted the argument of women's unfitness for the medical profession.—Mr. BERESFORD-HOPE'S objection to the measure was that persons who were engaged in a very wide crusade were taking advantage of a small issue and a local grievance to obtain a decision in their favour on a much larger and serious question. In fact, under the cloak of a Scotch grievance, they were trying to establish a precedent for the whole kingdom.—Mr. E. NOEL opposed the Bill.—Mr. ORR EWING would vote for the second reading, though he did not concur in all the objects of the Bill.—Mr. J. M. STEWART objected to the measure.—Mr. M'LAGAN supported it.—Dr. PLAYFAIR pointed out that the object of the Bill was not only to admit females to education, but enable them to graduate in arts, medicine, law, and divinity. The measure showed a profound ignorance of the constitutions of Scotch Universities, and even if passed it would not advance the intentions of its promoters a single step.—Mr. STANSFELD would give an earnest and hearty vote in favour of the Bill.—Mr. ROEBUCK was no advocate of what were termed "strong-minded women", but he saw no harm in allowing the Scotch Universities to grant them medical degrees. He thought there was no answer to the case put forward on behalf of those females who prayed Parliament to enable them to earn their livelihood in a fair, honourable, and upright manner. He was persuaded that the opposition of the medical profession was influenced by a coward fear that they would find successful competitors among women.—The LORD ADVOCATE was at a loss to understand why it was proposed to deal with the northern University only, and exclude those of Oxford, Cambridge, and London. Further, if it were right to confer degrees upon women, the power to do so ought to be compulsory, not permissive.—A short reply from Mr. COWPER-TEMPLE was followed by a division, and the loss of the Bill by a majority of 43, the numbers being 194 Noes, and 151 Ayes.

# MILITARY AND NAVAL MEDICAL SERVICES.

## RECENT ARMY MEDICAL EXAMINATIONS.

A MILITARY correspondent writes to us: "Kindly permit me to point out the results of the last, so-called, competitive examination for the army. Eight candidates were accepted for the Royal service, and twenty for the Indian; for the former there were twenty-five vacancies and twelve candidates; for the latter, twenty vacancies and forty candidates, *all of whom were declared qualified*. The British candidates obtained an average of 1,886 marks each; the Indian, 2,137, a difference of 251 per head in favour of the latter; but if the first eight men for the Indian service be taken, the average is raised to 421 per head in favour of the Indians. The *Broad Arrow* of February 27th, states hat commissions in the Royal service were offered to men who were unsuccessful in the competition for the Indian service. Can this be true? One thing was very evident before the examination. The India Board went honestly into the market, and said, 'We want twenty men', and they got them; while, for the British service, it was advertised that 'an examination will be held' thus leaving it open to the authorities to 'cut their coat according to their cloth', and accept or reject as many as they liked, and say afterwards, 'that is the number we required'; an honest proceeding truly. Is anything to be done to allay the present state of burning discontent which has now spread from the department and taken deep root in the medical schools, as evidenced by the result of the late competitive (?) examination."

## THE ARMY MEDICAL SERVICE.

SIR,—No doubt, a great difference of opinion exists at the present moment amongst the officers of the army medical department on the subject of "systems"—whether the old "regimental", the "unification", or a "modified regimental", would best meet the requirements of the service, and tend most to the comfort of the British soldier and his medical attendant alike; but I am of opinion that, as far as the junior officers of the department are concerned, this is not a time to talk about "systems", but about the main points concerning their own immediate welfare. No one can have more at heart the well-being of the British soldier and the requirements of the service, I am sure, than the medical officer; but the latter, being formed of the ordinary stuff which goes to make up that strange compound termed "human nature", has wants and requirements of his own as well as those about him, and cannot see why his interests alone should be so little thought of now-a-days. I think we, of the junior grade, are all agreed on the following points, namely:

1. That all surgeons of fourteen years' service and upwards should be at once promoted to the grade of surgeon-major.
2. That officers of the administrative grade of sixty years of age and upwards should be invited to retire; and
3. That the rule regarding the retirement of surgeons-major, on their attaining the age of fifty-five years, be strictly enforced.

I think all sensible and just-minded people will admit that it is simply ridiculous to expect that, while A. B. has enjoyed the emoluments (such as they were) of the upper grades for a period consisting of three-fourths of his service, Y. Z. is quietly to submit to remain in the lowest grades for more than half his entire service.

I am, Sir, your obedient servant,
February 24th, 1875. PROMOTION.

SIR,—In a recent issue of the BRITISH MEDICAL JOURNAL, an able article appeared, detailing the obstacles that at present exist to army medical reform. It is only too true, as the writer observes, that there is a want of unanimity as to the required changes in the organisation of the department; and, so long as those conflicting views and differences of opinion are put forward, it it difficult for the authorities at the Horse Guards or War Office to come to any conclusion, or decide what is best to be done for the benefit of the service. It could scarcely be expected that the originators and supporters of the unification or general corps system would abandon their pet scheme, or revert to the regimental system again, without a struggle; and their complaint now is, that it has not had a fair trial, inasmuch as all medical officers were not removed from their regiments and placed on a general roster for duty at the station hospital and foreign service. Surely they would not for a moment advocate anything so unjust simply to test a system that has so completely failed and broken down in its infancy, and that is condemned alike by commanding officers and men, and the majority of medical officers in the service. Since station hospitals were established here, the sick list steadily increases, notwithstanding the efforts that are made to keep it down by discharging men from hospital before they are convalescent, and detaining men day after day until eventually they are obliged to be admitted. In one hospital, the number has increased from 200 to 280, and in another from 140 to over 200. Trivial cases are much longer under treatment than formerly, when a hospital sergeant saw that the instructions given by the surgeon were carried out; yet the strongest arguments we hear urged in their favour are "economy and efficiency". They certainly are not more efficient, and I doubt if they will be found more economical, than the ordinary regimental hospital.

Take the case of Dublin, where three ambulances are employed daily in conveying the sick from regiments to hospitals. Each ambulance has a corporal in charge, and a driver of the Army Service Corps; if to expenses such as these are added the pay of captain of orderlies and his staff of sergeants, ward-masters, and assistant ward-masters, the increase in the number of sick, and the facilities afforded for those inclined to prolong their stay in hospital of doing so, I think it will be found in the end that the regimental hospital was not only the most efficient, but the most economical of the two.

I have spoken to a number of medical officers, with the view of eliciting the general opinion on the suggestions that have been made for the reorganisation of the department, and they one and all say they would be satisfied with the scheme proposed by Surgeon-General Mouat, and which there is every reason to believe would meet with the approval of the authorities of the Horse Guards. The modified regimental and general hospital system would meet all the requirements of the Service in times of peace or war, and the concession of the few privileges asked for would, I am convinced, tend in a great measure to allay the feelings of discontent that exist at the present time amongst the executive rank in the department.

The administrative branch of the service were in no way touched by most of the changes that have occurred since April 1873. All of them have belonged to regiments at some period of their service. Some look back with feelings of pride and pleasant remembrance to their former association with their regiments, where, socially and professionally, they were much esteemed. It is, therefore, the more difficult to imagine why they should advocate a system that prevents the juniors entering the service from partaking of the many advantages they acknowledge themselves a regimental training has to recommend it, being the only school in which a young surgeon has an opportunity of learning anything of the habits of soldiers, customs of the service, discipline, etc., and so strenuously oppose the reintroduction of the regimental system in any form. Dr. Edward Hamilton, in his excellent pamphlet *On the Present State of the Army Medical Service*, tries to account for this opposition, and attributes it more to love of power than any desire to improve or benefit the Department. He says:—"Such is the thirst for military command among certain persons, that, if the Army itself must still be left to the combatants, the plan adopted to secure the coveted delight is to create a little army within the greater, and call it a department. We see this spirit in full force in the unification scheme." Let us hope that it is neither desires of this kind nor their own personal interests that influence their opposition to the wishes of the majority of army medical officers.

I am, etc., SURGEON, A.M.D.

# PUBLIC HEALTH
AND
# POOR-LAW MEDICAL SERVICES.

## REPORTS OF MEDICAL OFFICERS OF HEALTH.

GLANFORD BRIGG RURAL SANITARY DISTRICT.—This district lies between the Trent and the Humber. According to the report of Mr. Moxon, "it is probable that in no part of the kingdom have general and subsoil drainage, and other agricultural improvements, made a greater change in the aspect and fertility of the country, and, incidentally, in the health of the inhabitants". Years ago, ague and fevers were prevalent; now the former disease has entirely disappeared from the district, and the latter are much less common. Within Mr. Moxon's memory, the consumption of quinine as a remedy for ague was "enormous"; but, as a consequence of the good general drainage which has been carried out, the disease has practically been abolished. The habit of opium-eating, however, which Mr. Moxon believes to owe its origin to the desire to alleviate the distressing sensations of constant ill-health, still prevails in the district, though not to the same extent as formerly. It appears that the population is, on the whole, comfortably housed, and, though it consists mainly of agricultural labourers, the people generally are well fed and well clothed. Last year, the birth-rate was 33.75 per 1000, and the death-rate 17.5, the death-rate for the whole of Lincolnshire during the past twenty years having been somewhat over 19 per 1000. But, notwithstanding the improvements in land-drainage, Mr. Moxon states that the sanitary condition of the district in other respects has not improved, the annual death-rate during the ten years ending 1870 having been the same as during the previous decade. Many of the villages are either undrained or only partially drained, and in several the water-supply is insufficient, while nuisances connected with privies, pigstyes, cesspools, and defects in the sanitary condition of houses are common. The only work done by the sanitary authority during the year was the abatement of isolated nuisances. Although these amounted to 327, as the district, according to the census of 1871, contains a population of over 26,000, the number of nuisances removed, to say the least, does not appear to be excessive. The report is very well written and arranged, but it loses in value from the apparent timidity with which the medical officer of health submits his recommendations. If villages are badly drained or have no sufficient supply of water, Mr. Moxon ought to have no hesitation in pointing out these defects in each case, and insisting on their removal.

BOLTON.—The Report issued by Dr. Livy, the medical officer of health for this borough, is a lecture on the general principles of public health as exemplified by conditions prevailing in Bolton, rather than a report on the sanitary condition of the place. It is, however, calculated to be useful to the sanitary authority; and it contains a considerable amount of valuable information. Bolton lies on a series of sandstones and shales, intercalated with beds of coal and fire-clay. The superficial deposits over a considerable portion of the municipal area consist of clay deposited during the glacial periods; and, as the borough lies in a hollow, this clay contributes to the unhealthy nature of the site by being all but impervious to water. This condition points to the necessity of a deep system of drainage, which shall carry off the subsoil water. The water-supply for Bolton is highly spoken of. It is derived from a series of hills composed of the millstone grit; it is soft and pleasant to drink; and it contains sufficient saline matters to prevent its having any dangerous action on the lead service pipes. In speaking of the various systems of excrement disposal, Dr. Livy condemns the use of water-closets in towns. He considers that they convert the sewers into elongated cesspools, and hence cause much offensiveness; and he objects to the large volume of water necessary to their proper management. The matters which the sewers contain in a water-closet town are stated to adhere to the sewers, and hence to pollute all the surrounding atmosphere. We do not wish to imply that the water-closet system is without drawbacks; but we think that many of the objections urged against it apply rather to ill-managed and imperfect systems, which are capable of being much improved. Where water-closets exist, they are unquestionably capable of much harm, unless they are connected with a really efficient and well-ventilated system of sewerage; but, on the other hand, the dry system of excrement removal, which answers admirably in institutions, in villages, and in those portions of towns where they can be under the constant surveillance and control of the authorities, is difficult of management in the large houses of the upper classes of town residents. Dr. Livy's Report implies that, in Bolton, common privies are connected with the sewers. Nothing can possibly be more objectionable than this. Such a system embodies all the filthiness of a closet with wet contents, and all the dangers of a system of sewers the use of which has been utterly perverted.

SHEFFIELD.—Dr. F. Griffiths has issued an elaborate report of the health of his town during the past year, in which every subject which comes within the ken of a medical officer is dealt with in an able manner. The population of Sheffield at the time of the last census was 239,946, which, with the excess of births over deaths for the three years subsequent, amounting to 10,659, gives a total of 250,605. The steady increase of births over deaths which has taken place indicates a concurrent prosperity of the population. The death-rate of the town is high, amounting in all to 6,558, or 26.61 per 1,000; of this number, 1,954, or 29.79, of the total deaths which occurred were of infants under one year of age. A great deal of this high rate of infant mortality is due to impure air, bad nursing, improper food, exposure to cold, narcotics, and neglect. Dr. Griffiths has prepared a set of simple rules for the guidance of mothers in the management of their infants, which might be judiciously and efficiently distributed by the registrars. The seven chief zymotic diseases caused 1,233 deaths; of these, diarrhœa killed 425, and small-pox 5 only against 600 deaths in the previous year. The number of vaccinations performed amounted to 5,685. In consequence of this, and of the greater cleanliness and strict inspections, the small-pox epidemic has been almost entirely stamped out. Scarlet fever, measles, and fever, including all kinds (excepting scarlet), carried off together 637. Scarlet fever is always present, and no week passed without some deaths. This disease, together with measles and whooping-cough, is conveyed chiefly by children who are sent to school before they have sufficiently recovered, and whilst they are still in a highly contagious state; and means have been taken to arouse teachers to a sense of the dangers they incur from allowing partly convalescent children to mix with the healthy and uncontaminated ones. The other chief causes of zymotic disease are the unwholesome dwellings and common lodging-houses which abound in the town, with their usual accompaniment of defective drains, closets, and sewage. A strict enforcement of the Common Lodging-house Act is strongly needed. At present, these houses are nests of crime, immorality, and disease. Thieves, tramps, and beggars congregate and migrate as well as import and transport from place to place both moral and physical pestilence.

Energetic measures are required to suppress these horrible places. The closet-system of the town is, generally speaking, very defective; the closets are invariably constructed on false principles, and are placed too near the houses. Dr. Griffiths has shown himself to be no mere theorist in these matters, but gives specifications, and working drawings with elevations, and transverse and horizontal sections of an improved system of combined privy, refuse-bins, and ash-pits, which he himself has invented. This system possesses the great advantage of being cheaply constructed, and readily adapted to existing privies. The closets are thoroughly efficient and inodorous, and do not require to be so frequently emptied, as is the case with the pail system of closet. Dr. Griffiths speaks highly, as he has a right to do, of his combined plan; practical experience having proved its ready utility and economy. The escape of sewer-gas through overflow-pipes is a frequent source of complaint; the curved syphon-water-trap is pointed out to be a gross and dangerous deception. The constant pollution of the rivers is a source of great regret. In those parts of the streams especially which pass through the inhabited parts of the borough, the banks are being narrowed and the beds gradually silted up with refuse of every kind. In dry weather, the beds are little better than stagnant and offensive pools; and, were it not for the flushing following rainfall, the streams would certainly become the foci of disease and death. It should be understood that slimy matter brought down these rivers in flood-time kills the roots of the plants which have held together the earth on the sides, and thus renders the shores liable to abrasion and to be washed away at the next flood. Private slaughter-houses are among the worst nuisances in the borough; they are all situated too close to dwelling-houses, while they afford the greatest facilities for slaughtering diseased animals and for the sale of unsound and unwholesome meat; they are seldom clean even after the filthy waste and washing have been carried into the sewers. Cow-houses, stables, and pigstyes are often found in yards and courts of very limited area, and too close to dwelling-houses. The cow-houses are seldom clean, and still more seldom supplied with water, whilst dairy operations are carried on in small rooms contiguous to the cow-houses, in which all other household duties are performed, and in which members of the family are occasionally suffering from disease. Milk stored in such premises cannot remain long uncontaminated, and, unless it be quickly consumed, is certain to absorb poisonous effluvia. Enteric fever has been clearly proved to have been carried from dairies, and spread amongst large classes of persons who used the milk conveyed in vessels improperly washed in impure water. In Wolverhampton, out of 18 cases of typhoid fever, 15 of the patients had been supplied from the same dairy where the disease existed. Hence the importance of the utmost cleanliness in regard to milk. Dr. Griffiths's remarks upon the working of the Act are cogent; doubtless, however, they were written before the Sanitary Acts Amendment Bill, passed August 7th, came into force; but, as the sanitary laws are still incomplete, and have been promised further amendments and consideration during the next session, he suggestions given are worthy of careful consideration. Theoreti-ally, the Sanitary Act is lamentably defective; for, while it recognises he fact, that epidemics can be controlled in their violence, and their disastrous effects minimised by proper sanitary efforts in the early stages of an outbreak, it has entirely neglected to provide the machinery neces-ary to make the sanitary authority aware of the existence of disease, ntil it has taken a strong hold upon a locality, or until the epidemic has actually slain many of its victims. At present, the only source of eliable information is the local registrar's returns of deaths. To visit locality after the disease has expended its violence, debilitated the trong, and killed off the weakest, and to offer advice when the evil has ulminated, seems little better than a mockery or an absurdity. The fficient working of the Act should not be permissive, nor one of mere ufferance. Wherever the word "may" occurs, it should be altered nto "shall" or "must". To be really effective, it must provide for—therwise provision must be made for—the supply of information upon hich officers can act both promptly and intelligently. The only ay in which information as to the existence of disease can be obtained, s to adopt means to obtain regular weekly returns from the whole of he medical profession, or at least from gentlemen who are Poor-law medical officers. The expediency of enlisting the present Poor-law fficers on the sanitary staff is strongly urged. Those gentlemen, from he intimate knowledge which they possess of their respective districts, nd their familiarity with diseases and its surroundings in all forms, re peculiarly well qualified to discharge the duties of medical officers nd sanitary inspectors. It would be well if parents, guardians, and mployers of labour, and schoolmasters, could be induced to give otice, either personally or in writing, to the medical officer within an rly date of the outbreak of any contagious or infectious disease. uch an enactment would meet nearly all the requirements. Such a an was adopted during the cattle-plague, and the early information thereby obtained was the means of stamping out the disease. It is reasonable to urge that a regulation which checked disease amongst cattle could surely be carried out similarly to benefit human beings. A form of questions has been prepared for this purpose, and it is earnestly requested that these forms will be filled up and returned to the medical officer whenever the existence of disease renders it necessary. The total number of nuisances reported upon by the district inspectors during the year was 2,296—a heavy black-list certainly; but the cleansing and purification of a town like Sheffield is truly an Augean task. Fortunately the duty has devolved on an officer who is not likely to give up until all that human means can do has been done, and done well too. Dr. Griffiths complains of the inefficiency and incompleteness of the forms which Local Government Boards send out. Many diseases are entirely omitted in the schedule, and the provision for specifying the respective ages at which death occurs in children has also been left out. He himself furnishes the most minute and complete accounts on a plan of his own, which is simply perfect. He adopts the form of tabulated squares based on the system in which temperature and meteorological returns are given. The perpendicular columns represents the number of weeks in the year, the side-figures numbers; by means of a line, therefore, drawn week by week, the rate of mortality can be readily seen for any week in the year, the resulting diagram showing at a glance the fluctuations of the death-rate at any period of the year. No trouble or expense has been spared in any way in getting up the most complete form of report which we have yet seen. An index is the only requirement. Dr. Griffiths is to be congratulated on the success of his work.

A MEDICAL OFFICER OF HEALTH.—The publication of your letter in these column might be open to misinterpretation.

## POOR-LAW MEDICAL APPOINTMENTS.

MACBRIDE, Charles, M.D., appointed Medical Officer and Public Vaccinator for the Parish of Kirkkinner, Wigtownshire, *vice* W. Cumming, M.D., deceased.

MAHON, Charles J., L.K.Q.C.P.I., appointed Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Easkey Dispensary District, Upper Division, of the Dromore West Union.

## APPOINTMENTS OF CONSULTING MEDICAL OFFICERS OF HEALTH IN IRELAND.

LYNCH, Francis J., M.D., appointed Consulting Sanitary Officer for the Loughrea Rural Sanitary District.

LYNE, Daniel John, L.R.C.P.Ed., appointed Consulting Sanitary Officer for the Castletown Rural Sanitary District.

MCDOWELL, Francis V., L.R.C.S.I., appointed Consulting Sanitary Officer for the Carlow Urban Sanitary District.

O'NEILL, Patrick, L.R.C.P.Ed., appointed Consulting Sanitary Officer for the Athy Rural Sanitary District.

# OBITUARY.

## FREDERICK BLUNDSTONE WHITE, M.D., M.R.C.P., F.L.S.

DR. F. B. WHITE died at Tetbury, Gloucestershire, on February 4th, in his eighty-third year. Having finished his studies at St. George's Hospital, he became a member of the College of Surgeons, London, in 1813; soon afterwards, he passed the Army Medical Board, and was appointed to the 73rd Regiment, which he joined in Holland. He was present at the siege of Bergen-ap-Zoom, March 8th, 1814, under General Sir T. Graham (afterwards Lord Lynedoch), when nearly all the British soldiers were cut to pieces or made prisoners, and volunteered to look after his men when prisoners—a post of no ordinary danger.

In 1815, the 73rd Regiment was ordered to join the Army in Belgium; and Dr. White was present at Quatre Bras and Waterloo, his regiment having but three officers not killed or wounded. After these engagements, he went with the Army to Paris. On coming home, the 2nd Battalion, to which he was attached, was disbanded, and, after four years' service, he went on half-pay. He married in 1820, and took to private practice at Nether Stowey in Somersetshire.

In 1827, he was offered the appointment of Surgeon in Ordinary to the late King, then Duke of Clarence, which he declined. In the same year, he moved to Tetbury, where his practice became large. In 1840, he became an Extra-Licentiate of the Royal College of Physicians of London; then M.D. of Giessen, and M.R.C.P. (exam.) in 1859. He was also Physician to Tetbury Dispensary, and a Fellow of the Linnæan Society.

Dr. White's keen perception, accurate diagnosis, and genial manner secured him the affectionate regard of all classes, and his opinion was much valued, even after his retirement from active work, in the two counties alluded to. He returned only last autumn to Tetbury, the scene of his former labours, to pass peacefully away in a ripe old age.

### R. T. C. SCOTT, L.R.C.S.Ed., MELBY.

MR. SCOTT, who died lately, was born on January 1st, 1812. He studied at Marischal College, Aberdeen; and having then attended the medical curriculum in the University of Edinburgh, obtained the license of the Edinburgh College of Surgeons, at the early age of nineteen. He entered the navy as assistant-surgeon in 1833, and retired from the service as Deputy Inspector-General of Hospitals and Fleets in 1870. Amongst the honours conferred upon him were Sir G. Blane's gold medal for a medical history of the Burmese War in 1852, while serving in H.M.S. *Hastings*; the silver medal of the H.E.I.C. for the same war, the Baltic medal, the medal of the Royal Polytechnic Society of Cornwall, for Natural History; and his medical and surgical notes in the Royal Dockyard are printed in the Parliamentary Blue Book, 1869. His public complaint in the medical journals, of having been ordered to use the stomach-pump as a punishment, led to an Admiralty Order for the immediate abolition of the practice, though, at the time, his friends expected that he would be tried by a court-martial, and dismissed the service, for what they considered an act of madness. On his retiring from the medical superintendence of the Sheerness Dockyard, a splendid testimonial was presented to him by the workmen; and on his arrival in Shetland, a public dinner in honour of him was given at Walls. In 1850, he succeeded to the Melby estates. For many years after his succession the rental was expended in building improved dwellings and in making other improvements. The funeral took place in the churchyard of Sandness, on January 12th, and, notwithstanding the inclemency of the weather, was attended by about two hundred of his tenantry and friends from various parts of Shetland, with whom Mr. Scott's name was a familiar and loved household word, and by whom his memory will be cherished as that of a just, generous, broad-minded man.

# MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examinations in the science and practice of medicine, and received certificates to practise, on Thursday, February 25th, 1875.

Evans, Frederick William, Crockherbtown, Cardiff
Kyngdon, Frederick Henry, Croydon, Surrey
Miller, Frederic Daniell, Streatham, Surrey

The following gentlemen also on the same day passed their primary professional examination.

Bass, Charles William, University College
Richards, Thomas, Guy's Hospital
Wilson, George, Charing Cross Hospital

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the monthly examination, held on Tuesday, Wednesday, and Thursday, February 9th, 10th, and 11th, 1875, the License to Practise Medicine was granted to—

Barnes, Raglan Wykeham
Boyd, Thomas
Browning, John Norris
Callanan, Michael
Curtin, Patrick
Hoops, Samuel Evans
Jones, Richard Sorton
Jones, Wilmot John
Sigerson, George

The License to Practise Midwifery was obtained by—

Barnes, Raglan Wykeham
Browning, John Norris
Callanan, Michael
Curtin, Patrick
Hoops, Samuel Evans
Jones, Richard Sorton
Jones, Wilmot John
Pollen, Henry

## MEDICAL VACANCIES.

THE following vacancies are announced:—

BECKETT HOSPITAL AND DISPENSARY, Barnsley — House-Surgeon. Salary, £140 per annum, with furnished rooms, gas, and coals.
BRADFORD INFIRMARY AND DISPENSARY—Physician. Applications to be sent on or before June 12th.
BRISTOL LUNATIC ASYLUM—Assistant Medical Superintendent.
CLINICAL HOSPITAL AND DISPENSARY FOR CHILDREN, Manchester—House-Surgeon. Salary, £60 per annum, with board and residence. Applications to be made on or before March 6th.
COVENTRY AND WARWICKSHIRE HOSPITAL—House-Surgeon and Dispenser. Salary, £100 per annum, with board, lodging, and attendance. Applications to be made on or before March 25th.
DEVON AND EXETER HOSPITAL—House-Surgeon. Salary, £150 per annum, with board.
DORSET COUNTY HOSPITAL—House-Surgeon. Salary, £70 per annum, with £10 additional as Secretary. Applications to be made on or before March 18th.
DOVER UNION—Medical Officer for the St. Mary's District and the Workhouse. Salary, £180 per annum.
DURHAM COUNTY ASYLUM—Assistant Medical Officer.
HAILSHAM UNION—Medical Officer and Public Vaccinator for the Parish of Heathfield. Salary, £44 per annum, and fees. Applications to be made on or before March 8th.
KILBURN DISPENSARY—Senior Resident Medical Officer. Salary, £120 per annum, with apartments, coals, gas, and attendance. Applications to be made on or before March 8th.—Assistant Resident Medical Officer. Salary, £80 per annum, with apartments.
KINGSTON, Jamaica—Two Medical Officers for the Public Hospital.
LEOMINSTER UNION—Medical Officer for No. 2 District. Salary, £90 per annum, and vaccination fees. Applications to be sent in on or before the 11th instant.
LONDON FEVER HOSPITAL—Resident Medical Officer. Salary, £200 per annum, with residence, coals, gas, and attendance. Applications to be made on or before March 6th.
MANSFIELD UNION—Medical Officer for the First District, and the Workhouse. Salary, £50 and £40 per annum, respectively.
MILFORD UNION, co. Donegal—Medical Officer for the Ramelton Dispensary District. Salary, £100 per annum, and fees.
NEWMARKET UNION—Medical Officer and Public Vaccinator for the Third District. Salary, £45 per annum, and fees. Applications to be made on or before March 8th.
QUEEN'S HOSPITAL, Birmingham—House-Surgeon. Salary, £50 per annum, with board, lodging, and washing. Applications to be sent in on before March 11th.
ROYAL EDINBURGH ASYLUM—Assistant-Physician.
ROYAL INFIRMARY FOR WOMEN and CHILDREN, Waterloo Bridge Road—Physician.
SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY—Assistant House-Surgeon. Salary, £65 per annum, with board, lodging, and washing.
SOUTHPORT INFIRMARY AND LOCAL DISPENSARY—Resident House-Surgeon. Salary, £100 per annum, with board, furnished apartments, coals, gas, and attendance. Applications to be made on or before the 8th instant.
ST. LUKE'S HOSPITAL FOR LUNATICS—Second Clinical Assistant. Board and furnished apartments.
ST. THOMAS'S HOSPITAL—Assistant Obstetric Physician.
SOUTH ESSEX DISPENSARY—Surgeon.
TORBAY INFIRMARY—House-Surgeon. Salary, £100 per annum, with board and lodging.
UNIVERSITY COLLEGE, London—Curator of the Museums of Anatomy and Comparative Anatomy. Salary, £200 per annum. Applications to be sent in on or before March 6th.

## MEDICAL APPOINTMENTS.

*Names marked with an asterisk are those of Members of the Association.*

ALEXANDER, John, M.B., appointed House-Surgeon to the Paisley Infirmary, *vi* W. Adams, M.B., resigned.
*ELDER, George, M.B., appointed Surgeon to the Police, Nottingham, *vice* H. Taylor, M.R.C.S., J.P., resigned.
FOOT, Robert H., M.D., apppointed Assistant Medical Superintendent to the Fif and Kinross District Lunatic Asylum, *vice* G. H. Mackenzie, M.B., resigned.
HALLOWES, Adolphus H. B., M.R.C.S.Eng., appointed Surgeon to the West Ken General Hospital, Maidstone, *vice* *W. Hoar, M.R.C.S.Eng., resigned.
JOHNSON, John, M.D., appointed Physician to the Tunbridge Wells Infirmary.
KARKEEK, Paul Q., M.R.C.S.Eng., appointed Accoucheur to the Torquay Lying in Charity, *vice* W. B. Hartland, Esq., deceased.
KENNEDY, Henry, M.B., appointed Physician to Simpson's Hospital, Dublin, *vic* R. Law, M.D., resigned.
LAWRENCE, Alfred E. A., M.D., appointed Physician-Accoucheur to the Bristo General Hospital, *vice* J. G. Swayne, M.D., resigned.
LYON, James G., M.D., appointed Dispensary Surgeon to the Western Infirmary Glasgow.
*SWAYNE, Joseph G., M.D., appointed Consulting Physician-Accoucheur to the Bristol General Hospital.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.*

### BIRTH.

SOLOMAN.—On February 24th, the wife of Charles Soloman, L.R.C.P.& S.Edin Kirklaugh, of a son.

### MARRIAGE.

DUNCANSON—BAIRD.—At Edinburgh, on February 24th, by the Rev. Mr. Ma knight, F. C. Whitburn, uncle of the bride, J. J. Kirk Duncanson, M.D., t Isabella, eldest surviving daughter of the late Robert Baird, Esq., of Limerig No cards.

BEQUESTS.—The late Mr. Alfred Wigan, in addition to other chari able bequests, left to the Home for Incurables, West Hill, Putne Heath; St. Mary's Hospital, Paddington; and the British Orpha Asylum, Slough, £500 each. All the legacies are given duty free.—Mr. William Willicombe of Tunbridge Wells has left £100 for the us of the Infirmary of that town.—Dame Sarah Haberfield (widow of S John Kerle Haberfield, who was six times Mayor of Bristol) has b queathed to the Bristol Royal Infirmary £5,000, to be invested in co sols, and the annual income applied for the maintenance and support one of the existing wards, to be called Lady Haberfield ward; to th Bristol General Hospital, £1,000, to be invested in consols, and th annual income applied as a yearly prize, to be known as Lady Habe field's prize, for the pupil at the hospital who shall exhibit the greate proficiency; the Blind Asylum, and the Deaf and Dumb Institutio Bristol, and the Hospital for Sick Children, Clifton, £100 each; the Clifton Dispensary, £50. There are numerous other legacies of charitable nature, all of which are directed to be paid free of duty.

## OPERATION DAYS AT THE HOSPITALS.

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| MONDAY ...... | Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M. |
| TUESDAY ...... | Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M. |
| WEDNESDAY .. | St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M. |
| THURSDAY .... | St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M. |
| FRIDAY ......... | Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M. |
| SATURDAY .... | St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1 30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M. |

## MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London. Anniversary Meeting (102nd).

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Dr. Wm. Miller Ord, "On Urinary Crystals and Calculi, the Circumstances determining their Form and Production".

WEDNESDAY.—Epidemiological Society, 8 P.M. "On Arithmetical Questions involved in the Rise and Progress of Epidemics", by George H. Evans, M.A., M.D. Cantab.—Hunterian Society. Council Meeting, 7.30 P.M. General Meeting, 8 P.M. Mr. De Berdt Hovell will introduce a discussion on "Ventilation in Relation to the Treatment of Scarlatina".

FRIDAY.—Clinical Society of London, 8.30 P.M. Dr. T. T. Whipham, "Fatal Pleuropneumonia in an Opium-eater"; Mr. C. Burwell. "Case of Acute Necrosis in which the whole Shaft of the Ulna was removed"; Dr. Thomas Dowse, "Unusual Case of Lead-poisoning".

## NOTICES TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

J. C. will observe that his query is answered in another part of the JOURNAL.

MR. SCOFIELD'S suggestion is one which, we think, might be adopted with advantage. The matter shall be looked into.

### THE CONTAGIOUS DISEASES ACTS.

WE are requested to correct a misapprehension on the part of Dr. Wm. Carter, in stating that the "five members of the Liverpool Royal Infirmary School of Medicine who did not sign the memorial constitute more than one-third of the entire staff". The school staff numbers seventeen, and of the five non-contents three are not medical practitioners, and therefore were not asked to sign.

### QUININE FRAUDS.

AN instance of importing spurious quinine, says the *North China Herald*, came lately under the notice of the Customs authorities, the quantity being 100 one-ounce bottles, for a Chinese firm, we believe. The shipment was detained on the score of false declaration, and a bottle submitted to Messrs. Watson, Cleave & Co. for chemical analysis. It was suspected that the substance was salicine, but the application of the usual test failed to indicate any trace of salicine in the sample. Quinine itself, or any of its salts, was equally undistinguishable, and subsequent examinations proved the substance to be composed entirely of muriate of cinchonine, a product of cinchona bark, the market value of which is one-fourth that of quinine, while it possesses remedial qualities analogous but less in degree to those of the valuable medicine for which it is attempted to pass it off. The bottles bear a neat label, flanked by exhibition medals, on which the inscriptions are not quite correctly printed. The label runs: "Sulfate de Quinine de Pelletier, Delondre et Lévaillant; 1 once Anglse.; Armet De Lisle et Cie., Successeurs; Paris Rue Malher 18." The question of checking the attempts made to cheat the public into buying a spurious or inferior preparation of a febrifuge is of great importance in a place like Shanghai, and we hope will receive the attention of the authorities. It might do some good, meanwhile, if the native press were to draw attention to this "lie" quinine.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

### HOSPITAL SATURDAY.

SIR,—I beg you will oblige the retiring Hospital Saturday Council by permitting me to mention that, except in three instances, £4,521 15s. 10¾d. of the first Hospital Saturday collection has been paid to those Hospitals and Dispensaries, the Committees of which returned on the Council's forms particulars as to the amount of "Relief," "Economy," and "Efficiency" in their respective institutions. The distribution was made under these heads, and upon a plan which obviated the possibility of partiality. In many instances, patients' letters, *pro ratâ* to the amount allotted, have been returned. In others, notably that of the French Hospital, intimation has been given that all persons recommended by the Council will be received as patients without restriction. The Council will issue the letters to local and auxiliary Hospital Saturday Committees, and to *employés* of firms, on application, *pro ratâ* to the amount collected in each case. Letters not so apportioned the Council will issue individually to deserving persons.

I beg you will also permit me to mention that the Hospital Saturday Board of Delegates will meet on Saturday, the 27th of March next, to elect the Council who will organise the collection for this year (1875) in accordance with the resolution passed by the retiring members, to further ensure that the working classes shall have that voice in the management of the movement which will ensure its future success. The Board of Delegates will consist of members elected thereto by Lodges, Courts, and branches of the various Friendly and Trade Societies, and *employés* (100 or upwards) of firms. The Board will meet at least once in every three months to receive reports from the Council, over whose proceedings they will maintain a general supervision. A copy of the resolution as to the election of delegates, and the form of certificate, may be had on application to the retiring Council.—I am, etc., CHARLES MERCIER, Chairman.

Council Rooms, 28, Leicester Square, Feb. 20th, 1875.

H. M., STATISTICAL SOCIETY.—The bills of mortality were commenced so long ago as 1592, by the Parish Clerks' Company, who about 1625 were licensed by the Star Chamber to keep a printing press in their hall for printing the bills. The weekly bills of the parish clerks have, however, been superseded by the "Table of Mortality in the Metropolis," issued from the Registrar General's Office since July 1, 1837.

### UNREGISTERED PRACTITIONERS.

DR. T. ORME DUDFIELD, in his monthly report on the Health of Kensington, raises the following questions, on two of the deaths registered in the Town sub-district which were "not certified", *i.e.*, the deceased were attended in their last illnesses by unregistered practitioners, whose certificates were accepted only as informal evidence of the nature of the fatal disease, the deaths being returned by the Registrar as "not certified", in accordance with the instructions of the Registrar-General. Under the Registration of Births, etc., Act, a duly registered medical practitioner is required to give a certificate, setting out the cause of death of any person who may have been attended by him. This is the certificate which was given in the cases above referred by unqualified practitioners, one of whom is the person against whom your Vestry directed proceedings to be taken some months ago for alleged contravention of the "Medical Registration Act". By the 37th section of that Act, the certificate he gave in the case now alluded to, is declared to be not "valid," because he is not registered. But if he had been duly registered, and had refused to give the certificate in question, such refusal would have entailed a penalty under the new Act. Whether his certificate brings him within the penal clause of the Medical Act, for the offence of "falsely pretending to be registered under the Act," is a nice question of law, which Dr. Dudfield states that he is incompetent to answer.

BIBLIOPOLE.—The total expense of the Library of the College of Surgeons, including purchases, binding of books, salary and wages was, according to the last calendar, July, £659 5s. 6d.

### ETIOLOGY OF PUERPERAL FEVER.

SIR,—I have read attentively the article on the above subject in this week's JOURNAL, and must take exception to some of the statements therein made.

The first is, that I consider the writer bases his suggestion of the contagion of puerperal fever being connected with his own person in his cases of contagion, on very insufficient data, for the following reasons. Since writing my former letter to you I have unfortunately had another case prove fatal in my practice. Now, as three months have elapsed since my former case, I do not suppose any one can by any means connect this last case with my former one, as I have attended my cases since then: and yet if I had ceased practice for a period of three months and then resumed it, and met with a fatal case soon after doing so, hy reasoning as your correspondent has done I should have come to the conclusion that those months were insufficient to eradicate this contagion from my person.

By expressing himself willing to attend cases of puerperal fever, one would suppose he did not believe in the contagion theory at all.

By his inability to discover any symptoms of ill health in himself. As, if a man in bad health is more liable to transmit the contagion than a healthy man (which I suppose is possible), he would be almost certain to be attacked with some disease of a nature akin to puerperal; and yet your correspondent does not speak of his having suffered from either erysipelas, scarlet fever, sore throat, etc.

Secondly, I fail to see on what grounds he concludes that there are three different kinds of puerperal fever. I presume in making his divisions he had more in mind the different ways in which the disease arises. As I do not for a moment believe that the disease given by contagion differs from that arising either from causes which have to do with the patient alone, or from the epidemic form.

It seems to be a fact that how puerperal fever arises in a man's practice is unknown, and also that when, unfortunately, a fatal case does occur, it is clearly the duty of the surgeon to abstain from attending any more confinements for a few weeks. Hoping that these letters, and the case of the Coventry midwife, will awaken attention to this subject,—I am, Sir, yours truly, JUNIOR.

### BITING OF THE NAILS.

SIR,—Can any of your correspondents suggest a good method of combating this habit in children, or briefly state what treatment has been found most efficacious? G. Y.

M. KENSINGTON.—Archdeacon Pott was his son. Percival Pott was forty-two year Surgeon to St. Bartholomew's Hospital. He died December 22nd, 1788, aged 75 years, and was buried in the church of St. Mary Aldermary, Bow Lane, Cheapside.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, twelve o'clock.

### MEDICAL DEGREES AND TITLES.

SIR,—The requirement of residence at an University prior to admission to examination for its degrees entails the perpetuation of a system which identifies the teaching and examining bodies, the error of which appears to have been recognised by the founders of that excellent institution, the University of London. It will scarcely be assumed that the gentleman who passes a year at either Aberdeen, St. Andrew's, or Galway, is more advantaged thereby than one who passes the same period of time in London, or in one of our large manufacturing towns. The requirements of the University of London, excellent though they be in intention, are undoubtedly, to a certain extent, prohibitory: frankly, I dared never affront them, and I have known many men who have given proofs of some capacity stop short in this difficultly upward career. Some continental Universities, untrammelled by tradition, and rather in appreciation of practical results, do admit to the degree of Doctor by examination without residence. At Brussels, the examination I passed may have been inferior by the absence of written proofs of capacity, but I have no hesitation in saying was superior, practically, to our examinations at home, especially in the item of practical surgery, in which three operations have to be performed on the dead subject. This is an improvement which, it is to be hoped, may be adopted by our College of Surgeons in their Membership as well as in their Fellowship examinations, that it may be able to ascertain that it is really providing the public with surgeons who know where they are going when they have a knife in their hands.

The assumption of the title of Dr. by Licentiates of a Medical College is to be deprecated: either there is a distinction and a difference between a degree and a diploma, or there is not; and it is difficult to understand how, logically, the King and Queen's College of Physicians in Ireland can give a license conferring the right (as stated in black and white, and in large characters, on the diploma) to use the title of "Doctor in Medicine".—I am, sir, your obedient servant,

W. N. HIRON, M.D.Brussels, L.R.C.P.Lond., M.R.C.S.E.

SIR,—The numerous letters in your JOURNAL on the subject of medical titles show the interest taken on the subject. I believe that the dissatisfaction in the profession arises from the fact, that so many men, neither of superior ability or of education, get into practice with M.D. tacked to their names, and are thus placed before the public in a position above their fellows. Are the opportunities for medical education at Aberdeen, Glasgow, St. Andrew's, Oxford, and Cambridge, greater than at the London hospitals—St. Bartholomew's, Guy's, the London, etc.? Who are the teachers and examiners at the former places?—men hardly known out of their provincial towns, certainly not out of Scotland. In London, the opportunities are greater, the hospitals larger, the teachers and examiners many, of European reputation; but a student who passes the examining boards of the London College of Physicians, the College of Surgeons, or the Apothecaries' Company, is without a title, a plain "Mr.": he is even snubbed by the College of Physicians for styling himself "Dr." Does Scotch influence prevail at the London College? The upper and middle classes are finding out by comparison, that the title of Dr. or M.D. under the present *régime* by no means implies superiority of the man or his education.

Hoping that some means will be found, even if it require an Act of Parliament, for giving a London medical title to those passing the London examinations, and rectifying the present anomaly in respect of medical titles, I remain, sir, your obedient servant,

W. M.

SIR,—As one of the numerous M.s and L.R.C.P.s of Edinburgh, I beg to express my gratitude to you for your powerful advocacy of the cause of those amongst us who desire to be admitted by some British University to examination, without residence, for the degree of M.D.; but I beg respectfully to point out that your recommendation that only those who have gone through a full curriculum, extending over at least four winter sessions, be admitted to examination, would, if adopted, virtually exclude four-fifths of the L.R.C.P.s, who, like myself, only completed in their student-days three winter and two summer sessions, and who, being now in full practice, could not spare time to complete the extended curriculum.

With regard to the much disputed title of "Dr.", I beg to say that, so long ago as I can remember (my age is forty-six), all Licentiates and extra-Licentiates of the College of Physicians of London were unhesitatingly accorded the title of "Dr." by their professional brethren, and had that title engraved on their cards and door-plates: and when, in 1860, I passed my examination at the College of Physicians of Edinburgh, I thought myself fully justified in adopting the title of "Dr.", and have continued to do so ever since, though of course I never wrote M.D. after my name, nor allowed my friends and patients to do so. I may add that the College of Physicians of Edinburgh, when sending me the annual list of Fellows, Members, and Licentiates, always addresses me as "Dr."

I enclose my card, and am, sir, your obedient servant,

M.R.C.P.ED.

SIR,—As a constant reader of your valuable JOURNAL, I have perused with interest the numerous letters published in your columns on the above subject, and I should like to add my mite to the collection. Into the question of the right of L.R.C.P.s, etc., to the title of "Dr.", I do not entend to enter, my object being merely to suggest means whereby the acquisition of the title M.D. might be facilitated without lowering the standard of professional knowledge now required for its attainment.

There is at present no University in the United Kingdom from which the degree of M.D. can be obtained without residence or its equivalent. I speak advisedly, though I know I shall be met by the statement that the University of London requires no residence of its graduates. But it requires its equivalent; that is to say, the time (four or five years) spent in medical study must be so spent at a recognised medical school *after matriculation*. It is in these two last words that the rub exists. By all means, require study at recognised medical schools; but I do not see why that study need necessarily be *after* matriculation. If evidence were required that the student had passed a sufficient time at recognised places of education, that should be sufficient to admit him to examination for degrees, whether he matriculated before or after commencing professional work. There are many men who, on entering on their student-career, do not think of taking a degree; but, after two or three years of study, they find themselves drawn strongly to the practice of physic *pur et simple*, and wish to take the M.D. degree, and thus qualify themselves for hospital appointments and consulting practice. But they knock at the portals of Burlington House in vain. They did not matriculate before entering on hospital work; and therefore, if they want a degree, they must matriculate now, and go through their two or three years again. This is surely a hard case; but I am convinced it is the condition of many students at the present time. Therefore, I would suggest to the Senate of the University of London (which, being the metropolitan seat of learning, should lead the way in all liberal and salutary reforms) to do away with the regulation which requires matriculation previous to the commencement of professional study, and to take so many years of work at a recognised medical school as sufficient qualification for admission to its degrees—after stringent and searching examination, of course. If the University of London will not relax thus far, the University of Durham, which already allows residence at Newcastle-on-Tyne to count as residence in the University itself, might surely extend its boundaries, and allow study at any recognised medical school to count as residence; and then permit students from all parts of the kingdom to graduate at Durham. These facilities for graduation would in no way detract from the value of the degree, as the standard of professional knowledge requisite for its attainment might still be kept sufficiently high to uphold the dignity of the M.D., and to stamp the bearer of the title as a man of high professional knowledge and scientific culture.

Trusting I have not run to too great length, and hoping you may think my suggestions worthy of insertion, I enclose my card, and remain yours obediently,

A KING'S MAN.

### THE INFLUENCE OF TEMPERATURE DURING CHILDBIRTH.

SIR,—Painless and bloodless surgery is now universally practised and admired. Painless and bloodless midwifery—although a matter of at least equal importance—is not only *not* universally practised, but, I will venture to say (except in the use of anæsthetics), is a subject not even understood. I have endeavoured to show, in my previous letters, how simply, and by the regulation of temperature, and without the aid of any anæsthetic medication whatever, the pangs of childbirth may be reduced to a minimum, both as regards time and intensity. By the same principle of treatment, essentially chrono-thermal, I have suggested a means which, if fairly tried, will, I am firmly convinced, banish for ever that opprobrium medicorum—*post-partum* hæmorrhage. For such purpose, it will undoubtedly be found most desirable to apply the remedy, the *graduated* cold *douche*, by way of anticipation, speedily after the birth of the child, and before the separation of the placenta.

Apparently, in contradiction to what I have written, but, in reality, strongly in confirmation of it, comes the latest suggestion from New York, namely, the use of vaginal injections of warm water (at 100 Fahr.), as a means of arresting uterine hæmorrhage. This is a step in the right direction, and will do more than anything else to revolutionise all previously accepted ideas on the subject.

Everywhere, and for ages past, has been taught the utterly fallacious doctrine that cold—*quoad* cold—arrests hæmorrhage; and nothing but disaster has resulted when, in accordance with such teaching, the prolonged use of cold has been consistently carried out; for only in so far as cold, *by reaction*, is capable of restoring the natural warmth of the body, can it, by any possibility, restore the healthy tone of ruptured vessels, or indeed of anything else. Hence cold, properly applied, with the view of obtaining such reaction, is most valuable as a means of preventing hæmorrhage, but is a measure of doubtful utility in proportion to the amount of hæmorrhage which has already occurred, and the consequent difficulty experienced by the patient in acquiring the necessary reaction; and it is precisely at this most critical and important juncture that warm vaginal injections (at 100 Fahr.) may be brought into play with the most striking effect.—I am, etc.,

M.D.

Harlesdon.

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COMMUNICATIONS, LETTERS, ETC., have been received from:—

Mr. Charles Steele, Clifton: Mr. A. F. Williams, Liverpool; Dr. T. A. G. Balfour, Edinburgh; Mr. W. H. Day, Norwich; Mr. E. W. Thurston, Ashford; Dr. W. M. Kelly, Taunton; Mr. James Rogers, Swansea; Mr. Palemon Best, Louth: Mr. J. C. Galton, London; Mr. R. E. Power, Dartmoor; Mr. Edwin Goadby, York; Dr. F. H. Daly, London; Mr. J. Smith, Aston; Mr. W. H. Trestrail, Aldershot; Dr. C. E. Saunders, London; Dr. Sydney Ringer, London; Mr. Charles Ashenden, Hastings; The Director-General of the Army Medical Department; The Military Secretary, India Office; Mr. Kenneth W. Millican, Cambridge; Dr. Rumsey, Cheltenham; Mr. W. O. Townsend, London; The Secretary of Apothecaries' Hall; The Registrar-General of England; The Registrar-General of Ireland; The Registrar of the Medical Society of London; Dr. Waters, Chester; Dr. Birkbeck Nevins, Liverpool; Dr. J. MacCarthy, Cork; Mr. R. N. Stoker, Netley; Dr. Braxton Hicks, London; Mr. A. T. Norton, London; Mr. J. Mitchell Wilson, North Witchford; Mr. R. Gravely, Newick; Mr. John Lowe, Merthyr Tydfil; Mr. J. M. Heward, Stamford; Mr. W. M. Harmer, Hawkhurst; Mr. H. Burdett, Greenwich; Mrs. Garrett-Anderson, M.D., London; Mr. Lennox Browne, London; Dr. H. J. Alford, Taunton; M.A., LL.D.; Dr. Mark Long, London; Dr. J. Cunningham, Campbe'town; Dr. James Donaldson, Glasgow; Mr. L. W. Spencer, Preston; Mr. R. W. Forsayeth, Fleetwood; Mr. Roger Parker, Liverpool; Mr. G. H. Gregory, London; Dr. W. Squire, London; Our Manchester Correspondent; Mr. William Murrell, London; Dr. D. T. Maunsell, Dublin; Mr. E. W. Manser, Tunbridge Wells; Dr. J. M. Edwards, London; Mr. G. W. Murdock, Shrewsbury; Dr. Grimshaw, Dublin; Dr. J. J. Charles, Belfast; Mr. F. G. Manby, Wolverhampton; Mr. T. P. Lucas, London; Mr. G. Elder, Nottingham; Mr. T. Highton, Derby; Mr. John Hard, Wolverhampton; Mr. W. Aston, Redditch; Mr. Heber D. Ellis, Poole; Dr. A. B. Steele, Liverpool; Dr. Blandford, London; Dr. A. Lawrence, Clifton; Dr. Wade, Birmingham; Mr. C. M'Lean, Ross; Dr. J. B. Nevins, Liverpool; Mr. S. J. Rennie, Liverpool; Mr. T. Worth, Nottingham; Mr. Stefan Poles, London; Our Dublin Correspondent; Mr. H. B. Harrison, London; Dr. Arthur Gamgee, Manchester; Mr. Poole, London; Dr. Balthazar Foster, Birmingham; Mr. Edmondson, Halifax; Mr. Watts Parkinson, Wimborne; Mr. John Price, Hawkhurst; Dr. Aveling, London; Mr. Buxton, London; Mr. Hancocke Wathen, Fishguard; Mr. G. Worthington, Stamford; Mr. A. L. Atthill, Dublin; Mr. W. Voles, Woolwich; Mr. J. Woodman, Exeter; Mr. J. Drew, Stirling; Dr. T. D. Nicholson, Bristol; etc.

# THE CROONIAN LECTURES
## ON ADDISON'S DISEASE.

*Delivered at the Royal College of Physicians, London.*

By E. HEADLAM GREENHOW, M.D., F.R.C.P., F.R.S.,
Physician to and Lecturer on Medicine at the Middlesex Hospital.

### LECTURE I.—*(Concluded.)*

BEFORE quitting the description of the constitutional symptoms and discoloration of the skin, I must advert to one remarkable feature common to them both, to which I directed attention in my clinical lectures on the subject in 1866. It has been noted also by several other observers in the reports of typical cases; but, owing no doubt to the shortness of the time that the majority of patients have remained under treatment, it has never hitherto been classed in its true place as one of the characteristic features of the disease. I mean its paroxysmal mode of progress. The asthenia, the constitutional symptoms generally, the change of colour in the skin, are all, it is true, progressive, but not steadily so. The course of the disease, on the whole, is slow and chronic; but it is subject to alternate exacerbations and remissions, usually dependent in some degree upon favourable and unfavourable circumstances, but sometimes also apparently independent of them. During the remissions, strength is in a great degree recovered, appetite is improved, sickness is abated, the discoloration pales; and, above all, the patient's whole aspect betokens that a heavy weight has been lifted from his head. After each fresh exacerbation, however, the patient remains upon a lower level than during the previous remission; the recovery of strength and the abatement of the other symptoms are less marked; the skin, though paler than during the last exacerbation, is visibly darker than before it. The alternations may occur several times before the onset of the fatal paroxysm; but, on each occasion, the patient takes one downward step that he never regains. In the case of two of my own patients, these alternations were well marked, though they died in one and two years respectively after they came under my care; and in the case of two others, who were under my care five and eight years respectively, the remissions in the symptoms and the paling of the discoloration were most striking. Dr. van den Corput relates, in the case of a woman aged thirty, who died under his care in St. John's Hospital at Brussels, that during four years she had three considerable periods of remission, and that the colour regu arly alternated with the symptoms. Dr. Severini records that a woman, who was under his care for some months in the Hospital at Bologna, had, before her death, several alternations of health; and that the discoloration of the skin was darker or lighter, according o her state. Drs. Löwe and Wolff have noted similar alternations in wo characteristic cases. Dr. Ringer also states, in the report of a case ent to me for exhibition to the Pathological Society in 1873, that with each slight improvement the discoloration of the skin grew less, but in ach relapse it became darker than before.

But although slow chronic progress, with alternate exacerbations and emissions, is the usual course of the disease, it is by no means the only ne. In many cases, especially in young subjects, the disease runs that may be termed a latent course; that is, the constitutional symptoms rst appear suddenly in a fully developed form, producing death in a ew days. This occurred in the case of Dr. Seth Thompson's patient, man aged 20, who, although the skin was becoming dusky for six weeks, had exhibited no symptoms of illness until two days before dmission into the hospital, and grew worse so rapidly that he died on he following day. The girl, E. W., who died under my care in 1865, another illustration of this occasionally latent course of the disease. he returned home after an absence of six weeks in the country, pparently quite well, though her parents said she seemed rather sunburnt. This dinginess of complexion never left her; but she remained ell for some months. Her father then regarded her as drooping for hree or four weeks, but she had no symptoms of illness. She tended school until two days before her admission to the hospital, when he presented all the constitutional symptoms of disease in so fully eveloped a form that I diagnosed the case at first sight, although the scoloration was scarcely observable. She had suddenly become sick nd cold; and, notwithstanding all possible restoratives, she died in week. Dr. Schotte relates almost a parallel case of a girl, aged 15. he had been doing heavy work in the country, and complained for bout four weeks of debility and powerlessness of limbs, and a tendency fall asleep. She was admitted into hospital with symptoms of the sease in an advanced stage, and died the same night. Without doubt, ese differences in the mode of onset and course of the disease are partly due to differences in the mode of progress of the suprarenal lesion. The suddenly fatal termination in the first paroxysm is, however, like the accession of successive paroxysms, partly due also to some depressing external influence. In the case of my little patient, this was apparently an aperient administered by the mother, and in Dr. Schotte's case, a dose of calomel and jalap given in the hospital.

One other peculiarity in the course of the disease must not be overlooked—the very variable date of the appearance of bronzing of the skin, as compared with that of the constitutional symptoms. In a large proportion of cases, as might be expected in a disease prevailing chiefly among a class of persons who become hospital patients, no notice has been taken of this point; and in a great many other cases it is reported that the appearance of the constitutional symptoms and of the discoloration of the skin were simultaneous, or nearly so. Sometimes the discoloration is mentioned as soon following the characteristic symptoms, and sometimes as slightly preceding them. But in a certain number of cases, chiefly among the few that have occurred in the middle and higher classes, or have been longer than usual under observation, the interval between the appearance of the constitutional symptoms and that of the bronzing of the skin has been more accurately recorded. In a typical case recorded by Dr. Addison and Dr. Wilks, the patient, a young lady, aged 18, was ill only four months; but the bronzing had existed a year. In a case of Mr. Jonathan Hutchinson's, the patient, a boy aged 11, felt ill only a few weeks; but the bronzing had been noticed for six months. (I omit for want of time other illustrations of the same point.) These were all typical cases of the disease, no lesion being found of the slightest importance except that of the suprarenal capsules. Again, in about an equal number of cases of the same class, the development of the constitutional symptoms is recorded as having preceded the discoloration of the skin by several months, and sometimes by even a longer period of time. In a typical case related by Mr. John Moore, the patient, a clerk, had been in failing health for two years with the characteristic symptoms of the disease; but the discoloration only became visible during the last six months. In a case of Dr. Spender's, the patient, a young woman aged 21, was ill for a year with fully developed typical symptoms; but the discoloration only began to make its appearance three months before death. Dr. Robertson relates the case of a labourer who suffered from the characteristic symptoms of the disease twenty-two months, never having had any previous illness, but in whom the bronzing of the skin only began on the face, arms, hands, and chest, a year before death. (I must omit some other striking examples.)

I now turn to the consideration of the pathological lesion which Dr. Addison's observation of the clinical phenomena he described led him to seek for as necessary to explain them, and which he only briefly mentions as a diseased condition of the suprarenal capsules. He evidently believed that any diseased condition of these organs might produce the same effects; for he recorded in his monograph, in connection with the spurious cases to which I have referred, other diseased conditions of the suprarenal capsules totally different from the particular diseased condition which he had found in his own cases. This particular condition is nevertheless well described, as regards its naked appearance, in the report on the *post mortem* examination of one of his most typical cases. Each suprarenal capsule, he records, was completely destroyed, and converted into a mass of strumous disease—the latter of all degrees of consistency. The left suprarenal capsule had formed at the upper part a close connection with the outer coat of the stomach. The upper part of this capsule seemed fluid, and of the colour of pus; the lower firm, and of the consistence of putty. The right capsule had all degrees of consistency from the bottom to the top; the lower part being almost fluid, resembling pus; the centre putty-like; and the top was quite earthy, separate angular pieces being easily detached. Dr. Addison, however, gives no description of the microscopical appearances in this case, nor in any other case except one which was submitted to Dr. Hodgkin for examination.

I shall now proceed to describe more fully the pathological changes in the suprarenal capsules, as I have observed them in careful *post mortem* examinations of the same typical cases from which I have drawn the clinical picture of the disease. The capsules are generally enlarged, hard, and nodulated, though in rare cases they are of normal or less than normal size. On section, they scarcely ever present any trace of the distinction between the cortex and the medulla, so obvious in the normal condition of the organs. In all the fresh specimens I have seen, the cut surfaces have presented a marbled appearance, from the mixture of two materials of different colour and consistency. One of these materials is a semitransparent tissue of firm consistence, and grey or greenish grey in colour, at least when fresh cut; but, on being exposed to the air, it assumes a pink hue. The other material is opaque yellow, or cream-coloured, and it assumes the form of irregular roundish masses embedded in the translucent tissue, from which they can often be easily enucleated. (This drawing shows better than any other that I have been able to procure, the appearance of a capsule freshly cut. The fact that I have stated, that on exposure to the air the greyish translucent tissue becomes pink, renders it difficult to obtain good drawings of the capsules when fresh. This is a copy of the original drawing that Dr. Addison had made for his book. I exhibit also another drawing, a very peculiar one, of a case in which the capsule has already begun to turn pink. There are two other drawings: one of a case in a very advanced stage, when the capsule is shrinking and the parts become hard; and another showing the same condition as that represented in a previous drawing.)

On close examination, intermediate gradations will often be seen between the translucent parts and the opaque cheesy nodules, and sometimes cretaceous granules, or small masses formed by the hardening of the cheesy matter, are felt to grate under the knife. (There are specimens here illustrating all these changes.) More rarely, the whole of the cheesy material dries up and hardens into calcareous masses, and it is in these rare cases that the capsules are smallest. Not unfrequently, on the other hand, the caseous matter softens down into collections of creamy fluid, called abscesses by some observers, and is found to occupy the larger or smaller cavities in the diseased capsules. In some cases, the whole central part of the organ constitutes one large cavity filled with creamy fluid, but more commonly there are, if any, several small cavities, the fluid in which is of the same character, but of various degrees of thickness.

It follows obviously from this description, that the proportions of the translucent and opaque materials, found in the diseased capsules, differ greatly in different cases. In some few cases, the translucent substance constitutes nearly the whole of the mass; in others, the yellow friable matter greatly predominates; whilst in others the normal tissue is almost entirely replaced by calcareous masses or creamy fluid. All these gradations, however, depend solely upon the duration and the more or less acute or chronic course of the disease. The morbid process is identical in them all—a fact which, as Dr. Wilks pointed out, gives a greater definiteness to the disease than Dr. Addison himself conceived it to possess.

On microscopical examination, the translucent substance is seen to consist of a fibrillated stroma containing numerous lymphoid corpuscles. In some cases, these corpuscles are arranged in rows between bundles of fibres; in others, they are contained in a delicate reticular stroma. The opaque cheesy material is formed of amorphous granular matter mixed in variable proportions with irregularly shaped shrunken cells, nuclei, and oil. Dr. Sidney Coupland found, on a microscopical examination of the capsules in my last case, some masses corresponding with giant-cells, which Schüppel considers distinctive of tubercle. The creamy looking fluid consists mainly of oily *débris*. It is evident from these microscopical appearances that the morbid process in the capsules consists primarily in their infiltration by an inflammatory exudations of low type, which first becomes converted into fibrous tissue destroying the normal structure of the organs, and finally undergoes caseous degeneration.

In every one of my own cases, and in many of those carefully examined and reported on by others, clear evidence of inflammation in the cellular envelopes of the capsules has been afforded by great proliferation of their connective tissue, and also by the existence of firm adhesions to the neighbouring organs, such as the diaphragm, liver, pancreas, vena cava, kidney or stomach. It is probable, therefore, that in many other cases these conditions have been overlooked or have remained unreported, their significance not being understood. Of course, such extensive overgrowth of connective tissue round the capsules cannot fail to invest the nerves of both the suprarenal and the solar plexuses with dense indurated tissue; and accordingly, when these nerves have been examined, their fibrous investment has been found to be hypertrophied. The first careful dissection of the nerves in the neighbourhood of the capsules in a case of Addison's disease was made by Dr. Habershon, who had published in the *Guy's Hospital Reports* in 1856 a very valuable paper on the abdominal sympathetic and its connections with the phrenic and pneumogastric nerves. The results of the dissection of the nerves in the case to which I refer, were published in 1864 in the same series of reports. He found the semilunar ganglia, and the branches of the nerves proceeding to the capsules, surrounded by an unusual quantity of dense fibrous tissue. In several of my own cases, the same condition has been found, though they have not been dissected out of the mass of hard tissue in which they were imbedded. My colleague Dr. Cayley, several years ago, at my request, carefully examined the suprarenal nerves in the body of a man who died of Addison's disease in the Middlesex Hospital, under Dr. Stewart's care. He found the nerves proceeding from the semilunar ganglia to the suprarenal capsules, and especially one branch of the great splanchnic, twice the size of the same nerves in a healthy subject dissected at the same time. A microscopical examination showed that the increased size was due to the increase of the fibrous investment of the nerve-bundles. Dr. Tuckwell of Oxford also made a complete dissection of the nerves in a case of Addison's disease, recorded by him in *St. Bartholomew's Hospital Reports* for 1873, in which case, as in two others that he had previously dissected, he found decided evidence of thickening, extending from the surface of the capsule to the suprarenal plexus, the semilunar ganglia, and thence up the great splanchnic nerve. The thickening of the nerves was found on examination to be caused by hypertrophy of their fibrous investment, and not by any apparent change in the nerve-fibres themselves. A similar condition of these nerve-plexuses in cases of Addison's disease has also been verified by several eminent foreign pathologists. Rindfleisch, in his report on the microscopical examination of the nerves in a case of Kuhlmann's, found two large nerve-trunks, the fibres of which were undergoing fatty degeneration, bound up in firm adhesions which attached the diseased capsules to neighbouring parts. Professor Tigri found the semilunar ganglia considerably enlarged, and the nerve-fibres forming the solar plexus thickened by hypertrophy of the neurilemma. Hertz also reports that he found the cœliac plexus, and particularly the semilunar ganglia, enclosed in hard connective tissue, with considerable thickening of the connective tissue sheaths of the nerve-fibres going off from the ganglia; and Wolff observed the nerves of the solar plexus and the semilunar ganglia enclosed in a thick envelope of connective tissue. Bartsch, Van Andel, and others have reported similar conditions of the nerves.

In almost every case I have seen, the dense connective tissue surrounding the capsules has contained some enlarged lymphatic glands, and the same circumstance has been frequently reported by others. The mesenteric and retroperitoneal glands in the neighbourhood of the capsules are also generally enlarged. On section, these enlarged glands sometimes present only the normal appearances, but more commonly they are firm, glistening, of a pale colour, and not unfrequently in process of caseation. Microscopic examination sometimes reveals no obvious change of structure; in other instances, the nerves have been hard and glistening. There is another morbid appearance which has been so frequently observed by myself and others in cases of Addison's disease, that I feel justified in ranking it among the characteristic, though not, perhaps, quite invariable lesions incident to the disease: I mean enlargement of the solitary glands of the small intestine, sometimes likewise of the large intestine. In many cases also the mucous membrane of the stomach, especially towards the pylorus, has presented a mammillated appearance, and the mucous surface has not unfrequently been covered with tenacious grey mucus. Small ecchymoses, and more rarely superficial abrasions or small ulcers, are also found on the mucous membrane of the stomach, and in a few instances on that of the large intestines Careful microscopic examination of the mucous membrane of the stomach in two different cases by Dr. Sidney Coupland and Mr. Schäfer have shown that the mammillations are caused by overgrowth of lymphoid tissue. Some of these mammillations presented small depressions in their centres, which were ascertained by Mr. Schäfer to be due to a breaking down and opening into the surface of the summits of the patches. Probably these depressions indicate the first stage of the small ulcers which have been reported by other observers as occurring in the gastric mucous membrane.

Lastly, I must not omit to mention one other morbid organic change too often recorded in cases of this disease to be passed over here, although I have had no personal experience of its presence. In a very considerable number of genuine cases, including cases reported by Dr. Addison and Dr. Habershon, the spleen has been found to be enlarged, sometimes greatly enlarged, and usually also dark coloured and soft. It is worthy of remark that in very few of these cases have the patients, so far as is known, suffered from intermittent fever. There has, however, been no enlargement of the spleen in any of the cases which have been under my own care. It is, therefore, quite certain that the disease may run its most typical course without presenting this lesion, and that consequently an enlarged spleen, though undoubtedly an occasional, is by no means an essential feature in the morbid anatomy of Addison's disease.

Having thus delineated, as I believe, the true clinical and pathological features of Addison's disease, I must, in conclusion, observe, to prevent misunderstanding, that it is only in a certain number even of the typical cases that the striking clinical phenomena which I have described are all fully developed. The progressive asthenia, muscular debility, feeble circulation, and low temperature, are invariably present; and in my experience neither loss of appetite, nor vomiting nor dyspnœa, nor faintness on exertion, has ever been absent in the later stages of the disease. But there is not perhaps one of the other peculiar symptoms which is invariably observed. Every physician is sufficiently aware that this is equally true with respect to every other organic disease. It is only in the comparatively small number of cases in which an organic disease runs a long uncomplicated chronic course, that we can look for the full development of all its peculiar symptoms. The absence of some of these, therefore, in complicated cases, or in cases of short duration, cannot be regarded in Addison's disease, more than in any other organic disease, as militating against the connection between such symptoms and the pathological conditions with which they are associated.

# THE GOULSTONIAN LECTURES
## ON PUERPERAL FEVER.

*Delivered at the Royal College of Physicians, London.*

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### LECTURE II.—*(Concluded.)*

THE interval between Gordon and Semmelweiss of half a century was occupied chiefly by those important investigations into morbid anatomy and pathology, both general and microscopical, which have contributed to the improvement of every department of our profession, and particularly to the practical knowledge of diagnosis and etiology. It is to this source that we must look for modifications in general opinion concerning some of the phenomena of puerperal fever; and it will be, I think, most convenient to defer our inquiry into the value of Semmelweiss's observations till we have reviewed the progress of pathological research. The real reason why there was such an universal movement in that direction about the end of last century may be easily traced to a few powerful minds, like the two Hunters and those nearly associated with them, who clearly perceived that the pathological study of the effects of disease promised more than the study of symptoms.

The result of this method, as far as it influenced the subject of puerperal fever, was the introduction of several new terms into our nosology which were intended to describe the pathological conditions of different organs, structures, and tissues. Thus originated puerperal peritonitis, phlebitis, metritis, and some others. These terms, as we know, did not include any explanation of the remote cause which induced the changes observed by the pathologist. They all more or less involved the assumption, that what is termed inflammation was their exciting cause, and the practical object of these terms was to connect local inflammatory processes with local and constitutional symptoms.

The subject of the pathology of puerperal fever is an extensive one, and I shall not attempt to treat it in the same manner as that of the etiology of the disease. There may be some excuse for doing this, as I feel more equal to deal with this part from personal experience and observation than with the other, which we have regarded as a matter of history. There is one point which would not be difficult to prove, if it were not self-apparent, and that is the fact, that neither morbid anatomy nor pathology assisted the theory of Gordon: I mean to say, that the idea of a specific poison would never have been evolved from such pathological work.

It was of very great value, however, in another way. Such theories as that which accounted for the swelling of the leg, or phlegmasia dolens, by supposed metastasis of lacteal secretion, very soon retired before the scalpel of the pathologist. The result of all this is, that we have some chance now of succeeding, after the separation of many pieces which would not fit together, in completing a puzzle of really no great complexity.

If it were asked why Gordon's theory did not find acceptance with pathological investigators (for we may observe that there were some of these who were distinguished for an extensive knowledge of the disease in all its forms, and had studied carefully all its symptoms), we must look for an answer in the supposition, that the pathological mind is of such a character as never to feel satisfied of the existence of anything without direct evidence, and then only when the method of demonstration employed is one with which it is familiar. The pathological mind is not a credulous one. It has a good deal of confidence in its own powers, and it likes to use its own visual organs. It would meet such a theory as Gordon's with an avowal of the greatest willingness to believe in the existence of a specific poison, provided only it could be shown the poison. To imagine that it could be contented with less is to do injustice to its common sense and acuteness. For such a mind to conceive of an atom is almost impossible; it appears to it practically useless to do so, and to range beyond the sharply defined cordon of the demonstrable is scientifically reprehensible.

Let us examine to what pathology led. The principal effect was a very excellent classification of morbid changes, which has been followed closely by continental authors, and is still preserved by systematic writers in all countries. When it was found that descriptions of particular forms of inflammation were true for the particular cases in which they occurred, but not for all forms of the fever, we can understand that general views would soon embrace the apparently unconnected series of various morbid appearances which have been recorded. It soon appeared quite possible for various structures in the abdomen to be severally or simultaneously affected, or even that there might be well marked, though very different, pathological alterations, and yet that the cases were correctly described as forms of puerperal fever. Thus a simple classification was adopted under the general term uterine or puerperal inflammation, which included: 1. Inflammation of the peritoneal covering of the uterus and the peritoneal sac; 2. Inflammation of the uterine appendages; viz., the ovaria, Fallopian tubes, and broad ligaments; 3. Inflammation and softening of the proper or muscular tissue of the uterus; 4. Inflammation and suppuration of the absorbents and veins of the uterus. Each separate structure was thus carefully examined, and its alterations recorded.

There is a great deal to admire in the very exact and truthful descriptions, which make the works of the pathologists, to whom we are indebted for these valuable aids to our knowledge of puerperal fever, so well deserving of our regard. Probably the very fact, that a rigid exclusion of etiological influences in connection with these pathological conditions was observed by the school of pathologists to which I have referred, may be the cause of their work being so valuable. That publication of Dr. Baillie's, which contained nothing but careful and elaborate engravings, with the simplest descriptions possible, was the type of scholarly composition and masterly anatomical and pathological skill. There can be no doubt that, since the productions of that period from which we have traced the commencement of our history, nothing has ever appeared to compare with those of our own country. There were no uncertainty as to facts, no hasty generalisation, and no attempts at artificial classification, amongst those that followed close upon Baillie's model. So carefully did they attach themselves to the firm rock of certain truth, and so sure were they of the ground on which they stood, that they would have wondered at many since their day who have been looking so long into the hazy atmosphere that surrounds those difficult regions of the origin of life and disease, as to have forgotten to move on whilst dreamingly attempting to define the misty outlines of forms of things beyond their power of perception or comprehension. Such is the feeling they would have experienced, combined with one of pity, if they had heard some of us say that the very foundations of pathology are uncertain; that we know not quite where we are, or what next we may see. This brings me back to an urgent claim for the careful preservation amongst us of our peculiarly national method of observation, which, while accurate in detail and cautious in expression, still considers the best proof of its value to be the benefit it confers by its practical application.

To return to our subject, we have to notice the important extension of the theory of inflammation to the explanation of the connection between that condition which was known as phlegmasia dolens, and certain morbid changes in the structures of the venous system of the uterus; that is to say, when the symptoms which had previously been referred to metastatic lacteal secretion or pressure upon the lymphatics, were found to depend upon obstruction to the venous circulation.

The term phlebitis assumes the possibility of the veins, as separate structures, being affected by inflammation. Various changes of their lining membrane, and the existence of pus within the vessels, were considered satisfactory evidence of inflammatory action; and then followed the theory of pyæmia or puerperal purulent infection, arising from suppurative phlebitis. We will not stop to discuss just now whether these views were altogether correct. There is no doubt that, as far as the facts were concerned, they led to very important results.

It was shown that phlebitis might occur, not only in the puerperal condition, but also as a consequence of suppressed menstruation; in cases, too, of malignant ulceration of the os and cervix of the uterus; in certain forms of tuberculous disease; also as a consequence of abortion, and after operations for fibrous and other tumours of the uterus. The theory of puerperal purulent infection was supported by the popular school of medicine in France, and was ably argued by the late Professor Trousseau. It never was very generally received amongst ourselves, for the reason that we did not find it in accordance with clinical experience.

I can recommend the analysis of Trousseau's lectures on this subject to those who are interested in the comparison between French and the English character of mind, as influencing the scientific study of the phenomena of disease. Trousseau entertained the idea that puerperal fever depended on purulent infection, and that such infection was always to be traced to a wound; or that suppurative phlebitis might follow a wound, and pus might thus be introduced into the system. He assumed, or rather, fell back upon, an old theory, which has often been employed to explain many circumstances connected with the puerperal condition. As far as it bears upon our subject, which, I may remind you, is the specifically poisonous origin of the fever, we can fairly allow it to be passed over, at least at present. The theory to which I allude is this: that a certain diathesis characterises the puerperal state.

We can easily understand how the theory of a particular diathesis was also employed to explain that condition of the veins which we term thrombosis, or rather, that state of the blood which was supposed to be the primary cause of its coagulation; and a further application of somewhat the same theory to tuberculous and cancerous cases, which assumed in the latter instance the more familiar title of cachexia, was conveniently used to explain the occurrence of the various pathological conditions, and the symptoms arising from them which were found to be common to these diseases as well as to the puerperal state.

The last edition of Trousseau's lectures was published some years after Semmelweiss's work, in which, as we shall see, it was clearly shown that cases of carcinoma of the uterus in the same ward with puerperal cases might produce that fever. This was undoubtedly, though a simple observation, one of considerable importance in bringing clinical evidence into consistent accordance with pathological facts. There is one remark of Trousseau's, however, which clearly shews that he was quite aware of the weakness of his argument in favour of diathetic influence. "The same conditions", he says, "exist in nearly every recently delivered woman, or in all cachectic persons", yet "phlegmasia dolens is not a necessary complication in either class of patients"; from which he concludes very candidly that "consequently there exists a special cause which is unknown". It happened about this time that the doctrines of the German pathologists were exciting a good deal of attention in their bearing on the theory of inflammation. Those important changes which are observed in the various forms of puerperal inflammation were subjected to the theory which Virchow expounded, of the origin of inflammation in certain alterations in connective tissue. It is not essential to our argument to consider whether that theory be correct or not; for it is, as far as we can judge at present, not of very great practical importance whether the process of inflammation commence with active changes in the cellular elements of connective tissue, or in the exudation of the corpuscular elements of circulating fluids. They both agree in allowing the existence of some primary cause for the tissue-changes; they only differ in respect to the earliest effects which that cause produces. It is now generally admitted that the connective tissue is that which is chiefly affected in puerperal inflammation in all its various forms; that is to say, in metritis, phlebitis, and others; and the term cellulitis is more commonly used than any other, at least by those who receive the recent doctrines on inflammation.

Clinical experience and pathological examination of this question lead me to concur entirely in these views. Instead of regarding a vein as a separate structure, and thus admitting the term phlebitis to be pathologically correct, it appears that we must refer the coagulation of the blood, which is the consequence of so-called phlebitis, to changes in the connective tissue which surrounds the vessels. On this point, therefore, we are obliged to differ from the pathologists whom Trousseau followed, as well as from those who consider that the tissue-changes are induced by coagulation of the blood or thrombosis, whatever that may depend upon.

There is not much difficulty in comprehending the process by which a vein becomes filled with coagulum in phlegmasia dolens, whether it occur in the puerperal state, or under any other circumstances. Perhaps the best instance from which we can inform ourselves of the relation which the process of coagulation bears to that of cellulitis, is one of those rapidly fatal cases of the disease in which the large vessels which unite to form the vena cava ascendens are filled with coagula. By removing the main trunks contained in the pelvis, together with the adjacent arteries, as high as the diaphragm, we can determine by dissection the exact points where the coagula terminate. If we then examine the condition of the cellular tissue surrounding the vessel under inspection, it will be found that the external changes are in advance of the coagulum, assuming that both processes are taking place in the direction of the venous circulation. As a matter of demonstration, we may insert a needle through the vein at the point where the inflammatory changes are seen to terminate; and, on comparing its position with that of the termination of the coagulum, we may measure the distance between them. This may amount to an inch or more; but, to a great extent, it appears to depend on the number of the lateral veins that enter the vessel between those two points. The orifices of the lateral veins are generally distinguished by a small projecting coagulum, which is much less firm than that of the principal coagulum. The space between the two points is not empty, but the blood which it contains is in the same condition as that which fills the vena cava itself, and generally distends the right cardiac chambers. It is satisfactory to find that this view of the pathology of phlebitis, using the word under correction, is admitted by the leading pathologists in Germany, and that they are inclined to adopt it in preference to the theory of thrombosis or primary coagulation.

We may dismiss this part of our subject with one or two brief remarks. It may be asked, How are we to explain the formation of pus in veins on the supposition that the connective tissue externally to them is primarily affected? We should reply to this: that there is evidence to prove that the different tissues of which the venous canals are composed participate very soon in the changes of the connective tissue; that the termination of the inflammatory process in any locality is the formation of pus, and that an abscess may form in such a position and in such a manner as to allow of a communication between the collection of pus and the venous canal. If, again, the question be put to us, Can the lining membrane of a vein secrete pus in the same way that the pleural membranes, the pericardium, or peritoneum are known to do? we can only answer that the epithelial surface of a vein may exhibit the ordinary changes which succeed one another in the stages of inflammation, and that in the final stage pus-corpuscles may be secreted, or rather developed, but only when the epithelial surface has been destroyed. The practical value of these pathological researches has been to afford us very valuable assistance, not in the elucidation of the etiology of puerperal fever, but in the explanation of several symptoms which were previously unaccountable, such as those resulting from embolism, coagulation of blood in the right side of the heart, the formation of secondary abscesses in various organs and tissues, and the constitutional disturbance which is produced by them.

I shall now request your attention to those contributions which were made in Germany to the etiology of puerperal fever by Semmelweiss. Quite independently of his relative personal merits as a scientific observer, we may simply confine ourselves at first to the evidence which he offers on the subject of the contagious nature of the fever. After perusing the first few pages of his work, we find that he presents himself to us as an independent witness. There is also the manner which favourably impresses us with the idea, that he would not assert anything which he could not prove; on the contrary, we feel that he rather tires us with details. He does not mix up conjecture or theory with fact, though he may indulge too much in arguments which are intended to prove certain conclusions almost self-evident. The method of investigation pursued by Semmelweiss was much the same as that followed by Gordon, and the proposition he supported was, like his, that puerperal fever is a disease (essentially) produced by the introduction of a septic poison into the system. Gordon, as we have seen, declined to express any opinion on what the poison might be; but Semmelweiss did not hesitate to state that it was generated in the foul organised substance which results from the decomposition of animal matter. The work does not contain any original contributions to the pathology of the disease, and in that respect, as an observer of pathological conditions, he appears to me to have been decidedly inferior to Gordon.

Semmelweiss argues his point somewhat in the following manner. "We see that the great lying-in institutions are singularly subject to occasional outbreaks of this disease, and the danger to puerperal women is very much greater in those institutions than in separate domiciles. In those hospitals where students are instructed, and are in the habit of coming to the wards, and to the examination of cases from the dissecting-room, the disease is more frequent and the mortality greater than when only midwives are admitted for instruction. To prove this, we have such and such a tabulated register of cases, which shows a mortality under one system of 10 per cent., as compared with 3½ in the other. In Vienna, before 1841, the mortality in the lying-in hospital was small, when compared with that of a few years later, when the hospital had been converted from its first intention to serve for the clinical instruction of students."

"To prove that the poison was generated in the process of decomposition, and might be conveyed by the hands of attendants, a case of cancer of the uterus in a pregnant woman was the cause of a dozen fatal cases in the same ward, and the probable means of conveyance of the poison were the sponges and other things employed by the nurses, or in the course of examination by the medical attendants. We had a case, too, of necrosis of a knee-joint, which was also the cause of some fatal cases. These were clearly established facts, and they point to the same conclusion." This is the nature of the argument, which is fairly well worked out. To show that the dissecting-room might be the source of danger, he makes the declaration:—"I myself was appointed for the second time to the clinical assistantship of the first *clinique*, and was in the habit of going into the wards after making explorations in the dead-room. The mortality in April and May was 18 per cent. and 12 per cent. respectively. During the four preceding months, I was only occasional assistant, and was not engaged in *post mortem* inquiries, nor was I obliged to examine the patients *seriatim* before the visits of the Professor. Look at the difference between the mortality in the two cases."

Then he goes on to show us from his tables that there is no connection between seasons of the year and the occurrence of the fever; so that it could not be said in any way to depend on epidemic conditions of atmosphere or temperature. There is a great deal more in the way of collateral evidence adduced by Semmelweiss, but the main line of argument he pursued is thus broadly indicated. It was essentially based on statistics fairly arranged, without taking advantage of such data, and without overstraining them.

He did not neglect an important test of his views by ascertaining the effect on living animals of the artificial introduction of healthy pus into the circulation, thus proving that the symptoms could not be referred to such a cause as simple purulent infection.

I have said that Semmelweiss's work consists chiefly of a collection of observations made by himself, without direct reference to the opinions of others. He does not omit, however, to mention the views of some few whom he was led to regard as the representatives of scientific thought, both in his own country and abroad. In this part of his work, however, it must be acknowledged that he gives proofs of possessing very limited knowledge indeed of the literature of his subject, and we cannot feel surprised that he finds but little difficulty in disposing of his opponents to his own satisfaction.

He brings his arguments together into a condensed conclusion at the end of his treatise in brief and forcible language. "I have shown", he says, "above that the excess of mortality in the first lying-in *clinique* in comparison with that in the second was occasioned by putrid matter, which was introduced by the hand of the examiner. I have shown that, in October 1847, the foul material of a foul cancer of the uterus produced puerperal fever. I have shown that, in November 1847, a decomposing material from a carious knee-joint produced puerperal fever; how the fever was connected with the visits of the surgeons in one hospital in particular, and how the mortality during six years was reduced to less than one per cent. when all connection with the surgical wards was broken off. It was the finger of the surgeon that carried the poison in the latter case; it was the atmosphere in the case of the knee-joint, and the air and the foul linen together in the *clinique* at Pesth, where the infection spread in spite of the washing with chlorine-water."

It may be mentioned that he had adopted the use of chlorine-water with signally good results, and derived from this fact increased support to his views of the septic origin of the disease. We will not venture to make any further comparison between the value of Semmelweiss's treatise and that of Gordon. As far as the merit of priority is concerned, though the observations and opinions of the one may have been quite independent of the other, we can certainly claim for Gordon precedence in date by a considerable period.

In their style of composition, in their arrangement of data, and their logical powers, it is more than probable that we should be inclined to claim for Gordon decided superiority over Semmelweiss. At the commencement of these lectures, I briefly alluded to the condition of mind which it is necessary for us to obtain in order to weigh fairly scientific evidence. It is easy to decide on the value of such evidence when we have tested it on the anvil of time. Observations and theories which have been conclusively analysed by that process naturally lose their interest. But, when we are studying the pages of history, it is the lives and characters of those who thought, and worked, and benefited us, that we feel an interest in contemplating, as well also as the lives and characters of those who did not think and did not work, and stood in the way to oppose the progress of scientific and practical knowledge. The history of this fever, if it contained nothing but facts, with the dates of their discovery, would not be a long one. The history of the erroneous ideas and statements which were advanced on the subject of its origin and nature would far surpass it in dimensions. It has been said by one who has displayed singular scientific acumen in philological research that, "for the discovery of truth, there is nothing so useful as the study of errors". It may be useful certainly to the individual who pretends to originality; but, for our purpose, I venture to think we have done well in confining our attention to the more limited object with which we started, of tracing the progress of truth through its various stages of development.

# CLINICAL LECTURE
## ON
## CLUB-FOOT AND ITS TREATMENT.

By GEORGE BUCHANAN, A.M., M.D.,
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There are few operations in surgery which the surgeon approaches with more satisfaction than those for the cure of natural deformities. Amputation of limbs, resection of joints, and excision of tumours, are necessary and important as a means of saving or prolonging life after other treatment has failed to remove or arrest disease; but these are evidences of the imperfection of our knowledge of the nature and origin of many affections, and, at all events of the inefficiency of our therapeutic applications. Let us hope that the advance of pathological and therapeutical knowledge will one day diminish the number of radical operations, which at present are necessary in the treatment of surgical diseases.

But we cannot expect that any extension of our researches will diminish the number of children born with congenital deformities. Into the popularly supposed causes of these defects, it is not our place to enter; it is sufficient that they are common enough to demand a careful consideration on our part. It is very probable that many of you who are destined to become general practitioners, may never be called on to perform operations for the cure of deformities, delegating those duties to those who are to take the position of operating surgeons; but some of you will, I have no doubt, have as your sphere some place where you must rely on your own resources for every medical service demanded by your patients; and all of you will have it in your power to advise and direct patients as to the proper course to be followed. This is a most important position, for it is in early years that most of these defects can be most readily remedied. Never was this more impressed on my mind than by the case now before you. Here is a young gentleman, eighteen years of age, who has been the victim of talipes varus since infancy. The deformity seemed so hopeless to the medical attendant, that he did not venture to suggest any treatment; and the various surgeons, who were from time to time consulted, dissuaded the parents from any operative interference. Six months ago, he came to me, and, though the deformity was extreme and all the structures implicated were rendered rigid by the length of time they had been in their unnatural position, I did not despair of being able to improve his state, at least in a material degree. The result has exceeded our most sanguine expectations, and the patient is here to walk across the theatre on the sole of his foot, a thing he never did in his life till a month ago.

The further illustration of this subject will be found in connection with the case I shall now introduce, and also another in the wards, which will be operated on a short time hence. Here is a boy, aged seven years, with a well-marked example of talipes varus, or inverted club-foot. Observe the particulars of the distortion. First, the heel is raised and twisted towards the opposite foot. Second, the inside of the foot is twisted round so that the sole of the foot looks upwards, and the boy walks on the dorsum of the tarsus turned down. The sole of the foot is also curled inwards, so that the ball of the great toe is much closer to the heel than it ought to be. The whole foot is so distorted, that the only kind of boot which the boy can wear for the protection of the skin is a sort of leather bag with a strong thick sole. Let us now consider the structures concerned in this deformity. Let me remind you, then, club-foot exists in four varieties—talipes equinus, talipes calcaneus, talipes valgus, and talipes varus. Each of these varieties may depend on atony of one set of muscles, or an undue contraction of the antagonistic set. Hence we have tonic and atonic talipes. Now it is important to recognise this difference, because, though in both you may, by mechanical or operative means, restore the normal shape of the foot, yet it is in the tonic variety alone that you can promise a really favourable result as regards the future power of walking. I am far from taking a hopeless view of cases depending on muscular atony, or paralysis as it is often called, for I have had under my care a great many children in whom by persevering mechanical, gymnastic, and operative treatment I had had every reason to be satisfied with the result. The whole subject of the proper treatment of muscular atony, whether the result of deformity or prolonged retention in one position, is well deserving of notice, and I shall call your attention to it in another lecture.

The case before us is one of the tonic variety, in which the distortion is produced, or at least kept up, by the contraction or rigidity of the muscles, tendons, ligaments, and fasciæ. With regard to the muscles, the first thing I wish to impress on you is the difference between *contraction* and *rigidity*, although these two terms are too often used indifferently. By contraction is meant the physiological action of a muscle, the vital movement produced in and by its particles. This, of course, cannot be continuous, but must be interrupted, varying with the stimulus applied to its molecules. But, by rigidity, we mean a permanent condition produced by the long retention of the muscle in one position. It loses its contractility to a great extent, and to a certain degree its elasticity, and assumes more of the nature of a tendon than a fleshy mass. Of course, there are various degrees of rigidity, but in extreme cases the above is a true description.

Examples of distortion maintained by muscular contractility are to be found in fractures and dislocations, where the abnormal position of the articulation or fragment of bone depends on the action of the muscles, to overcome which we have recourse to mechanical position, or the administration of chloroform, or both.

But in a club-foot the deformity is maintained more by mechanical rigidity than vital contractility. The muscles are shortened and stiffened in a very unyielding manner, and chloroform enables us to act on them only in so far as it abolishes pain and prevents the struggles of the patient.

There is no doubt that in persons with club-foot, who have been allowed to grow up and use the foot in walking, the bones of the tarsus become more or less altered in shape by mutual pressure, and the ligaments become shortened and stiffened; but primarily, and even in adult cases principally, the muscles are the offending structures.

In talipes varus the muscles concerned in the deformity are of two classes: those of the leg and those of the foot. The muscles of the leg which pass round the inner malleolus are more or less implicated, but it is only the tibialis posticus which is worthy of notice, and I believe that it is not nearly so important as many writers would seem to indicate. A muscle of its length, even when very rigid, can be stretched to a considerable degree, and if there are any cases of club-foot which can be "cured without cutting tendons", as some surgeons would have us believe, they must be very trifling examples of the deformity, and the defect must depend wholly on the long muscles of the leg, which is very rarely the case.

Turning now to the structures in the sole of the foot, we find several of these the principal, in many cases the only, cause of the distortion. The plantar fascia is always rigid and unyielding, and is stretched like a suspension-bridge across from the heel to the ball of the great toe. But I believe that there is something even more important than the fascia. My attention was first called to this matter by the unsatisfactory results of my earlier operations, in which my incisions were planned after the most reliable information I could find. I used to divide the tendo Achillis, the tibialis posticus, and the plantar fascia, all by subcutaneous incision; but, in many cases, I found either that the incurvation of the foot did not yield, or it recurred with a rapidity which showed that something more was wanted.

Reflect for a few minutes on the anatomy of the foot. Composed of a number of separated bones, articulated in such a way as to give that lightness and elasticity of step which is one of the prerogatives of man, there is one special joint on which centres its principal movement. I mean the ball and socket articulation, between the head of the astragalus and the cup of the scaphoid. The muscles of the sole are composed of two sets; one the superficial, which acts from the os calcis on the distal part of the foot; the other, all the deeper layers, which arising in front of the os calcis and astragalus, control the more minute movements, which are of such service to those who walk barefoot. The articulations in front of the astragalo scaphoid and the muscles which act on them are little, if at all concerned in club-foot, the inversion and incurvation being situated in the joint referred to, and produced by the muscles which act on it.

The tibialis posticus is inserted into the tuberosity of the scaphoid bone, part of the tendon being sent forward to the bones anterior to it; but the important point for the surgeon is its attachment to the scaphoid bone. When it is in a state of undue contraction or rigidity, pulls the scaphoid round upon the head of the astragalus, and so twists the foot inwards, as you may see from the dissected specimen I here show you.

But in this other dried specimen of the bones of a case of varus, you will see that there is something more. The ball of the great toe is approximated to the os calcis to a degree that could not be accounted for by the action of a muscle attached to the scaphoid bone.

Now, I bring back the boy who was here a short time ago, and point out to you on the inner side of the foot a thick, strong, rigid band, binding the great toe towards the heel; and, on stretching the toe, it becomes as tense as a tight-rope. The superficial part of this band, no doubt, consists of fascia, but the thick mass is the rigid and unyielding substance of the abductor pollicis muscle. You will remember, that the relation of the plantar fascia to the muscles of the foot is peculiar. They adhere to its deep surface, and their origin is greatly extended by this adhesion of their fibres to it. On the outer edge of the foot, and to the middle of the sole, the fascia is adherent to the muscular layer as far forward as the ends of the metatarsal bones, so that there is comparatively little muscular movement in that region; and it will be remembered that the outer part of the foot, both owing to this disposition of its muscle, and the small number of articulations, is designed to be a lever of station, while the spring of the foot depends on the elasticity of the inner arch of the instep. The abductor pollicis is covered by a comparatively thin layer of fascia, but, just at the place where it lies against the flexor brevis digitorum, the fascia is thick and there is a firm dense septum between the two muscles which adheres to both. This septum is well known to anatomical students, as its dissection to expose the deeper structures of the foot is a piece of manipulation requiring much care and time. If a case of talipes varus be critically examined, it will be found that the rigid band retaining the great toe in its incurved state, corresponds precisely with the situation of the septum I have alluded to, and the fascia covering the adjacent sides of the abductor pollicis and the flexor brevis digitorum. I again show you, in this boy's foot, the prominent unyielding band in the very region I have just indicated.

Now, I believe it is the close adhesion between the muscles I have named and the inner part of the plantar fascia which renders it so difficult for the surgeon to restore the proper shape of the foot, even after a partial division of the plantar fascia. No sooner is the section made than the muscular action tends to approximate the cut edges of the fascia, and, notwithstanding every effort, causes their union in a few days. It was this result in my earlier operations, demanding fresh incision, that made me dissatisfied with the operation as I then carried it out, and made me adopt the plan I now follow.

Let us now consider the various steps of the operation required for such a case as we have just seen; and I may here state that I do them all at the same time, and not in successive stages, as is often done; except in cases where the first incision in the sole is not sufficient, as is not unfrequently the case in adults.

The first part of the operation is the division of the tendo Achillis, which may be done either by introducing the tenotomy-knife in front of it and cutting outwards to the skin, or, as I always do, passing the knife superficial to it while it is in a state of relaxation, and cutting down upon it while extended till it snaps asunder. There are very few cases of talipes varus in which this is not necessary as a preliminary. Many surgeons do this part of the operation some weeks before attempting the rest; but I have seen no reason to depart from the plan of doing all the cutting part at the same time.

The second part of the operation, where it is necessary, is the division of the tibialis posticus. This I believe to be very seldom required. I am convinced of this, that if those surgeons who are in the habit of cutting it above the malleolus internus as the second part of the operation would delay it till the following proceeding is adopted, they would find very few cases in which it would be necessary. I explain this by the fact that it is really not often affected so much as is supposed; and also that, being a long muscle, it may be stretched in the subsequent manipulations. I never cut it above the malleolus, but I have seen it done by others; and I can confidently state that, in at least some in which the operator had satisfied himself that the division was effected, there was no release to the foot, from its distorted state—in fact, it remained bound in its abnormal shape by the tissues next to be dealt with. If I were quite satisfied that it was very tight in an adult with talipes, I should divide, as I have mentioned, above the malleolus; but, in children, I prefer to make the incision just proximal to its insertion into the scaphoid bone, through the same opening as is necessary for the next part of the operative proceedings.

The third stage is the division of those structures which maintain the incurvation of the astragalo-scaphoid joint, to which I have already referred, and which pull the ball of the great toe towards the heel. To effect this, the tenotomy-knife is to be entered at the inner edge of the foot just behind the tuberosity of the scaphoid bone. It is to be kept flat and pushed under the skin till it reaches to the middle of the sole; then it is to be turned with its edge to the plantar fascia, which is to be divided by a sawing movement of the knife, the parts being kept in extreme tension by an assistant. When the knife has passed through this part of the fascia, the point is to be dipped down so as to divide as far as possible the septum of fascia described before, and then the whole of the muscular substance down to the tuberosity of the scaphoid is to be cut through; and, before removing the knife from the aperture of entrance, the point may again be depressed, and the tendon of the tibialis posticus divided.

This may seem a somewhat heroic incision, but its effects on the distortion are most satisfactory; and I may state that I have never experienced any bad results from it, though I am in the habit of operating in this way many times annually. I believe that sometimes the internal plantar nerve and artery may be cut; but the artery in a child is a mere trifle, and never gives rise to hæmorrhage after the application of a bandage, and, as for the nerve, we know how rapidly repair of divided nerves occurs. At all events, experience shows that such incisions may be made subcutaneously with impunity, and with results which warrant their performance. When the muscular substance of the abductor pollicis is divided, the tendency of the plantar fascia to come together is obviated, at least, till the muscle reunites; and if means are taken to prevent that for a time, the cure of the deformity is rapid.

When the incisions are completed, a pad of lint is to be placed on each of the apertures of entrance of the knife and a bandage applied round the foot and ankle. I then usually put on the club-foot spring-boot for an hour or two. But the operative part, although very important, is by no means the only part of the treatment. For days, weeks, and months, the most patient and persevering manipulations must be carried on. I do not approve of keeping the foot in a rigid apparatus, and gradually screwing it round to the proper shape if that could be done. For at least a week or ten days, the apparatus is to be put on first for an hour or two morning and evening, adding an hour daily, till at last it is only removed for an hour morning and evening in order to undergo the necessary manipulations. These for the first week or two must be performed by the surgeon or his assistant, or by a skilled nurse; as no parent will undertake them at the outset. They are the *douche*, frictions, shampooing, and, above all, the systematic twisting of the foot towards its natural position. This is the most important part of the treatment, for during it the muscles are brought into play to a certain extent; and, if the child be old enough, or sufficiently intelligent, you will find that it will use its antagonistic muscles to assist you to turn out the foot, in order to avoid the pain produced by the twisting, which is always increased at first by the involuntary, though vain, endeavour to struggle against you. So important is this assistance, that I am in the habit of offering small rewards to the child to bribe him to turn out his foot without assistance. It not only helps you to overcome the deformity, but it adds tone to the peronei muscles, and is of singular value when you allow the child to begin to walk, which at first must always be done while the boot is worn.

Such being the chief points of importance to guide you in the management of such a case, I shall now again bring in the boy and make the incisions I described. The subsequent treatment will be done in the ward for a few days by myself, and then he will be committed to the charge of three dressers, who will on alternate days perform the manipulation described at the end of the lecture.

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## NOTE ON LIGATURE OF THE LINGUAL ARTERY IN CASES OF CANCROID DISEASE OF THE TONGUE.

### WITH CASES IN THE PRACTICE OF M. DEMARQUAY, SURGEON TO THE MAISON DE SANTÉ, PARIS.

[Communicated by M. E. SCHWARZ, Interne of the Paris Hospitals.]

LIGATURE of the lingual arteries has been employed in many cases of cancroid of the tongue, with three distinct objects:

1. To stop hæmorrhage in cases of cancroid, in which it is very common;
2. To prevent hæmorrhage in operations on the tongue;
3. To ward off the spread of the tumour to other parts, and to cause it to atrophy.

In the first and second cases, in consequence of the very slight anastomoses between the arteries on the two sides of the tongue, ligature of the lingual artery has afforded excellent results; and all surgeons have been well satisfied with it in cases for which it has been indicated. But opinions differ when the third case is in question.

The honour of having been the first to perform ligature of a vessel, in order to produce atrophy of a tumour which it nourishes, is due to Harvey; and it is on the basis of the same physiological principles that Mirault d'Angers, Moore, Liston, etc., and M. Demarquay, have performed ligature of the lingual arteries to produce atrophy of cancroids of the tongue. In 1868, M. Demarquay, Surgeon of the Maison de Santé, published a memoir in the *Archives Générales de Médecine*, in which he summarised all that had been done in the matter, at the same time giving precise directions for tying the artery with case; and praising ligature, not as a curative, but as a palliative means. He gives reports of twelve cases of ligature of the lingual arteries, of which eight were made with the object of producing atrophy of the artery.

In 1869, M. Broca tied the common carotid artery in order to produce atrophy of a cancroid affecting one side of the tongue. Mauvoisin has added to these cases another in which M. Broca performed ligature of the external carotid; and, in concluding his thesis, he recommends ligature of the lingual artery as a last resource. To these cases now remain to be added three more instances of ligature of the lingual artery performed by M. Demarquay. These cases give the opportunity of examining: 1. What are the indications for this operation? 2. When must one or both of the lingual arteries be tied? 3. What are the immediate and the consecutive results of the operation?

1. *What are the indications for ligature?* A clear indication for ligature is when repeated hæmorrhages occur, which quickly exhaust the patient if they be not arrested. In a certain number of cases, infection of the lymphatic glands is a second indication. It is, indeed, clear that, if the ulceration or a cancerous growth on the tongue be limited in extent and capable of being completely removed, no infection of the submaxillary glands being present, ablation will be preferable; but if, on the contrary, the patient have, together with ulceration or circumscribed growths, a cancerous glandular lump indicating a tendency to invasion, the operation, if performed, should not only extend to the tongue, but also to the glands. This is generally difficult, and is likely to be incomplete when the cervical glands are implicated. As a matter of course, the ligature of the lingual artery will itself be rendered less easy by the presence of glands; but, upon the whole, it will be less dangerous than the preceding operation; and, besides, recourse can then be had to the ligature of the large trunks of origin, as has been done.

Great extent of the lesion is a third indication for ligature. When it is impossible to reach directly the limits of the evil with the *écraseur* or galvanic cautery, ligature, by retarding its progress, will certainly prolong the life of the patient, or will arrest certain accidents.

A fourth indication is drawn from the size of the tumour, and from the symptoms of asphyxia and dysphagia which it then produces. It is specially in these cases that ligature of the lingual artery has often produced remarkable results. Additional indications may be derived from the cachectic or anæmic condition of the patient, very advanced age, or the harmlessness of the operation in itself. Such is a general view of the circumstances in which ligature of the lingual artery should by choice be performed.

2. *Should one or both arteries be tied?* In the cases quoted in M. Demarquay's memoir in the *Archives de Médecine* for 1868, he tied the two lingual arteries—a practice which has usually been followed. The sufficiently clear demonstration of the division of the circulatory system of the tongue into two parts, right and left, will afford a basis for judging of the opportuneness of single or double ligature, according to the situation of the points invaded by the epitheliomatous degeneration. If one of the edges or sides of the tongue be attacked (which often occurs), ligature of the corresponding lingual artery will suffice. If, on the contrary, the tumour or the ulceration be median, or, whilst invading one whole side, trespass also on the other, the two arteries must be tied, and that in two different operations.

The results obtained by simple or bilateral ligature are as follows. This operation affects the local condition of the lesion and the general condition of the patient through the medium of the very varied functions in which the tongue has a share. The following facts have been observed almost immediately after the ligature of one or both arteries, according to the existing conditions.

There is generally, at the end of twenty-four hours, a notable subsidence of the tumour, a diminution of the ichorous and fœtid secretion of the ulcer, and a distinct softening of the tumour. These results are almost immediate. The functional results are no less remarkable, and even more marked. Speech becomes freer, mastication and deglutition easier; the patient can again keep up his strength by taking food, and his appetite is improved. If dyspnœa had previously been present, respiration becomes almost normal. These more or less immediate results are remarkable. The relief afforded to the patient is most often very remarkable; the more so, as the operation is almost always completely inoffensive, and gives only a little pain when the base of the tongue is moved during deglutition.

The consecutive results are as follows. Ligature of one or both linguals is evidently only performed with the object of palliating the evil, and, considering the circumstances in which it is indicated, it is impossible to pretend that it will arrest the progress of the disease or even make it retrograde. Thus, after a longer or shorter lapse of time which has not yet been defined by the majority of writers, the affection continues and resumes its progress; the more so, that the glandular infection has not been in the least arrested, and the patient is carried off either by an intercurrent complication, or by the gradual invasion of the tumour, or by the recurrence of symptoms which were only temporarily suspended by ligature.

Before concluding, I will state the results of three new cases of ligature of one lingual artery, with the object of arresting the progress of lingual cancroids.

The first case was that of a man aged 68, who came into M. Demarquay's wards on October 20th, 1874, suffering from a cancer of the tongue, which had attacked all the left half of the organ, but did not pass the median line. There was a deep fœtid and sanious ulcer, bleeding easily; the patient swallowed with difficulty; his speech was much impeded in consequence of the almost complete immobility of the tongue. The submaxillary glands were lumpy. On November 6th, the lingual artery was tied outside the hyoglossus muscle, and the lump of submaxillary glands was removed during the operation. On November 7th, a notable depression of the lingual tumour of the left side was noted. There was less ichorous secretion; speech was more easy, and the dysphagia was diminished; the tongue was not so hard. On November 12th, the ligature came away; from the 12th to the 24th, the patient had a slight increase of disorder. There were redness and hyperæsthesia of the whole of the buccal mucous membrane. All of these symptoms disappeared by degrees. On December 27th, the patient's general condition was more satisfactory; his appetite was good; he swallowed easily, spoke in a comprehensible manner, and the secretions from the part had but little smell. The ulceration had scarcely increased at all. The pains of which the patient complained before the operation had not disappeared.

The second case was that of an old man aged 69. He came in on November 19th, 1874, suffering from a cancroid of the tongue, for which he had undergone an operation. The first time on the 22nd of last May. The right anterior fourth of the tongue was removed; but he had a recurrence of the disease at the end of about five months. On November 13th, he was attacked by violent buccal hæmorrhage, which weakened him much; it only lasted eight minutes, but the quantity of blood lost was very considerable. For about a month he had felt very severe pains in the whole of the right half of the head, of a neuralgic character, returning in paroxsyms. The anterior fourth of the tongue had been removed, the cicatrix was healthy, but the floor of the mouth and the base of the organ at the same side were invaded by a deep ulceration, covered with foul detritus. Its edges were indurated. The submaxillary glands and a submental one were enlarged. Salivation was very profuse, and gave much annoyance to the patient, who spoke with difficulty, and could scarcely swallow anything but liquids. He was ordered a gargle of permanganate of potash, with sulphate of quinine internally. On November 24th, M. Demarquay proposed ligature of the right lingual artery, and succeeded in tying the vessel, notwithstanding the size of the patient's neck and the submaxillary glands. The same evening, a notable reduction of the tumour was observed on the side where the artery had been tied. Salivation was less abundant; the patient felt very well, and had only a little difficulty in swallowing, in consequence of the movements of the subhyoidean region where the ligature (outside the hyoglossus) was applied. On November 28th and the following days, there was no accident. Speech became more easy; the ulcer became cleaner, and even seemed to diminish. On November 30th, the patient had an attack of gout. On December 3rd, the ligature came away. On December 20th, the patient was much better than when he came into the hospital, and went out. The ulcer was clean, the tongue was less indurated; speech and deglutition were easy; there was no more tendency to hæmorrhage; and the general condition was good.

The third case was that of a man aged 62, suffering from a cancroid of the tongue, which invaded both sides of the organ, implicating the base. There were enlarged submaxillary glands on both sides; deglutition and speech were impeded; and there was copious salivation. On December 3rd, ligature of the lingual artery of the right side was performed, and a great reduction of the tumour on that side was noted. The salivary secretion was diminished. There were no accidents on the following days, and less difficulty in speaking and swallowing, though considerable pain was felt during the first thirty-six hours. M. Demarquay wished to perform ligature of the lingual artery on the other side; but the patient left the ward, finding himself sufficiently relieved.

In conclusion, the results obtained in these three cases of unilateral ligature are very satisfactory. Without at all pretending to bring forward this operation as one to be often employed in cases of epithelioma of the tongue, we still think that it is likely to render essential service to patients in the conditions pointed out, and that this treatment should be extended to a greater number of cases than it has hitherto been.

# A CASE OF MEDIASTINAL CANCEROUS TUMOUR, LEADING TO OCCLUSION OF THE RIGHT BRONCHUS, AND CONSEQUENT COLLAPSE OF THE RIGHT LUNG, AND CARDIAC DISPLACEMENT.

By I. BURNEY YEO, M.B., M.R.C.P.,
Senior Assistant-Physician in King's College Hospital, and Assistant-Physician to the Brompton Hospital.

S. A., aged 53, a picture-colourer, first came under my observation as an out-patient at the Brompton Hospital on November 11th, 1874. I was at once struck by his appearance. The dusky pallor of his countenance, his emaciation, his breathlessness, which was not of a noisy sort, but what might be called a silent dyspnœa, gave warning of the presence of serious disease. He immediately seated himself in a chair, and appeared reluctant to move, as the smallest attempt at exertion increased his difficulty of breathing. It was also a trouble to him to talk, and it was with some difficulty, therefore, that I obtained from him the following history.

His father was a healthy man, and lived to be 75; but his mother and a sister had died of phthisis, and he had also lost another sister from cancer of the uterus. With the exception of attacks of winter-cough, he had always had good health until about six months ago. He had always been temperate. About twenty years ago, he contracted a chancre, which was followed by an eruption.

His present illness dated from last April. He then had what he was told was an attack of bronchitis. He recovered from this to a certain extent; but, in the beginning of June, he thought he "caught cold again". He had shiverings, and felt pain and "pressure" in the right side. Three days after the shiverings, he took to his bed, and remained there for two months, suffering from difficulty of breathing and cough, with only slight expectoration. He was then told that he was suffering from pleurisy, and that there was fluid in the right pleural cavity. In August, he was better; he was told that the fluid had been absorbed. He got up and went about.

Towards the end of October, he found himself becoming worse again. He suffered much from dyspnœa on the least exertion, and he had a troublesome hard cough. He had been losing flesh for six months. He at this time presented the appearance of a pale emaciated man; pale, as I have said, with a dusky and livid pallor; complaining of great general weakness and distressing dyspnœa on the least exertion. He had a slight cough, with a little muco-purulent expectoration. His pulse was small, compressible, and very rapid—140 to 160 in the minute. Respirations, 32. On stripping him and examining his chest, the first thing that struck me was a remarkable displacement of the heart, which was easily seen and felt beating entirely on the right side of the chest. There was diffused cardiac impulse occupying the right mammary region, and extending downwards to the right side of the ensiform cartilage. But over the whole normal cardiac area on the left side there was clear pulmonary resonance. On inspiration, it was observed that the left side of the chest expanded much more than the right. Over the whole of the right side of the chest, there was dulness on percussion, both anteriorly and posteriorly. The left side, on the other hand, was superresonant in front and behind, this resonance extending beyond the middle line in front and nearly reaching the right margin of the sternum. There was very little diffused inspiratory movement even on the left side of the chest, and it was clear that the left lung was greatly distended and emphysematous. On auscultation, there was no natural respiratory sound to be heard on the right side; a moderately loud rhonchus was occasionally audible at the right base, and a distant, faint, blowing sound with the expiration over the right scapular region. Later on, an indistinct crepitant *râle* was heard in the right supraspinous fossa.

There was very little vocal fremitus either in front or behind on this side, but it was not entirely absent. A rhonchus was also heard at the base of the left lung.

The patient complained of no pain or tenderness anywhere. There was no noisy breathing; no stridor; the voice-sounds, though somewhat feeble, were quite natural. There were no distension of the superficial veins, no œdema, no marked pressure-signs of any kind. On his first application as an out-patient, he declined to be taken into the hospital, as he had, he said, some work to do at home. He attended again on November 21st, when I was unable to be at the hospital, and, therefore, did not see him. But, on December 5th, he came, for the third time, as an out-patient; and, as he found he was losing strength rapidly, and that his symptoms had been in no degree relieved, he was induced to accept my offer to make him an in-patient in King's College Hospital; and, on December 10th, he was admitted into that institution under my care. On his admission, and as long as he was in the hospital, the physical signs were, and remained, precisely as I have given them above.

After a few days' rest in bed, his symptoms were greatly relieved. His dyspnœa was scarcely observable; his appetite was good; he slept well, and was cheerful, and, save when occasional slight attacks of cough and expectoration brought on an access of dyspnœa, he presented few subjective symptoms of any distinct import.

After, however, he had been in the hospital about ten days, the cold weather, which had been for a long time severe, became intense; this seemed to depress him physically; he became somewhat confused and incoherent in his manner, and, on the 23rd, somewhat unexpectedly, he died from exhaustion, after only thirteen days in hospital. There was no aggravation whatever of the chest-symptoms; but he had not vital energy enough to resist the continued depressing influences of protracted cold. A case of thoracic aneurism in the very next bed to this patient died a few days afterwards in precisely the same manner, not directly from the effects of the aneurism, but from exhaustion induced, to a great extent, by the depressing influence of cold.

We did not feel quite sure what we should find on *post mortem* examination. In its general aspect, the case resembled one of malignant tumour within the thorax; but, save the dyspnœa, there were none of those pressure-signs which generally accompany such disease; and, with rest in bed, the dyspnœa disappeared. He had no pain, no orthopnœa, no anxiety. He ate and drank and slept well. There was very little cough; indeed, there was an almost entire absence of subjective symptoms. We had a history of a previous attack or attacks of pleurisy, and we were assured that there had been an effusion into the right pleura, and subsequent absorption of the fluid. There was clearly considerable contraction of the right lung, sufficient to cause the heart to be displaced from the left to the right side of the chest; there was also considerable compensatory expansion of the left lung. But there was no noticeable retraction of the left side. I have seen the heart displaced in this way, drawn over to the right side, from the contraction of a large cavity in the upper part of the right lung; but, in such a case, there is also usually very marked flattening or depression of the chest-wall opposite the seat of the cavity; or the heart may be pushed over to the right by a large effusion of fluid into the left pleura, and may contract adhesions to the right chest-wall, and so be permanently fixed there. But this was certainly not the case in the instance before us; for the left side was clearly occupied by a greatly distended and very emphysematous lung.

In the next place, the question arose, Could the symptoms and physical signs observed in this case be satisfactorily accounted for by supposing that there had been an effusion of fluid into the right pleural cavity; that this had been slowly absorbed; and that the lung, having been prevented from expanding by bands of lymph, and the chest-walls prevented by rigidity from retracting, the left lung had slowly dilated, and pushed the heart over to the right side? The dyspnœa on exertion, which was the chief subjective symptom, would thus be accounted for by the contraction and compression of the right lung, the highly emphysematous distension of the left lung, and the cardiac displacement. The absence of all pain and tenderness, of all pressure-signs, such as dilated veins, stridor, dysphagia, aphonia, etc., and the disappearance of the dyspnœa with rest in bed—all these circumstances, together with the stationary condition of the physical signs, tended to obscure the nature of the case, although they in no way diminished its clinical interest. On the other hand, the evident cachexia, the emaciation, the peculiar dingy pallor of the countenance, pointed to the probable existence of malignant disease within the chest.

*Post mortem* examination revealed the existence of a tumour about the size of a large orange, situated in the posterior and middle mediastinum, pushing down the base of the heart. It was of a whitish colour, and cut with a moderately firm section. It enclosed in its substance many black bronchial glands. A small process of this tumour had grown into the right bronchus, so as to almost completely occlude it. In the apex of the right lung, there were three or four rounded masses, the largest of the size of a filbert, moderately firm, and whitish in colour, and resembling in appearance the larger tumour. The right lung was firmly adherent to the chest-wall throughout, and the pleuritic adhesions were so strong, that the lung could only be removed by lacerating its substance. The lung-substance was crepitant at the apex, but the middle and lower lobes were firm and indurated from complete collapse. The left lung was markedly emphysematous. The heart was found to lie horizontally, the base turned quite to the right side, and on a level with the apex.

On microscopical examination, the tumour presented the characters of medullary cancer; the fibrous tissue was more abundant than usual, but the cells were well marked, and contained, for the most part, several large nuclei and sometimes nucleoli.

## NASOPHARYNGEAL POLYPUS: HYPERTROPHY OF THE MUCOUS MEMBRANE: TRACHEOTOMY: REMOVAL OF SUPERIOR MAXILLARY BONE: DEATH.

By ARTHUR S. UNDERHILL, M.B.

A BOY, aged 14, was brought to my surgery in the early part of last month, suffering from difficulty of swallowing and great difficulty of breathing, particularly when in the recumbent position. He had had occasional attacks of hæmorrhage from the nose. The disease commenced eight months ago with an inability to blow down the right nostril. He had gradually grown thinner; the hæmorrhage, which was sometimes very considerable, had greatly debilitated him; in fact, so weak was he that he was unable to walk any distance, or even to stand for any length of time. On examination, the soft palate on the right side was seen to be bulging considerably forwards and downwards, so as entirely to preclude the view of the pharynx; the bulging was tense, with no fluctuation. On attempting to pass the finger down the pharynx and to hook it over the soft palate, a number of small oyster-like bodies were felt entirely occluding the posterior nares and much contracting the cavity of the pharynx; they seemed to be sessile and closely packed together; no pain was felt after the manipulation, but there was very considerable hæmorrhage. In consultation with my father, I decided to perform tracheotomy as a first step, as the patient's condition was not such as to warrant a very severe operation, and it was imperative that his breathing should be relieved. The night before the operation, so great was the dyspnœa that his attendants had to constantly change his position and shake him, as they were afraid that his breathing would entirely cease.

After tracheotomy, the relief was immense. He slept well, and became very lively; but the polypi increased rapidly in size, so much so, that it became a matter of difficulty to swallow even liquids. I accordingly, as a *dernier ressort*, excised the right superior maxillary bone fifteen days after the first operation. This I accomplished with less hæmorrhage than I anticipated. The bones, being young and soft, separated readily, thus enabling the operation to be rapidly performed. We found the mucous membrane to be everywhere very considerably thickened, and a number of small polypi varying in size from a pea to a moderately sized oyster studding everywhere the mucous membrane as far down as the finger could reach. Some of these were torn away with the finger-nail; and others lower down were removed with the *écraseur*. The operation was necessarily a bloody one, and the actual cautery was necessary. The boy temporarily rallied, but gradually sank seven hours after the operation.

I wish to suggest that, in future major operations about the mouth and air-passages, tracheotomy should be performed as a first step. In this case, I was compelled to do it. Tracheotomy (at all events, before adolescence) is an easy and comparatively safe operation; and chloroform can so safely and so effectually be administered through the trachea-tube without hampering the operator or his assistants, and the patient has a free opening to breathe through, not being choked, as they usually are, by the blood which necessarily trickles down the air-passages, and when coughed up sputters over the operator. Having a tube in the trachea also allows a sponge to be placed at the back of the pharynx, and so prevents any blood from entering the œsophagus or trachea. I should recommend that a tube be used without a fenestrum, so that, if it fit the trachea well, no blood can possibly enter the trachea through it.

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MATERNAL IMPRESSIONS.—*A propos* of recent papers in the JOURNAL on the subject of maternal impressions, the following may be interesting. In a *Discourse delivered at Montpellier*, and published in London in the year 1698, Sir Kenelm Digby refers to the dread of a drawn sword which was manifested by James the First, and attributes it to the fright received by Mary in consequence of the murder of Rizzio in her presence when she was pregnant. Sir Kenelm was knighted by James; on that occasion, he says, the King could not look upon his sword, and adds, "he had almost thrust the point into my eye had not the Duke of Buckingham guided his hand aright".

GEORGE F. ELLIOTT, M.D.

# SURGICAL MEMORANDA.

## TREATMENT OF ABSCESS IN THE KNEE-JOINT BY SUBCUTANEOUS PNEUMATIC ASPIRATION.

As the pneumatic aspirator is not yet in general use among medical men, the following brief note of a case, in which its use resulted in complete success, may prove interesting and instructive.

Mrs. S., aged 26, sent for me on January 26th. She informed me that, a month previously, she had fallen down during the frost, and struck her left knee against the kerbstone. Since then, she had suffered intense pain in the joint, which had gradually increased; for several nights she had had no sleep; four days back, she had a rigor; her temperature at noon was 99.2 deg.; pulse, 80; tongue a little coated. On examining her knee, I found that it was greatly swollen, exquisitely tender to the touch, and she could not bear the least movement. There was distinct fluctuation, and I had no doubt that fluid was in the cavity of the joint. As she had not slept for several nights, I ordered her twenty-five grains of chloral at bedtime; but the pain was so intense, that it gave her no sleep. I asked my partner Dr. Gibbings to see the lady with me; and, he agreeing with my view of the case, I determined to try pneumatic aspiration. The lady would not hear of this being done without chloroform; and, as she was in very great pain, and we were anxious to further examine the joint, Dr. Gibbings administered the anæsthetic, and I passed the second largest of Messrs. Weiss and Son's needles into the joint, when about two ounces of thick pus, mixed with blood and broken-down-looking tissue, passed into the exhausted reservoir. The patient quickly recovered from the chloroform, and said the joint felt much easier. I put her on a back splint, and gave a grain of opium at bedtime. She slept well, and the next morning was quite free from pain. I kept on the splint for a fortnight, and then began careful passive motion. She is now well, and has gone to the country. The knee feels weak, and is a little stiff, but this inconvenience is gradually passing away.

Frederick H. Daly, M.D., Dalston.

## CASE OF SPINA BIFIDA TREATED BY INJECTION OF SOLUTION OF IODINE: DEATH.

On September 16th, I was asked to see a child, born the day before, and said to be "not right". On examining the child, it appeared to be a feeble, not well nourished infant. It had a large fluctuating tumour over the last dorsal and two upper lumbar vertebræ. The legs and feet were much deformed, there being *talipes varus* of both feet, whilst both legs and feet were rotated ninety degrees outwards, principally through unrestrained action of the sartorius. Both legs, and especially the right, were flexed on to the belly, by unrestrained action of the rectus. There was paralysis of the levatores ani, so that the natural fold of the buttocks was wanting, and the anus appeared as a slight protuberance on a tolerably smoothly rounded surface. There appeared to be paralysis of all the muscles of the backs of the legs and thighs, and tickling the soles of the feet gave rise to no movements. Fæces appeared to be constantly escaping from the rectum, as the surface of the tumour gave signs of irritation from friction; and, as there were no likelihoods of the child becoming stronger, I decided not to postpone the operation of injecting the solution of iodine in the manner successfully followed out by Dr. Morton. On the 18th, in company with my friend Mr. W. H. Moore of this town, I drew off three drachms of clear fluid, and, taking great care that the needle should not cross the middle line lest it should come into contact with the spinal cord, I then injected half a drachm of Morton's solution. Neither part of the operation seemed to give much pain. The child cried a little just as the fluid was being injected, but stopped as soon as the needle was removed; and, after laying on a pad of carded cotton, kept *in situ* by means of strips of soap plaster, it was put to the breast and sucked well. I ordered fifteen drops of brandy every three hours. On the 19th, I was told that the child had not been well, that it had sucked once only during the night. The tumour had partly refilled. The eyes were fixedly and convulsively drawn down, the arms were rigidly extended forwards, and the hands clenched; whilst the child started convulsively on the slightest noise or movement. I ordered two grains of bromide of potassium and four minims of tincture of hyoscyamus in water every four hours. On the 20th, the child had not sucked since I saw it last, and was in severe convulsions. I had it turned on to its belly to look at the tumour, which was in about the same state as on the preceding day, and when it was turned back it had ceased to breathe.

It will be observed, that this was an unfavourable case for operation, as paralysis was so general; however, no better result could be looked for by letting it alone, and as the operation had been so successful, it appeared to be the only means of doing it any good. No *post mortem* examination was made. I have thought it my duty to report the case, as the subject of the treatment of this complaint by injection of iodine is now under discussion, and the method has up to this time met with uninterrupted success.

J. E. Burton, L.R.C.P.Lond., Assistant Honorary Medical Officer to the Liverpool Ladies' Charity, and Lying-in Hospital.

# OBSTETRIC MEMORANDA.

## VAGINISMUS.

Spasm and pain of the sphincter muscle of the vagina, on the application of a stimulus, was first described by Dr. Burns of Glasgow. He regarded it as due to a hyperæsthesia of the pudic nerve, and he often divided this nerve for its relief. In this treatment the late Sir James Simpson concurred, for he believed that "the best treatment for such cases is division of the affected nerve". But in the manner of dividing it, the two operators differed. This treatment was, at best, only palliative; for even after section of the offending nerve, the pain returned in some other part of its course, and the spasm continued. Courty treated this affection by forcible stretching with the finger and thumb, under chloroform. In this he was followed by Dr. Tilt. Scanzoni opposes the use of the knife, and "has always succeeded in bringing relief by first subduing all inflammatory complications, and next by effecting gradual dilatation by means of graduated glass specula, worn for short intervals at a time". Dr. Barnes has cured many cases by methods similar to those of Scanzoni, but he has "met with cases where the knife or scissors gave not only the quickest and most efficient relief, but also at the least cost of pain and other distress".

In the year 1857, Dr. Marion Sims had under observation, for the first time in his practice, a typical example of the disease, which he fully and graphically described. In two or three years after this, other cases of vaginismus came under his observation and treatment, and he devised an operation which happily is a certain and abiding cure for the malady. The following particulars of a case of vaginismus, which recently came under my notice, is, I think, a good example of the value of Dr. Marion Sims' mode of cure. Mrs. B., aged 25, residing a few miles from Gloucester, a fine, strong, healthy, young woman, consulted her medical man for some uterine discomfort. After digital examination, he told her that pregnancy existed, and intimated that her labour would be one of considerable difficulty, and would require both chloroform and instruments. Discrediting altogether his opinion that she was pregnant, she at once determined to come to Derby, her native place. She fell under my care. On July 14th, 1872, I examined, and found her almost at the full time of pregnancy. I found also that there existed vaginismus to a most severe degree. My examination gave her great torture, and it was with much difficulty that the index-finger of the right hand could be introduced into the vagina. On assuring my patient that she was with child, and would be delivered in not many days from that time, she was still sceptical, and pertinently asked how such a thing could be possible, since marital intercourse had never been consummated. This, I knew after my examination, and the difficulty I encountered, could not be otherwise; nevertheless, in five days thereafter, I delivered her with forceps of a full grown healthy child. It was after a rapid and excellent recovery from her confinement that I suggested to my patient the importance of having her ailment cured; and I described to her the nature of the operation and the subsequent treatment. She at once consented to undergo the operation; and accordingly, on November 5th, in conjunction with three medical friends, having placed my patient in the position for lithotomy, and fully under the influence of chloroform, I introduced a Sims' speculum into the vagina, and removed with a scalpel a strip of the width of from three quarters of an inch to an inch. The speculum, during the advance of the knife, was made to revolve round the vagina. Thus, at the moment of laying bare the fourchette, the speculum had advanced as far as the arch of the os pubis, and, when the knife had followed it to that position, the speculum had arrived again at the fourchette, from which part it was throwing a flood of light upon the knife. Thus an entire ring of mucous membrane was removed from the vagina, an operation which was greatly facilitated by the above-mentioned management of the speculum. The next point of the operation was section of the sphincter vaginæ. The scalpel was introduced fully two inches into the cavity of the vagina, at a point about one inch on the right of the mesial line, as one sits facing the pelvis. It was carried along, making in its course a deep incision, and brought out at the fourchette. A corresponding incision was then made on the opposite side of the mesial line, and brought out at the same point as the first; a junction having been effected between the two incisions about an inch above their termination. The two incisions, thus united, had the T-shaped character recommended by Dr. Marion Sims. The after-treatment consisted of the insertion and retention, during several hours a day, of a metallic speculum. This was inserted not long after the operation, and had a desirable effect in controlling the hæmorrhage. This patient made an excellent recovery from the operation. Twelve months ago, I delivered her of her second child at full term, and she is now two months gone with her third. I have reason to believe that conjugal relations exist without any inconvenience. F. W. Wright, Derby.

# REPORTS
OF
# MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

## WEST RIDING ASYLUM.

### OBSTRUCTION OF THE BOWEL BY A BILIARY CALCULUS.

(Under the care of Dr. Crichton Browne.)

Maria J., aged 67, widow, a housewife from Leeds, was admitted for the second time on August 19th, 1870. She was then labouring under an attack of mild maniacal excitement, and after that period continued to suffer from similar paroxysms at very irregular intervals. Her bodily health, however, remained unimpaired, and she was indeed unusually robust and vigorous for her years, until November 1874, when, at the close of one of her ebullitions of excitement, she was prostrated by dysentery. This illness, which was sharp in character, yielded readily to treatment, but left her rather weak. She regained strength, however, and was quite herself again, when, on December 9th, she complained of sickness, with pain in the right side, in the region of the liver. Her pulse and temperature were normal, but her tongue was very dirty; and, as it was ascertained that her bowels had not acted for two days, and not even after the administration of castor-oil, a mixture of rhubarb with soda and ammonia was prescribed. On the following day, the pain in the side had entirely disappeared, but the sickness continued to be very distressing, and vomiting followed each meal. The countenance had an anxious expression, and a little shivering was from time to time experienced. The patient was placed in bed, and a gruel enema was ordered, with a diet of milk and lime-water. The enema failed to secure any evacuation of the bowels, and towards evening the vomited matter was noticed to be mixed with bile, and to have a peculiarly offensive odour. On December 11th, her features were pinched and haggard, her pulse was quick and weak, and the ejection from the stomach had become distinctly stercoraceous in character. On physical examination, it was found that there was no abdominal distension, and that pain on pressure, although present, was by no means severe. The pain was felt over a wide area, but was most distinct in the region of the descending colon, where there was some dulness on percussion, but where no tumour could be discovered. A rectal examination failed to reveal any abnormality, so enemata were again tried without relief. At 10 P.M., the vomiting continued at short intervals, and the patient was very weak nd distressed. Large injections, administered by a tube passed as far s the sigmoid flexure by kneading, were given in various postures, but o beneficial result followed them. A hypodermic injection of morphia vas, therefore, resorted to. On December 13th, no great change was bserved in the patient's state. The abdominal tenderness had not ncreased, and the vomiting was rather less urgent. The pulse was veak and the tongue dry, and coated with a yellow fur. There was o discharge of any kind from the rectum. It was agreed that the paient should be kept under the influence of morphia, and that iced hampagne and small quantities of concentrated nutriment should be rom time to time administered, while warm fomentations were applied the abdomen. On December 13th, the patient was weaker, but ore composed; and on the 14th, at 2 A.M., she died rather suddenly om exhaustion after another attack of retching.

The *post mortem* examination was performed sixty-seven hours after eath. It was found that the body was exceedingly well nourished, d was free from bruises or injuries. The brain presented a few traces chronic degeneration, while the heart was somewhat hypertrophied, d the lungs were congested and œdematous, as well as emphymatous, at their anterior margins. In the abdomen, the liver was en to be healthy; but around the gall-bladder, the walls of which re enormously thickened, there were discovered some greenish purut fluid and some discoloration of the hepatic substance. On further exploration, it was ascertained that the fundus of the gall-bladder was adherent to the duodenum, and that a ragged opening formed a communication between the biliary receptacle and the first division of the bowel. There was no evidence of peritonitis; and the cause of the intestinal obstruction was found in the jejunum, at a distance of six feet from its commencement, where a large biliary calculus was lodged. The stone, which weighed 231½ grains, and measured an inch and a half in diameter, both longitudinally and transversely, was somewhat barrel-shaped, and presented on its upper end a smooth facet, where it had been in contact with another calculus of smaller size, which remained in the neck of the gall-bladder. It was of a dark olive brown colour, and of considerable hardness. It was not fixedly impacted in the bowel, and by forcible pressure with the finger and thumb it could be pushed onwards for a little way; but it entirely occluded the canal, so that not even water could pass it. Behind the calculus, for a distance of two feet, the mucous membrane of the jejunum was greatly thickened and swollen, and of a dark red colour, from vascular engorgement.

## ABERDEEN ROYAL INFIRMARY.

### CASE OF SUBPLEURAL INFLAMMATION AND ABSCESS (THORACIC CELLULITIS), COMBINED WITH PERICARDITIS.

By J. W. F. Smith Shand, M.D., Physician to the Infirmary.

W. R., aged 62, a twine-spinner, was admitted into St. Nicholas Ward on May 12th, 1868, complaining of cough and weakness, with fever. He stated, that he had always enjoyed good health till two days previously, when his present illness began. One of his daughters said that a medical man had pronounced him to be labouring under diabetes, but that it had never affected his general health.

*Present Condition.*—The patient was seen in the ward immediately after admission, and after undergoing the fatigue of ascending the stairs. He seemed to be in a state of great exhaustion; there were lividity of the face and hands, and a cold clammy sweat over all his body.

On May 13th, he was found in bed in a semi-elevated position on account of the difficulty of his breathing. His body was bathed in perspiration. His pulse was very feeble, and above 100. In his weak state, a minute examination was not considered justifiable, but a hasty examination detected the following signs. The percussion-note was clear over both fronts of the chest, except at the upper and inner border of the right mammary region, where there was slight dulness. The percussion-note was dull over the two lower thirds of the right back. Bronchial breathing was heard over both sides of the chest, in front and behind, with occasional snoring and sibilant rhonchi. The heart-sounds were feeble; but nothing otherwise abnormal was noticed. The urine was scanty, high-coloured, of specific gravity 1028, containing neither albumen nor sugar. The bowels were regular. The sputum was scanty, slightly mucopurulent; it had never been bloody, or of an unusual colour. He was ordered a mixture containing aromatic spirit of ammonia, spirit of nitrous ether, and compound tincture of cardamoms, with peppermint water; also to have beef juice, and wine and brandy.

May 17th. The patient's condition had not varied much since admission, except that, for the last two nights, there had been delirium. The tongue was dry, with slight brown fur. The face was still livid, with a haggard expression. He has had the mixture repeated several times, as he said that it relieved the breathing. May 20th. The pulse was very feeble, but he said that he felt better. The tongue was moist and cleaning. He slept better at night, and the delirium was gone. May 25th. He was very weak. May 26th. He died early this morning.

*Necropsy.*—(Reported by Dr. Beveridge). The body was emaciated. On opening the chest, a small collection of thick pus appeared along the lower part of the right margin of the sternum, in the loose tissue of the anterior mediastinum. The left pleura was minutely injected in patches; a few flakes and bands of soft recent lymph connected the two layers—the cavity contained a quantity of serum mixed with lymph. Both lungs were somewhat gorged and œdematous. The right pleura was finely injected throughout the greater part of its extent, but with no lymph on the surface, and no serum in its cavity. Under the pleura, in the subserous cellular layer, were numerous masses of soft recently effused lymph, forming flocculent masses, beginning partially to break down into pus, and placed chiefly on the diaphragm and ribs; the largest being situated behind, stretching from the third to the ninth rib. The pericardium was much thickened; it was much and finely injected, especially the visceral layer, which was of a deep crimson colour; the whole was covered by a very thick layer of soft lymph, much reticulated. The cavity contained ten ounces of a yellowish fluid—serum mixed with lymph and pus. The heart was enlarged. The mitral orifice was contracted. The aorta was large, rough in the anterior, with spicula of calcareous deposit. The abdominal viscera were healthy.

# REVIEWS AND NOTICES.

De l'Alcoolisme; des Diverses Formes du Délire Alcoolique et de leur Traitement. Par V. Magnan, M.D., Médcin de Sainte-Anne. [Ouvrage couronné par l'Académie de Médecine: Prix Civrieux, concours de 1872.] Pp. 282. Paris, 1874.

On Alcoholism; on the Different Forms of Alcoholic Delirium. By V. Magnan, M.D., Physician to the Sainte-Anne Asylum. [The work to which the Academy of Medicine adjudged the Civrieux Prize of 1872.]

In medical and surgical practice, in the ordinary illnesses of ordinary times, in epidemic diseases, in hospitals suddenly crowded with the mutilations of battle-fields, in every diversity of sphere wherein the science and art of healing are exercised—the maximum of success attends the practitioner who skilfully combines with, and often subordinates to, the treatment of the malady or mutilation, the treatment of the patient. Pneumonia, typhoid fever, or a compound fracture, demands essentially different management in persons of ordinarily sound constitution, and in persons whose economy is dominated by some morbid condition, such as tuberculosis, syphilis, or alcoholism. From a wide-extending clinical range, therefore, the able and very original work of Dr. Magnan claims attention. It will well repay careful study; for it bears upon it the stamp of the disciplined clinical observer and of the judicious experimental physiologist.

In the first chapter, Dr. Magnan determines the comparative action of alcohol and wormwood, and assigns to each its part in producing alcoholism. He shows that alcohol produces drunkenness; a state which begins with excitement, and may proceed through the stages of stupidity, paralysis, and anæsthesia, till it culminates in coma.

On the other hand, he shows that wormwood produces phenomena of a different kind, viz., muscular twitching, giddiness, epileptic seizures, hallucinations, and delirium. These distinctive characters of alcohol and wormwood having been established, we are presented with an account of physiological and pathological researches, which may be described as an experimental elucidation of the continuous and progressive action of alcohol upon the animal economy, both in respect of the physical and intellectual disturbances which it causes, and the anatomical lesions which it produces. Dr. Magnan's experimental study of alcoholism throws an important practical light upon clinical phenomena. It enables us better to appreciate the real significance of such symptoms as tremblings and convulsive attacks, by pointing out their natural progress; and likewise furnishes us with useful indications of treatment.

The liqueur sold at the cafés and tippling-shops of Paris, and generally in continental towns, under the name of *absinthe*, is a complex compound, but the two active agents which it contains are alcohol and wormwood (*absinthe*). To the latter poison it owes its characteristic deleterious consequences. The following case, especially when studied in connection with other cases in Dr. Magnan's volume, and in connection with the histories therein given of various experiments on the lower animals, is clinically most interesting and instructive. The case was originally published by M. Motet in 1850, in his *Considérations Générales sur l'Alcoolisme, et plus particulièrement des Effets Toxiques produits sur l'Homme par la liqueur d'Absinthe.*

"M. S. (Jean Baptiste), a man, aged 34, of ordinary height and usually of good health, had been employed for three months in sculpturing the external ornaments of the Louvre Palace. He was tidy, sober, and industrious, till a fortnight before the date at which he yielded to the solicitations of his comrades to desert his work for the tippling-house. He soon got to drink ten or twelve tumblers of *absinthe* in a day, supplementing it with brandy and white wine. Some days prior to the outbreak of his delirium, he was still drinking, but without being able to get drunk; he was in a beastly stupid state. In the night of 29th-30th May, he suddenly jumped out of bed, fancying that he saw police-constables coming to arrest him. After protesting his innocence, he sat down, and did not speak another word till it was daylight. In the morning, he became calmer, went out, drank *absinthe*, and came home in the evening in a state of complete stupefaction. With assistance he went to bed; but, scarcely had he lain down, than he was beset with frightful visions. He could not close his eyes for one instant; he got up and walked about the room, and he regarded the persons taking care of him as his enemies. In consequence of his state occasioning alarm, he was placed in an asylum on the 31st May, 1857.

"From a knowledge of the patient's antecedents, I at first thought that he was suffering from delirium tremens. On examining the patient, I was surprised to find that he had neither restlessness nor trembling of the hands and lips. I found him seated, motionless, haggard, and anxious in face. He had more the appearance of a person under the influence of melancholia than of alcoholism. There was a something markedly peculiar in his expression, which retained all its vivacity: he moved his head with remarkable quickness from side to side, to observe all that was going on. He had not the concentration of melancholy combined with a stupid expression, nor the fixed unchanging look characteristic of melancholy. The pulse was 90, and full. The tongue was foul. The pupils were not much dilated. He answered questions, but with great indecision. He did not know exactly, he said, whether he was himself or not; 'his name was Sul, and he did not understand why people called him Monsieur Jean. He was not M. Jean—he had not killed any one': he asked, 'why he was insulted?' He heard sounds, and was always turning his head in the direction of the strange sounds. He walked with tolerable confidence, though his legs were rather feeble.

"He passed a sleepless night; he did not cry out; he spoke in a low voice; he saw flames encompassing his bed, and grimacing faces emerging from the walls. He fancied that he was being pursued by police-constables. He had no visions of horrible beasts.

"On the 1st June, all he had was a bottle of Seidlitz water, two basins of soup, and two *litres* of vegetable lemonade. He had copious evacuations. During the day and night, his condition remained the same. Next morning, he was put into a bath, where he remained for five hours, during which time, at intervals of half an hour, cold water was poured over his head. I saw the patient in his bath; he then seemed less agitated. This change for the better was only apparent. Two hours after the bath, the same morbid fancies existed as before he entered it. He had doubts of his identity, and affirmed that he had not committed any crime. When asked regarding his business, he gave the required information with great precision but with much brevity, on account of his mind being distracted by imaginary accusing voices. He manifested no restless excitement, uttered no cries, and did not exhibit any spasmodic movements. For two days similar prolonged baths were continued; and, on the following day, he was again purged by Seidlitz water. Next night was much more calm; he slept two hours without awaking in a start.

"On the 9th of June, I found him walking in the garden. He was still somewhat disturbed in his mind, and asked me what would become of him if he could not see his father. He listened to me with more sustained attention than on previous occasions. He possessed a half consciousness of his state; in a vague way he felt that all was not right, but he did not know what was taking place around him. He had again a prolonged bath with the cold affusions. He dined in the evening with more appetite. During the night, he had five hours of tranquil sleep. On the 10th, I found him better. He still had depressing mental delusions; but he made inquiries regarding his family. His recollections were hazy, and he was not aware how long he had been in the establishment. I told him that he had had an illness resulting from alcoholic excesses. He admitted that he had been leading an irregular life, and that there had been a change for the worse in his habits. He still continued to be afraid of being arrested and put in prison. From the 10th to the 15th, the appetite and digestion became more and more natural, and the delirious fancies at the same time continuously decreased till he was considered cured. He left the asylum on the 25th June, quite re-established in health."

As Dr. Magnan remarks, the value of this case is enhanced by the subject having been of sober and regular habits till he took to *absinthe*-tippling a short time before his attack. In this respect, the clinical case partakes much of the nature of an experiment. In the man, the hallucinations and delirium did not manifest themselves for some days; whereas, in the dogs on which Dr. Magnan experimented, the dose of the poison was larger, the drug was the pure essence of wormwood, and not the liqueur which, in virtue of its alcohol, retards without preventing the action of the wormwood poison.

The second chapter is clinical. In it the author classifies the patients who are the subjects of alcoholic delirium, basing the classification upon the degree of poisoning, and the predisposition of the individual. This division supplies valuable rules of practice, particularly with respect to the necessity for and duration of confinement in an asylum. This chapter also contains clinical illustrations of the action of *absinthe*.

In the third chapter, we have an exposition of the symptoms and diagnostic signs of febrile delirium tremens. This is an important question, and one which has proved embarrassing to many. The difficulty has been to establish a well marked difference between the formidable affection, febrile delirium tremens, and the comparatively mild affection, simple delirium tremens. On this subject there has hitherto been a want of agreement; and the conclusions deduced from statistics are flagrantly at variance as to the natural progress of the disease, its termination, and its modifications by treatment. This is not remarkable when we consider that the disease is so essentially polymorphic as often to lose the marks of its identity. When it coexists with other formidable diseases, as it often does, it may easily escape recognition, and so lead to errors in treatment. In febrile delirium tremens, "the fever", says Dr. Magnan, "is an essential element of the disease, and has an existence of its own. In the other form of delirium tremens, the fever has many sources, originating, as the case may be, in pneumonia, erysipelas, pericarditis, or traumatism, resulting from injuries or therapeutic appliances. According to the cause, so does the fever comport itself: in the one class of cases the fever follows the normal cycle; in the other, its progress varies with the progress of the intercurrent affection."

The indications of treatment in febrile delirium tremens are, according to the author: 1. To protect the patient from himself, and to prevent him from injuring others; 2. To favour the elimination of the poison; and, 3. To sustain and improve the strength of the patient. In treating the first indication, Dr. Magnan expresses himself strongly against the too great use of the strait waistcoat in France, which, he shows, is often the cause of serious pulmonary congestion. Touching the use of hydrate of chloral, the following sentences deserve attention.

"Let me add a word, a few words, regarding hydrate of chloral, the efficacy of which, in delirium tremens, has been so much lauded by some physicians as to be represented by them as almost the specific medicine for the disease. Unquestionably, chloral has its place in the treatment of mental diseases: it affords a very ameliorative repose in mania, and in melancholia accompanied by restlessness and insomnia; but it is only necessary to recollect the physiological properties of the medicine to reject its use in the acute forms of a kind of poisoning which itself exceedingly compromises the circulatory and respiratory functions. Moreover, on perusing the history of cases said to have been cured by hydrate of chloral, one very soon sees that they were not cases of febrile delirium tremens, but of simple alcoholic delirium."

The fourth chapter, which treats of chronic alcoholism, is highly original, and of great practical value. The author not only gives in his adhesion to the opinions of some former writers to the effect that the two terminations of chronic alcoholism are general paralysis and dementia, but he also extricates this subject from doubt and controversy. By a record of well observed cases and of most careful researches in pathological anatomy, he demonstrates the wherefore of the tendency to these terminations. In this chapter, also, we have a description of the hemianæsthetic form of chronic alcoholism which is accompanied by muscular debility, loss of general sensibility, and loss of special sensibility. This is to a great extent a new question, and is full of the highest interest in relation to the pathological physiology of the brain.

The fifth chapter is excellent, though it does not contain information of an original character. It is devoted to the consideration of those cases in which alcoholism is combined with different forms of mental disease. We would particularly call attention to important remarks in this chapter on the relation which alcoholism bears to dipsomania and general paralysis.

In commending this volume to our readers, we would particularly remark that it is rich in clinical information and therapeutic suggestions, suited to the emergencies which frequently arise in the practice of any general physician when he has to treat acute diseases and severe injuries in persons addicted to excessive alcoholic potations. The experiments on animals, as well as the observations made on living patients, and the examination of the bodies of those who have died, are all given in clear language and satisfying detail. The rules of practice may, as a whole, be said to rest on a secure foundation of facts.

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A Lucid Description.—A hundred and fifty years ago, opium was highly prized as it is at present, but its action was so little understood that a noted author said of it, "when it is given in too great a quantity it so thickens and glues the humours in the brains, by its viscous parts, that the spirits which come forward to succour, not being able to dissolve this viscosity, are forced to stop and congeal likewise, by little and little, until at last they lose all their motion, whence it comes to pass that many do die upon the taking of opium".

# SELECTIONS FROM JOURNALS.

## SURGERY.

Compression in Hydrarthrosis of the Knee.—Dr. Maurice Langier (*France Médicale*, and *Irish Hospital Gazette*) directs attention to the success which has attended the treatment of this affection by the plan of compression adopted by M. F. Goyrand. Instead of applying the force directly to the whole knee, which is irksome and painful, he places the limb upon a splint, which only leaves the anterior part of the joint uncovered. Sheets of wadding are applied to the knee, and form a thick bed for it. The limb is then fixed by a bandage, which includes in it the splint. By this means, the compression is borne upon the anterior part of the knee, the posterior and lateral portions being protected by the splint. M. Langier selects two cases from many in which the result was satisfactory, a cure being effected in one instance in ten, and in the other twenty-three days.

Loss of an Arm from Dermato-Cellulitis.—Dr. P. F. Eve (*American Medical Weekly*) reports a rare case, having the following points of interest. A healthy man, aged 67, was thrown, some nine years ago, from a mule, upon a rocky surface, striking the right forearm in the fall. For several weeks after the accident, he was unable to go about his farm. The inflammation then excited continued until 1873. At that time, there were several fistulæ on the anterior and posterior surface of the limb. The use of the right arm and hand was lost; there was neither flexion nor extension, pronation nor supination, nor could the hand or fingers be closed. The whole limb was rigid, incompressible and useless. A thick grumous matter, limited in quantity and inodorous, escaped from the sinuses. No diseased bone could be detected by the probe. The affection was due exclusively to the connective areolar tissue, the inflammation extending through the whole thickness of the subcutaneous connection. After every device had been tried in vain, the limb was amputated at the middle third of the arm. An examination of the separated limb showed that none of the articulations were specially affected, and that the bones were healthy. The entire soft parts were agglutinated, cellular tissue being removed by the disease, so as to allow no motion of the parts.

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# BRITISH MEDICAL JOURNAL.

### SATURDAY, MARCH 13TH, 1875.

## VERY HIGH TEMPERATURES.

The extraordinary case of high temperature recorded by Mr. Teale of Scarborough, of which a notice appeared in last week's British Medical Journal, cannot but excite the attention of the whole medical profession; and, inasmuch as it tends to overturn all our notions regarding the effects of high temperature on the body, it must necessarily excite much criticism. When we have before us a large number of facts experimentally ascertained by numerous and careful observers and by various means of inquiry, all of which show that certain effects invariably follow a certain cause, we naturally hesitate before accepting any single observation which is in direct contradiction to all our previous ones. When we read of St. Denis, after decapitation, walking about with his head under his arm, we are naturally incredulous; for such an action would be a most notable exception to the rule, that a headless trunk is incapable of executing such complicated and definite movements, the most that it can do being only to give one or two convulsive kicks. And yet, why should not St. Denis walk about with his head under his arm? There are two reasons why he should not. Firstly, because we know, from cases of fracture of the spine, that a man's spinal cord cannot originate such movements as that of walking; and, secondly, because the body cannot live without blood, and the vital fluid would be quickly lost from the severed carotid and vertebral arteries. Clearly, then, an ordinary man cannot live without his head; but St. Denis may have differed in some slight particulars from other men. A duck can run about without a head; and, if St. Denis possessed a spinal cord resembling in some degree that of a duck, he might walk about without his head. If his carotids happened to possess much contractility, they might close up like small arteries and prevent any loss of blood, and so the body might walk about for a long time. It is not impossible that St. Denis did possess these two peculiarities in his spinal cord and arteries, and that, in consequence, he did walk about with his head under his arm; but we require very distinct evidence indeed to convince us that such was the fact.

Now, just as experience has shown that headless trunks do not walk, so has it hitherto shown that, when the temperature of the human body rises to 111 or 112 deg. Fahr., death invariably ensues. But a temperature of 104 deg. in man is accompanied by the symptoms of high fever, while it is normal in the rabbit, sheep, and ox, is below the normal of other mammals, such as the bat and the squirrel, and far below that of many birds. If the titmouse, finch, and swallow, have a normal temperature of 111 deg. Fahr., why should not cases occasionally occur where such a temperature in man should be present without any serious consequences? The only answer to this is, that, although we cannot fully give the why and the wherefore, yet experience shows us that the bodies of most men are not constructed to withstand this temperature, just as their spinal cords do not enable them to run like ducks after decapitation.

But, in Mr. Teale's case, we have not only a temperature remaining at upwards of 110 deg. Fahr. for weeks together, but we have it rising on several occasions to the astonishing height of 122 deg. Fahr., and probably even of 124 deg. Fahr., and yet the patient recovers. To understand what this statement involves, let us consider a few of the principal effects of high temperature on the various organs of the body. And firstly, the blood must have undergone great changes at a temperature of 122 deg. Fahr. The fibrin which forms the clot in coagulated blood does not exist in the living body any more than water exists in a jar full of oxygen and hydrogen. In living blood, there are two substances present—fibrinogen and fibrinoplastic substance; and the action of a ferment causes them to unite to form fibrin, just as the oxygen and hydrogen unite to form water when an electric spark is passed through them. But both the fibrinogen and fibrinoplastic substance become altered to such a degree when they are heated to more than 122 deg., that they altogether lose their power of combining to form fibrin. The muscles undergo still more noticeable changes; for, at a temperature of 120.2 deg. in mammals, and about 122 deg. in birds, they become coagulated, rigid, and stiff; so that, judging from experiments on this subject, any one would have said that life at 122 deg. Fahr. was a thing impossible, even for a bird, because the muscles would then be boiled in their own juices.

Nor is the heart likely to be exempt from the fate of the voluntary muscles, and to continue to pulsate after they have become rigid. The very reverse of this is the case, and the heart usually ceases to beat long before the temperature has risen so high as to affect the muscles. As the temperature rises, the cardiac pulsations become quicker and quicker, until at last they become merged in a sort of general shiver of the organ, which next becomes spasmodically contracted, and remains absolutely still in a state of tetanus. From this condition it may recover, if quickly cooled; but, if the temperature be raised even a little, instead of being lowered, the tetanus passes at once into rigor, and all hope of recovery vanishes. The effect of heat upon the heart is almost the same when the organ is removed from the body as when it is *in situ;* for Schelske, Cyon, and Panum have shown that the hearts of frogs and rabbits beat more rapidly, and then cease when they are warmed up, after they have been cut out from the body, just as they would do if they were still in it. This constant effect of heat upon the heart under conditions so very different naturally inclines us to look upon it as something which we may always expect, and to be still more astonished not only that the heart continued to act at all in Mr. Teale's case, but that the pulse did not rise above 100 when the temperature was at 107 deg. Fahr., nor above 120 when the temperature rose to 122 deg. The respirations at 107 deg. were unaffected, a circumstance which is also contrary to all our previous notions. Not only has it been noticed that high temperature of the whole body produces accelerated respiration, but Fick and Goldstein have found that when the blood in the carotid arteries alone is warmed so as to warm the part of the brain which regulates the respiratory movements these movements become quicker just as the heart beats more rapidly when it is warmed. But, supposing that the muscles, heart, and respiratory nerves—to say nothing of the brain and other parts of the nervous system which in other persons lose their powers at such high temperatures—supposing that these were all different from those of ordinary persons in Mr. Teale's patient, the catalogue is not exhausted. For a long time after the temperature had risen to 122 deg. Fahr., the patient continued to eat and to digest more or less perfectly, otherwise she could not have survived. But pepsin and the active principles of the other digestive juices lose their activity about 113 deg. so that in an ordinary case a rise to temperature to 122 deg. would completely deprive them of all power, and render digestion impossible. It may be objected, that all these determinations of the effect of heat on blood, muscles, heart, respiratory apparatus, and digestive ferments, have been made on animals, and not on man. It is quite true that most, if not all, of these experiments have been made in this way; but it must be remembered that the animals on which they were made have normally a higher temperature than man, and that we might, therefore, expect that their tissues would bear at least as high a temperature, if not a higher one, than the tissues of the human body.

The difficulties raised by Mr. Teale's record are, therefore, exceedingly great; but, on the other hand, both Mr. Teale of Scarborough and Mr. Pridgin Teale of Leeds bear such a high character, both for honesty and accuracy, that every one who knows them would instantly scout with the utmost scorn the idea that the record is untrue; and very few can even imagine the possibility of their making a mistake. It is exceedingly difficult to reconcile their observations with the results obtained by others. The hot bottles which some one suggested have been most emphatically disclaimed by Mr. Teale, and one cannot see how pressure could have been applied to the bulb of the thermometer, so as to raise the mercury, without breaking the instrument.

Granting that Mr. Teale's observations are correct, almost the only way of reconciling them with what we know of the general effects of heat on the various organs, is to suppose that the development of heat was only local in the limbs, and that some alteration of the vaso-motor system prevented the superheated blood from reaching the heart, brain, and digestive system, and thus allowed the circulation, respiration, and digestion to go on with comparatively little disturbance. In order to account for the muscles remaining flexible and contractile, instead of becoming rigid and stiff, we must either suppose that human muscles resist heat better than those of animals, or adopt the most improbable hypothesis, that the heat was only in the skin, and that the muscles below were also protected by the contraction of vessels from the influence of the superheated blood. It is unfortunate that the temperature was not taken also in the mouth, but the observations given tend to show that there was some vaso-motor disturbance, rendering the distribution of heat more partial than usual. Thus the temperature was 116 deg. between the thighs, while it was only 113.5 deg. in the axilla, and sometimes, when the thermometrical readings were highest, the hands, feet, and forehead were icy cold. Whether this explanation be true or not, the case is one of extreme interest; is altogether unique, and is almost certain to give still further interest to the much debated subject of animal heat, its causes and consequences.

## THE HOSPITAL SUNDAY FUND.

A PUBLIC meeting was held at the Mansion House on Monday last, to receive the report of the special subcommittee appointed on January

4th, and to determine the system of distribution for the current year. The Egyptian Hall was completely filled a quarter of an hour before the time of meeting. Of those present, a large proportion were young men whose appearance indicated that they belonged to the shopkeeper class, and for whose interest in the subject it was difficult to account. The proceedings were of a most uproarious character, such as have never before been witnessed at a Mansion House meeting. Dr. Morell Mackenzie took a leading part in the business of the day, and the violent opposition which his supporters made to the programme of the Fund Committee was such, that twice during the meeting the Lord Mayor was only able to restore order, and secure a hearing for the speakers, by threatening to leave the Chair.

Mr. Galsworthy moved, and the Rev. J. F. Kitto seconded, the adoption of the report, which stated at its commencement that, on January 20th, Dr. Morell Mackenzie was invited to present a system of distribution by way of amendment on the report of January 4th. Of fourteen propositions made by him, four had been withdrawn, six were not accepted, three were accepted as modifications of the system adopted at the last public meeting, and one was passed with slight amendment. Several additions and modifications made by the Committee appeared in the report, among which were: that special hospitals were entitled to participate in the fund on the same basis as general hospitals; that it should be left to the discretion of the Distribution Committee to deal with the contributions of patients in defining the basis of award, as they saw fit; and that in every case where the cost of management exceeded what the Committee of Distribution considered a reasonable percentage of the whole current expenditure, such excess should be deducted from the basis of award.

Sir Rutherford Alcock and Dr. Morell Mackenzie then rose at the same moment. Immediately a tempest of hooting and shouting commenced, with loud calls for "Mackenzie". But the Lord Mayor ruled that Sir Rutherford Alcock should speak first, and accordingly he endeavoured, amid repeated interruptions and frequent attempts to cough him down, to impress upon the meeting the responsibility which rested upon it in dealing with the distribution of so large a sum as £30,000 *per annum*. But his words were unheeded. The youths who followed fuglemen at various points, and who formed such a conspicuous element in the meeting, had evidently not come to listen to reason, but to exercise their voices by hooting down some speakers and cheering on others. It was now Dr. Morell Mackenzie's turn to speak, and he was greeted with tumultuous cheering. He said that he wished to move an amendment to the report, and his reason for doing so was that he thought that the committee was exceedingly unfairly constituted. There were actually only three members of it connected with the special hospitals, while there were nine belonging to the general hospitals. In giving instances of the way in which his scheme had been received by the Committee, he said that one of the members had had the coolness to raise the question as to whether the scheme should be considered at all. In reply to cries of "Name, name", he declined to give the name, because he felt sure the member was heartily ashamed of the course he had adopted. Another gentleman had described the meeting of January 4th, as being a "packed" meeting. He thought that that gentleman, too, was ashamed of himself. He passed to the scheme itself. Four of his propositions were stated to have been withdrawn, and the object of that statement was to show that his scheme was so incomplete that he was obliged to withdraw these four resolutions. That was not the case. Certain propositions were negatived, and he was obliged to withdraw, in consequence, others that he had brought forward in favour of justice and impartiality. At the first meeting there was simple wrangling. All they did was to negative his scheme; and, such being the case, he ventured to move an amendment, which he had put in the form of an abridged scheme of distribution.

The scheme proposed by Dr. Mackenzie was as follows:

1. The Committee, consisting of nine members, and the Lord Mayor as President *ex officio*, shall be elected at the first meeting of the Council after the annual public meeting.

2. No person holding office in a hospital or dispensary, whether it participates or not in the Hospital Sunday Fund, shall be eligible to serve on the Committee. This rule shall not apply to patrons, presidents, vice-presidents, or governors, as such.

3. The system of distribution shall be primarily based on the last three years' expenditure of each institution, after deducting from that amount a sum equal to the income derived from endowments, realised property, and legacies exceeding £100, but under no circumstances shall the contributions of patients be deducted from the basis of the award.

4. In all cases where the general expenses of management exceed 20 per cent. of the annual subscriptions and donations (not including the donations from the Hospital Sunday Fund), such excess shall be deducted from the primary basis of award, but in no case shall the primary basis of any institution be lowered, or any award withheld, until after a conference has been requested with the managers of the particular institution concerned.

5. Although no award shall be made on account of money collected for building funds or endowment funds, cost of management to the extent of 20 per cent. shall be allowed in connection with such funds, and the management expenses thus incurred shall be deducted before the general expenses of management are computed.

6. Special hospitals are entitled to participate in the fund on the same basis as general hospitals.

7. Incurable hospitals are entitled to participate in the fund on the same basis as general hospitals, but the basis shall be limited to the expenditure in connection with patients treated within the walls of such institutions.

8. That it be an instruction to the Committee of Distribution to place dispensaries on the same footing as hospitals as regards the general basis of award, and that only such dispensaries as are managed by a committee duly constituted be admitted to participate in the fund.

Dr. Mackenzie went on to say that his second proposition was a very important one, and would exclude all those medical men who had the management of the large endowed hospitals, and also the treasurers of those institutions. With regard to the fourth, the term "reasonable" adopted by the Committee was exceedingly vague and unsatisfactory. It then depended entirely on the views of the members of the Committee, and was one of those schemes which permitted favouritism and encouraged jobbery. The seventh resolution was intended to meet the clause of the Committee's rules which excluded the incurable hospitals. It was as though they said, "If you take a patient into a hospital, and he dies quickly, we will give him a grant; but if you keep him alive for a week or a month, we take the award away". He merely wished to add that he had brought his scheme forward in a spirit of conciliation. It was fair to the large hospitals and to the small hospitals; and he trusted it would be accepted in its integrity, as it was necessary for the continuance of the Hospital Sunday Fund.

Mr. Charles Hood (who is, we believe, the Chairman of the British Home for Incurables) seconded the amendment in a speech of remarkable feebleness. Sir Sydney Waterlow, who replied on behalf of the Committee, would have had no difficulty in answering the two previous speakers, if only he could have obtained a quiet hearing; but such was the noisy behaviour of a portion of the meeting, that even Sir Sydney Waterlow, to whom this movement owes more than to any other single individual, was not allowed to speak without frequent and most unseemly interruptions. Subsequently, Canon Miller, Mr. Octavius Coope, M.P., and others, attempted to speak; but their voices were almost inaudible, on account of the uproar and the cries of "Divide," "Divide". Dr. Mackenzie's amendment was then put by the Lord Mayor, and was carried by an overwhelming majority, amidst boisterous applause. The amendment was then made a substantive motion; and it was moved by Dr. Glover that the clause relating to the exclusion of medical men from the Committee be omitted. Bishop Claughton supported the amendment, and was understood to say that he could not preach in favour of the fund if the guarantee for its distribution, which was afforded by the presence of the medical men, were withdrawn. The amendment was put and lost. Dr. Mackenzie's motion was then carried, and the proceedings concluded with three cheers for that gentleman and for the Lord Mayor.

We sincerely regret that such a movement as the Metropolitan Hospital Sunday should be endangered by such boisterous proceedings as those which characterised this meeting. We freely admit that a few of Dr. Morell Mackenzie's proposals were reasonable. Some of them had been already adopted and embodied in their report by the Fund Committee. Others might still be fairly considered open to discussion. But no discussion was allowed by the majority present. Anything like argument was silenced by hooting and noise. If there was "wrangling" at the Committee meetings, what word can describe the scene in the Egyptian Hall on Monday last? It called to mind the uproar at the hustings at a contested election before the passing of the Ballot Act.

The arguments of Dr. Mackenzie's speech might convince the general public, but with his professional brethren they will carry their own refutation. He says the Committee was unfairly constituted because nine members represented the general hospitals, and only three the special. But we imagine that our readers, who are acquainted with the relative value of these two classes of institutions, will mostly agree in thinking that the special hospitals were quite sufficiently represented. Again, it may be a question whether Homes for the Incurable should participate in the fund. They are, in truth, more like almshouses than hospitals; and, as Sir Sydney Waterlow pointed out, the fact that admission to them is obtained by the voting system gives them a different character. But it is hard to maintain that the difference is as if the Committee said—"If you take a patient into a hospital, and he die quickly, we will give him a grant; but if you keep him alive for a week or month, we take the award away." All who are acquainted with hospitals know full well that it is no uncommon thing for them to keep patients many weeks, or even months. The distinction between the two classes of institutions does not lie in this; and of this fact our readers must be well aware.

Again, the second proposition passes a very poor compliment on the profession. The distribution of the fund is a matter which closely concerns us, and upon which the experience of medical men must surely be of great value. It has always appeared to us a source of satisfaction that, from the fact of the great endowed hospitals not participating in the awards, it was possible to obtain from their staff men of high position and character to assist at the deliberations of the Distribution Committee. But now, thanks to Dr. Morell Mackenzie, we are to be deprived of our representatives. We can hardly doubt that many clergymen will agree with Bishop Claughton in hesitating to preach for the fund "if the guarantee for its distribution, which was afforded by the presence of the medical men, be withdrawn".

We cannot believe that the public will be contented to accept the decisions of such a disorderly meeting as this. It will give as little satisfaction to them as it does to the profession. The matter can hardly be allowed to rest here. It will be asked—and asked with very good reason—Of whom did the meeting consist? Who composed the majority? What gave rise to their irrepressible enthusiasm? What practical knowledge had they of hospitals, or what proof had they given of their interest in them? These questions will naturally suggest themselves, and the public will probably demand that Monday's proceedings should be reconsidered; and that, at any future meeting called to deliberate upon the Hospital Sunday, means shall be taken to limit the admissions to those who have given substantial proof of their interest in hospitals and dispensaries, and who may, therefore, be expected to conduct themselves in an orderly manner when questions affecting those institutions are under discussion. Unless some such steps be taken, there is reason to fear that the whole movement will be discredited. Another such meeting as Monday's would go far to make shipwreck of a good cause.

MR. SERJEANT COX presided at a meeting last week, when it was resolved to form a society for the promotion of Psychological Science, under the title of "The Psychological Society of Great Britain". T. K. Munton, Esq., was elected honorary secretary.

MESSRS. MACMILLAN will publish shortly "A Course of Practical Instruction in Elementary Biology", by Professor Huxley, F.R.S., assisted by H. N. Martin, B.A., D.Sc., of Christ's College Cambridge.

THE current number of the *Fortnightly Review* contains two articles on subjects of medical interest: Vivisection, by Mr. E. Congreve and Dr. J. H. Bridges; and the Practice of Medicine by Women, by Miss Jex-Blake. Both articles are worth reading.

THE sum collected at Liverpool on January 10th, and January 16th, which were set apart as Hospital Sunday and Saturday, and the joint receipts, being merged into one fund, was £9,300. This amount was £1,500 less than was realised last year. The falling off is attributed to the fact that the late Mr. Lyon Jones had left the sum of £350,000 to be divided among the various benevolent institutions of the town.

THE London correspondent of the *Scotsman* writes: So far as can be at present arranged, the motion for going into committee on the Artisans' Dwellings Bill will be taken some time next Thursday, but only with the object of getting rid of the talk. As soon as the motions on the measure are got rid of, the actual committee work will be postponed till the following Thursday. There are three pages of notices.

THE Government of Madras on January 11th, issued its general orders on the admission of lady students to the Madras Medical College, and on the course of study to be pursued. The *Eastern Chronicle* (Madras) announces that lady aspirants to medical honours will now be able to study for the degree M.D., if they determine to do so.

### A PROVIDENT HOSPITAL FOR BRIGHTON.

AN important meeting was lately held in the Town Hall, Brighton, with a view to the establishment of a provident hospital. It was summoned by a circular, which stated that "by the establishment of such an institution, the prevalent abuses connected with our medical charities will be to a considerable extent prevented, while a stimulus will be given to thrift and self-dependence among a large section of our population". All the speakers were unanimous in saying that they did not wish to injure any existing institution, and that if another hospital were started, it should not be charitable, but entirely self-supporting. The necessity for something of the kind was shown by the fact which was mentioned, that "one-fourth of the population of Brighton were receiving medical relief of a gratuitous kind, and it was surely time that some steps were taken to prevent this state of things". It was also urged by several speakers, "that something was due to the medical staff. There was no profession which was so shamefully abused as theirs, and it was high time that these abuses should be remedied. It was the wish of the promoters of the scheme that the medical officers should be paid for their services. They should consider not only the cost of the maintenance of patients, but also the remuneration due for medical attendance. Otherwise they would continue to be relieving the pockets of the wealthy at the expense of the medical men". The question was raised whether it might not be possible for the Sussex County Hospital to take up the proposal, more particularly as a similar plan was at present under the consideration of the managers of that institution. Ultimately it was decided that the whole matter should be referred to a committee, to report to a future meeting upon the expediency and practicability of establishing a provident hospital, and to lay before it a detailed scheme for such an institution.

### MANSLAUGHTER BY INFECTION.

We publish to-day in another column the report of the criminal prosecution of another midwife for causing the death of certain lying-in women, to whom she is alleged to have conveyed the contagion of puerperal fever. Mrs. Ingram, whose trial we last week reported, had been cautioned by a police inspector; Elizabeth Marsden appears to have been cautioned by a surgeon. The precedent is a very stringent one, and, as we pointed out before, if manslaughter by infection became an offence readily recognised and habitually punished by criminal prosecution and conviction, it will undoubtedly behove all medical practitioners, as well as midwives, to move with very great caution; and, unless such prosecutions be regarded with some jealousy, and a sincere regard to all the related facts and consequences, the perils of professional practice will be very largely increased. The prosecution of midwives appears to take place amidst considerable applause; nor ought they to escape any penalty which justly attaches to ignorance or neglect. It is obvious, however, as we pointed out from the first, that the arbitrary principle involved does not concern midwives only. The editor of the *Edinburgh Medical Journal*, commenting on the case of Mrs. Ingram (as reported in the coroner's investigations), illustrates his views thus:—"Down comes the policeman to Sir William Jenner, to tell him to see no more cases of croup for two months, at his peril, as the coroner hears he has been attending some fatal cases; to Sir William Gull, to give up practice for two months, as he hears he has been attending some fatal cases of scarlatina; to Dr. Farre, to give up practice, because he has been in repeated consultation in a fatal puerperal case; to Sir J. Paget, to give up operating, as he is in attendance on a case of erysipelas; and so on." In these days, when the extent to which diseases are influenced by septic germs and hospital influence is much debated, the vista opened up by such prosecutions leads a long way, and is lost in a rather obscure shade.

### POISONING BY HOMŒOPATHIC SOLUTION OF CAMPHOR.

The subject of poisoning by the homœopathic concentrated solution of camphor, to which the attention of the profession was first called by Dr. George Johnson's paper in the Clinical Society's *Transactions*, has during the last few days excited a more wide-spread interest in consequence of the *Times* having published on the 5th instant a letter by "A Physician", the object of which was to warn the public of the danger which is incurred by the incautious use of this concentrated poison. In Dr. Johnson's paper, five cases of poisoning by this strong solution of camphor are recorded; and four have been recently published in our columns. The slighter symptoms have been giddiness, faintness, headache, and drowsiness; but, in five out of the nine cases, a dose ranging from fifteen drops to a teaspoonful caused epileptic convulsions, and more or less profound and alarming stupor; and it is probable that death would have resulted in more than one instance, if a large proportion of the poison had not been speedily ejected by vomiting. The symptoms described are those which are well known to result from an overdose of camphor. Nevertheless, Dr. Bree, in a letter which appeared in the *Times* on the 6th instant, expressed a doubt whether camphor was really the cause of the symptoms, and gave as a reason for his doubt, that he had taken camphor in three-grain doses with no other than a beneficial effect. He had prescribed it for others in much larger doses; and "in the *British Pharmacopœia* the dose is given as from one to ten grains, or what is equal to from two to twenty drops of the homœopathic solution". Dr. Bree's letter was promptly answered by "A Physician" and by Prince Louis-Lucien Bonaparte, both of whom pointed out that Dr. Bree's error consisted in comparing camphor in the solid and dry state with camphor dissolved in spirit. It is a well known fact that the action of a poison is, *cæteris paribus*, in direct proportion to its solubility. Camphor, being very insoluble in the fluids of the alimentary canal when given in the form of a dry solid, is in great part eliminated without being absorbed, and has little medicinal or poisonous effect; but, when taken in the form of a spirituous solution, it is much more readily absorbed, and in a corresponding degree more active. The compilers of the *Pharmacopœia* apparently consider that camphor dissolved in spirit is at least three times as active as solid camphor; for, the dose of the latter being from one to ten grains, that of the spirit of camphor, which contains one grain of camphor in ten minims, is given as from ten to thirty minims. We have, then, no difficulty in understanding that this saturated solution of camphor, which contains about a grain of camphor in every two drops, should, in any dose above five drops, cause unpleasant symptoms; and that, in doses of fifteen drops and upwards, it should act as a strong poison. If the public could be made to understand that modern homœopaths have gone from the harmless extreme of infinitesimal dilution to the dangerous extreme of the greatest possible concentration of active and poisonous drugs, they would be more cautious in playing with these dangerous weapons. This homœopathic solution of camphor is as actively poisonous, drop for drop, as the prussic acid of the *Pharmacopœia;* and we maintain that any chemist who sells it without labelling it as "poison" should be as liable to censure and to penal consequences as if he sold prussic acid, or the much less powerful laudanum, without a "poison" label.

### ROYAL COLLEGE OF PHYSICIANS.

The Lumleian Lectures will be delivered by Dr. Lionel S. Beale, On Life, and on Vital Action in Health and Disease. The following is the argument. Lecture I—Friday, March 12th, 5 P.M.: Objections to Physical Doctrines of Life; of Living Matter, or Bioplasm, and of Formed Material; Simplest Form of Living Matter; Bioplasm of Bacterium; Living Matter Structureless; of Vital Movements, peculiar to Living Matter. Lecture II—Wednesday, March 17th, 5 P.M.: Of the constitution of Living Matter; Question of the Origin of Life; Absolute distinction between the Living and the Non-living; of the construction of the Body by Bioplasm. Lecture III—Friday, March 19th, 5 P.M.: Construction by Bioplasm continued; Bioplasm in Disease; the degradation of Bioplasm; Disease Germs; the highest form of Vital Action; Bioplasm of Nerve Tissue; Bioplasm of the Brain; Mind and Vital Power. They will be published in our columns.

### THE BRADFORD INFIRMARY AND ITS MEDICAL OFFICERS.

We learn from the local paper, that Mr. Semon has issued a circular to the governors and subscribers of the Bradford Infirmary regarding the proposed changes in the rules relating to the medical officers of the infirmary. He points out that, since the resignation, in 1845, of Dr. Outhwaite, the infirmary has been more or less deprived of the services of two physicians, that this has placed the Board in no small difficulty, and obliged it more than once to call in the paid aid of general practitioners. At present, the entire charge of the medical cases is thrown upon Dr. Alexander; and while the four honorary surgeons in 1874 had to attend to about 370 to 480 out-patients each, those under the charge of Dr. Alexander were upwards of 2,640, independently of which, Dr. Alexander had his own private practice to attend to, and, as physician to the Fever Hospital, had part of the patients there to attend. Mr. Semon suggests a reconsideration of the proposal to allow general practitioners to be appointed to take charge of the medical cases in connection with the infirmary. We understand that in connection with this, a circular was addressed to the medical practitioners of Bradford, asking their opinion in the matter. The replies sent in, it is stated, show that, with the exception of six or seven, the profession is in favour of the change.

### THE CASE OF MISS WOODS.

Some misapprehension may very readily arise, and, we believe, has arisen, as to the statement of the Home Secretary concerning the release of Miss Woods, who was recently placed under restraint as being a certified lunatic, or person of unsound mind. We have authority for stating that Miss Woods was released on the ground of the informality of the certificates. The law properly surrounds the detention of alleged lunatics with very great safeguards; and in this case, as the required forms had not been properly complied with, release followed as a matter of course. The release did not imply any judgment by the Commissioners of Lunacy on any other facts of the case.

### TEST-QUESTIONS.

SOME "Anti-Vaccination" delegates recently waited upon a candidate for the House of Commons, and asked him whether, if they voted for him, he would support the repeal of the Compulsory Vaccination Act. His answer was, "If you will only vote for me to-morrow, you may all get the small-pox the next day if you like". The answer was not considered perfectly satisfactory.

### PROPORTION OF INQUEST-CASES.

IT is safe to assert that there would be more danger to the community from too few inquests being held, than from their needless multiplication. The condition of life in England, however, has so completely changed since the office of coroner was instituted and the statutes regulating it became law, that, apart from the recent so-called "inquest-scandal", it has become a moot question whether a good many unnecessary inquests are not now held. Blackstone says that the office of the coroner consists mainly "in inquiring, when any person is slain, or dies suddenly or in prison, concerning the death". The object of the inquest was undoubtedly to discover crime, with the object of punishing it, and with a view to its prevention. A few centuries ago, when the state of science was far different from what it is now, "sudden death" was considered a sufficient ground for the holding of an inquest. Dr. W. Farr, in a letter on the causes of death in 1872, published in the last Annual Report of the Registrar-General, says: "The mere fact that death is sudden is a ground for medical inspection, but not necessarily for an inquest; and there are many violent deaths of which a medical inspection may ascertain the cause without moving the apparatus of the inquest, there being no more suspicion of crime in such cases than there is in deaths from fever, pleurisy, or consumption." In 1872, the number of inquests held in England and Wales was 25,705, at a cost of £78,535, or rather more than £3 per inquest. The general proportion of inquest-cases to total deaths has exceeded 5 per cent. in each of the three last years, 1872-3-4. It appears, therefore, that an inquest is held in one of every twenty deaths that occur. The proportion of inquests held varies, however, in different parts of the country, to an extent which makes it impossible to avoid one of two conclusions: either a large number of unnecessary inquests are held in some places, or the safety of society is being endangered by far too few being held in others. In support of this argument, we cannot do better than call attention to the proportion of inquests held in the eighteen large English towns for which weekly returns are published by the Registrar-General. In these eighteen towns, the percentage of inquest-cases to total deaths during 1874 ranged from 3.3 and 3.6 in Bradford and Hull, to 7.2, 7.6, and 7.9 respectively, in London, Birmingham, and Manchester. The average proportion in the eighteen towns was 6.3 per cent., whereas in the whole of England and Wales it was rather more than 5 per cent. It is natural that the proportion of inquest-cases in towns should exceed that in rural districts, in consequence of the greater frequency of deaths from violence; but this will not explain the wide difference in the proportion of inquest-cases in the large towns above mentioned. In Bradford and Hull, the percentage of inquest-cases exceeded that of deaths from violence by only 0.8 and 0.5; whereas in London the deaths from violence were 3.6, and the inquest, 7.2 per cent.; in Birmingham, 4.1 and 7.6; and in Manchester the violent deaths were 3.1, and the inquest-cases 7.9 per cent. Assuming that inquests are held in all cases of death from violence, in each 79 inquest-cases in Manchester, the cause of death in 48 was other than violence; whereas, of 72 inquest-cases in Hull, only 10 proved to be deaths from natural causes. The question to be answered is, Are too many inquests held in Manchester, or too few in Hull? Such an anomalous state of things as to the proportion of inquests held is decidedly undesirable; and it would be well if some code of regulations could be drawn up, or law enacted, to secure greater uniformity of system among coroners, without detracting from the dignity and independence of the office by too far weakening its discretionary power. In counting the cost of inquests, the value of the time of the twelve jurymen summoned to each inquest, which is not paid for, should not be lost sight of.

### THE ARTISANS' DWELLINGS BILL.

MR. JOHN LIDDLE, Medical Officer of Health for the Whitechapel District, in his Quarterly Report, whilst generally approving of Mr. Cross's Bill, regrets that it does not contain a clause requiring proper sanitary inspection to be made of the houses which may be erected in lieu of those pulled down. To make the Bill perfect, Mr. Liddle suggests the following amendments.

"1. Before the building of any new house is commenced, plans of the drainage, and of all the sanitary arrangements of the house, shall be submitted for approval to the Local Board. This Board shall be invested with power to compel the builder of any new house within the district so to alter his plans, if necessary, as to render such house fit for healthy occupation.

"2. It shall likewise be made compulsory on every builder to provide a separate water-closet or privy and ashpit for each house, within the curtilage of the house. This provision would prevent the erection of public privies in courts occupied by the poorer classes, which are now for the most part nuisances, and injurious to the public health.

"3. During the progress of the building of any house, the Surveyor to the Local Board shall be required to inspect the foundation thereof; and, if such surveyor be of opinion that the materials which are being used for such foundation are not proper for the purpose, he shall make known his objection to the builder, and shall report the same to the Board. This report having been made, the Board shall have power to prevent the use of all such improper materials.

"4. The walls and foundation of every house shall be so constructed as to prevent the rise of damp.

"5. Every new house shall at all times have at the rear an open space of sufficient extent for the thorough ventilation of the staircases and passages. No house shall be permitted to be occupied unless the person letting such house shall have a certificate, signed by the Surveyor and Medical Officer of Health to the Local Board, that all the rooms therein are of sufficient size and fit for healthy occupation."

### THE COLORADO BEETLE.

DR. GEORGE LAWSON, Professor of Chemistry in Dalhousie College, Halifax, Nova Scotia, writes to the *Times:*

The German and Belgian Governments having enacted a decree forbidding the importation of "American potatoes" as a preventive measure against the much dreaded "Colorado bug", please permit me to state that the pest is quite unknown in the Province of Nova Scotia, so that there need be no fear of its being carried to Europe with any of our produce. Our summer climate appears to be too cool and moist for that and several other insects that are troublesome in inland regions on the same parallel of latitude. For a similar reason, I do not think that there is any great likelihood of the Colorado bug establishing itself permanently in the British Isles. In the hotter parts of Europe, away from the sea, suitable conditions may be found. I know for a fact that, for the last two or three years, numbers of Colorado beetles have been sent to England in produce from parts of this continent where, in the fall of the year, it is simply impossible to pack up any kind of produce without their getting into it; yet we do not hear that they have thriven anywhere in England. A hot and dry continental climate seems to be necessary for their development. The cold in winter, however severe, does not necessarily affect insects, which are then dormant. As in the case of annual plants, their possibility of existence depends upon the degree and continuance of summer heat.

### WIGAN MEDICAL SOCIETY.

AT a meeting of the medical practitioners of Wigan and the surrounding districts on Thursday, March 4th, it was resolved to form a medical society, having for its objects the mutual interchange of ideas, discussion of cases, reading of papers, and the consideration of medico-ethical subjects. The following gentlemen were elected office bearers for the ensuing year. *President*, J. White, Esq.; *Vice-President*, C. D. Shepherd, Esq.; *Committee*, Messrs. E. H. Monks, W. Hart, and R. S. Hall; *Honorary Secretary and Treasurer*, Mr. Wm. Berry.

### PROFESSIONAL PRIVILEGE.

AN interesting point, as to which much misapprehension prevails, was raised and settled in accordance with precedent this week in the Court for Divorce and Matrimonial Causes. In the case of Babbage *v.* Babbage (the Queen's Proctor intervening), several witnesses were called in support of the charges, among them a medical gentleman in practice at Bridgewater, to whom the petitioner addressed two letters, one of which was of a particular character, some time after the decree *nisi* was pronounced in the suit. The witness declined, on the ground of professional confidence, to produce the letters or divulge their contents. His Lordship said that he knew of no such privilege as that claimed by the witness. He respected the feeling which prompted the witness not to make known what was communicated to him by a patient until compelled to do so in a Court of Justice, but he was bound to produce or state the contents of the letters. The witness then deposed that he had destroyed the letters. The second he did not answer. It was of a peculiar character, and amounted to a confession of misconduct by the petitioner.

## SCOTLAND.

### ROYAL EDINBURGH ASYLUM.

THE annual report of the Royal Edinburgh Asylum has just been published, and is a most able and exhaustive paper. The following facts which are brought out in it, are of general interest. The average number of patients resident during the year was 738. The number of admissions (308) has been 14 per cent. above the average for the previous ten years, and this has taken place equally in the private and in the rate-supported classes of patients. Of these patients only six, an unprecedentedly small number, were from places other than those having a right of presentation, viz., Edinburgh, Leith, and Orkney. There has been a steady increase from year to year in the number of patients admitted from these parishes, from 134 in 1864, to 176 in 1873, and last year it ran up suddenly to 214, a figure higher by twenty-six than ever occurred before. Dr. Clouston was at first inclined to attribute this sudden increase to the 4s. 6d. a week promised by the Government towards the maintenance of each pauper lunatic, in the same way as happened in England after the passing of the Union Chargeability Act, but this did not seem sufficient to account for it all. Again, 47 per cent. of all the patients admitted were sent in within a month from the beginning of their illness, instead of 36 per cent., the average of the past ten years. This increase was further shown to be in cases of severity, while the number of milder forms admitted was but little higher than the average; and the districts to which the increase was almost exclusively due were found to be the two parishes of Edinburgh proper, the Leith parishes remaining at about the average. This relaion to districts is only true of the rate-supported patients, the private ones coming from very various localities. Another striking feature is hat, under the head of Melancholia, the number admitted was 88, or 0 per cent. in excess of the average of the past five years; many of hese cases being desperately suicidal. The percentage of recoveries on the admission was forty-eight, the average of the year 1873 for Scotch asylums being forty-two. In point of death-rate, the first year has been the healthiest year in the history of the asylum, the deaths aving been only 7.7 per cent. of the average numbers resident, and ·4 per cent. on the total number of persons under treatment; not one f the deaths during the late severe weather, in November and December, being due to any catarrhal affection. The report concludes with general review of the present state of the institution. With regard the most striking feature of this report, namely, the great increase the number of patients from Edinburgh, and the fact that that increase was mostly due to acute cases and of the class of melancholia, there is some reason for connecting it with the great wave of religious excitement and revivalism which passed over the city last spring. We hear from other sources that the number of cases of insanity among the better classes, due to this cause, was very remarkable.

### THE EDINBURGH ROYAL INFIRMARY.

AT a meeting of the managers of the Royal Infirmary, held last week, it was intimated that a sum of almost £20,000 had been paid to the treasurer as part of the bequest of the late Mr. Thomas Grindlay, which, it is anticipated will ultimately amount to in all about £38,000. As an acknowledgment of this splendid bequest, the managers have determined that one of the wards in the new infirmary shall be called "the Grindlay Ward". A slight hitch has, it is said, occurred with regard to the agreement arrived at between the managers and town authorities, with reference to the drainage question, which had been arranged on the basis that no sewage from the fever wards should be passed into the drain until it had been thoroughly disinfected to the satisfaction of the Town Council. The London agent of the latter, in drafting a new clause for the Infirmary Bill, which is to come before the select committee of the House of Lords this week, has made the prohibition to extend to sewage of infectious diseases generally; to which alteration it is probable the infirmary authorities will not agree. It seems likely that the matter will not be pressed by the city authorities.

### ADULTERATION OF MILK.

DR. STEVENSON MACADAM made an interesting contribution to the adulteration of milk question, on the 5th instant, in a paper read before the Pharmaceutical Society of Edinburgh. He said that last year he had procured specimens of milk from one of the best farms on the Tweed, where the pasture was luxurious, and he found the average composition of the milk yielded by the whole of the cows on the farm in a single day was as follows: Specific gravity, 1032.2; total solids, 12.77 per cent.; solids (not fat), 9.89 per cent.; fat or butter, 2.88 per cent.; ash, 0.71 per cent. Only two of the samples out of the whole dairy yielded the amount of fat which has been assumed as the standard quantity by city analysts, and on which prosecutions have taken place. Taking the average amount of fat, the whole runnings of this dairy would have been declared, by these analysts to have consisted of 90 per cent. of standard milk and 10 per cent. of skimmed milk; while the milk of the cow which yielded the lowest amount of fat (1.84 per cent.) would have been declared to consist of 57.5 per cent. of standard milk, and 42.5 of skimmed milk. These investigations showed that the high standard assumed by city analyists was actually above that of an excellent country dairy, taking either the whole runnings of the dairy, or the milk of certain individual cows.

### LIGATURE OF THE COMMON CAROTID FOR ANEURISM OF THE INNOMINATE ARTERY.

ON Monday, Mr. Annandale tied the common carotid artery, at the Royal Infirmary, in a case of very large aneurism of the innominate; the size of the aneurism, and the consequent disturbance of parts, preventing the subclavian from being tied at the same time. It had been found before the operation that pressure on the carotid diminished the pulsation in the tumour to a very considerable extent, and after the operation the patient had lost the throbbing sensations, and felt much relieved.

### REMOVAL OF GOITRE: PREVIOUS LIGATURE OF ARTERIES.

ON Saturday the 6th instant, Mr. Lister removed a goitre from a young woman, by the method first adopted, we believe, by Dr. Heron Watson; namely, the four principal arteries of supply to the thyroid are tied through a central incision before the operation of removal is attempted. This has been found most effectual in restraining the hæmorrhage, which, without this precaution, is so serious a drawback to the operation. The patient is doing very well.

### DEATH-RATE IN THE WESTERN ISLANDS.

THE death-rate of the Western Islands for the early weeks of the present year has been very remarkable. In January, it was quite unprecedented. Out of a population of about 10,000, in the parish of Stornoway, the death-rate for that month was 69, which, after deducting seven accidental deaths, is equal to an annual mortality of 75 per 1,000. During the second week of that month the rate was as high as 130 per 1,000; this week was, however, exceptional, for, in the next two weeks, the deaths were reduced considerably. While the deaths were so numerous, only 26 births were recorded. In February, the rate had fallen to 25 per 1,000. A woman, named Catherine Macleod, died at Bayble, about nine miles from Stornoway, at the advanced age of 106 years. Her age, it is said, can be very clearly proved.

### TYPHOID FEVER AND MILK.

AN outbreak of typhoid fever has occurred at Crosshill, N.B., the infection being conveyed by means of milk taken from infected farms. The local authorities have taken prompt measures to stamp out the epidemic, and enjoin dealers in milk to be careful not to receive any from farms on which this disease is or has been recently. As a further precaution, they recommend that all the milk used by the inhabitants should be brought to boiling point, as there are reasonable grounds for believing that this simple measure would obviate any risk which might arise, should any milk happen yet to be brought from infected farms.

## IRELAND.

MR. JOHN HAMILTON, Surgeon to the Richmond Hospital, has been appointed Surgeon in Ordinary to the Queen in Ireland.

THE governors of the Rotundo Hospital have followed the good example set by the University, and elected Professor Colles to be consultant-surgeon, in the room of the late Mr. Adams.

TYPHUS fever of a bad type exists in the neighbourhood of Ballycastle Mayo, and has continued for several months without any appreciable cessation. Several medical practitioners have been attacked; one of whom has died, and two others have been prostrated from its effects.

### SHELTER FOR CABMEN.

A COMMITTEE is being formed to take the necessary steps to introduce into Dublin the shelters for cabmen which have proved so successful in London and elsewhere. They can be erected for about £70 each, and provide rest, shelter, fire, and the means of cooking food, etc. In a sanitary point of view these huts are most desirable, and on temperance grounds a good deal may be said in their favour, counteracting, as they undoubtedly must, the temptation for alcoholic fluids, which cabmen especially at night, are, from the nature of their avocation so peculiarly exposed to.

### EXTENSION OF THE BUILDINGS OF THE ROYAL COLLEGE OF SURGEONS.

IT is proposed to extend the buildings of the Royal College of Surgeons of Ireland. The museums and library of the College have far outgrown the available space, and accordingly the Council has advertised for plans for the extension of the buildings. A considerable number of plans have been submitted, and we understand the architects differ as widely in their opinions upon this architectural operation as any of their employers ever did over a surgical one. The frequent alterations which have already taken place, while very judiciously executed in themselves, have left almost insuperable difficulties in the way of future improvements. Some architects have proposed something little short of demolition and reconstruction; but we believe the plan most in favour will consist in the simple extension backwards, with slight alteration of the present museums and library

### KILMAINHAM GAOL.

BY Dr. Thornhill's death, the vacancy of Surgeon to the County Dublin Prison has occurred, and the Board of Superintendence, in whose hands the appointment lies, will, on the 18th instant, proceed to fill it up. The salary attached to the post is £100 *per annum*, and the candidates already in the field are so numerous that it would be absurd to form the faintest idea who may be Dr. Thornhill's successor.

### THE OPHTHALMIC HOSPITAL, BELFAST.

THE annual meeting of the friends of this institution was held on the 4th instant, and, from the report of the committee, we find that during the year ending February 17th, 1,143 new cases were under treatment, and the attendances numbered about 6,000. Of these 1,143, there were 817 ophthalmic cases, and 231 of aural disease, attended to at the extern portion of the hospital, whilst 95 were received into the case wards. During the year, several medical gentlemen and students attended the practice of the hospital, the only one of its kind, so far as we are aware, that exists in Belfast. Although the expenditure for the past year was less than the income of the hospital, yet the committee trust that there may be a hearty response to their appeal for further support, in order to thoroughly develope the means at their disposal.

### DISPENSARY DOCTORS: A GRIEVANCE.

THIS week it is the intention of Mr. Bentley, a Poor-law guardian of the North Dublin Union, to move a resolution at a meeting of the members of that Board, to relieve medical officers from gratuitous attendance on parties of sufficient position in life to admit of their bearing their own medical expenses. The injustice is a glaring one, and very harassing to the medical officer; indeed, any one who has ever served as a dispensary doctor must, time after time, have suffered from annoyances of this kind. He may complain, and bring the matter before the dispensary committee, but will obtain no redress; the visiting ticket is cancelled occasionally it is true, but there is no check on the guardian who gave it, and he can issue a fresh one next day should he so desire. Some guardians will never refuse a visiting ticket, no matter what the circumstances and position of the applicant may be, and the only feasible plan, in our opinion, to check this practice, is that the guardian who issues a visiting ticket to a party who ought not to be relieved by the Pool-law medical system, should either pay for that medical attendance himself, or be prevented for the future from giving orders for gratuitous medical relief.

### PROFESSOR COLLES.

THE appointment of Mr. William Colles to the Regius Professorship of Surgery in the University of Dublin has met with universal approval, both in and out of the profession, and especially among the members of the Medical Faculty of the University. Mr. Colles commenced his professional career in 1832 as house-surgeon to Dr. Steevens's Hospital, in succession to Mr. Cusack. On the retirement of Mr. Abraham Colles from the surgeoncy to Steevens's, the present professor was elected as his father's successor. Mr. Colles quickly attained to eminence in his profession, and has contributed numerous and valuable papers on many branches of surgery to the Dublin medical journals. In 1864, Mr. Colles was elected President of the Royal College of Surgeons in Ireland. When the medical school of Steevens's Hospital was opened twelve years ago, Mr. Colles was elected lecturer on surgery in that institution. The extreme originality of his systematic and clinical lectures have gained for him great popularity as a teacher. As Regius Professor in the University, Mr. Colles becomes consulting-surgeon to Sir Patrick Dun's Hospital, which, as most of our Irish readers are aware, is an institution intimately connected with the University School of Medicine. Mr. Colles's appointment in the University will not necessitate the severance of his connection with his old friends at Steevens's Hospital, which institution, in spite of its long roll of eminent names, could ill afford to lose that of Colles, which has so long adorned it.

## THE TREATMENT OF DIPSOMANIACS.

An important meeting was held at Willis's Rooms, King Street, St. James's, on Thursday, February 11th, to consider the desirability of providing a home for dipsomaniacs of the upper and middle classes. The movement is now being carried out by Mr. Carsten Holthouse, of George Street, Hanover Square, as a preliminary step, and one which shows the feeling of some of the leading members of the profession, whose names were attached; the following certificate was read: "We, the undersigned, fully alive to the prevalence of this disease, and to the great want of an institution specially devoted to its treatment, are of opinion that such an one as you propose—which shall afford to its inmates the comforts of a home and the pleasures of society, while at the same time they are protected from temptation—would be a great boon both to the patients and to their families, and is well entitled to our recommendation and support. George Burrows, M.D., F.R.S., President of the Royal College of Physicians; Thomas Watson, M.D.; Charles J. B. Williams, M.D., F.R.S., President of the Royal Medical and Chirurgical Society; William Jenner, M.D.; William W. Gull, M.D.; J. Russell Reynolds; C. B. Radcliffe; Henry Monro, M.D.; William Wood, M.D.; H. Maudsley; G. Fielding Blandford, M.D.; William Fergusson; James Paget; Prescott Hewett; Henry Thompson." Subscriptions to the amount of £1,600 had been received, besides many promises of support. The Earl of Shaftesbury, K.G., presided.

Mr. Holthouse, after referring to letters he had received, said: I have every reason to know, that a very large amount of good might be achieved by such an institution as that which is now proposed; that is, that the patients should be admitted voluntarily, and should receive hospital treatment. We must look upon it that the patients more or less labour under disease. The digestive organs are out of order. They are frequently bordering on a state of delirium tremens, and generally require at the outset a considerable amount of medical treatment: that which would be adopted being one having special reference to their bodily condition. It is of very little use doing anything with these patients until you may say they have got the alcohol out of them, and are in a comparatively sane state. It is then that moral and religious teaching should be brought to bear, and that good results in that direction can be had. The first treatment is that which must have reference to the body. I propose that it should also be a home, whilst it answers the purpose of a hospital—a home for those unfortunates, who having, by their habits, separated themselves from their friends, relatives, and connections, are, to a certain extent, the outcasts of society. It should be to them a refuge and place of retreat where they might, in fact, pass a large part of their lives. I am quite certain that, among this class, certain individuals could be completely recovered from the habit. There are others again, who, though only incompletely recovered, in this way, that if exposed to temptation they fall, might be restored to a state of health which they would not otherwise enjoy, and have this place as a retreat in case of relapse. Many persons would be thankful to go to an institute of this kind, and place themselves under the slight restraints which are necessary to keep them in a continued state of health. It has been said, "You cannot detain these patients, you won't be able to keep them a month". There is no doubt that there will be difficulty, and this will always happen in the first month of the residence of the patients. It is then that the utmost care is required. The mode in which I propose to meet the want of legal power of restraint is, in the first place, a rule that each patient should pay in advance for, we will say, three months. Amongst the rules would be restrictions as to bounds and strict supervision. There would be resident officers, medical and clerical, to act as friends and advisers of the patients. I propose that there should be classes. They would be on the lowest form on entrance, and rise accordingly as they gained in self-control. I should be aided not only by the resident officers, but by those patients who had been in the longest and recovered from the effects of this baneful habit. My plan contemplates finding occupation for every patient; not mere occupation that will afford them no amusement, or that when done will be without result. They would not be set to useless tasks simply to keep them employed, such as sailors have to do in holystoning the decks, but they will feel that what they are doing will be of service to themselves and others. I need not say that all this will, from the moment they enter such an asylum, strengthen their habits of self-control. These poor creatures have in many cases lost all power of self-control and self-respect; but when you put a patient under the conditions just now mentioned, he is for that moment under some kind of mental exercise, he is practising some kind of self-control for himself, and we all know what the power of habit is. We know that the longer he remains, the more he is able to restrain these feelings, and the stronger will their growth be. Hence the temptation to go astray will be less, and the temptation to do good will be more.

Sir George Burrows, M.D., President of the Royal College of Physicians, moved the first resolution: "That this meeting, looking to the great and increasing prevalence of intemperance and the misery resulting both to the individual and to the community at large, is of opinion that the institution proposed to be established by Mr. C. Holthouse, is both desirable and much needed. This meeting, therefore, pledges itself to promote the success of the undertaking". He said he was glad to appear on the present occasion to support his friend Mr. Holthouse in his philanthropic movement to help those who were incapable of helping themselves. Many of these unfortunates were by no means lost to shame, nor had all self-control left them. They deeply deplored their state, and desired to reform. Certainly they were not fit for the companionship of lunatics, and he was certain Parliament would never sanction any scheme that would place them on that level. He thought the institution proposed would be a great public blessing.

Dr. Wood, Physician to St. Luke's Hospital, seconded the resolution, and said that he had more opportunities than most men of watching the dire effects of intemperance. It was perfectly true, that a dipsomaniac was not a fit subject for a lunatic asylum, but he very soon would be if not assisted in the great struggle of his life, viz., self-control.

Archbishop Manning said he was glad that this movement had emanated from medical men, for no class had in their hands so powerful a control of this subject as they had. He cordially approved of the proposed home.—The resolution was carried unanimously.

The Rev. Donald Fraser, D.D., moved a resolution to raise £6,000, partly by the issue of shares of £25 each at five per cent., secured on the property, and partly by the generous help of voluntary contributors. He believed that dipsomania was a disease which was perfectly curable if taken in time and subjected to proper medical treatment.

Mr. Ernest Hart seconded the resolution, and said that the safeguard of an institution such as this, is, and always should be, that it was in some respects under the public eye and public management. The resolution was carried.

Dr. Drysdale moved a resolution for the appointment of three trustees mentioned in Mr. Holthouse's speech.

Mr. Robert Rae, in seconding the resolution, said he had had some experience of the necessity of such institutions as had been attempted to be formed that day. He was glad these steps had been taken, and trusted that Mr. Holthouse would succeed in thoroughly establishing a large institution for the treatment of dipsomania.

The motion was carried, as was likewise a vote of thanks to the Chairman.

## REPORT ON THE OUT-PATIENTS OF THE ROYAL FREE HOSPITAL.

We have received a Report upon the social position of the out-patients at the Royal Free Hospital, which has just been published by the Charity Organisation Society; and, as it has an important bearing upon the question of hospital abuse, the following extracts will be read with interest.

"In July 1874, the Managing Committee of the Royal Free Hospital entered into communication with the Council of the Charity Organisation Society with a view to obtaining a thorough inquiry into the social position of their out-patients. In the following October, the Council took the necessary steps for complying with this request. A member of the Council kindly undertook to superintend the investigation; the Committee of the Hospital agreeing to pay two assistants for a month to take down particulars of cases under his direction, and to do other clerical work. Every pains was taken by him to ensure that the cases inquired into should represent a fair average of the patients usually attending the hospital.......Each case has been considered separately on its own merits. The general rules which have guided the investigators, in the absence of exceptional circumstances, may be thus summarised.

"1. Those are set down as able to pay a private practitioner who are earning 40s. a week or more.

"2. Those earning from 20s. to 40s. are considered proper members for provident dispensaries; also single persons in some cases, when earning less than 20s. a week.

"3. Persons earning less than 20s., but still enough for their support in health without parish assistance, are classed as 'proper applicants'.

"4. 'Parish cases' include all those who are actually in receipt of parish relief, either for themselves or any of their family, as well as those who can barely support themselves by their earnings during health, and who in time of sickness cannot obtain even the necessaries of life.

"5. The fifth class consists of those who have given false information as to name or address. It no doubt embraces many persons of immoral character, who made false statements with a view to concealment.

"6. When the information obtained was not sufficient to enable the investigators to form any opinion, the case has been set aside.

"In adjudging cases to classes 1 and 2, great allowance has been made. Those who have conducted the inquiry have no doubt that many persons whom they have placed in class 2 would be included in class 1 if the opinion of the general practitioners of the neighbourhood were taken; and they are practically the best judges of what the lower middle class can pay. With regard to class 3, in the opinion of those who conducted the investigation, the whole body of the out-patients is really divisible into two sections: *a*, those who might reasonably be expected to pay something for their medical relief; and *b*, those who ought to be referred to the parish. So much allowance, they say, has been made in respect to the cases which have been called 'proper applicants', that it may be confidently asserted that many of them could pay a trifle for themselves, while the rest would have no difficulty in obtaining a parish order.

"Judging the 641 cases that have been investigated upon these general principles, subject to the qualification referred to, it was found that they divided themselves as follows.

| | |
|---|---|
| 1. Number who could afford to pay a private practitioner | 12 |
| 2. Number who could afford to subscribe to a provident dispensary | 231 |
| 3. Proper applicants | 169 |
| 4. Parish cases | 57 |
| 5. Number who gave false addresses | 103 |
| 6. Number about whom sufficient information was not obtained | 69 |
| Total | 641 |

"From these figures, it results that, after excluding the 172 contained in the two last classes, 2½ per cent. of the remainder were considered suitable for private practitioners, 49 per cent. for provident institutions, and 12 per cent. for parish assistance, whilst 36 per cent. are classed as proper applicants.

"Looking at these cases as a whole, it seems clearly undesirable to admit to the benefits of a charitable institution the persons who have been placed in class 1. It is more difficult to say how class 2 ought to be dealt with; and yet it forms such a large proportion of the whole number, that we can hardly be contented with the present state of things. It is precisely for this class of persons that some change is required in the mode of administering medical charity in the metropolis. The great majority of them are no doubt unable to pay even the lowest scale of a general practitioner's charges; but they are well able to contribute a small amount towards the cost of their own treatment, as many of them would gladly do. It is most desirable that this feeling of independence should be encouraged, and it has been shown in many instances that a plan can be adopted which is alike advantageous to the patients and to the medical men. As the title given to class 2 imports, this could, in our opinion, best be effected by putting them in relation with a provident system of medical relief. Whether or how this can be carried out at the Royal Free Hospital, it is not within the scope of this Report to say. It may be permissible, however, to call attention to the Royal Albert Hospital, Devonport, where the out-patient department has for some years been carried on upon the provident principle with marked success; and to the increase in the number of provident dispensaries which has taken place of late years, notwithstanding the difficulties they have had to encounter from unequal competition with free hospitals and dispensaries. If a provident branch could be established, or if a provident dispensary could be affiliated to the hospital, this would very materially facilitate the better regulation of outdoor medical relief. A large proportion of the applicants for out-patient relief might then be rejected, or rather referred, without the least appearance of harshness. Any such institution ought to be self-supporting. It should be served by the out-patient staff of the hospital, and a great part of the members' payments should go to form a fund from which the medical officers should receive an honorarium for their services."

Any one who wishes to see the Report in full should apply at the office of the Charity Organisation Society. We shall reserve our comments upon it until a future occasion.

## THE ABUSE OF HOSPITALS: THE MEMORIAL TO THE COMMITTEE OF COUNCIL.

DURING the last fortnight, the following names have been added to the list of those who have already signed the memorial.

Sir Thomas Watson, Bart., Dr. Priestley, Mr. De Morgan, F.R.S., Dr. Habershon, Mr. Luther Holden, Dr. Langdon Down, Mr. Maunder, Mr. Soelberg Wells, Dr. Southey, Dr. Duffin, Mr. Mason, Mr. Wagstaffe, Dr. Waller Lewis, Dr. Palfrey, Dr. Pye-Smith, Mrs. Garrett Anderson, Mr. James Adams, Mr. Andrew Clark, Dr. Bathurst Woodman, Dr. Winter Fisher, Dr. Sidney Coupland, Mr. Albert Kisch, Dr. Alfred Sheen (Cardiff), Dr. Thomas Stainthorpe (Hexham), Mr. Wright Baker (Derby), Dr. Henry Goode (Derby), Dr. W. G. Curgenven (Derby), Mr. F. W. Wright (Derby), Dr. Otho Wyer (Leamington), Mr Fenn Clark, (Leamington), Dr. Robert Slack (Leamington), Dr. Thomas Birt (Leamington), Dr. Henry Harris (Redruth), Dr. Kirwan King (Welwyn), Dr. F. M. Pierce (Manchester), Mr. T. N. Dean (Manchester), Dr. Clough Spencer (Manchester), Mr. H. Stear (Saffron Walden), Dr. C. J. Workman (Teignmouth), Dr. Goodridge (Bath), Mr. W. D. Wathen (Fishguard), Mr. J. Hancocke Wathen (Fishguard), Dr. G. Lorimer (Buxton), Mr. Jabez Thomas (Swansea), Mr. Edward Crossman (Hambrook), Mr. J. W. Plaxton (Hull), Dr. Deville (Harrogate), Mr. Arnold Thomson (Southall).

The memorial itself we printed on January 2nd. More than 250 signatures have already been affixed to it. Gentlemen who are desirous of adding their names, are requested to communicate with Dr. Meadows, 27, George Street, Hanover Square, or with Mr. Fairlie Clarke, 12, Mansfield Street, Cavendish Square, W.

## MEDICO-LEGAL REPORTS.

### MANSLAUGHTER BY INFECTION: COMMITTAL OF A MIDWIFE.

WE have again to record the criminal prosecution of a midwife for the propagation of puerperal fever.

At the Salford Borough Police Court, on Saturday, before Sir J. I. Mantell and Mr. W. W. Goulden, Elizabeth Marsden, a midwife, living in Chapel Street, Pendleton, was brought up on remand, charged with causing the deaths of Mary Ellen Goodier, of Union Street, Pendleton, and Ann Mills, of Woden Street, Salford. Mr. Smyly appeared for the prisoner. The investigation of the case was commenced on the preceding Tuesday, when prisoner was charged with causing the deaths of three married women; but, as regarded two, the charge was dismissed. The evidence went to show that prisoner, while suffering from puerperal fever, had attended a number of midwifery cases in the districts of Pendleton and Regent Road; and it was assumed by the prosecution that four of the women whom prisoner had attended in their confinement had died from puerperal fever, communicated to them by her.

Ellen Goodier, wife of John Goodier, said that her daughter, Mary Ellen Goodier, was confined on February 8th of a daughter, and prisoner attended her in her confinement. On the 11th, she became very ill, and witness, on prisoner's advice, called in Mr. White, surgeon, of Broad Street, Pendleton. Prisoner afterwards visited her daughter three times after Mr. White was called in.

Mr. J. A. White, surgeon, said he was called to attend Mary Ellen Goodier on February 11th. She was suffering from puerperal fever, and died on the 16th. On the latter date, he called upon prisoner, and advised her to destroy her clothes and rusticate for a month. She said that she had attended Mary Ellen Goodier.

Mr. Smyly submitted that there was nothing to show anything like criminal negligence. All that Mrs. Marsden was responsible for was, that she should show in her business an amount of skill commensurate with that which she professed. Where a woman did not hold a certificate, she could not be expected to possess anything more than a mere routine knowledge of her business.

Sir J. I. Mantell: Nothing is more generally known than the extremely contagious character of puerperal fever. The strongest ground against the prisoner is the warning she received not to attend any more cases.

The prisoner was committed for trial at the assizes on the first charge.

The charge of causing the death of Ann Mills was then proceeded with.

Elizabeth Nicholls, wife of William Nicholls, Salford, said that, on February 15th, she went for prisoner to attend Mrs. Ann Mills in her confinement. Prisoner attended Mrs. Mills, who gave birth to a daughter the same day. On the 16th, prisoner came to witness and told her to go for a doctor. She went for Mr. Knowles, and he visited Mrs. Mills the same day. The prisoner came to Mrs. Mills three times.

Mr. H. Knowles, surgeon, said he was called to see Ann Mills on the morning of February 16th. He found her suffering from symptoms which indicated inflammatory disease in the bowels. She died on the morning of February 18th. He refused to give a certificate of the cause of her death until he had made a *post mortem* examination, because an accusation had been made that she had received violence. He made a *post mortem* examination, but found no indication to warrant the accusation; there was diffused inflammation of the lining membrane of the bowels, but no indication of injury. He had no hesitation in saying that Mrs. Mills died of puerperal fever. In cross-examination, he said that he would not have said that she died from puerperal fever, unless he had heard the evidence, which, he thought, established contagion. The case of Mrs. Mills was of a mixed character; there were other things in connection with it.

Sir John Mantell: Would you say that she died of puerperal fever?—Witness; Yes; undoubtedly, the contagion was the cause of the inflammation of the bowels.

Cross-examination continued: He certified that the cause of death was inflammation of lungs and bowels in connection with parturition. The certificate was given after the *post mortem* examination, and bearing in mind the symptoms he had seen while attending the patient.

Sir John Mantell: It appears to me that all the incidents connected with puerperal fever existed, though they may have existed spontaneously without contagion; but now, knowing what he does, the doctor has no hesitation in saying that it was a case of puerperal fever. To my mind, there is an overwhelming suspicion that it was a case of puerperal fever.

The prisoner was then committed for trial at the assizes, and an application for bail was refused.

# SPECIAL CORRESPONDENCE.

## MANCHESTER.

[FROM OUR OWN CORRESPONDENT.]

*The late Mr. W. Smith.—Students' Debating Society.—Microscopical Section of Medical Society.—Bazaar in Aid of the Children's Hospital.—New Convalescent Hospital.—Hospital Saturday and Sunday.*

Mr. W. Smith's death was very sudden, but not quite unexpected, as his health for a short time past had been a source of some anxiety to his family and friends. Whilst examining a patient at his consulting-rooms, he fell back in his chair, and expired in a few minutes. The funeral was attended by a large assemblage of persons; nearly all his colleagues were present; the Infirmary board was represented by some of its most influential members, and Owens College by Professor Greenwood. There was besides a very large attendance of students and former pupils. Mr. Smith's genial manner and kindliness of heart had endeared him greatly to colleagues, pupils, and friends; his loss will be most severely felt, and his place not easily filled. His reception at the opening of the new Medical School, last October, is fresh in the memory of all who were present, and will not be readily forgotten. There will be no vacancy at the Infirmary, as the surgical staff is to be henceforth limited to four surgeons and two assistant-surgeons.

In connection with the Medical School, a Students' Debating Society has been organised. The meetings are held fortnightly; a paper is read, and a discussion afterwards takes place. We have been present at some of the meetings, and have been much delighted with the practical nature of the papers read, and of the speeches that have fol-owed.

The first meeting of a Microscopical Section of the Medical Society was held on February 23rd, when several very interesting specimens illustrative of the various sarcomatous tumours were exhibited. The meetings of the Section are to be held on the third Tuesday in each month, except the months of August and September, and its members re those of the parent society who subscribe the annual sum of five hillings.

In the second week of next month, a Bazaar is to be held in the Free Trade Hall, in aid of the Children's Hospital. At present, the nstitution contains eighty-four beds, but when finished it is intended hat it should have double that number. On the present building there a debt, which the promoters of the bazaar intend to wipe off, and ith the surplus money to afford the board an opportunity of complet-ng their plans by building three more wings, each containing twenty-x beds. The chief features of this Bazaar are the immensity of the cale on which it is to be held, and the great and increasing interest ken in it by ladies in the surrounding districts, as shown by stalls to e presided over by ladies of Bowden and Alderley.

The new Convalescent Hospital belonging to the Infirmary, and due to the munificence of the late Mr. Barnes, is fast approaching completion. When finished, there will be accommodation for one hundred and twenty patients; it is fully expected that a portion of the building will be occupied in three months.

February 20th and 21st were Hospital Saturday and Sunday, and the annual collections in aid of the local charities of Manchester and Salford took place. Formerly, there had been a week's interval between the two Hospital days. This year it was determined to hold them on consecutive days, in the hope that better results would be obtained.

# ASSOCIATION INTELLIGENCE.

## WEST SOMERSET BRANCH.

The spring meeting of this Branch will be held at the Royal Clarence Hotel, Bridgwater, on Thursday, March 18th, at 5.15 P.M. The following question has been settled by the Council as the one on which each member should be asked to express his opinion at the said meeting: "What in your opinion is the best mode of treating habitual drunkards?"

*Communication Promised.*—Dr. Alford: On the Causation of Typhoid Fever.

W. M. Kelly, M.D., *Honorary Secretary.*

## SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEETINGS.

The next meeting will be held at the Harp Hotel, Dover, on Thursday, March 18th, 1875, at three o'clock; Francis E. Barton, Esq., in the Chair. Dinner at five o'clock precisely; charge, 5s., exclusive of wine.

The Chairman kindly invites members and their friends to luncheon at his residence, 6, Cambridge Terrace, at half-past one.

Notices have been received of the following communications to be read at the meeting.

1. Mr. Osborn: Case of Intussusception of the Rectum.
2. Dr. Joyce: Diphtheria, with illustrative cases.
3. Mr. Robinson: Short Notes on Epidemics of Diphtheria and so-called Croup in East Kent during 1874.
4. Mr. Marshall: Paracentesis Abdominis; the advantage to be derived from using a small Trocar and Cannula.
5. Mr. Clement Walter: A Few Remarks on Diabetes.

Gentlemen who intend to be present at the dinner are particularly requested to inform me on or before Tuesday, the 16th instant.

Edward Whitfield Thurston, *Honorary Secretary.*

Ashford, March 9th, 1875.

## SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.

The first meeting of the above district for the present year will be held on Wednesday, March 24th, at Tunbridge Wells, at 3 o'clock P.M.; Blackall Marsack, Esq., in the Chair.

Dinner will be provided at 5 P.M., at the usual charge.

All members of the South-Eastern Branch are entitled to attend these meetings, and to introduce professional friends.

Notice of intended communications is requested by Tuesday, the 16th instant, in order that they may be duly inserted in the circular convening the meeting.

Thos. Trollope, M.D., *Hon. Sec.*

35, Marina, St. Leonard's-on-Sea, March 9th, 1875.

## SOUTH OF IRELAND BRANCH: ORDINARY MEETINGS.

An ordinary meeting of this Branch was held in the Theatre of the Royal Cork Institution on February 10th, Dr. Thomas Gregg, President, in the Chair.

*Hydrate of Chloral in Puerperal Convulsions.*—Dr. O'Flynn brought forward a case of puerperal convulsions of an epileptiform nature, in which hydrate of chloral had been used with the best effect. It was given in the intervals between the paroxysms, in fifteen-grain doses, at first every second, subsequently every third, hour. The convulsions ceased within twenty-four hours after the termination of the labour. An interesting discussion followed, in which Drs. Cummins, Jones, Atkins, and the President, took part.

*Menière's Disease.*—Dr. Jones brought forward the notes of two cases of Menière's disease. Case I. Mary J., aged 40, dressmaker, had had deafness over two months. It came on after cold caught while sitting up at night nursetending. There was constant tinnitus with the right ear, a watch was heard on contact; a tuning fork, she thought, the same at both sides, and less loudly on closure. With the left ear, a watch was not heard on contact. The membrana tympani of each ear was rather dull and concave; and the malleus was unduly prominent. She was subject to occasional attacks of vomiting and fits of giddiness, with louder noises, and "a tendency to fall forwards, which she would do if she did not support herself". Case II. M. H., a servant, aged 60, had had deafness over one year. There was a constant noise "like a great storm". She referred this to the back of the head; and said she had lately become "afraid to walk", that she "felt as if she were falling down". Her conversational powers were good; but the watch was barely heard on contact with both ears. She thought a tuning-fork was heard better with the right ear, but badly in both. She was confident that closure made her hear worse. The affection came on, she said, after a gastric attack, and at first she suffered from severe megrim. In both ears, the membrane was dull, concave, and irregular. In neither of the cases was there any accompanying lesion of the retina. One case appeared to improve on the administration of bromide and iodide of potassium, alternately with strychnine, vesication, inflation, and the daily injection of iodide of potassium with the Eustachian catheter; but any cases of this affection which Dr. Jones had seen were obstinate and intractable.

*Rhinolith.*—Dr. Cummins brought forward an interesting case of a small calculus which he had removed from a lady's nose. Dr. R. Atkins had examined a section under the microscope, made by grinding down the specimen, and found it to be composed of a "granular matrix", surrounded by a horny covering. The case was more particularly interesting from the extreme rarity of such depositions in the nose.

An ordinary meeting was held in the Theatre of the Royal Cork Institute on February 24th, Dr. Gregg, President, in the Chair.

*Bad Compound Fracture of the Bones of the Leg: Recovery.*—The President detailed the particulars of a most severe injury received in the hunting-field, the gentleman fracturing both bones a few inches above the malleoli, and tearing the tendon of the tibialis posticus, which protruded from the wound, which was extensive, the integument being torn both anteriorly and posteriorly. Besides small portions of bone that exfoliated, a large portion of the half detached fragment of the tibia had to be removed. The case, the President said, he brought forward as an instance of the extent to which conservative surgery could go, in saving a limb even under such extremely unfavourable circumstances as presented themselves in this case. Holmes's splint and carbolic dressings were used throughout.

*Dislocation of Humerus reduced after Five Months.*—The President related the case of a woman, aged 33, admitted into the County Hospital on January 28th, the injury having occurred on September 5th previously, from an accident which was caused by a threshing-machine, in which her arm was caught. The nature of the injury was overlooked. On presenting herself at the hospital, the usual appearances of dislocation under the clavicle, the head of the bone being fixed in this position, and adherent to the neck of the scapula. On February 3rd, the reduction was affected under chloroform, with pulleys. The usual apparatus employed in the hospital for old standing luxations of the shoulder-joint, is a gutta-percha shield, which fits from spine to sternum, with an aperture for the arm, carefully moulded and bandaged to the body. This protecting shield affords a means of steadying the scapula, and also a fixing point for the straps, and preventing injury to the ribs. The President cited several instances of old standing luxation, which, he said, could not have been reduced but for the use of this gutta-percha-shield.

*Removal of Tumour of Superior Maxilla.*—The President detailed the particulars of a case of removal of a tumour from the superior maxilla. The tumour grew from the anterior and was completely dissected out, and any diseased portion of bone removed. On microscopical examination, however, by Dr. Atkins, characteristic, free, and aggregated cancer-cells were seen, with loculi, making up nearly the entire structure of the sections examined, specimens of which were exhibited to the members. . This made the return of the growth a matter of certainty.

*Removal of Superior Maxilla.*—Dr. Jones exhibited a photograph, taken before and after operation, of a woman from whom he had removed the entire superior maxilla, but in which, as he feared before hand, the disease recurred in the soft parts, the skin being slightly involved. He performed the operation after full consultation at the urgent solicitation of the patient.

## SOUTHERN BRANCH: SOUTH HANTS DISTRICT.

A meeting of the above District was held at Portsmouth, on Tuesday, February 23rd. Fifteen members were present, and Mr. W. H. Garrington occupied the Chair.

1. Dr. Axford read a paper on Dysmenorrhœa. He referred especially to the membranous form of the disease, and exhibited some excellent specimens of fibrinous exudations from the uterus.

2. Dr. Ward Cousins read some notes in a successful case of Excision of the Knee-Joint. The patient was examined by the members. He also brought forward a patient of twelve years of age, who had made a good recovery after suffering for some years from extensive central necrosis of the shaft of the humerus. The sequestrum had separated very slowly, and several operations were necessary to remove it completely.

# REPORTS OF SOCIETIES.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, March 9th, 1875.

Sir James Paget, Bart., F.R.S., D.C.L., LL.D., in the Chair.

### URINARY CRYSTALS AND CALCULI; BEING OBSERVATIONS ON SOME OF THE CIRCUMSTANCES DETERMINING THE FORMS OF CRYSTALLINE DEPOSITS IN URINE, AND ON SOME OF THE CONDITIONS UNDER WHICH RENAL AND VESICAL CALCULI ARE PRODUCED.

BY WILLIAM M. ORD, M.B.LOND., M.R.C.P.

1. The starting point of the paper was the remarkable difference between the crystalline form of pure uric acid and the form of uric acid in urine; the former being in oblong rectangular tablets, the latter in rhombohedra with rounded obtuse angles; the former in separate crystals, the latter very often in zeolithic masses. After a brief notice of former observations showing that uric acid deposited in the presence of albumen and other colloids tended to assume spherical form, and in the presence of sugar and other crystalloids, tabular and angular form, a series of experiments having for their object the determination of the causes of the altered form of urinary uric acid were related. The conclusions drawn from these experiments were that mucus and the colouring matter of the urine were both agents in producing the ordinary urinary form of uric acid; that either agent was capable of exerting this influence without the presence of the other; that these were probably the sole agents in ordinary urine.—2. The forms of uric acid in albuminous urine were next considered. It was remarked that, while they tended generally to sphericity, they varied much in the degree of their tendency. It was inferred from a series of observations which are related in a generalised form that a larger proportionate quantity of urea in albuminous urine constituted *pro ratâ* an obstacle to the sphere-forming process.—3. Two forms of uric acid were noted as occurring in sugary urine: one a flat rhombohedron, with chiselled ends; the other a six-sided tablet, with sharp ends, the latter being a rare form.—4. Purulent mucus was shown to have a great power of converting uric acid to sphericity, and of causing aggregation of spheres into calculi. Dr. Vandyke Carter's observations on the structure of calculi were referred to, and it was argued that the experiments now related agreed from the synthetic point of view with his analyses. The influence of colloids, and particularly of mucus, in favouring the formation of calculi within the urinary passages, was inferred to be of first importance, and much worthy of regard as bearing upon practice. Uric acid and other crystalline substances did not of themselves tend to form calculi, but were moulded by the other constituents of the urine. The part taken by the temperature of the body in furthering the process was discussed and regarded as important.—5. The forms of urates, and the influence upon them of chlorides, albumen, and mucus, were next noticed; mucus in a high degree, and albumen in a less degree, were noticed as favouring the formation of spheres, chiefly in association with a concentrated condition of the urine. This particularly applied to the spherical form of urate of soda observed by Golding, Bird, Thudichum, Beale, Roberts, and others.—6. As to oxalate of lime, the formation of dumb-bells under the influence of colloids, already elsewhere suggested by Dr. Beale, and described by the author, was referred to, and several cases of spheroidal modifications of oxalate of lime in urine containing colloids were brought forward.—7. Triple phosphate was much less easily moulded by colloids than the substance hitherto treated. But it was shown that mucus, aided by warm temperature, could and did modify triple phosphate towards sphericity, and favour calculous deposit. And the forms obtained under such circumstances agreed in a remarkable way with the forms of triple phosphate found by Dr. Vandyke Carter in calculi.—8. The influence of albumen on the form of nitrate of urea was noted.—9. With regard to the bearing of the foregoing observations on micromorphology, it was urged that, in the microscopy of the

future, beyond recording the forms of the tissues, observers would interpret the meanings of forms, compelling form to tell the story of growth and function, following out the relations between form and substance, and proceeding to the discovery of the laws of tissue-formation.

Mr. C. BROOKE, referring to one of the figures of oxalate of lime exhibited, asked whether the pentagonal appearance was correct. It seemed to him not reconcileable with any known form of molecular aggregation.—Dr. ORD said that the drawing was rather difficult to make correctly, as both the centre and the circumference had to be represented. As far as he could make out, the form was a transitional one between an octahedron and a sphere.—Dr. DICKINSON remarked that Dr. Ord had referred to uric acid as the most common centre of calculi; and this statement was very commonly made. He thought, however, that it was not founded on fact. He had examined numerous calculi in the London museums, and had found that in the majority of them the real centre was oxalate of lime, though it might be in small quantity. Calculi were most frequent in limestone districts, and where the water was hard. Their formation most probably depended on the excretion of lime in the urine, rather than on any condition of the urinary passages, such as vesical catarrh.—Mr. THOMAS TAYLOR said that the alteration of form of crystals described by Dr. Ord was an illustration of the general law of crystallisation, that crystals were deprived of their angles by contact with foreign matters. He believed that Dr. Ord had referred to what had been called by some the blastema of calculi; mucus was a very indefinite term. The mucus of the bladder seemed scarcely to be the basis for the formation of calculi. At the Royal College of Surgeons, he had examined numerous calculi, but had great difficulty in dissolving out the earthy matter without destroying the animal matter. On placing under the microscope, however, portions of the concretions found in the sturgeon (*Acipenser huso*), and treating them with nitric acid, the earthy matter was dissolved out, leaving the animal matter in the original arrangement. He could not, however, determine what this animal matter was. It appeared to him that the formation of calculi took place in some such way as the following. Long before any irritation was set up in the bladder—and it must be remembered that calculi might exist for years without producing inconvenience—the uric acid was secreted, perhaps at first in a hydrated form, after which it shrank and formed minute crystals, which became coated with animal matter, perhaps of the nature of coagulable lymph, or perhaps like the exudation under the scales in some skin-diseases. Calculi were generally preceded by discharge of gravel; but a person might pass gravel for years, and yet have no calculus. He had thought it possible that in certain cases irritation took place in the kidney, where a species of inflammation was set up, leading to the secretion of fluid, and thus to the formation of calculi. He advanced this opinion, however, with some hesitation. But he believed that the formation of calculi would have to be explained by the anatomist rather than by the chemist. He recommended that, in cases of persons dying with calculus, the kidneys should be congested and examined with a view to ascertain whether there was any pathological change. (This, of course, did not refer to the secondary changes induced in the organ.)—Mr. SAVORY said that the paper was interesting as pointing to the influences exerted on form. In both, the earthy matter was deposited in granules. In some parts of shells, there was an approximation to angular forms; in the interior of cystic shells, distinct crystals were formed. Mr. Rainey had found that crystals with rounded edges were precipitated from a solution of common salt with gum.—Dr. BROADBENT remarked that Dr. Ord had given a special direction to the observations made by Mr. Rainey. Dr. Beale had found that the nuclei of calculi, apparently uric acid, consisted of oxalate of lime.—Dr. ORD, in reply to Dr. Dickinson, stated that he had not said that the nuclei of most calculi consisted of uric acid, but that the bulk of most calculi consisted of this. (Dr. Dickinson expressed assent.) But, whatever might be the nucleus, we still had to get at an explanation of the formation of calculi. He admitted that mucus was a bad term; but it did not follow that, because the animal matter left after removal of the earthy matter of calculi had not the reaction of mucus, it was not originally mucus. He had been a pupil of Mr. Rainey, and thought that his observations had remained in an obscurity which they did not deserve.

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## GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

TUESDAY, FEBRUARY 11TH, 1875.

W. T. GAIRDNER, M.D., President, in the Chair.

*Pityriasis Rubra Acuta recurring during Seventeen Years: Febrile Movement: Influence of this on Nails.*—Dr. GAIRDNER introduced a atient, who had recently recovered from an attack of pityriasis rubra cuta (Devergie), for which he had been under treatment both in the Royal Infirmary and in the Western Infirmary. The case was one of a certain historical interest in Glasgow, inasmuch as its commencement had been described in an article by the late Dr. McGhie in the *Glasgow Medical Journal* for 1858 (vol. v, p. 431); and, during nearly seventeen years past, the patient has been repeatedly under observation in numerous invasions of the disease, separated by intervals of years, during which he states himself to have enjoyed tolerably good health. Each invasion lasts, as a rule, for months, and consists of a number of successive desquamations of the cuticle, over the entire surface of the body. The invasions have been, on the whole, diminishing in severity; and, notwithstanding the gloomy prognosis held out by Devergie and others in this disease, there seems a fair presumption that he may survive it, as his organs are even now perfectly sound; and, although emaciated, he is by no means in very greatly impaired health. The object of presenting this man to the Society, however, was not to describe the disease at large, but to give evidence of one feature of it which is overlooked, and even denied, by some authorities—viz., the distinctly febrile character of the invasion, especially in its early stages; and the effect of this upon the growth of the nails. In this man, the nails have always been (when under observation of late years) much curved, though without much, if indeed any, clubbing of the finger ends. In the last invasion of pityriasis, which began in the first days of October 1874, the temperatures were carefully noted for nearly two months, every morning and evening, from October 3rd onwards. The maximum temperature noted was 103.8 deg. Fahr. on October 5th; but, for some days after the commencement of the invasion, the temperatures were oftener above than below 100 deg. Fahr., and it was not until October 8th that normal temperatures were recorded. After this, although the fever was slight, it was still occasionally apparent, as on October 17th, when 101.2 deg. morning and 100 deg. evening were noted; and on October 26th and 28th, when a new maximum of 102.6 deg. Fahr. was attained, with adjoining observations of 101.8 deg. and 100 deg. In general, the morning temperatures were normal, or even subnormal on the majority of days, except at the periods above referred to; but the evening temperatures often presented a rise, which, though not altogether beyond the possible limits of health, were distinct in comparison with the morning range in this man. In the end of November, temperatures of 101.4 deg., 100.8 deg., 100.6 deg. were again noted in connection with a renewed attack of desquamation. The effect of all this constitutional derangement was seen in the nails, which were not only, as stated, much curved, but presented a very evident and deep transverse furrowing, corresponding in date with the first febrile period, the portion of the nail which emerged at that time being comparatively soft and thin, and being succeeded by a more natural portion, and this again at an interval by another furrow. It was rather remarkable that in all the numerous and complete desquamations that had attended this disease during sixteen years, the nails had only once separated, viz., during the first, which was also the most severe attack: at this time, also, the hair came away a good deal, but in the latter attacks scarcely at all, and now, although dry and scurfy and a little grey, it was abundant all over the head.

*Cancer of Lesser Curvature of Stomach.*—Dr. WOOD SMITH showed a specimen of epithelial cancer. The tumour occupied portions of the lesser curvature and of the anterior and posterior walls. It ended abruptly at the pylorus; it measured three and a half inches along the lesser curvature, and four inches in a direction at right angles to this; it was much ulcerated, and its margins prominent and warty looking. It had adhesions to the transverse colon, and a tortuous communication existed between the ulcerated tumour and the colon. The tumour also had adhesions to the liver; the liver was smaller than usual, and had a few small white growths in its substance; some enlarged glands were also found in the neighbourhood. Dr. Wood Smith said the case had presented much difficulty in diagnosis during life; the tumour could not be distinguished from an enlarged liver; the man was sixty-three years old, and had been intemperate; there was neither vomiting nor any alteration in the character of the stools; his chief complaint was of loss of appetite and shooting pains in the right hypochondrium.

*Cancer of the Bladder and Kidneys.*—Dr. WOOD SMITH also showed the bladder of a man, aged 62, who suffered from hæmaturia, frequent micturition, and pains over the kidneys. The urine was of a smoky tint from blood, but no tube-casts could be found. Pneumonia on the right side appeared, and after death cancerous nodules were found in the bladder and kidneys, and under the pleura costalis.

*Scirrhus of Breast.*—Dr. G. H. B. MACLEOD presented a fresh specimen just removed from the breast of a healthy looking woman, aged 46. It had grown slowly, having been observed two years ago. It was only very slightly imbedded in the gland, but stood quite out like a great nipple. There were no glands affected, and no puckering of the skin or retraction of the nipple. Dr. Macleod intended merely to excise the growth and the base from which it grew, if, on section, it was found non-malignant; but, on cutting it, he saw at once that it was necessary to remove the whole breast.—Dr. JOSEPH COATS had examined sections, and found the typical structure of scirrhus.—From its unusual situation, it was referred to a committee for report.

*Tumour (Malignant?) on Outer Side of Knee.*—Dr. G. H. B. MACLEOD also presented a tumour removed from a woman, aged 56. It grew on the outer side of the knee-joint; and, as it seemed malignant, it was removed with all skin, etc. The joint was not implicated. It had been growing since July, and occasionally there was much pain.—Dr. JOSEPH COATS regarded the tumour as a spindle-celled sarcoma, or recurrent fibroid.—It was referred with the previous tumour to a committee for report.

*Spontaneous Extrusion of the Upper Articular Epiphysis of the Femur.*—Dr. MACLEOD also presented this specimen from a girl, aged 14. He had since broken up some fibrous adhesions, and the limb was likely to do well.

*Atelectasis and Emphysema.*—Dr. ALEXANDER ROBERTSON contributed a fresh specimen, viz., the lungs of an infant, who, for a week after birth, seemed healthy, when bronchitis set in, and extensive atelectasis was diagnosed. A large portion of both lungs was found collapsed, and patches of emphysema existed at the margins.

*Large Emphysematous Bulla.*—Dr. KNOX presented a preparation from the dissecting-room; the history was absent. A large vesicle about the size of a small orange occupied the dome of the pleura at the apex; it was attached to the lung by a very small flattened pedicle; traces of calcareous degeneration were noticed on the wall of the vesicle. Both lungs were slightly emphysematous throughout, but this was the only large vesicle found. The lung was injected with spirit from the bronchus to preserve it, but none entered the vesicle.

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## PATHOLOGICAL SOCIETY OF DUBLIN.

### SATURDAY, FEBRUARY 13TH, 1875.

ROBERT McDONNELL, M.D., F.R.S., President, and subsequently SIR DOMINIC J. CORRIGAN, Bart., M.D., in the Chair.

*Intestinal Strangulation in a Child.*—Dr. BANKS showed part of the intestines of a child aged one year, who was admitted to hospital in collapse, having passed eight days without a motion from the bowels. A large portion of the small intestine was running into gangrene, having originally been caught in a "slit" in the omentum and strangulated.

*Dilatation and Hypertrophy of Heart: Sudden Death: Clot in Right Auricle.*—Dr. FINNY showed the heart of a woman aged 55, who had suffered from cardiac dropsy. There was no ascites. The heart's action was excited and quick (between 90 and 100 per minute); her face was semi-cyanotic. The area of precordial dulness was increased, the cardiac impulse being undulatory and variable in character. No *bruit* was audible. After death, the lungs proved to be emphysematous, the right one more particularly so. As regards the heart, the right ventricle was dilated, but free from clots. A large fibrinous clot passed from the superior vena cava into the dilated right auricle, and was attached firmly to the auricular appendix. Some fluid venous blood lay free in the cavity of the auricle. The left ventricle was greatly dilated and hypertrophied. All the valves were healthy.

*Pathological Changes induced by Urethral Stricture.*—Dr. McDONNELL laid before the Society the urinary organs of a man aged only 32, who had long suffered from a close stricture, which was easily cured by operative measures. The patient constantly passed mucopurulent urine. At the necropsy, the bladder was found to be small, its surface rough, and entirely coated with lymph; the ureters were enormously enlarged, their walls being much thickened. The kidneys were of immense size; the pelves and calices dilated and filled with muco-purulent urine. The cortical substance had almost disappeared from the right kidney, while the left was rather more healthy. No right testis, or even a vas deferens, on that side could be detected.

*Abscess of Cerebellum, due to Disease of Temporal Bone.*—Dr. T. EVELYN LITTLE presented a specimen from the body of a woman aged 30, who for ten or twelve years had been the subject of otorrhœa. For three weeks previously to her admission to hospital, a group of symptoms pointing to intracranial mischief had been present. These were pain in the ear, and headache, slight photophobia, lethargy, persistent vomiting, and sleeplessness. There was only very slight deafness, and no facial palsy existed. Just before death, her pupils became widely dilated. An adhesion was found between the right hemisphere of the cerebellum and the petrous portion of the corresponding temporal bone. In the cerebellum lay an abscess, equal to a walnut in size. A second abscess separated the dura mater from the bone, which it penetrated *behind* the internal auditory meatus; hence the absence of any paralysis of the seventh nerve. The lateral sinus was healthy, but the petrosal sinus was plugged. Effusion into the lateral ventricles had been the immediate cause of death.

*Disease of Temporal Bone: Secondary Inflammation of Orbit.*—Dr. BARTON showed the left temporal bone of a boy, 13 years old, the subject of chronic otorrhœa. When admitted to Hospital, he was partially paralysed, his pulse was 116, and he suffered from constant sleeplessness. The pupils were dilated, and acted sluggishly on stimulation by light. The right eyeball ultimately became protruded, and the conjunctiva was inflamed. After death, evidences of general arachnitis were discovered, lymph being plentifully effused at the base of the brain, in the Sylvian fissures, etc. No abscess or pus was found. The right eyeball was bathed in a depôt of pus. The petrous portion of the temporal bone was not carious: but destructive inflammation had occurred in the middle ear, and a perforation leading from the mastoid cells to the upper part of the lateral sinus had caused the engagement of the orbit.

### SATURDAY, FEBRUARY 20TH, 1875.

ROBERT McDONNELL, M.D., F.R.S., President, in the Chair.

*Aneurism of the Thoracic Aorta.*—Dr. C. J. NIXON showed a specimen from the body of an intemperate man, who had complained for two months only, and who had been admitted to hospital with symptoms resembling those of the last stage of phthisis. There was marked pulsation of the carotids, with *frémissement*. Over the base of the heart a *bruit de scie* was audible, and an area of dulness on percussion existed under the sternum and left clavicle. There was no aphonia, but stridulous breathing and a hoarse cough pointed to some implication of the recurrent laryngeal nerve. The diagnosis was, incompetency of the aortic valves and aneurism of the transverse aorta. After death, the aorta was found dilated above the valves, which were diseased. An enormous aneurismal sac sprang from the terminal portion of the transverse aorta, occupying the posterior mediastinum, eroding the vertebræ, and pressing on the recurrent laryngeal nerve. Three or four pounds of fluid blood lay in the left pleural cavity, having escaped through a small rent in the wall of the aneurism. The aorta was throughout very atheromatous. Amongst other things, the case illustrated the masking of the signs of aneurism by the presence of bronchitis (Stokes), and the suddenness of death consequent on the rupture of the sac into a serous cavity (Addison).

*Dilatation of Heart.*—Dr. FINNY showed the thoracic viscera and liver of a woman who suffered a year before from swelled leg and great dyspnœa. She did not complain much, however, for many months. She ultimately was admitted to hospital with purpuric spots, anasarca, and dyspnœa. The percussion note over the chest indicated *emphysema pulmonum*. The area of precordial dulness was enlarged, and the heart's impulse was irregular and diffuse. The right jugular vein was permanently varicose. After death, the pericardium was found adherent to the heart, and an encysted pericarditis was observed encircling the origin of the great vessels at the base. The walls of the right auricle were attenuated, atheromatous, and fatty. The left ventricle also was fatty, and there were old caseous deposits in the lungs. The liver was square-shaped, and showed evidences of commencing disease.

*Congenital Malformation of the Clavicle.*—Dr. G. H. BENNETT laid on the table three specimens of a congenital malformation of the outer end of the collar-bone, similar to that demonstrated by him at the meeting of the Society on February 8th, 1873. [See BRITISH MEDICAL JOURNAL, May 31st, 1873, page 631.] In every case the deformity existed only on the left side of the body. It consisted mainly in the acromial extremity of the clavicle being bifid, and its articulation with the scapula double.

*Mode of Recurrence of Sarcoma with Small Round Cells.*—The PRESIDENT laid before the Society a series of specimens from the body of a man aged 21, who became the subject of a small round-celled sarcoma of the leg. The limb was amputated, and the stump healed kindly; but after some time, the urine he passed was observed on standing to become dark-coloured, apparently from oxidation of the colouring matter of the blood by exposure to the air. Shortly, the presence of blood in large quantity became unequivocal. Intense pain commenced in the neighbourhood of the lumbar enlargement of the spinal cord, and simultaneously partial paraplegia set in. The motor power was lost, the sensitory power became limited, thermic impressions were wanting, but reflex phenomena could be excited. The man died. The bladder was in an advanced state of disease, but the kidneys were healthy, although anæmic. In the loose cellular tissue between the rectum and bladder lay a large sarcomatous mass, and nodules of the same form of tumour were found in, and especially at the margin of, the lungs. The inguinal glands were scarcely, if at all, enlarged or engaged, thus showing how different this connective tissue tumour was from the carcinomatous group.

As explanatory of the intense pain, two of the lower dorsal nerves showed intensely red spots close to their ganglia, and they were found to run into a mass of sarcoma just outside the theca.

*Functional Tricuspid Insufficiency.*—Dr. NIXON exhibited the heart and lungs of a woman aged 46, the subject of bronchitis. When he first saw her, the subcrepitant *râle* of capillary bronchitis was heard generally through the chest. After a few days, sudden and severe pain in the heart occurred. On physical examination, it was ascertained that the area of precordial dulness had much increased, especially towards the right, since the previous day, and a murmur indicated that insufficiency of the right auriculo-ventricular opening was the cause at once of the pain, and of the increased area of dulness. She was bled from the median basilic vein, with temporary marked relief, but sank in a few hours. The heart was dilated; its left chambers were bloodless. The right ventricle and auricle were gorged with blood, and a firm clot extended into the corresponding auricular appendix. The tricuspid valve was so dilated as to admit seven fingers into its opening. In the apex of the left lung were appearances resembling slaty induration of the lung.

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### SATURDAY, FEBRUARY 27TH, 1875.

ROBERT MCDONNELL, M.D., F.R.S., President, in the Chair.

*Embolism of Middle Cerebral Artery.*—Dr. JAMES LITTLE showed the brain of a man who was admitted to hospital complaining of gradual failure of sight, numbness in the right arm and leg, and a peculiar gait. He constantly experienced a sense of smelling beautiful flowers, and a strange feeling in the right pectoral muscles. Atrophy of the optic disc existed. Partial right hemiplegia and complete aphasia occurred while he was in hospital, and a suicidal tendency also developed itself. In the end, the man committed suicide by leaping from a window. The brain was diseased in the area supplied by the left middle cerebral artery. This lesion had probably originated in embolism. The substance of the brain in the area mentioned was softened and diffluent, and internally the left corpus striatum was less firm than the right.

*Amyloid Disease of Liver and Kidneys.*—Dr. HAYDEN presented specimens from the body of a temperate man, aged 26, a pipe-maker by trade. When admitted to hospital, the patient was deeply jaundiced. He stated that up to ten months previously his health had been good. Pleuropneumonia supervened. The urine, of low specific gravity (1010) was albuminous, and stained with bile-pigment. After death, the liver proved to be of very large size, presenting a marked example of amyloid degeneration. The kidneys were also enlarged and amyloid. The right lung had passed into the third stage of pneumonia, and there were thick deposits of lymph in the interlobal fissures.

*Ascaris Lumbricoides discharged from Umbilicus.*—Dr. MACSWINEY exhibited an ascaris which had escaped through the umbilicus of a boy aged 7. When he first saw the boy, two inches of the entozoon already protruded from the navel. With some care and difficulty, the remainder was drawn away. The animal was nine inches long, and of the male sex. A fistulous condition of the umbilicus had existed from birth, but the discharge had no feculent odour, and contained neither blood nor bile. One of Dr. MacSwiney's colleagues (Mr. Kelly) had suggested a probable explanation of the escape of the parasite in this peculiar manner; namely, that an unclosed vitelline duct had allowed it to pass from the intestine to the umbilicus.

*Rupture of Renal Abscess into Peritoneum.*—Dr. E. H. BENNETT showed the urinary organs of a Swedish sailor, who, seventeen months ago, had met with a fracture of the leg, and an injury in the perinæum, including, in all probability, a rupture of the urethra. A suppurating fistula became established. Attacks of retention of urine, followed by symptoms of urinary fever, occurred in January last. Numerous small calculi came away through a stricture of the urethra. External urethrotomy was ultimately performed; but, some time afterwards, intense pain, amounting to agony, set in, and was referred to the left kidney. This increased, and continued to the hour of death. The peritoneal cavity was full of purulent fluid, and patches of recent lymph glued the intestines together. The colon, spleen, and left kidney were all matted together by lymph. On the anterior surface of the same kidney, a small opening allowed pus to escape freely into the peritoneum from a large renal abscess. In the left ureter, an impacted calculus was found to have caused retention of urine in the pelvis of the kidney, and so nduced rupture of the abscess. The bladder showed signs of acute cystitis.

*Bony Development from Choroiditis.*—Mr. H. WILSON showed two specimens. One was in the eye of a man aged 40. Sight in the organ had been lost thirty years previously. On extracting the shrunken eyeball, a large cup-shaped mass of bone, a quarter of an inch in thickness, and three-quarters of an inch in transverse measurement, was found. There was no trace of the retina, but the point of entrance of the optic nerve was marked by a projecting spur of bone. Remains of the choroid were detected. A second specimen had been removed by Dr. Richard Rainsford. The etiology of this bony metamorphosis was probably as follows: ido-choroiditis, plastic exudation between the retina and choroid, detachment of the retina, organisation of the exudation, and, lastly, bony transformation of the same.

*Stricture and Abscess of Urethra.*—Dr. THOMSON laid on the table the urinary bladder and penis of a man who died of phthisis, but who had suffered from retention of urine due to a stricture of nineteen years' standing. One day he felt something give way when passing urine, and signs of commencing urinary infiltration appeared. Internal urethrotomy was performed with marked relief, but the man sank from his pulmonary affection. The bladder was thickened as in chronic cystitis. Two strictures of the urethra existed. On the left side of the passage, there was an opening into the cavity of an abscess as large as a small walnut. The sensation of "something giving way" was clearly coincident with a rupture into this abscess of the wall of the urethra.

*Diagnosis of Simple Hypertrophy of Left Ventricle of the Heart.*—Dr. HAYDEN presented the heart of a man who died of chronic Bright's disease (uræmic convulsions). It was an admirable example of simple hypertrophy of the left ventricle, in which the walls of the ventricle are thickened without any lessening of its cavity. During life, Dr. Hayden had observed a most marked doubling of the first sound of the heart; and this he considered, from observations in a series of cases, to be a pathognomonic sign of the condition of parts in question.

### SATURDAY, MARCH 6TH, 1875.

*Tertiary Lesions of Syphilis.*—Dr. W. THOMSON showed various parts from the body of a man with an eighteen years' history of syphilis. Seven years after the development of a syphilitic eruption, the patient was attacked by severe pains in the legs, and ulcers formed on the anterior aspect of the tibiæ. Four and a half years ago, an ulcer of the os frontis formed. This spread until the bone was destroyed to the extent of four inches in transverse measurement. Both tables of the bone were destroyed, and there was great thickening. Epileptiform convulsions occurred the day before his death. The necropsy revealed extensive meningitis. A small induration in the white substance of the anterior lobe of the right cerebral hemisphere was examined microscopically. Its centre consisted chiefly of *débris*, and was surrounded by a zone of thickened neuroglia. It was apparently an old abscess. Both tibiæ were much diseased. The pleura was adherent. Bony ribs ran across the upper part of the right lung under the pleura, and trabeculæ, as hard almost as bone, ran into the substance of the left lung. This lung, in fact, presented the pathological features of chronic interstitial pneumonia with great pigmentation. In the upper part of the tunica albuginea of the right testicle lay a mass of calcareous matter. The left testicle was atrophied. The patient had long since lost all sexual desire.

*Mycosis Intestinalis (Malignant Pustule).*—Dr. GERALD F. YEO exhibited the intestines of a man, who died, after seven days' illness, of malignant pustule. On the third day of his illness, he had an unhealthy pustule on the left cheek. There was considerable œdema of the integument, which was of a saffron tint. The pulse was 80. Next day, suppuration commenced in the centre of the œdematous area, dyspnœa and more or less delirium set in; pulse 90; temperature, 101.5 deg. On the fifth day, copious vomiting occurred; the ejecta resembling, according to the nurse's account, "beaten-up rotten eggs". On the sixth day, pain was complained of about the umbilicus. After death, a quantity of sero-sanguineous fluid and large clots, like blood-clots, were found in the peritoneal cavity. The peritoneum itself seemed to be healthy. The mesentery was thickened and œdematous. It was filled with large dense clots similar to those lying free in the peritoneum. There was an hour-glass constriction of the stomach, and prominent black nodules were studded over the mucous surface, as also in the duodenum. The jejunum was much dilated; the valvulæ conniventes were œdematous. The large intestine was contracted. The thoracic viscera were healthy, except for some old pleuritic adhesions. The spleen was slightly enlarged; the kidneys were somewhat hyperæmic, but otherwise healthy. The fluid discharged from the stomach proved, on microscopical examination, to consist principally of very recently removed epithelium, with large granular masses made up of bacteria in all forms and in immense quantities. The mesenteric glands contained red blood-corpuscles and bacteria, and the adenoid tissue was burst or torn.

*Monstrous Fœtus.*—Dr. KIDD presented a seven months' fœtus, in which the lower extremities were united as low down as the heels; there were no genital organs, and no anus. Only one umbilical artery—a continuation of the abdominal aorta—existed. The pelvis was badly developed. The bladder was in a rudimentary state. There were no kidneys. The Wolffian bodies were easily recognised. The intestine stopped short above the rectum. In the legs, the femoral vessels and crural nerves were normal. All the muscles were normal, except the adductor magnus, which was common to both limbs. The case was one of sympodia, resembling, according to G. St. Hilaire, a syren, but more strictly a dolphin or seal. The mother of the fœtus had had several abortions, and had, in addition, borne two living children.

*Necrosis of Shaft of Tibia.*—Dr. W. STOKES, jun., laid before the Society the bones of the leg of a man, aged 25, six feet four inches in height, of fair complexion, with blue eyes. When nine years old, the patient was suddenly attacked with severe pain near the tubercle of the right tibia. A discharge subsequently took place in this situation, and several pieces of bone came away. He then remained well for thirteen years. At the end of this time, a second similar attack occurred, the leg swelled and became livid, and the knee-joint was engaged. Ultimately, Dr. Stokes amputated the limb through the lower end of the femur. The bones, tibia and fibula, presented a remarkable example of necrosis, with numerous osseous sinuses, obliteration of the medullary canal, etc. The complete destruction of the knee-joint showed that the line of epiphysis did not always limit the extension of this disease.

# CORRESPONDENCE.

## THE CONTAGIOUS DISEASES ACTS.

SIR,—I have read with great care the two letters Dr. Parkes has recently addressed to you, but fail to find in them convincing evidence of the beneficial effects of the Contagious Diseases Acts. It is a noteworthy fact that the strongest assertions on this subject are always based upon figures, which are accessible only to those who produce them, and which it is absolutely impossible for independent inquirers to verify till long after the occasion requiring it has passed away for ever. The statistics which Dr. Parkes has brought forward in these letters are of this character, and the opponents of the Acts might justly, therefore, refuse to regard them. The Army and Navy Returns, laid annually before Parliament, are public property. To them the opponents of the Acts are willing to go for statistics on the question; and they conclusively prove that the British army is little, if any, the better for this painful legislation, and that the British navy is undeniably very much the worse.

I cannot, however, let Dr. Parkes's second letter pass without pointing out the many assumptions it contains. An inspection of monthly returns of admissions, furnished to Parliament at an early period of this controversy, showed long ago how very unsafe it was to estimate the number for a whole year from the number actually admitted in part of a year. Had the 58th Regiment arrived at Portsmouth at the same time that the 106th Regiment went to Parkhurst, the relative statistics might (and, in all probability, would) have been widely different. Then, the discussion of the possible numbers of admissions, the highest possible number and the lowest possible number, at the two stations, is fantastic in the highest degree. I venture to affirm that no professed statistician of ability and repute would endorse what Dr. Parkes has written under this head. Finally, the conclusion to which Dr. Parkes comes, that the difference that was actually observed was due to the presence or absence of the Acts alone, is entirely upset by the fact (which may be readily verified by turning to the Army Medical Report for 1872) that the stations where, in that year (being the last for which the official returns have yet been published), there were *fewest* admissions per 1,000 for primary venereal sores, were stations where there are *no* Acts—viz., Athlone, which yielded only 14 cases per 1,000, and Pembroke Dock, which did not yield more than 27; the two lowest under the Acts being Shorncliffe, which yielded 33 per 1,000, and Portsmouth, which yielded 40 per 1,000. Similar returns for gonorrhœa are not given, but there can be little doubt that, if they were, we should find that the stations where admissions for gonorrhœa were fewest were, in like manner, stations not under the Acts.

With regard to Dr. Parkes's first letter, it is sufficient to note that, in the face of the officially confessed failure of the Acts to diminish gonorrhœa, the great reduction in the number of admissions for that disease given in the figures respecting the Royal Engineers at Chatham, shows that the selection of that corps and the figures regarding it do not really present a sample of effects due only, or mainly, to the Acts.

I am, Sir, yours, etc., THOMAS WORTH, M.R.C.S.L.,
Late Surgeon to Nottingham Lock Hospital.

Peachey Terrace, Nottingham.

# MEDICO-PARLIAMENTARY.

## *HOUSE OF COMMONS.—Thursday, March 4th.*

*Efficiency of Medical Practitioners.*—Mr. ARTHUR MILLS asked the Vice-President of the Council whether, under the authority conferred by the Medical Act, 1858 (21 and 22 Vict., cap. 90), it was in the power of the Privy Council to establish one uniform test of efficiency for all medical practitioners in the United Kingdom, or whether further legislation would be required in order to effect that object.—Lord SANDON stated, that the Privy Council had not the power of enforcing an uniform test. But it might, if set in motion by the General Council of Medical Education, take measures for securing that none of the existing bodies empowered to grant certificates shall do so without securing a proper standard among the candidates by the process of refusing registration to the candidates certificated by any examining body in default.

### *Friday, March 5th.*

*Midwifery Practice.*—Mr. JAMES asked the President of the Local Government Board, whether his attention had been drawn to the proceedings in the case of Elizabeth Ingram, as reported in the *Times* of March 1st; and whether it was his intention, in view of the circumstances the trial brought to light, to introduce any measure placing all persons practising in midwifery under more immediate supervision than at present, and giving power to the local authority, on the report of a coroner or other due cause shown, to suspend them from the exercise of their practice.—Mr. SCLATER-BOOTH said, that his attention had not been directed to the case otherwise than by the reports in the newspapers. It would appear that the prisoner alluded to was acquitted on the score of ignorance; so that if she had known the danger involved in her attendance, it is possible that she might have been liable to punishment. The subject had been before the Local Government Board, and very recently gave occasion to a correspondence between Mr. Sclater-Booth and the Secretary of State in connection with cases which occurred at Leicester and Wolverhampton. The question was a difficult one, and was under the consideration of the Government.

### *Monday, March 8th.*

*The Case of Miss Wood, the Shaker.*—In reply to Mr. DILLWYN, Mr. CROSS stated that his attention had been called to the arrest, in the New Forest, of Miss Wood, a person alleged to be a lunatic, and that he had immediately put himself in communication with the Lunacy Commissioners. He ascertained that the certificate which had been given did not warrant her detention in a lunatic asylum, and that under the statute it might have been amended within fourteen days. He further communicated with the Lunacy Commissioners, and directed them to inquire into the matter, in order to ascertain whether her detention was really necessary. He was happy to say that that afternoon he had received a note saying that her discharge had been ordered.

*Ship-Surgeons.*—Captain PIM has given notice of his intention to ask the President of the Board of Trade whether it is true that both British subjects and foreigners have been and are still permitted to sign the articles of British ships as surgeons, and to serve on board such British ships as surgeons, who are not possessed of a diploma or other qualification required by Act of Parliament, and whose names do not appear on the medical list published under authority; and whether such persons are authorised to sign the usual and necessary professional certificates without their names having so appeared in such authorised medical list.

# MILITARY AND NAVAL MEDICAL SERVICES.

MOVEMENTS OF ARMY MEDICAL OFFICERS.—Surgeon Gibson has been ordered to proceed from Cork for India, on duty.—Surgeon Bennet, M.D., has taken over medical charge of the troops stationed at Rocky and Spike Islands and Haulbowline from Surgeon-Major Croker.—Surgeon Thorburn has returned to Longford from leave, and resumed medical charge of the head-quarters of the 8th (Royal Irish) Hussars.—Surgeon R. Harman, having reported himself to the surgeon-general for duty in Dublin, has been posted to the Station Hospital, Phœnix Park.—Surgeon G. P. Mackenzie, Bengal Medical Establishment, is allowed to proceed to Europe on medical certificate, in anticipation of furlough.—Surgeon W. S. Fox, civil surgeon, Vellore, has been appointed to officiate as secretary and statistical officer to the Surgeon-General, Indian Medical Department, during the absence on furlough to Europe of Surgeon-Major Bidie, or until further orders.—

Surgeon-Major Jackson, C.B., late in medical charge of the 100th Canadians, has been appointed to the Brigade Depôt at Paisley. Dr. Jackson served last year on the Gold Coast during the Ashantee campaign, and earned his C.B.

Naval Medical Service.—The recent promotions amongst naval medical officers have caused several changes; and it is generally believed that Dr. William Domville will be superseded at Plymouth by Deputy Inspector-General James Jenkins, C.B., now serving at Bermuda, who will be relieved by Deputy Inspector-General John Watt Reid; and that Deputy Inspector-General Ahmuty Irwin, C.B., will go to Port Royal, Jamaica, in place of Dr. Henry J.. Domville, C.B.—Deputy Inspector-General of Hospitals and Fleets John Denis Macdonald, M.D., F.R.S., who has been promoted, has been reappointed to the *Duke of Wellington* for duties as Assistant-Professor of Naval Hygiene at Netley.

Army Medical Service.—List of gentlemen who competed successfully for appointments in Her Majesty's British Medical Service at the examination held at the University of London on Feb. 15th, 1875.

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|---|---|---|---|---|---|
| 1. | Le Mottée, G. H. | 1989 | 5. | Mapleton, E. A. | 1895 |
| 2. | Dorman, J. C. | 1985 | 6. | O'Sullivan, D. | 1840 |
| 3. | Kellsall, E. W. | 1980 | 7. | Charlesworth, H. | 1805 |
| 4. | Chester, W. L. | 1979 | 8. | Sharpe, C. E. | 1615 |

Indian Medical Service.—The following candidates for her Majesty's Indian Medical Service were successful at the competitive examination held at Burlington House on the 15th February, 1875. Forty candidates competed for twenty appointments. All were reported qualified.

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| 1. | Murray, R. D. | 2590 | 11. | Simmonds, W. A. | 2130 |
| 2. | Ranking, E. S. A. | 2477 | 12. | Macrae, R. | 2095 |
| 3. | Comins, D. W. D. | 2339 | 13. | Adams, A. | 2070 |
| 4. | Moran, J. | 2271 | 14. | Borah, Shibram | 2050 |
| 5. | O'Connor, P. F. | 2250 | 15. | Sturmer, A. J. | 1998 |
| 6. | Smith, N. H. | 2180 | 16. | Dane, A. H. C. | 1960 |
| 7. | Thomas, G. T. | 2174 | 17. | Greany, J. P. | 1930 |
| 8. | Beatson, W. | 2173 | 18. | Ferguson, J. C. | 1920 |
| 9. | Bate, T. E. L. | 2165 | 19. | Williams, B. H. | |
| 10. | Warburton, G. A. | 2145 | 20. | M'Cloghry, J. | 1905 |

## THE NEW NAVAL MEDICAL WARRANT.

Sir,—Naval medical officers owe to the disinterested advocacy of their claims by the British Medical Journal many of the alterations to their advantage which have taken place in the department of late years, and I am sure that all cordially thank you. With regard to the Naval Medical Warrant of February 1875, I hope you will permit me a few observations. That it is a step in the right direction is unquestionable, but that it has fallen far short of the requirements of the service, and what was reasonably expected is equally true. It would appear to be a mutilated warrant, originally ably conceived, and, had it been carried out in its entirety, would have stopped all reason for grumbling on the part of the department, and would have drawn a good class of men into the service to fill the fifty vacancies at present existing in the Surgeons' List. Stopping short as the new warrant does, I fear it will have neither of these beneficial effects. I would, but with little comment, call the attention of aspirants for the Naval Medical Service to a few facts relating to the suggestions for improving the position of naval medical officers, as advocated by a committee of the British Medical Association, and draw a comparison between them and what has been granted by the new medical warrant.

1. Surgeons to rank with naval lieutenants of under eight years' seniority, as do naval instructors, etc.—This is granted in a way; surgeons, on entry, are to rank with naval instructors and chief engineer, but this should be marked, promotion from surgeons' to staff-surgeons' list is practically at a standstill. The present seniors of the surgeons' list count fourteen years in the service, and the prospect before all entering is no promotion from the one list to the other until fifteen or sixteen years have been served in the junior capacity. The surgeon now entering will rank with a lieutenant of less than eight years' seniority all these fifteen years. No change, no improvement in position whatever. His compeer the lieutenant, made the same day as he joined, will, after eight years' service, rank with a major in the army; and the paymaster and naval instructor, after fifteen years, will rank with a lieutenant-colonel in the army, with choice of accommodation according to that rank. The surgeon, after fifteen or sixteen years' service, ranking with a lieutenant of under eight years' seniority, will, n promotion, but rank with a major; the paymaster and naval inructor at that time ranking with a lieutenant-colonel, and the lieunant having been promoted to commander some years. The new warrant has in this instance done nothing for the working men of the department, the staff-surgeons, and senior surgeons.

2. Alteration of Titles.—Where did the title of fleet-surgeon originate? It is used in the American navy to designate the surgeon of the flag-ship, and to distinguish him as the senior medical officer of a squadron, and was used in the same relation in our own navy at the end of the last and commencement of the present century, when some distinguished civilian physician was sent out with the flag-ship of the commander-in-chief of a large squadron, to advise him as to the health of his crew and sanitary condition of his squadron, when he was designated fleet-physician.

3. Rank of inspectorial grades: promoting them to rank with their correlatives, according to dates of respective commissions.—No mention made of this in the new warrant.

4. Substantive rank on retiring.—Like the above, no notice whatever is taken of this suggestion.

5. Promotion of surgeons; to be promoted to the rank of staff-surgeon after ten years' seniority, provided conduct and qualifications are satisfactory.—No provision whatever is made for the promotion of surgeons to the rank of staff-surgeons; the seniors on the surgeons' list are now fourteen years in the service. Promotion is at a deadlock, and fifteen, or even sixteen, years are to be looked forward to before promotion takes place, and during all that time the surgeon is to rank as on entry; viz., with the naval lieutenant of less than eight years' seniority. This should be well considered by those thinking to enter the Naval Medical Service.

6. Distinctive Uniform.—No change of uniform, as distinctive of completion of so many years' service, would appear to have been made in the new warrant. The surgeon, on entry, wears the same as the surgeon of fifteen years' service, or the staff-surgeon of nineteen years and eleven months. Under the old scale, the surgeon, having served actively six years, got a step in rank, and a corresponding change in uniform. Now, from date of entry until he reaches the position of fleet-surgeon, he wears the same as on the day he joined.

7. Retiring allowance of fleet-surgeons after twenty years' full-pay service.—The new warrant allows a retiring allowance of 15s. *per diem* after twenty years' full-pay service. This is exactly 1s. 6d. a day less than the half-pay earned after that number of years' service. This half-pay earned, viz., 16s. 6d. *per diem*, should be the minimum retiring allowance. Then, again, the number allowed to go annually is limited to ten, and even they may not be permitted to go, should their lordships not wish them. Practically, this so-called optional retirement is no boon at all, so with the retirement on 21s. after twenty-five years. No one can claim his retirement, as it is optional with the Admiralty whether they allow you to go or not.

8. Increase of full-pay; readjustment in some of the grades.—The young surgeon, on entry, has a fair pay; viz., a little over £200 *per annum*. But what are his prospects as he advances in the service? After fourteen years, he finds his annual income but £110 more than when he began life so many years before.

9. Hospital Charge-money.—On this subject, the new warrant says nothing. It is the only branch of the service where officers are in charge of establishments of great importance where charge-money is not allowed. In more than one instance, officers in charge are borne on the books of some ship, so that no allowance may be granted them, *e.g.*, Portland Sick Quarters and Trincomalee.

10. Cabin Accommodation.—No mention of any alteration in this matter is made. Why should it be that a fleet-surgeon—often an old man 50 years of age and upwards—should be relegated to a miserable lower deck cabin, when the paymaster, probably many years his junior, or the chaplain, who might not have been born when the medical officer entered the navy, have cabins assigned to them on the main deck?

I am, etc., X. Y. Z.

## ARMY MEDICAL APPOINTMENTS.

Drew, Surgeon E., to be Surgeon-Major, *vice* H. Kendall, M.D., promoted.

Inglis, Deputy Surgeon-General J. G., M.D., C.B., to be Surgeon-General, *vice* R. J. O'Flaherty, C.B., deceased.

Kendall. Surgeon-Major H., M.D., to be Deputy-Superintendent, *vice* J. G. Inglis, M.D., C.B., promoted.

## NAVAL MEDICAL APPOINTMENTS.

Clark, Fleet-Surgeon W. H., to the *Undaunted*.

O'Connor, Surgeon David, M.D., to the *Undaunted*.

Smith, Fleet-Surgeon W., M.D., to the *Unicorn*.

Edney, Staff-Surgeon W., to the *Triumph*.

Rourke, Surgeon M. G.,
O'Connor, Surgeon D. W.,
Russell, Surgeon A. W.,
Whateley, Surgeon G. F.,
} To the *Duke of Wellington*, additional, for Haslar Hospital.

Breton, Surgeon W.,
O'Callaghan, Surgeon J.,
} To the *Royal Adelaide*, additional, for Plymouth Hospital.

# OBITUARY.

## FREDERIC TURTON, L.R.C.P.LOND.

On the morning of February 24th, passed away a typical general practitioner. Frederic Turton was born in 1836, at Wolverhampton, the son of a general practitioner. Educated at the Grammar School of his native town, he gained his professional knowledge at the Birmingham School, being dresser at the General Hospital to Mr. Oliver Pemberton.

By the death of his father in 1861, at a comparatively early age, a large practice devolved upon him almost as soon as he became qualified; and, from that time, until a few months ago, he had been constantly and uninterruptedly engaged in the most arduous work. It is within the truth to say, that he sacrificed himself in the service of his patients. Soon after having become established, he was elected a member of the Town Council, and there devoted his energies to bringing before the public the sanitary defects of the town, and the means which were required in order to remedy them. During the violent epidemic of small-pox in 1871-72, he was urgent in his endeavours to press home all efforts likely to contribute to the public good, and carried his convictions to the issue of resignation of his office sooner than submit to an attempt to stifle some measures of sanitary reform. It is in a large degree due to this decided action, that Wolverhampton has become awake to the necessity of earnestness in this direction. He was one of the originators of, and secretary to, from its earliest formation, the Wolverhampton Friendly Medico-Ethical Society, which aims at promoting a healthy social and professional tone amongst its members. He was a great supporter of the attempt made to improve the rate of remuneration received by surgeons who hold clubs; and he always endeavoured to carry out the letter as well as the spirit of the report of the Committee of the Birmingham and Midland Counties Branch of the British Medical Association. He was always a prominent and valued member of the Association.

In his professional relations, an eminently conscientious man, he was in his private life a Christian gentleman. Always abreast of the times, both in literature and practice, he never forgot that "art is long", and only could not remember that "life is short".

Sound at all points in opinion, and able to carry out in practice, he was a man who brought comfort to the bedside of a serious case. By his professional brethren, and by his numerous patients, he was both respected and beloved. More cannot be said to his honour. Those who pen these lines feel that they have lost an honest and a loving friend, their sure hope being that he has reaped the reward he truly merited. He leaves a widow and five young children.

## WILLIAM THORNHILL, M.B., F.R.C.S.I.

Dr. Thornhill died after a few hours' illness on February 26th, at Nenagh, Tipperary, where he had been summoned as a witness in a murder case, which was to be tried at the assizes; death arising from effusion on the brain. The deceased gentleman held the post of surgeon to the County Dublin Prison, Kilmainham.

## WILLIAM SMITH, F.R.S.,

### SENIOR SURGEON TO THE MANCHESTER ROYAL INFIRMARY, ETC.

Mr. William Smith, whose death we briefly announced last week had lectured as Professor of Anatomy in Owens College since Christmas, but was absent for some days before his death, on account of not feeling quite well. On his return to Manchester on the 10th inst., from a visit to Brighton, he sent a message to the school, thanking Mr. Perrin (the medical tutor) for supplying his place in the chair of "General Anatomy and Physiology," and promising to resume it himself at once. Soon after this he died. Mr. Smith was to all appearance in good health when he entered his consulting room on Feb. 10th, to meet his patients at two o'clock. A few minutes afterwards, when stooping to examine the foot of a child, he sank to the ground and was unable to rise. Dr. William Roberts, residing immediately opposite, was sent for and came immediately. He found Mr. Smith at the point of death from an apoplectic seizure, and in a few minutes saw him expire. Mr. Smith has left a family to mourn him, but his loss will be much felt also in public, in the medical institutions, in the profession, and in the social life of Manchester. He had never sought a name for original research or as a contributor to medical literature, but as a professor and lecturer he was deservedly popular, and his high ability was beyond question. He had been a student in the same School of Medicine, in which he had taken a leading part as lecturer for the last quarter of a century. He became a licentiate of the Apothecaries' Society in 1837, member of the Royal College of Surgeons in 1838, and for the last thirty years held a place in the front rank of the medical men of this district. His personal character and professional skill combined to make him one of the referees most in request in difficult cases occurring in a wide circuit round Manchester. He was the senior surgeon of the Manchester Royal Infirmary, and was also surgeon of the Cheetham College and the Manchester Schools for the Deaf and Dumb. He was in his 59th year, or thereabout. At nearly the same age, his father, a well-known papermaker in Manchester, died in a similar manner.

# UNIVERSITY INTELLIGENCE.

## UNIVERSITY OF CAMBRIDGE.

Scholarships and Examinations for Natural Science.—The following is a list of the scholarships and exhibitions for proficiency in Natural Science to be offered at the several Colleges and for non-collegiate students at Cambridge during the present year.—*Trinity College.* One or more scholarships of £100, and one exhibition of £50. The examination will commence on March 30th. The scholarships are open to all members of the University of Cambridge who have passed the Previous Examination. The exhibition is open to persons under 20, who have not yet commenced residence at the University. Further information may be obtained from the Rev. E. Blore, Tutor of Trinity College.—*St. John's College.* One of the value of £50 *per annum.* The examination (in Chemistry, Physics, and Physiology, with Geology, Comparative Anatomy, and Botany) will commence on April 3rd, and will be open to all persons who have not completed a term of residence at the University, as well to all who have entered and have not completed one term of residence. In this College, Natural Science is on the same footing with Classics and Mathematics, both as regards teaching and rewards.—*Christ's College.* One or more in value from £30 to £70, according to the number and merits of the candidates, tenable for three-and-a-half years, and for three years longer by those who reside during that period at the College. The examination will be on April 6th, and will be open to the undergraduates of the College, to non-collegiate undergraduates of Cambridge, to all undergraduates of Oxford, and to any students who are not members of either University. The candidates may select their own subjects for examination. Further information may be obtained of John Peile, Esq., Tutor of the College.—*Gonville and Caius College.* One of the value of £60 *per annum.* The examination will be on March 18th, in Chemistry and Physics, Zoology with Comparative Anatomy and Physiology, and Botany, with Vegetable Anatomy and Physiology. It will be open to students who have not commenced residence in the University. There is no limitation as to age. Further information may be obtained from the Tutors. Scholarships of the value of £20 each or more are offered annually, for Anatomy and Physiology, to members of the College. Gentlemen elected to the Tancred Medical Studentships are required to enter at this College; the studentships ar five in number, and the annual value of each is £100. Information respecting these may be obtained from B. J. L. Frere, Esq., 28, Lincoln's Inn Fields, London.—*Clare College.* One of the value of £60 *per annum*, tenable for two years at least. The examination (in Chemistry, Chemical Physics, Zoology with Comparative Anatomy and Physiology, Botany with Vegetable Anatomy and Physiology, and Geology) will be on March 16th, and will be open to students intending to begin residence in October.—*Downing College,* One o more of the value of £60 *per annum.* The examination (in Chemistry, Comparative Anatomy, and Physiology) will be on Apri 6th, and will be open to all students not members of the University, a well as to all undergraduates in their first term.—*Sidney College.* One of the value of £60 and one of the value of £40 *per annum.* The examination (in Heat, Electricity, Chemistry, Geology, Zoology and Physiology, Botany) will be on April 6th, and will be open to all student who intend to commence residence in October.—*Emmanuel Colleg* One of the value of £70. The examination on March 24th will b open to students who have not commenced residence.—*St. Peter's Co lege.* One scholarship of the value of from £40 to £80, according t the attainments of the candidate. The examination on April 6th wi be in Botany, Chemistry and Chemical Physics, Geology, and Comparative Anatomy and Physiology; but no candidate will be allowed t be examined in more than two of these subjects. It will be open t all students under twenty-one years of age who can obtain permissio to become members of the College. Application must be made befo March 20th to the Tutor.—*Non-collegiate Students.* An exhibition eac year is given by the Clothworkers' Company, value £50 *per annu* tenable for three years. Examination about Christmas, open to no collegiate students who have commenced residence in the October Term, and to any who have not commenced residence. Information to be obtained from the Rev. R. B. Somerset, Cambridge. Although several subjects for examination are in each instance given, this is rather to afford the option of one or more to the candidates, than to induce them to present a superficial knowledge of several. It is expressly stated by some of the Colleges, that good clear knowledge of one or two subjects will be more esteemed than a general knowledge of several. Candidates, especially those who are not members of the University, will in most instances be required to show a fair knowledge of Classics and Mathematics, such, for example, as would enable them to pass the Previous Examination. There is no restriction on the ground of religious denominations. Further information may be obtained from the Tutors of the respective Colleges. The names, with certificates of character, date of birth, etc., must be sent to the Tutor of the College, in each case, several days before the examination. Some of the Colleges will give additional scholarships if candidates of superior merit present themselves; and other Colleges than those here mentioned, though they do not offer scholarships, are in the habit of rewarding deserving students of Natural Science.

# MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examinations in the science and practice of medicine, and received certificates to practise, on Thursday, March 4th, 1875.

Barnes, Edwin, Accrington, Lancashire
Bass, Charles William, Barnsley, Yorkshire
Cumming, Hugh Gordon, Exeter
Clutton, Henry Hugh, St. Thomas's Hospital
Gill, John, St. Thomas's Hospital
Henwood, John Davey, Milbrook, Cornwall
Hind, Henry Joseph, Twickenham
Phillips, Charles Henry, Bury, Lancashire
Scott, Alexander Thomas, Camden Town Road, N.W.
Thompson, Alfred, London Hospital
Weddell, William Henry, Stamford, Lincolnshire

The following gentleman also on the same day passed his primary professional examination.

Tyrrell, Frederick, St. Mary's Hospital

## MEDICAL VACANCIES.

THE following vacancies are announced:—

BANTRY UNION—Medical Officer for the Workhouse. Salary, £50 per annum. Applications to be made on or before the 24th instant.—Medical Officer for the Bantry Dispensary District. Salary, £100 per annum, and fees. Applications on or before the 24th instant.

BECKETT HOSPITAL AND DISPENSARY, Barnsley — House-Surgeon. Salary, £140 per annum, with furnished rooms, gas, and coals.

BIRKENHEAD BOROUGH HOSPITAL—Senior House-Surgeon. Salary, £100 per annum, with board. Applications on or before the 22nd instant.

BRADFORD INFIRMARY AND DISPENSARY—Physician. Applications to be sent on or before June 12th.

BRISTOL LUNATIC ASYLUM—Assistant Medical Superintendent.

CHARING CROSS HOSPITAL—Resident Medical Officer. Applications on or before the 24th instant.

CLIFTON UNION—Medical Officer for No. 3 District. Salary, £25 per annum.

COVENTRY AND WARWICKSHIRE HOSPITAL—House-Surgeon and Dispenser. Salary, £100 per annum, with board, lodging, and attendance. Applications to be made on or before March 25th.

DEVON AND EXETER HOSPITAL—House-Surgeon. Salary, £150 per annum, with board.

DORSET COUNTY HOSPITAL—House-Surgeon. Salary, £70 per annum, with £10 additional as Secretary. Applications to be made on or before March 18th.

DOVER UNION—Medical Officer for the St. Mary's District and the Workhouse. Salary, £180 per annum.

DURHAM COUNTY ASYLUM—Assistant Medical Officer.

FETTERCAIRN, Parish of—Medical Officer and Public Vaccinator. Apply to Colonel M'Invoy, Chairman of the Board, The Burn, Brechin, not later than the 27th instant.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST—Resident Clinical Assistant. Applications on or before April 5th.

KINGSTON, Jamaica—Two Medical Officers for the Public Hospital.

LIVERPOOL ROYAL INFIRMARY—Resident Medical Officer. Salary, £100 per annum, with board, lodging, and washing. Applications on or before April 10th.

MANSFIELD UNION—Medical Officer for the First District, and the Workhouse. Salary, £50 and £40 per annum, respectively.

MILFORD UNION, co. Donegal—Medical Officer for the Ramelton Dispensary District. Salary, £100 per annum, and fees.

OOLE UNION—Medical Officer for No. 2 District. Salary, £60 per annum.

OYAL EDINBURGH ASYLUM—Assistant-Physician.

OYAL INFIRMARY FOR WOMEN and CHILDREN, Waterloo Bridge Road—Physician.

HEFFIELD PUBLIC HOSPITAL AND DISPENSARY—Assistant House-Surgeon. Salary, £65 per annum, with board, lodging, and washing.

T. LUKE'S HOSPITAL FOR LUNATICS—Second Clinical Assistant. Board and furnished apartments.

ST. THOMAS'S HOSPITAL—Assistant Obstetric Physician.

SOUTH ESSEX DISPENSARY—Surgeon.

SOUTH SHIELDS UNION—Medical Officer for the Westoe District. Salary, £40 per annum.

STRATTON UNION—Medical Officer for No. 3 District. Salary, £70 per annum.

TORBAY INFIRMARY—House-Surgeon. Salary, £100 per annum, with board and lodging.

WEST NORFOLK AND LYNN HOSPITAL—Resident Medical Officer. Salary, £100 per annum, with board, lodging, and washing. Applications on or before the 30th instant.

WEST BROMWICH DISTRICT HOSPITAL—Salary, £80 per annum, with board, lodging, and washing. Applications on or before the 22nd instant.

## MEDICAL APPOINTMENTS.

*Names marked with an asterisk are those of Members of the Association.*

INGLIS, Thomas, L.R.C.P. & S.Edin., has been appointed an Assistant Physician at the Royal Edinburgh Asylum.

JEPSOM, Edward, M.R.C.S., appointed Honorary Surgeon to the Durham County Hospital, *vice* E. C. Jepson, F.R.C.S., resigned.

NEWBY, C. H., M.R.C.S., L.R.C.P.Lond., has been appointed House-Physician at St. Thomas's Hospital.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.*

### BIRTH.

SOLOMAN.—On February 24th, the wife of Charles Soloman, L.R.C.P.&S.Edin., Skirlaugh, of a son.

### MARRIAGE.

LEE—SHAW.—On February 25th, at St. James's Church, Slaithwaite, by the Rev. Canon Hulbert, M.A., Vicar of Almondbury, assisted by the Rev. C. A. Hulbert, Vicar, Francis Boynton Lee, M.R.C.P., F.A.S.L., of the Elms, Heckmonwike, to Anna Marie, daughter of Richard Shaw, Esq., of Broadfield House, Slaithwaite. No cards.

### DEATH.

HARDEN, Charles, M.R.C.S., formerly House-Surgeon to University College Hospital, aged 43, on February 19th.

## MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. The President's Address; after which Dr. Jagielski will read a paper on Spirometry, illustrated by a new instrument.

TUESDAY.—Pathological Society, 8.30 P.M. Mr. Hutchinson: Skin-Disease in an Infant, in association with Disease of Nervous System (living specimen). Mr. Barwell: Myeloid Sarcoma of Head of Humerus. Mr. Barwell: Mixed Tumour of Wrist. Mr. Godlee: Blood-Cyst found in a Sarcoma. Mr. John Wood: Tumour of Scapula. Mr. Knowsley Thornton: Ovarian Cyst with Papillomatous Growths in its Interior. Mr. Knowsley Thornton: Cancer of Ovary. Dr. Julius Pollock: Worm in Right Ventricle of Heart of Dog. Dr. Crisp: Specimen of Tubercle in Pheasants. Dr. Crisp: Cancer in Common Fowl. Dr. Crisp: Brain and Cord of Fowl. Mr. Maunder: A Fatty Tumour. Dr. Duka: Dry Gangrene of Lower Extremities. Mr. Fairlie Clarke: Prolapsus Linguæ.

THURSDAY.—Harveian Society of London, 8 P.M. Dr. Cheadle, "Case of Duchenne's Paralysis, and Case of Morphæa Alba"; Mr. Lennox Browne, "The Treatment of Simple Catarrh of the Nose, Throat, and Ear".

FRIDAY.—Medical Microscopical Society, 8 P.M. Ordinary Meeting.

DONATION.—The Mercers' Company have made a grant of fifty guineas and an annual subscription of ten guineas in aid of the funds of the Royal National Hospital for Consumption located at Ventnor.

PRESENTATION.—Mr. Henry Brietzcke, late assistant-surgeon to Portsmouth Convict Prison, was last week presented with a handsome marble and gilt twenty-one day clock, upon his removal to Millbank. There was a large attendance at St. John's school-room, Portsea, to witness the presentation, and the meeting was presided over by Mr. Alexander, deputy governor of the prison. The clock bore the following inscription: "Presented to Henry Brietzcke, Esq., L.R.C.P., M.R.C.S., etc., by the officers of Her Majesty's Convict Establishment, Portsmouth, in appreciation of his kindness and attention to them and their families during his short stay amongst them, and as a token of their esteem and of regret at his departure. February, 1875." The chairman, and the Rev. Mr. Innes, chaplain to the Portsmouth Establishment, both spoke in highly laudatory terms of Mr. Brietzcke's skill and attention; and that gentlemen having spoken in reply, the meeting terminated.

PRESENTATION.—The members of the Loyal City of Limerick Lodge of Independent Order of Odd-Fellows, lately presented J. Elmes, M.B., with an address, and a number of standard works in literature, as a public expression of their regard, and for having acted as their physician for the last twenty years, being ever "sedulous, kind, and skilled".

## OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY ......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.

FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

## NOTICES TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

MR. H. ORFEUR (Loddon).—C. J. Webber, Esq., 1, Upper Berkeley Street, W. (for Finance); G. Hett, M.D., 1, Ledbury Road, Bayswater, W. (for Cases).

### THE EFFECTS OF THE CONTAGIOUS DISEASES ACTS.

SURGEON HAMILTON (Chatham) writes to us:—"I can say of my own personal knowledge that venereal disease is not nearly so prevalent, and nothing like so virulent as it was here in 1860. When I joined the service here in that year, the venereal inspections of the troops were carried out weekly, disgusting to the officers who had to make them, and degrading to the men who underwent them: and I also affirm both syphilis and gonorrhœa existed to a far greater extent than they now do.

"It is the unqualified opinion of every medical officer to whom I have spoken on the subject at this station, that not only is venereal disease (especially syphilis) much less frequent, but that it is of a milder type, and secondary disease is becoming positively rare. We never see any of those miserable cases of tertiary disease, with destruction of bone that used to be so common; and though there are still a good many cases of what ought really to be called "venereal sores", there is very little true syphilis.

"Gonorrhœa also is much milder in its type, and indeed is often more of a gleet, even in men who have a first attack—such as would be contracted from a woman with leucorrhœa. Last year I was quartered at Hounslow, and was attached to the Carabineers for duty. There were present at head-quarters about four hundred men, and I have seen nearly as many cases of primary disease in that small number, as we have now in Fort Pitt, out of a garrison of nearly 3500 men. Hounslow is not only unprotected, but is within easy reach of London by rail, while Chatham is under the 'Acts,' and they are efficiently worked."

AT the commencing of the report of the Pathological Society in the JOURNAL of March 6th, it was stated that the President exhibited a photograph of a case of "Molluscum *Contagiosum.*" It should have been "Molluscum *Fibrosum.*"

### PROVIDENT DEPARTMENT OF HOSPITALS.

SIR,—The Governors of Scarborough Dispensary, of which I am house-surgeon, are considering the advisability of charging each patient a small sum on admission. Can any of your readers kindly give me particulars of similar institutions, and of the mode in which the funds so raised are applied? I shall be greatly obliged for any reports or rules of Provident Dispensaries.

I remain, Sir, yours truly,
J. A. CALANTARIENTS.
Dispensary and Accident Hospital, Scarborough,
March 9th, 1875.

INQUIRER and A MEMBER.—We could not recommend any one to tender for an office in the gift of a local authority, on terms which had been rejected as insufficient by the local medical men. Such a course would be open to unpleasant comment.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, twelve o'clock.

### THE REDDITCH MEDICAL AID ASSOCIATION.

WE have received a second letter from Mr. W. Aston, the Secretary of this Association, in which he tells us that they have now obtained the support of many influential gentlemen in the neighbourhood, who promise pecuniary aid as well as the weight of their names. If, as Mr. Aston says, this has been partly the result of our comment, we are glad of it, for it will certainly somewhat improve the position of any medical man who takes office under the Association. We have, however, with considerable difficulty succeeded in obtaining a copy of the *Redditch Indicator*, for September 26th, 1874, which contains the original proposal for the formation of the Association, and the information which we derive from it only confirms us in our previous objections. We have always advocated "self-help" among the working-classes, and we are prepared to welcome a variety of institutions founded upon this principle. But, at the same time, we are bound to keep a watchful eye upon the interests of our profession; and it appears to us that the scheme proposed for Redditch is open to most serious drawbacks. The medical officer will be entirely under the control of a committee wholly composed of men belonging to the working-classes. They agree "to pay him a fixed annual salary, with certain specified sources of increase to it; they also find him a house, pay rent, rates, etc., etc., cab-hire, superintend the fitting up of the surgery, purchase of drugs—in fact the whole governing power is invested in a number of representatives of the various societies in the Association." Such is the model which the Redditch Association holds up to itself—and a tight jacket it is likely to be for the surgeon! But not to speak of other annoyances, he will have no control over the members admitted to the various benefit societies, whom he will be bound to attend. We all know that such societies not unfrequently enrol persons who are in the receipt of high wages, and who could abundantly afford to pay much more for their medical attendance than the trifling capitation fee which the doctor is to receive; and thus he may not improbably find himself in the unenviable position of having to treat for a few shillings a year, those who could well afford to obtain for themselves the best advice in Redditch on the ordinary terms or business. In these days of excessive competition, it is not perhaps surprising that the terms offered by the Redditch Association should meet with a response; but we should fail in our duty if we encouraged any young aspirant to medical practice to enter upon a field which seems to be already fully occupied, and to place himself in a position such as we have described. To do this would be, we believe, alike prejudicial to his own ultimate interests, and inimical to that *esprit de corps*, which ought to lead every member of the profession to uphold its dignity and independence.

P. K. S.—The tracts of the Provident Knowledge Society can be obtained at the office, 112, Brompton Road, London. S.W.

### THE CASE OF MR. PEACOCK.

SIR,—The case of Mr. E. Peacock is not unique. Dr. Thatcher, an eminent accoucheur of Edinburgh, in 1834-5, used to relate a similar case in his Lectures, of a medical man who, under the like circumstances, removed, if I remember aright, nine feet of intestines from a patient. He was tried for manslaughter, and escaped under some such plea as "good intentions".

Anyone wishing to know more about the case, would find a clue to it in the fact that the prisoner was defended by Mr., afterwards Lord Chief Justice, Denman.

I am, yours faithfully,
W. M. WHITE, M.D.
Bonamy House, Lavenham, March 6th, 1875

FILTERS.—Mr. Herbert Morgan (Lichfield) writes:—Will some one who knows the subject practically, state what is the best *filter* for ordinary household use, and whether it will remove *all* impurities.

### SYPHILITIC INFECTION.

SIR,—In answer to Dr. Brown's query in the JOURNAL of February 20th, as to whether syphilis can be conveyed by the use in common of cups, etc., I beg to refer him for affirmative answers, both direct "and indirect", to the authors quoted below.* Trousseau refers to the danger of infection from others besides the nurse, and speaks of the child as "being as able to transmit as it has been to receive infection". Drysdale says: "All such ulcers and patches, on whatever part of the body they are situated, are full of contagious secretions." Hirsch, in speaking of the spread of various forms of secondary syphilis, says: "The spread of the disease, as is self-apparent from the exceedingly frequent absence of affections of the genital organs, takes place not only through sexual connection, but also by other ways, of which the common use of eating and drinking vessels, clothing, etc., may be mentioned."

It appears to me very probable that the strong dislike in decent society to drinking out of the same cup or glass has arisen out of the occasional occurrence during past centuries† of transmission of syphilis by such means.

One case has been related to me by a medical man, in which several officers in a regiment were attacked by syphilis without themselves being able to account for it. But one brother officer had a cornet-à-piston, on which he often practised; and it transpired that he had syphilis. The others had occasionally made hideous noises with the instrument when visiting him, and so had caught the disease.

I am sorry that I cannot give any better particulars or dates; but it is just possible that this letter may meet the eye of the medical officer in whose regiment the circumstance occurred, who will, perhaps, be so kind as to confirm or correct what I have stated as it was told to me.—I am yours respectfully,

W. MUNRO, M.D., C.M.
Cupar Fife, February 20th, 1875.

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* Niemeyer's *Textbook of Practical Medicine*, vol. ii, p. 696. Trousseau, *Clinique Médicale*, tom. iii, p. 307, lecture on "Syphilis des Enfants Nouveau-Nés"; also New Sydenham Society's translation, vol. iv, p. 345. Drysdale, *On Syphilis*, 1873, p. 48. Desprès, in *Archives Générales de Médecine*, Janvier 1869, pp. 5 and 22. Hirsch, *Handbuch der Historish-Geographisch-Pathologie*, p. 369, 370, etc. (a great number of references on syphilis are given in this book). Henry Lee, F.R.C.S., in *Lancet*, June 13th, 1868, p. 748. BRITISH MEDICAL JOURNAL, March 7th, 1874, p. 311 (experiments showing inoculability of mucous discharges and mucous patches), June 13th, 1874, Nov. 7th, p. 599, etc.

† For proof that syphilis has existed for ages back, see Hirsch; and also Dabry, *La Médecine chez les Chinois* (who quotes a description of it from Hoang-ty, 2637 B.C.), in which one or two "new" theories of the present day are advanced.

**Correspondents** are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

### Case of Intense Acidity of Stomach.

Sir,—I am at the present time attending a lady who is suffering from aortic regurgitation, with, I fear, some mitral affection. In addition to the heart-disease, there is intense acidity of the stomach, so that after food great pain is produced. This complication will not yield to treatment. I have tried every known remedy in the materia medica, and all to no purpose. As this very painful and distressing symptom prevents her taking proper support, I should like to meet with something which would act upon it. I should feel greatly obliged if some gentleman who has had experience in such a case would impart to me, through the Journal, his method of treatment at as early a date as possible. I may mention that my patient's heart was deranged through an attack of rheumatic fever several years ago.—I am, etc.,

L.R.C.P.Edin.

March 6th, 1875.

**Alpha** (Dover).— 1. The option of granting superannuation allowances rests with the guardians, whose practice varies very much in the matter. 2. Vaccination grants are made on the report of the medical inspectors of the Local Government Board.

### Whooping-Cough.

Sir,—There is at present a general diffused epidemic of whooping-cough, and I think it may be useful to suggest a remedy which I have found beneficial—bromide of potassium. It allays the violence of the paroxysms, and cures in a few weeks, sometimes less. I generally combine it with the bicarbonate, and with tincture of hyoscyamus, in camphor mixture.—Yours truly,

70, Pembroke Road, Clifton, Bristol, March 8th. W. Smith, Surgeon.

### An Appeal.

Sir,—Mr. Merryweather, M.R.C.S., L.S.A., of 14, Colville Road, Bayswater, had suffered from several severe attacks of acute rheumatism, which left him with disease of the heart, and other serious results. Having a wife and five children to provide for, he very often followed his professional duties in much suffering, and when rest was essential for his personal welfare. But his health failing still more seriously, he became unable to continue his work at all regularly, and his practice of course greatly diminished, so that after his decease (and he died literally in harness, for he had visited, though with much difficulty, a patient within two hours of his death) it was found that his assets were barely sufficient to meet his liabilities, and to pay the expenses of his funeral. It is very probable, indeed, that his anxieties respecting his pecuniary position still further undermined his constitution and accelerated his death, which took place on the 11th of last month.

His widow is a thorough lady, of high class education, and of great energy of character, and if enabled to commence a school, has full confidence in being able to provide for herself and children. Some friends of her late husband and of herself, well knowing these circumstances, and feeling sure that the case is one of the best kind—that of a widow, striving to help herself and to bring up her children as her husband would have wished—desire to raise a fund to enable Mrs. Merryweather to take a house for the purpose named, for the duties of which she is fully qualified, having been similarly engaged previously to her marriage. They feel certain that aid now given, will not only be of temporary use, but of *permanent* value.

The case has been examined by the Committee of the British Medical Benevolent Fund, and they have, under the special circumstances, made to the proposed fund the unusually large grant mentioned below.

As I am thoroughly sure that in this instance gifts will be well bestowed, I shall have much pleasure in receiving and acknowledging any donations which may be kindly contributed to this fund; as will also Dr. Atwood, 129, Ladbroke Grove, Notting Hill, London, W.; and thanking you much for allowing this appeal to appear in your pages.

I am, Sir, yours very faithfully,

Charles J. Hare, M.D.Cantab., F.R.C.P.

57, Brook Street, Grosvenor Square, W., March 8th, 1875.

The following contributions have already been received:

| | | | |
|---|---|---|---|
| British Medical Benevolent Fund | £20 | 0 | 0 |
| Dalton, Edwin, Esq., 17, Devonshire Road, Balham | 10 | 0 | 0 |
| Atwood, W. A., Esq., L.K.Q.C.P. | 5 | 5 | 0 |
| Robertson, Mrs. | 0 | 10 | 0 |
| Mason, Mrs. | 0 | 10 | 0 |
| Holmes, J. P., Esq. | 0 | 5 | 0 |
| Favarger, Mrs. | 0 | 10 | 0 |
| Lewis, Charles Geo., Esq., Charlotte Street, Portland Place | 1 | 1 | 0 |
| Gardner, W. H., F.R.C.S., Gloucester Terrace, Hyde Park | 1 | 1 | 0 |
| James, Richard, M.R.C.S., Clarendon Road, W. | 2 | 2 | 0 |
| M., Captain, R.N. | 0 | 10 | 0 |
| Venning, Henry, Esq., Shepherd's Bush | 0 | 10 | 0 |
| Thompson, E. Symes, M.D., F.R.C.P. | 1 | 1 | 0 |
| Braithwaite, Rev. George, Yealand Conyers, Carnforth, Westmorland | 10 | 0 | 0 |
| Hare, Charles J., M.D. | 10 | 10 | 0 |

**Salivary Gland** complains that, after receiving letters requiring an answer, he is annoyed by finding a postage stamp enclosed, the corner of which has been licked and stuck on a corner of the communication. This he thinks a very dirty and objectionable proceeding on the part of his patients, who might be suffering from some syphilitic affection of the mouth. We entirely agree with him, and suggest that the proper and equally safe plan would be to make two slits or cuts in the paper, and then introduce between them the stamp or stamps,

**Dr. Simpson.**—The celebrated Oliver Goldsmith was examined at Surgeons' Hall, in the Old Bailey, on December 21st, 1758, and "plucked". In the books of the College of Surgeons, amidst a long list of candidates who passed, occur "James Bernard, mate (surgeon's) to an hospital, Oliver Goldsmith found not qualified for ditto." The examiners, or as they were then termed the Court of Assistants present on the occasion were, Christopher Fullager (who presided instead of Mark Hawkins, the master); Edward Nourse, warden; and Messrs. Singleton, Girle and Roule, examiners. The fee for examination for Hospital Mate was only half-a-guinea. We believe Mr. South has been long engaged in writing a History of the Royal College of Surgeons.

**Notices** of Births, Deaths, Marriages, and Appointments, intended for insertion in the British Medical Journal, should arrive at the Office not later than 10 A.M. on Thursday.

### Provident Medical Clubs.

Sir,—In answer to Mr. Lee Jardine's short note of inquiry, I would beg to call his attention, and the attention of all medical men who have much to do with the poorer class of trade and agricultural labourers, etc. (their wives included), to the Rules and mode of working of the "National Deposit Friendly Society", which Rules may be obtained of Mr. F. Whitburn, Guildford, Surrey. The Society is flourishing, and its conduct towards the medical profession is honourable and most satisfactory. "Surgical cases are paid for at the same rate as under the Poor Law regulations"—Medical Cases: Visit, with medicine for two days, 2s. 6d.; ditto beyond three miles, extra per mile 6d. Members entitled to over 2s. daily sick pay, extra for every 1s. above 2s. per visit, 6d.; attendance at Surgery and Medicine, 1s. 6d.; fresh supply of Medicine for two days, 1s. Members of this Club are at liberty to send for any duly qualified Medical Practitioner who is willing to attend them on the terms of the Society, and is approved by the County Sub-committee; but unless the nearest duly qualified medical practitioner is employed, the extra mileage must be paid by the member out of his or her own deposit. I have now no pecuniary interest in any club or dispensary, neither do I wish to have; but from personal experience, and from inquiry which I have lately been making into various kinds of clubs and provident societies, etc., I have been compelled to come to the conclusion that most of the systems now in vogue for the relief in sickness—medical aid, provision for old age, funeral fees, provision for widow and orphans of the lower class of trade and poor, etc., have in them much that is radically wrong. Now how far can our profession be held responsible for the existing condition of things? (I hope that some practitioners who are largely engaged in club work will be able to answer this question.) Legislation may do much for these societies, but, depend upon it, the moral weight of professional opinion will do more than anything else towards founding institutions on a broader and sounder basis, and in working the necessary reforms in those that are established on fairly good principles (such as the club I have previously held out as an example).

Now that system is a good one which adopts the principle that every member of a club shall be considered by the club and the profession as a private patient, to be cared for and treated as such according to a tariff carefully understood and agreed to by the profession, provided the patient be allowed to call in his own medical man as any other private patient would do.

The system that allows a medical man to enter into a contract to attend each member of a club at 4s. or any other number of shillings per member per annum is wrong in principle and derogatory, inasmuch that if free from sickness the members are paying money for attendance which they have not had, and the medical man is really receiving money for which he has not done anything, and to which he has no moral right; on the other hand, if the sickness be great, the subscriptions are not an adequate remuneration, and the medical man is acting unjustly to himself, and robbing his family. Why? Because he has not the courage to stand up against a system, which can pay for work not done, but will not pay for work actually done, and which finally does afford to share out or otherwise place money, and put a large sum of money into the pockets of the publicans, a part of which sum honestly and fairly belongs to the profession, and to those members of the profession who are most hard worked, worst paid, and at the same time the most to be admired and highly appreciated. I have to thank you for having on two occasions noticed in the Journal the endeavour I have been making to bring about a reform with regard to the mode of supplying medical aid to the societies of this part of the weald of Kent and Sussex, by writing some letters on the subject to the county papers, copies of which letters have been duly posted to you for censure, but have received your commendation. The members of the association residing in my immediate neighbourhood intend shortly to meet and discuss the subject of medical aid, when a series of resolutions will be put to the meeting. We trust to have a pleasant social gathering. I shall be glad to hear from members residing near here what will be the most suitable time and date for fixing the meeting.—I am, yours faithfully,

W. Milsted Harmer, M.R.C.P.Edin.

Hawkhurst, Kent, March 1st, 1875.

### The Liverpool Medical Students.

**A Student** writes to complain of the abolition of six exhibitions valued at £31 10s., which had been announced in the last prospectus of the Liverpool Royal Infirmary School of Medicine as being open to competition to third year's students at the Royal Infirmary. The Committee have suddenly resolved to withdraw these exhibitions without notice, and to substitute instead six qualified house surgeons, for periods of six months, without stipend. The ground of complaint is the suddenness with which this thing has been done. Several students have been working very hard for the competition, and it is hard to be told that the exhibitions are to be done away with The students, he stated, entertain thoughts of proceeding against the Committee for breach of contract, though they have no doubt that the change will ultimately be a benefit to the institution. They contend, however, that this step should not have been taken until due notice had been given in the next prospectus.

**F.R.C.S.**—It is a mistake on the part of the *Medical Directory*. Mr. Hilton's appointments as President of the College of Surgeons and of the Pathological and New Sydenham Societies should have been placed under the "late" appointments held by him.

### Maternal Impressions.

Sir,—The following case, hearing upon the influence of maternal mental impressions upon offspring, I give without comment, thinking it may be useful to those gentlemen who take a special interest in this question.

On June 12th, 1867, I was sent for to see a child aged two years, which my assistant, on his arrival, found to be dead. A large hand-barrow had fallen on its head, instantly killing it. The only marks of injury observable were slight bruising over the left temple and injury to the mouth—the teeth being, as the mother described to me a few days ago, "knocked up into its gums". I distinctly recollect that there was injury to the mouth. The mother, who was pregnant, went to the full period, and was attended by myself on October 19th—*i.e.*, four months after the violent death of her child. The infant was still-born, and had a most frightful hare lip, with the palate nearly entirely wanting. Of course, the woman herself and her neighbours had no doubt as to the cause of the malformation. The two children she had borne prior to this were in every respect free from blemish. Since that time, I have attended her three times in confinement. The first two of these are sound healthy children; the last, born three months ago, was again frightfully disfigured by hare-lip and deficient palate, and only lived some hours.

I have never been a total disbeliever in the possibility of mental impressions affecting injuriously the fœtus *in utero*, and this case did certainly, to some extent, tend to dissipate any doubt; and yet the occurrence of the second case of hare-lip so long after the accident, as well as the birth of two sound children in the interval, are circumstances which would encourage us to disbelieve in the operation of maternal impressions in this case, and to consider the malformations as merely coincidental. The fact, too, of the woman being so far advanced in pregnancy as five months, seems to me somewhat unfavourable to the opinion that there existed here cause and effect, for it seems probable that these mental impressions would diminish in their action in a ratio corresponding with the growth of the fœtus, and that during the very early-months such influences would be more operative than after the perfect development of the fœtus.

The temperament of the mother, it is worthy of remark in this case, would be peculiarly conducive to such a result, for she is of a moody and affectionate nature, capable of deep and lasting grief; and, when lately confined, assured me that the calamity which befel her so long ago is ever present on her mind.—Yours truly,

Duneden House, Jarrow-on-Tyne, Feb. 1875. ROBT. HUNTLEY.

M.D. (Cheltenham).—The late Lord Chief Justice Denman, writing from Cheltenham to his friend Merivale, says: "Before I left London, the jaundice had worn itself from pure gold to counterfeit silver; and Baillie has sent me here to wash away the last remains of gilt. I love the place, and find the waters most beneficial."

### MEDICAL TITLES.

SIR,—It is my purpose to bring before the Annual Meeting of the South-Eastern Branch, a proposition to the effect: "That in the opinion of this meeting, the title of Doctor ought to be accorded to all registered members of the profession, as an act of courtesy, and in agreement with general usage on the part of the public."

I send this announcement to the JOURNAL, in the hope that similar proposition will be brought forward at the Annual Meeting of every branch, so that the members of our Association may have an opportunity of voting on the subject. Argument has been well-nigh exhausted—let us express our sentiments by voting.

Yours truly, FREDERICK JAMES BROWN, M.D.

Rochester, March 9th, 1875.

SIR,—Allow me to point out a slight fallacy in Dr. Partridge's argument with regard to the assumption of the title "Dr." He brings, as an analogous case, the assumption of "Rev." by ministers of all denominations, and of "Esq." by people other than barristers. There is not the slightest analogy. "Rev." and "Esq.", even when granted to those to whom they are legally applied, are honorary and courtesy titles; they do not indicate any degree whatsoever. On the other hand, "Dr." is undoubtedly the sole property of an University, and implies that a man is a member of the University whence his degree was conferred. Had Dr. Partridge brought as an analogous case the claim of all clergymen (which happily does not exist) to be called "Dr.", understanding thereby "D.D."—an *University title* which they do not possess—there might have been something in his argument. If people would consider the question comparatively, and come to understand that there are other faculties, such as Law and Divinity, in which the title Dr. exists, they might arrive at some satisfactory conclusion. There may or may not be a decided advantage in the guarantee of an University that one is a fit and proper person, etc. But, be that as it may, the fact remains, that the degree itself is a grade in some faculty cultivated by an University, and has nothing whatever do to with medicine in the abstract. On the other hand, I quite agree with your correspondent "Pisistratus" that, if "M.B.s" are allowed the title by courtesy, "L.R.C.P.s" might also without unfairness have that privilege accorded them.—Yours faithfully, CANTAB.

Emmanuel College, February 26th, 1875.

SIR,—There are two points of injustice towards L.R.C.P.s, which amongst the various views set forth are liable to be lost sight of.

1. When I obtained my L.R.C.P., by thorough examination, and not in a year of grace, there was no question as to the title of Dr., for it had always been attached to it, and hence I had no compunction whatever in placing Dr. on my brass plate, etc.; but after many years, a set of newly fledged M.D.s took upon themselves to create a commotion and question the rights of L.R.C.P.s, already established by custom, to say the least of it. To tell me, therefore, to take Dr. off my door-plate after having had it there for years is, under the circumstances, a piece of presumption, but quite characteristic of the spirit in which this question has been argued.

2. After completing my medical education at a school "whose lectures, etc., were recognised by the London University", I presented myself for the matriculation examination; but imagine my consternation at being informed that, simply because I had not passed the matriculation *before* I commenced my studies, my four years' medical education would count for nothing, and that if I wanted a degree, I must go back to College and study four years more. I need hardly say that I declined the honour, and so went without the M.D.

I have, however, the pleasure of being, yours,

L.R.C.P. and F.R.C.S.

SIR,—There is one practical result that should follow the publication of the numerous letters in your JOURNAL, respecting medical titles. Instead of quarrelling about empty honours, let us advocate the establishment of a *representative* Medical Council or Faculty of Medicine and Surgery, where *all* will take the degree of Licentiate of Medicine and Surgery, and after this, let them have as many degrees from Colleges, Halls, and Universities as they please, but let us have *uniformity*, in the United Kingdom, as regards the one *essential* examination. There is one fact respecting the London College of Physicians that should be noticed. This College only admitted those to its membership who had the degree of M.D. from an University, the College not being able to confer this title. To obviate this difficulty, some men bought their degrees at foreign Universities, and then were admitted to the examination in Pall Mall.

Yours obediently, EDWARDS CRISP, M.D.

29, Beaufort Street, Chelsea, February 24th, 1875.

SIR,—In the JOURNAL for January 10th, 1874, at page 53, is a notice of the annual meeting and sixth anniversary of the St. Andrew's Medical Graduates' Association. "A great portion of the report," the notice mentions, "was occupied with the steps taken in reference to the M.D. degree, and the interviews on that subject with the Lord President of the Privy Council." It then went on to state that the General Council of the University, held in the hall of the United College, at St. Andrew's, on the 27th of March last, had resolved that a Committee of the General Council be formed in London, to watch over the interests of the University, in the event of any action either in Parliament or otherwise.

What I would suggest, Sir, is that this Committee, if it be really in existence in London, and has the power of speaking and acting on behalf of the University, come now to the front, and backed by the support and co-operation of the very many medicos desiring the M.D. degree, do now again fairly and earnestly pray of the Privy Council power to alter and amend the present regulation of St. Andrew's University, whereby only ten medical practitioners of forty years and upwards are admissible by examination without residence, by substituting an unlimited number, and any age, providing they have done fully four years study at a British Medical School, and five years' general practice since their registration. By making the examination sufficiently severe, would prevent inferior practitioners gaining an honourable title that good men would be proud of.

Some of your correspondents seem to think we are anxious that the M.D. should be conferred upon us in return for a minimum amount of knowledge and a good fee. Sir, I for one will never possess a degree on such terms—I desire a thoroughly good examination in every sense of the word. The more severe the examination, the more pride I shall have in passing it, and the more credit will the degree be to me.

Many thanks for your two very able articles upon this question; I am glad I have so excellent an advocate in you. If you can possibly induce the St. Andrew's Committee to take action in the way I suggest, and that action should happily be crowned with success, what a jolly meeting our next annual meeting will be in Edinburgh! I should then have a double object in going to Scotland—the M.D. at St. Andrew's, and the jollification at Edinburgh.

Yours, etc., C. C.

PSYCHOLOGIST (Birmingham).—At the dissolution of Parliament on May 7th, 1731, His Majesty gave his Royal assent to the several acts of the past session, among others one "to enable Lunaticks and Ideots to make Conveyances, etc." See the *Gentleman's Magazine*, vol. 1, p. 212.

Q. E. D.—It will be necessary to pass an examination in Greek, in French, or German, and in Algebra (unless the certificate already possessed show that this last subject was included in the preliminary examination for the Membership). An examination must also be passed in one of four optional subjects, which may be Chemistry.

WE are indebted to correspondents for the following periodicals, containing news reports, and other matters of medical interest:—The Cork Constitution; The Glasgow Herald; Saunders' News Letter; The Argylshire Herald; The Birmingham Morning News; The Birmingham Daily Post; The Hampshire Telegraph; The Newton Directory; The Sheffield Daily Telegraph; The Berkshire Chronicle; The Hackney Express; The Bath Argus; The Portsmouth Times; The Liverpool Mercury; The Alcester Chronicle; The Hereford Times; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. J. Crichton Browne, Wakefield; Mr. John M. Fox, Cockermouth; Dr. De Chaumont, Woolston; Mr. W. Thurston, Ashford; Mr. Howard Orfeur, London; The Secretary of the Apothecaries' Company, London; Mr. Rennie, Liverpool; Dr. W. M. White, Lavenham; Dr. Coupland, London; Mr. W. Fairlie Clarke, London; Dr. W. Marcet, Cannes; Mr. R. Rae, London; Mr. George Pollock, London; Dr. Burdon Sanderson, London; Dr. D. Toler T. Maunsell, Dublin; Dr. George Johnson, London; Dr. G. Buchanan, Glasgow; Mr. Robert Birch, Guildford; Dr. Fothergill, London; Our Edinburgh Correspondent; Mr. Charles Soloman, Skirlaugh; Mr. S. M. Bradley, Manchester; Dr. J. B. Hamilton, Chatham; Mr. B. T. Moore, Harlesden; Mr. Edward Mathews, Redditch; Mr. H. J. Vines, Littlehampton; Dr. Haddon, Manchester; Mr. Clement Walter, Dover; Mr. G. Mickley, Littlebury; Dr. Drapes, Enniscorthy; Mr. Bellamy, London; Dr. J. W. Moore, Dublin; Dr. W. S. Oliver, 60th Rifles; Mr. W. Smith, Clifton; Dr. A. de Goyée, Paris; Mr. Holthouse, London; Mr. G. W. Wigner, London; Mr. R. Quain, London; Mr. F. Hovenden, London; Mr. Bell, Newcastle-on-Tyne; Dr. Steele, Liverpool; Mr. Groves, London; Mr. T. H. Smith, Alcester; Mr. Liddle, London; Our Dublin Correspondent; Our Manchester Correspondent; Dr. Hughes Bennett, London; Dr. Griffiths, Sheffield; Mr. Calantarients, Scarborough; Dr. F. J. Brown, Rochester; Mr. Oakley Coles, London; Mr. Nelson Hardy, London; Mr. Burdett, Greenwich; Dr. Hare, London; Surgeon-Major Gore, Dublin; Dr. Trollope, Hastings; Mr. W. Berry, Wigan; Mr. Hitchcock, Lewisham; Mr. Alex. Ford, Bradford; Dr. De Chaumont, Woolston; Mr. Robt. E. Huntley, Newcastle-on-Tyne; The Secretary of the Royal College of Physicians; Dr. Lionel Beale, London; Mr. W. Harris, Liverpool; Dr. John Whitmore, London; Dr. Clouston, Edinburgh; Mr. Poole, London; Dr. W. B. Cheadle, London; Dr. D. Nicholson, Portsmouth; Dr. Williams, London; Mr. C. H. Newby, London; Mr. Charles Chittenden, Malta; Mr. T. Morton, Drogheda; Dr. Thomas Blunt, Leicester; Dr. Sncll, Sheffield; Dr. J. Batty Tuke, Edinburgh; Dr. W. J. Preston, London; Mr. W. Reynolds, Bridgnorth; The Secretary of the Mercers' Company, London; The Registrar-General for Ireland; Mr. Pugh Lister, Brighouse; Dr. E. Crisp, London; Dr. J. M. Cullen, Dundalk; Dr. Ward Cousins, Southsea; Dr. Bramwell, Leith; Mr. Board, Clifton; Mr. Reid, Canterbury; Mr. James S. Wilson, Lockerbie; Dr. Barnes, Carlisle; Mr. Southam, Manchester; Mr. C. F. Bryan, Leicester; Dr. W. T. King, London; Dr. Harrison, Lincoln; Mr. H. M. Brigg, Birmingham; Sir. J. R. Cormack, Paris; Dr. Sheen, Cardiff; Mr. H. B. Pattinson, Torrington; Mr. T. Dickson, Buxton; Dr. Garde, Youghall; Mr. Leggatt, Sandwich; Dr. W. Garstang, Blackburn; Dr. F. C. Turner, London; Dr. Shingleton Smith, Clifton; Dr. Desmond, Liverpool; Mr. Eastes, London; etc.

# THE CROONIAN LEC[illegible]

## ON ADDISON'S DISEA[illegible]

*Delivered at the Royal College of Physician[illegible]don.*

By E. HEADLAM GREENHOW, M.D. [illegible] C.P., F.R.S.,
Physician to and Lecturer on Medicine at the M[illegible] Hospital.

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### LECTURE II.

I SAID in my last lecture that Addison's discovery has not yet been generally accepted, nor even generally understood. The connection of the constitutional symptoms and bronzing of skin with the disease in the suprarenal capsules, is still regarded by many rather as a matter *sub judice*, than as a certain and definite relation. This scepticism is no doubt partly due to the fact that the relation between the disease of the suprarenal capsules and the clinical symptoms associated with it, is much less susceptible of obvious explanation than the relation between the organic lesion and the clinical symptoms in many other diseases. To this part of the question I shall refer in my next lecture; but, in the meanwhile, it is evident that the obscurity of the relation can be no bar to the recognition of its reality, if this latter be substantiated by a sufficient number of well attested facts.

The general acceptance of Addison's discovery has, however, been mainly retarded by the prevalence of misconceptions which have prevented its being generally understood. I propose, therefore, to review in the first place the evidence proving the reality of the relation, and subsequently to deal with the misconceptions which have interfered with its general recognition.

If it were only that so obscure a disease, as one particular lesion of the suprarenal capsules, has been often correctly and publicly diagnosed from the symptoms supposed to be connected with it, it seems difficult to understand that the connection should not be universally allowed to have passed out of the region of theory into that of established truth. I have myself, on twelve occasions, diagnosed Addison's disease of the suprarenal capsules in the presence of medical students and friends, and in eight of these cases the correctness of the diagnosis has been verified at the necropsy. Two of the twelve patients died at a distance from London, and the remaining two are still living. There have now, indeed, been so large a number of cases similarly diagnosed, that it is impossible to enumerate them; and the evidence they afford of the reality of the connection between the clinical symptoms and the pathological condition, would alone seem to me to be unanswerable.

It is still argued, however, in some quarters, both at home and abroad, that, although a diseased condition of the suprarenal capsules may frequently coincide with certain clinical symptoms, it is by no means essential to their development, and consequently cannot be their cause. I shall therefore proceed to show that the whole weight of the evidence furnished by the large number of cases published since Addison's time, as bearing upon the subject of the disease he discovered, goes to prove that the coexistence of the clinical symptoms of Addison's disease with one particular lesion of the suprarenal capsules, is the almost invariable rule; the exceptions to which, if duly investigated, may be satisfactorily explained. I shall also be able to show that this particular lesion is essential to the development of those symptoms, in so far that medical records have as yet produced no single case exhibiting the really characteristic features of Addison's disease, in which this particular lesion of the suprarenal capsules was not also present.

For many years past I have from time to time collected all the cases I could find in the *Transactions* of medical societies, or in the British or foreign medical journals, published under the name of Addison's disease, Bronzed skin disease, disease of the suprarenal capsules with or without bronzing, and bronzing of skin with or without disease of the suprarenal capsules. I cannot suppose, however, that none have escaped me, for I have not had access to all the medical works in which cases may have been recorded, and latterly my leisure for such researches has been less than in former years. This collection now amounts to 332 cases, in all of which there is a more or less complete report of the morbid appearances found after death; for I have disregarded, as useless for my present purpose, all those cases which have not undergone the test of *post mortem* examination.

Of these 332 cases, a very considerable number fall into three classes, which must be set aside till the latter part of this lecture. One of these classes includes all the cases in which no disease at all of the suprarenal capsules was found; the second, all those cases in which the disease found in the suprarenal capsules was altogether of a different nature from the particular lesion characteristic of Addison's disease; whilst in the third class are comprised all those cases in which the description of the condition of the suprarenal capsules leaves doubtful the nature of the lesion, and in some instances the existence of any lesion at all. After deducting the cases which fall under these three classes from the total number collected, there remain 228 cases, in all of which the suprarenal capsules are reported to have undergone the one particular morbid change which I described in my last lecture.

As regards the reality of the relation between this particular lesion of the suprarenal capsules and the clinical symptoms supposed to be associated with it, I take first, because most indisputable, the evidence furnished by 101 of these cases, which may be classed in one group as typical cases of Addison's disease—typical as corresponding in all their main facts with the outline of Addison's own description—more or less typical, according as the length of their course or as opportunities of observation have enabled their reporters to present more or less in detail the remarkable features which fill in that outline. In all these 101 cases, the train of constitutional symptoms and the peculiar change of colour in the skin were observed, during life, more or less fully developed. In all the 101 cases, the suprarenal capsules were found after death to be diseased, and the disease was in every case of the same nature, corresponding with one or other of the stages of the particular lesion which I have described. And, lastly, in none of the 101 cases was there any other organic lesion existing which could be of the slightest importance. There can surely be no reasonable doubt that, in every one of these cases, the disease of the suprarenal capsules was, either immediately, or mediately through its consequences, the sole cause of death.

But although, with the view of adducing first the most unanswerable argument to be derived from the facts collected, I have placed in a group these 101 cases which I have called typical by themselves, there is another large class which, in reality, affords scarcely less convincing proof of the connection between the clinical symptoms and the suprarenal disease. In 51 more cases, both the constitutional symptoms and the discoloration of the skin were observed during life in a more or less typical form, but either the other organs were not examined so as to place beyond question the absence of any coexisting disease; or else some complicating disease actually existed, giving rise to its own symptoms independently of those characteristic of the suprarenal lesion. A large proportion of these cases, however, are, in fact, as typical examples of the disease as any of those I have placed in the previous group. Again, in 31 other cases, some of the characteristic constitutional symptoms are reported, together with some discoloration of skin, but in some of these cases the descriptions are too meagre to justify my placing them in the first or second group; whilst in others there was coexisting disease serious enough to modify or obscure the symptoms of suprarenal disease.

We have thus, out of the 228 cases in which the one particular lesion of the suprarenal capsules has been found, no fewer than 183 cases in which the peculiar change of colour in the skin, and some at least of the characteristic constitutional symptoms, were observed during life.

In 16 of the remaining 45 cases, the clinical history and symptoms are either altogether wanting, or are too imperfectly recorded to warrant any conclusions being founded upon them. Amongst this number are included several cases which occurred before the announcement of Addison's discovery. These 16 cases being necessarily left out of the question, there remain only 29 of the 228 cases still to be accounted for; and in these 29 cases it is distinctly stated either that no bronzing of the skin existed, or that it was almost inappreciable.

In 18 of these 29 cases, the disease of the suprarenal capsules coexisted with advanced phthisis or vertebral disease, with tuberculosis, ascites, or Bright's disease. In two or three of them, the coexisting disease was acute tuberculosis, which always runs a very rapid course; and in most of the others the coexisting diseases were attended by a considerable and exhausting drain, such as profuse suppuration from abscesses in vertebral disease, or from the lungs in phthisis, and loss of albumen from the blood in Bright's disease. Three of these cases occurred in the Middlesex Hospital, and I was present at the *post mortem* examination of one of them, and verified the absence of all trace of discoloration of the skin; but the patient, a boy aged 13, had been rapidly worn down by profuse discharge of pus from an abscess connected with carious vertebræ. A few of these cases have presented, however, some of the peculiar constitutional symptoms due to the suprarenal lesion, in addition to those of the more obvious disease, though not of sufficiently marked form to give rise to any suspicion of their real cause until it was discovered at the necropsy. Thus, in the second of the three Middlesex Hospital cases to which I have referred, Dr. Thompson recorded in the case-book that the patient, a man aged 40, who died after an illness of only six weeks, with extreme disorganisation of the lungs, had, before he took the cold which brought on his rapidly fatal illness, been suffering from languor, failure of appetite, and vomiting after food. The third case, one of vertebral disease and incipient phthisis, was under the care of Mr. Hulke, who stated that the patient suffered from a degree of feebleness quite out of proportion to the loss of flesh, a very irritable stomach and obstinate constipation. In this last case, it was obvious that the suprarenal lesion was in a comparatively early stage when the patient died, for the inflammatory exudation with which the right capsule was infiltrated had not undergone the process of caseous degeneration, and the left capsule appeared still healthy.

The inference which I draw from the absence of the bronzing of skin, and mostly, also, of the constitutional symptoms in these eighteen cases, is that, in most of them, the diseases coexisting with the disease of the suprarenal capsules proved fatal before this latter had produced its characteristic effects; whilst in others, the end was probably hastened by the debility and depression which are usually the first symptoms of the suprarenal lesion, but which, in such circumstances, would naturally pass unnoticed. As we have seen, Dr. Thompson's and Mr. Hulke's patients did both present such symptoms, distinct from those of the more acute diseases which caused death—a fact which seems to confirm the inference I have drawn with respect to these cases.

The explanation of the other eleven cases in which it was stated that there was no bronzing of the skin, is at first sight less obvious. In none of these cases was there any coexisting disease of importance, and some of them are amongst the most typical on record as regards the constitutional symptoms. Nearly all of them, however, have been cases in which the illness has been of comparatively short duration, only two having exceeded a course of four months; in several there must have been, notwithstanding the absence of any developed bronzing, some peculiarity in the colour of the skin sufficient to attract attention, as slight duskiness, unnatural darkening of skin, peculiar sallow hue, and so on, are noted, together with the absence of bronzing. In one case, however, fully reported by Hertz in Virchow's *Archiv* for 1870, there was no trace of discoloration of the skin even at death; but the illness appears to have been of short duration; for, although the patient reported himself to have been failing in health since an attack of cold and ague a few months previously, he only presented himself at the hospital a few days before his death. At that time, he had still some appetite, and the description of his condition is not that of an advanced stage of the disease; but he sank suddenly with severe nervous symptoms. In another case, under Dr. Owen Rees, reported by Dr. Wilks, which was most characteristic as regards the constitutional symptoms, and in which the patient was failing in health a year and ill nine weeks, there was no discoloration. The same may be said of two other cases recorded by Dr. Bristowe and Mr. Crossman, lasting four and eight months respectively. This last case of Mr. Crossman's is the longest on record, in which death has taken place with all the characteristic constitutional symptoms of Addison's disease without any bronzing of the skin. There is, however, one case included in the eleven, in which the illness is said by Mr. Bruce, who reported the case for Dr. Russell Reynolds, to have lasted eighteen months. But, as the patient had been always delicate and a hard drinker, and as the only symptoms observed were sickness, loss of flesh, and a sense of emptiness at the epigastrium, it may have been difficult to fix the commencement of the illness due to the disease of the suprarenal capsules. It is certain that this latter was not in an advanced stage at the time of the patient's sudden death, for a little of the proper tissue of the organs was still found remaining.

The simple and satisfactory explanation of all these cases lies, I believe, in the variable comparative date of the development of the constitutional symptoms and of bronzing of skin in different cases, to which I drew attention in my first lecture as one of the peculiar features in the course of this remarkable disease. It was at first thought that absence of bronzing of skin, in otherwise obviously characteristic cases of Addison's disease, might be accounted for on the supposition that a course of several months at least was requisite for the development of the bronzing. More extended clinical observation has now established the fact that, in a certain number of cases, the bronzing of skin is more or less developed for considerable periods of time before the patient feels any symptoms of illness; whilst, on the other hand, in a considerable number of cases, the constitutional symptoms have shown themselves for a longer or shorter period before the appearance of any discoloration of the skin. It is evident, however, that cases belonging to the former of these classes are far less liable to give rise to misunderstanding than cases of the latter class; for, whilst those patients who are affected first by the discoloration of skin will live on as usual until th[illegible] symptoms make their appearance, those patients in whom [illegible]itutional symptoms are first developed may very possibly die, [illegible]ly if exposed to any external depressing influence, before t[illegible]earance of the discoloration of skin. This is, in fact, precisely w[illegible] believe to have occurred in all the eleven cases I am now discussi[illegible] I believe them to have been all typical cases of Addison's disease, whose course was cut short by individual feebleness or by unfavourable circumstances before the development of the bronzing of skin, which would presently have taken place, as in the cases quoted in my previous lecture, if their course had been sufficiently prolonged.

Looking at all the difficulties which have stood in the way of our obtaining full and accurate reports of even the recognised cases of this rare and obscure disease, and to the certainty that many cases have remained unrecognised until after death, when it was too late to fill up deficiencies in the clinical records, I cannot but regard these statistics as furnishing conclusive evidence of the constant relation of a certain train of constitutional symptoms and a peculiar change of colour in the skin due to one particular diseased condition of the suprarenal capsules.

Such a weight of concurrent testimony to the truth of Addison's discovery would scarcely have remained so long without effect, had it not been for the extensive prevalence of those misconceptions to which I have alluded, as obscuring the true aspect of the question from the moment when it was first submitted to the profession. These misconceptions had reference chiefly to the characters of the discoloration of skin and of the lesions in the suprarenal capsules; and they originated, as we have seen, in a great degree in Addison's own mistakes. He subjoined to his own typical cases others presenting discoloration of the skin and disease of the suprarenal capsules of quite different characters, and unassociated with any of the apparently causeless constitutional symptoms which had attracted his attention. He also gave the disease the name of Melasma suprarenale, for which afterwards was substituted that of "Bronzed skin disease", thus identifying the disease itself with its most conspicuous, but least important, feature. Thus, the asthenia and the other peculiar constitutional symptoms, which at first revealed to Addison the existence of the disease, were in a great measure overlooked, both in reports of cases and in discussions based upon them. Numerous cases were brought forward, on the one hand, only to show that discoloration of the skin not unfrequently occurred without any disease being found in the suprarenal capsules; and, on the other hand, only to prove that discoloration of the skin did not always result from disease of the suprarenal capsules, even when sufficiently extensive to cause the entire destruction of those organs.

In both these classes of cases, the facts were undeniable, and the inferences drawn from them have constantly been alleged as the principal arguments against the truth of Addison's discovery—namely, that "discoloration of the skin not unfrequently exists without any disease of the suprarenal capsules", and that "disease of the suprarenal capsules not unfrequently exists without producing any discoloration of the skin." Both these allegations are undoubtedly true; but, as I shall proceed to explain, neither of them contravenes, in the slightest degree, the reality of the relation which subsists between the peculiar change of colour in the skin and the particular lesion of the suprarenal capsules which are found in Addison's disease.

First, then, discoloration of the skin does frequently exist without any disease of the suprarenal capsules, but it is discoloration which either presents altogether different characters from that associated with suprarenal disease, or which, if more or less resembling it, is easily referable to some other obvious pathological cause or to some known physiological condition. Neither Addison himself, nor any one who upheld his views, has ever maintained that disease of the suprarenal capsules was to be regarded as the only cause of discoloration of the skin. This would have been as absurd as to assert that disease of the kidneys was the only cause of dropsy. In both cases, the truth discovered was the relation between a hitherto undiagnosed local lesion and one particular form of an obvious affection.

There are various conditions, both physiological and pathological, which are frequently accompanied by general or partial darkening of the skin; but, as the former are universally known and attributed to their true physiological causes, I need not dwell upon them, and therefore pass on to the various discolorations of the skin produced by pathological causes which have more or less frequently been confounded with the peculiar discoloration of Addison's disease. Among these there is, perhaps, none more striking than the cutaneous discoloration often seen in elderly persons of very indigent circumstances and of uncleanly habits, especially when infested with vermin. I have the records of several such cases which have been under my own care in the Middlesex Hospital, either for obvious disease, or simply for the debility and sinking consequent on long continued hardships and exposure. In the year 1864, I exhibited one of these cases at the Pathological Society, as a case of bronzed skin disease simulating the discoloration of Addison's disease. Such cases, however, though they undoubtedly present some appearances of Addison's disease, may be easily distinguished from it. In my patient, a woman, aged 65, the skin was extensively bronzed, especially over the abdomen, chest, and back; but the discoloration, when carefully examined, was totally different from the bronzing of Addison's disease. It was seated in the superficial instead of in the deeper layers of the epidermis. It was paler instead of deeper in the face, hands, and other parts, which are naturally the seats of most pigment. These small, isolated, dark spots were all on the pale instead of on the discolored parts of the skin. Moreover, the darkened cuticle was not soft and smooth, but in many parts raised and rough. Such constitutional symptoms as were present—debility, languor, and a sense of sinking at the epigastrium—were referable to apparent causes, and were soon removed by tonic treatment, and an ample supply of food. I should add that, by the use of alkaline warm baths and soap, the discoloration was greatly diminished, though the skin did not regain its normal hue.

Again, it is well known that pityriasis versicolor is attended by discolorations of the skin, and cases of this kind have been adduced to disprove the connection between bronzed skin and disease of the suprarenal capsules; but the nature and the distribution of these discolorations, as well as their modes of development and disappearance, are widely different from the two characters of the discoloration of skin in Addison's disease. The dark patches are more upon the trunk and limbs than upon the face. They have abrupt margins and convex borders, and are interspersed with spaces of normal coloured skin; they appear and disappear rapidly: and no asthenia or other constitutional symptoms are associated with them.

Syphilitic eruptions, also, notoriously cause more or less permanent stains on the skin; but, although their coppery hue and spotty character distinguish them clearly enough from the bronzing of Addison's disease, they are sometimes confounded with it, for two such cases have been sent to me in private practice, on the supposition that they were cases of Addison's disease.

There are, however, various kinds of discoloration of the skin which bear a somewhat more real resemblance to the bronzing of Addison's disease, in so far that the skin remains soft and smooth, and the pigment is deposited in the same layers of the epidermis, though not in the same quantity, nor usually to the same extent, nor in the same characteristic seats. Such discolorations are well known to be produced occasionally by diseases peculiar to women, by tropical and malarious fevers, by hepatic disease, and by very chronic phthisis. Of this last class of cases I have seen several remarkable examples since my attention has been directed to the subject. A woman, aged 26, who died under my care in the Middlesex Hospital of chronic phthisis in 1871, presented precisely the appearance of Addison's disease in an early stage, the face having the same peculiar duskiness, and the forehead, except where covered by the hair, being of a distinct brown colour; the skin was soft and smooth. Another phthisical patient, a man, aged 50, was sent to me in 1872 by my colleague Mr. Nixon, with abnormal pigmentation of the tongue, exactly resembling that seen in Addison's disease. My colleague Dr. Thompson asked me some time ago to examine a man, aged 55, who was suffering from bronchitis and emphysema, and, it was suspected, long-standing phthisis. He exhibited several brown patches, corresponding to the extent of superficial injuries received from a fall about a year before; and on the lower part of the sternum was a transverse irregular white cicatrix an inch and a half long and a quarter of an inch wide, encircled by a dark brown ring nearly half an inch in width, fading off into the normal hue. The skin of the groins was also slightly dusky. These partial discolorations strikingly resembled those found in similar situations in Addison's disease, but they neither deepened, nor spread over the general surface during the subsequent illness of the patients, nor did these latter show any symptoms but those of pulmonary disease. In all these cases, the suprarenal capsules proved to be perfectly healthy. The observation of these and similar cases has convinced me, that no partial discolorations of skin are to be relied on as diagnostic of Addison's disease, unless found in conjunction with the characteristic constitutional symptoms.

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Royal College of Surgeons.—Mr. John Hilton, F.R.S., who was elected a member of the Court of Examiners of the Royal College of Surgeons in 1865, has resigned his appointment which he has so long and so honourably filled. The Council, of which he was elected a member in 1854, will still retain the benefit of his experience. A special meeting of the Council will be held on Wednesday next, the 17th instant, for the election of a Fellow of the College, to fill his vacant chair.

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# THE GOULSTONIAN LECTURES
## ON PUERPERAL FEVER.

*Delivered at the Royal College of Physicians, London.*

By ROBERT J. LEE, M.D., F.R.C.P.,
Assistant Physician at the Hospital for Sick Children, Great Ormond Street.

### Lecture III.

The only point on which I now feel some hesitation is, whether this explanation of the origin of puerperal fever, and its contagious nature, is so generally admitted as to allow us to proceed in our inquiry without interruption by objections to it. Our students are generally told in the text-books that puerperal fever is "a continued fever communicable by contagion, occurring in connection with childbirth, and often associated with extensive local lesions, especially of the uterine system". (Aitken.)

There is no doubt that a considerable number of experienced practitioners believe in epidemic influences, and are quite ready to allow that there is strong evidence to make them conceive that in certain cases the fever has been communicated from one person to another. It is only a short time since that one of our leading journals, in remarking on a case of manslaughter which has excited attention very properly on the question of contagion, observed: "Is it certain that puerperal fever is contagious?" It seems to me a very important matter indeed that there should be no mistake on this question, at least as a practical one; for, whether we believe or disbelieve the theory of contagion, we must regulate our practice by the opinions of those of the greatest experience and knowledge.

Supposing even that we cannot demonstrate the perfect truth of the theory, and that we cannot explain certain apparent exceptions to it, it is necessary to remember that it is sufficient, if the proof can be carried so far as to obtain consent to the probability of the theory being true. In this case, "probability is the very guide of life"; and the rules laid down by an able writer, on the extent to which we ought to be satisfied with the evidence of such probability, are so much to the purpose, that I shall take advantage of them to express the opinion, which I think we shall agree in supporting, in respect of this matter.

"From these things, it follows", says that able logician Bishop Butler, "in questions of difficulty, or such as are thought so, where more satisfactory evidence cannot be had, or is not seen, if the result of examination be, that there appears, upon the whole, the lowest presumption on one side, though in the lowest degree greater, this determines the question even in matters of speculation, and, in matters of practice, will lay us under an absolute and formal obligation, in point of prudence and of interest, to act upon that presumption or low probability, though it be so low as to leave the mind in very great doubt which is the truth. For surely a man is as really bound in prudence to do what, upon the whole, appears according to the best of his judgment to be for his happiness as what he certainly knows to be so." (Butler, Introduction to *Anal. Relig.*) It is quite easy to perceive what a great difference must exist between the views entertained by one who believes thoroughly in the contagious theory and those of one who does not believe in or is doubtful of it. By the former, epidemics of the fever are not admitted; symptoms are all referred to the influence of a poison circulating in the system, which accumulates in tissues and produces general disturbance as well as local pathological changes. Variations in the pulse and temperature are explained by the same cause, and the remedies which appear most rational depend upon the principle of opposing the poisonous influence, while the fear of conveying septic matter from one case to another will always suggest precautions which would be disregarded by one who doubted such a possibility. In regard to the question of lying-in institutions, and in his views of the dangerous proximity of the *post mortem* room, he would hold only one opinion. In many other ways which need not be mentioned, his professional conduct would be regulated in regard to various cases which might occur in his practice of those diseases which are also the source of the infecting poison. If he engage in discussion on these practical questions, he carefully declines to argue on the meaning of the term contagion. If it be stated that puerperal fever, in a large number of instances, cannot be traced to any source of infection, he replies that his theory does not involve such a necessity; that the symptoms may arise from the decomposition of organic matter in the patient's own person; and he does not allow the limited meaning of the term contagion as used in such diseases as scarlatina, variola, and others, to be adopted in the case of puerperal fever; and, so far as such diseases occurring in the puerperal state are more serious than under other circumstances, he would either assert that he doubted the fact, or that, if it be occasionally true, he would still adhere to the opinion, that such increase in the severity of symptoms might be explained upon the principle of septic infection.

There may undoubtedly be some demand upon the imagination for those who find it difficult to conceive of invisible and subtle agents of whose existence there is only the evidence of effects; but, when the mind is educated by acquaintance with many natural phenomena that can only depend on unseen forces or energies, that difficulty diminishes, and a consideration of the extraordinary character of the effects produced by the action of all poisons on the human system will assist in allowing the same method of reasoning to be employed which is pursued in the investigation of the laws which regulate the action of chemical, physical, and other forces. That those who are engaged in other departments of scientific investigation are required to exercise the imagination, when they have arrived at the limits of actual perception, is proved sufficiently by the following remarks of one of the leaders of experimental research in the domain of natural philosophy.

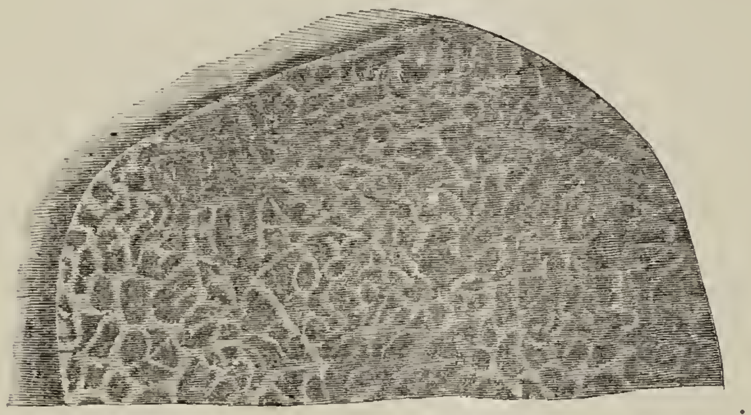

Fig. 1.—Section of Pleural Membrane, with network of Lymph-vessels full of Bacteria. Natural size (Heiberg).

"I would simply draw attention", says Professor Tyndall, "to the fact, that in the atmosphere we have particles which defy both the microscope and the balance, which do not darken the air, and which exist nevertheless in multitudes sufficient to reduce to insignificance the Israelitish hyperbole regarding the sands upon the sea-shore." . . . . "It cannot be too distinctly borne in mind that, between the microscope limit and the true molecular limits, there is room for infinite permutations and combinations." (*Microscopical Journal*, vol. x, p. 416, new series.)

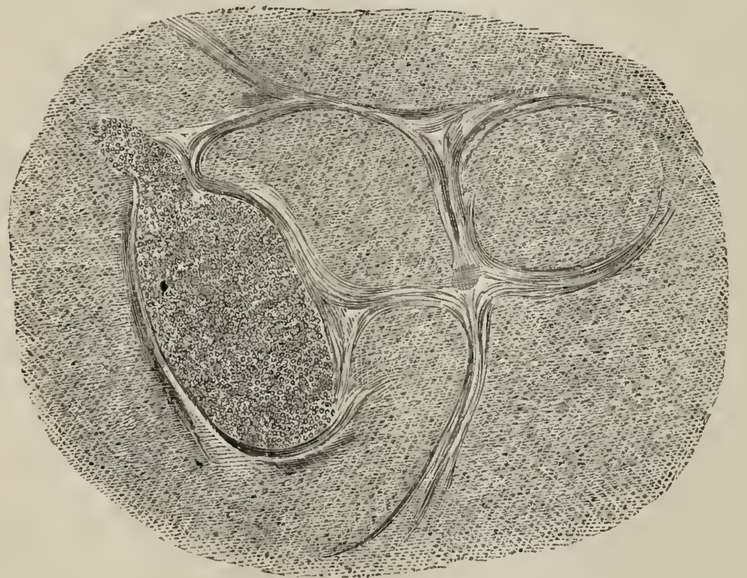

Fig. 2.—Section through a Bacterian Embolon in a minute Artery in the Kidney. The patient sank very rapidly after delivery, and the *post mortem* examination led to an explanation of the symptoms in the gangrenous condition of the placental surface, and venous thrombosis in the tissues which correspond to that part. In the lungs and heart, abscesses containing bacteria were found (Heiberg).

It is quite clear that, if the efforts be successful which are now being made to demonstrate the actual existence of organic poisons developed in the process of decomposition, we shall some day be enabled to account satisfactorily for the different symptoms which they give rise to when introduced into the human system, and for the pathological changes they produce in the different tissues of the body.

This question of the different characters of the products of decomposition is, of course, extremely difficult to decide. We have only to be careful to require that observations should be accurate, and that theories should not be hastily proposed. It might appear quite an easy matter to investigate the results of the decomposition of any particular organic substance, and determine the sensible properties of the minute organisms which are developed in that process; I say it might seem easy to do this; but practical observation soon dispels this idea. The field of the microscope is seen to be crowded with particles of extreme minuteness, of variety of form, reflecting and refracting light in various degrees, and exhibiting movements of more or less complexity. Those movements may be independent of the organisms themselves; that is to say, they may be produced by external forces. Thus, if we employ only our powers of vision, though we may magnify to any extent, as a means to discover their characters, and to distinguish them from one another, we are only using morphological principles as the basis of classification.

This limitation of their powers of analysis with the microscope none are so well aware of as the most experienced observers, and there is but little danger of our being led to erroneous conclusions by them. Those who are least experienced in the difficulty of microscopic research are more likely to exceed the limits of observation, and to indulge in theories which will prove eventually to be only partly true.

It would be difficult to do justice in these lectures to the researches which have lately been made into the interesting and important subject of decomposition. A learned Fellow of this College has fairly stated the general results of the most recent investigations of Continental observers, after verifying them by independent examination, as well as contributing some information of value himself in his recent lectures at Owens College, Manchester (*vide* BRITISH MEDICAL JOURNAL, January 26th, on the "Occurrence of Organic Forms in connection with Contagious and Infectious Diseases"); and his conclusions are more in accordance with all that we know from experience, clinical observation, and experiments, than could be expected from one who, like the distinguished Professor at Jena, has made the study of the different species of organisms, and their development, almost his sole object of inquiry.

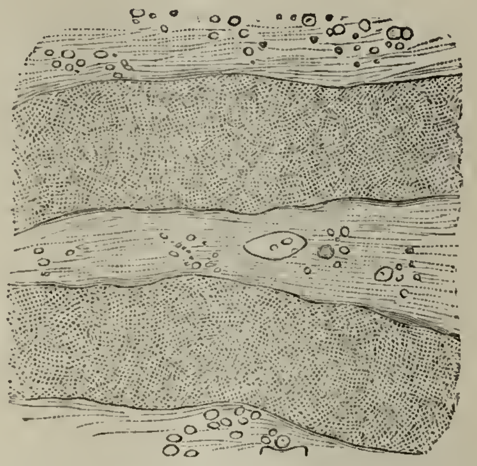

Fig. 3.—Canals in the Pyramidal Portion of the Kidney full of Bacteria. Between the canals, the stroma of the kidney contains some fat-globules. The specimen was taken from a patient who died about four weeks after delivery from puerperal infection. Numerous abscesses with which lymphatics communicated were found in the periuterine tissues. Both kidneys were large, pale, and soft, and contained streaks and spots of yellowish colour, and numerous points of ecchymosis. The liver was slightly enlarged, of paler colour than normal, and the divisions of the acini were indistinctly defined. The pericardium was spotted with points of ecchymosis, and its serous cavity contained sanious fluid (Heiberg).

It is only necessary to select such of these observations as bear directly on the symptoms and pathology of their subject. Those who are unacquainted with the general characters of the minute organisms which are classed under the term bacteria may readily obtain some idea of their dimensions, forms, and other distinguishing features, by the examination of any fluid containing decomposing organic matter. For instance, the secretion in carcinoma uteri may be subjected to microscopical examination with the quarter-inch or half-inch object-glass; and, instead of a simple collection of bacteria, in decomposing we have the cells of tissues with which we are tolerably familiar, to assist us in forming some idea of the extreme minuteness of those organisms. A cancer-cell appears to be capable of containing quite a considerable number of the darkish globular granules, which are now looked upon as special forms possessing active infective properties. We can readily recognise in such a preparation the staff-shaped bacteria, properly so-called, with their undulating mode of progression, the spirilla with rapid axial rotation, the more obscure movements of the vibrios, and, lastly, the comparatively insignificant globular micrococci. It is the last of these which, under special names, as micrococcus diphtheriticus, micrococcus vaccinić, and others, which are not so easy to distinguish from one another as to make us quite satisfied of their specific character, that are now engaging the attention of pathologists in relation to the various changes of tissue which are met with in puerperal disease.

There is no difficulty whatever in conceiving it quite possible for even the larger bacteria to traverse the smallest capillaries; for we have only to introduce under the cover of the microscopic slide a few red blood-corpuscles, in order to perceive that three or four staff-shaped bacteria placed side by side could follow a blood-cell in its passage through minute vessels. And, when we observe that a micrococcus is a sphere whose diameter is not equal to that of the staff-shaped bodies, we can imagine it capable of exerting local morbid influence by interruption of the physiological processes, which are constantly taking place in the body.

My object in presenting in this familiar manner the general characters of bacteria is rather to favour the view that, instead of treating them with contempt, we may not only appreciate the fact of such organisms existing, but may give some scope to the imagination when we are considering the question of morbid poisons, and are asked to believe in much that cannot be brought within the range of actual perception. It might be reasonably objected that there is great liability to error in microscopic analysis of the characters of micrococci, and that we might easily mistake other cellular forms for them. This is an objection which is perfectly true, and against which the microscopist has to guard very carefully.

At present, there seems to be one test which may be applied in pathological examination of tissues supposed to contain micrococci, and this is required by the fact, that the minute globules of oil commonly met with in all tissues in certain pathological conditions resemble micrococci so closely as to make it difficult to distinguish between them. This has suggested the immersion of such tissues in strong solution of caustic potash, which is known to have no effect upon the microscopical appearance of a micrococcus.

By these means, Professor Heiberg of Christiania (*Die Puerperalen und Pyæmischen Processen*, Leipzig, 1873) has lately succeeded in satisfying those who have had an opportunity of examining his preparations, and who are qualified to form an opinion upon their value, that, in cases of puerperal fever, very many tissues may contain bacteria. He has exhibited specimens in which the lymph-canals of the serous membrane of the liver are seen to contain them in small groups or "colonies"; and they are not confined to the canals, but seem to have permeated their walls and invaded the external tissue. Similar groups are found in the lymph-vessels of the pleural membrane; in the tissue of the cardiac valves, which is rendered slightly opaque and swollen around them; in the arteries and tubes of the kidney; and, among other results of investigations, Professor Heiberg describes them in those lacunæ which exist in the nasal mucous membrane, and communicate by fissures with the surface.

We can easily apply these facts to the explanation of the formation of minute abscesses around arterial embola, and to the different pathological conditions which follow a simple fibrinous coagulum arrested in the circulation, as compared with one containing active micrococci. This is the direction in which pathological investigations will be made by those who support these views of the connection between bacteria and puerperal fever.

The idea of searching for micrococci as Professor Heiberg did was suggested by reflection on the difference between one embolon and another, that is, from a comparison between the state of the tissue surrounding small collections of healthy pus, which had been injected into the veins, and had been arrested in the minute branches of the pulmonary artery, and the much more active changes which resulted from the injection of material containing bacteria.

It was in a case of ulcerative endocarditis occurring in pyæmia that Professor Winge first referred to the existence of micrococci in the pathological changes observed in the endocardial membrane, Professor Virchow having previously described this particular form of ulceration in puerperal fever as of diphtheritic nature. This case of Winge's was followed by another, the details of which were supplied by Professor Heiberg, and was accompanied by a postscript by Virchow, in which he refers the species of micrococcus to the genus *Leptothrix* of Hallier, expressing the necessity of caution in deciding upon this difficult point, as the very minute size of the corpuscula, and the absence of movement in the particles, necessarily make the microscopical examination somewhat uncertain. However, he states very positively that they are parasites, and are related to diphtheria and blood-infection. This is the present state of our knowledge regarding bacteria in their relation to puerperal infection; and, as there seems to be good reason for believing in the facts as far as they go, we might decline to speculate upon the question which presents itself, Whether these micrococci are active agents themselves in producing the effects described, or whether they are only the vehicles of a subtle poison which attaches itself to them as well as to any other particles of matter, whether micrococci or not. Or suppose that we question the specific characters of the micrococcus, and ask whether there may not be others of equally active properties whose presence we cannot detect in the fluids or tissues. When we know how many varieties of bacteria are developed in the process of decomposition, we should feel inclined to doubt whether one and all might not be equally capable of producing poisonous effects when introduced into the system.

# ABSTRACT OF THE LUMLEIAN LECTURES ON LIFE, AND ON VITAL ACTION IN HEALTH AND DISEASE.

*Delivered at the Royal College of Physicians, London.*

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## Lecture I.

[Dr. Beale began his lecture by referring to the controversies which have taken place as to the nature of life, and commenting on the manner in which they have been carried on. He then proceeded to express the grounds of his dissent from the physical doctrine of life.]

To the doctrines now generally taught and fast becoming very widely diffused, I am and have been strongly opposed. In certain particulars, those doctrines are in conflict with views based upon well observed facts, in relation to the growth and multiplication of every known form of living matter, and the formation of the tissues of living beings. Many observations, though repeated again and again, must be entirely erroneous if the positive statements recently made concerning the phenomena of living beings be true. It may be presumptuous, perhaps, to suggest that the conclusions arrived at by me many years ago, ought not to have been wholly ignored by authorities who have expressed themselves in very confident language concerning the physical nature of life; but people have been informed again and again that all the phenomena of living beings are due to physical changes, although it has been pointed out that phenomena, characteristic of every kind of living matter, cannot be so explained. I have for many years pleaded in vain that, for example, an attempt should be made to explain the movements of an amœba, or a mucus-corpuscle, by physico-chemical action.

It is right, as it seems to me, now to proceed a step further, and challenge the supporters of the physical theory of life to publicly reply to the objections urged against the statements they have made. For has not the time arrived when the facts and arguments upon both sides might be summed up and judgment given, whether the physical doctrine of life is justified by the scientific knowledge of the time in which we live; or whether, on the other hand, it is not a thoroughly unscientific inference, based only upon the facts of the imagination, and opposed to facts of observation?

In the physical domain, consequence follows its antecedent with unerring certainty. What will happen under certain given circumstances can be stated with exactness and premised beforehand. But it is not so with the living world. It has yet to be proved that every change there is a direct consequence of antecedent physical change. We cannot predicate of vital as we can of physical phenomena. We have not the certainty of physical law. Nevertheless, with amazing confidence, not, however, resulting from knowledge, some declare that the difference is to be easily accounted for by the greater complexity of the circumstances and conditions which obtain, as regards vital phenomena. When, it is affirmed, by further investigation, these circumstances shall have been fully investigated, man, we are assured, will be able to define, with absolute certainty and unerring precision, the particular living form which shall result from the development, under certain given conditions, of a particle of colourless transparent matter which represents the earliest stage of being of countless numbers of very different creatures. And yet changes, characteristic of every form of living matter, have been scarcely alluded to by the upholders of this notion. It must, indeed, have struck many as a remarkable fact, that so little has lately been said concerning the relation of life to matter. The connection between mind and body, mind and brain, mind and matter, has been very fully discussed, but the question of the connection between life and body has received far less attention, although the determination of the last is the preliminary inquiry which would naturally be presented for solution, before the nature and relations of mind were touched upon.

Surely we, who have been studying life in many forms, and under varying conditions, ought to urge those who have assumed the responsibility of teaching physical doctrines of life to publicly reveal the facts, and clearly state the arguments upon which they rely for the establishment of the doctrines they assert to be true—doctrines which seem to be based upon mere discoveries of the imagination, though they are, it is to be regretted, believed and taught in the most ancient of our seats of learning, where, strange to say, Socratic philosophy and caution are still inculcated.

Among the doctrines referred to are the following :—The sun forms living beings. The brain and all organs have been built by the sun. All the actions of all things living are mechanical. All things living are machines. Living organisms, as well as crystals, are the products of molecular forces. The mind, the intellect, the will, thoughts and emotions, as well as the body, were once latent in a fiery cloud. The present world and all its inhabitants, past and present, as well as those to come, lay potentially in the matter which was once cosmic dust. The lowest forms of living approximate very closely to non-living material. Only matter and material forces—only atoms and atomic forces have been and are concerned in the formation of all things, living as well as non-living.

Up to this time, no one has succeeded in showing that the above propositions contain the vestige of a substratum of truth, and it would have been easy to have added several others to the above list, of which the same remark would be correct.

In the course of six lectures which I delivered to the College in the spring of 1861, and which were published soon afterwards, and in the course of the same year translated into German by my friend Professor Victor Carus of Leipzig, I directed attention to the remarkable characters of living matter, and pointed out how this could be distinguished throughout nature.* I also showed that in nutrition the pabulum always gained access to the living matter, and that by and out of this latter alone tissue was formed, the very matter that was once living becoming converted into the tissue. Specimens of the living matter were exhibited, some of which were taken from the lowest organisms, and others from the tissues of the higher vegetables and animals, and from man. The varying proportion of living matter in corresponding tissues at different ages was also demonstrated in cuticle, cartilage, muscle, nerve, and other tissues. The living matter was called germinal matter, which term has been since replaced by the short and more convenient word bioplasm ; and the matter formed from it was termed formed material, because it was shown that all tissue, "intercellular substance", and matters resulting from changes in the so-called cell, were formed from the bioplasm only.

It was also shown that masses of bioplasm, after reaching a certain size, usually less than the $\frac{1}{1000}$th of an inch in diameter, underwent division, and that, as soon as any mass of bioplasm attained a certain definite size (which differs in different creatures and textures, but which is constant for the same), it divided, or portions moved away, and at length detached themselves from it. If the bioplasm were to continue to grow, the distance to be traversed by the nutrient matter, before the inmost parts were reached, would soon become so great, that these could not be nourished or subjected to the constant action of currents of fluid. Death would begin in the central part of such a mass, and would soon involve particle after particle as its ravages extended outwards, until the whole of the living mass was dead. There are many circumstances connected with the life of a mass of bioplasm which render its growth without division and subdivision a most improbable event. With the exception of that fanciful sheet of living matter once supposed to grow in the sea at very great depths—never seen, but received in undoubting faith by the critical Strauss—the so-called Bathybius—large masses of living matter exist not.

In man and the higher animals, it is the exception to find a single mass of bioplasm which measures as much as the $\frac{1}{1000}$th of an inch in any direction. It is not wonderful that particles of matter so small, especially as they are also colourless and structureless, should have been for a long time passed over as of little importance, and almost ignored by some anatomists. In many drawings of tissues which contain numerous masses of bioplasm, not one is represented, for it was supposed that the tissue was formed independently of such particles. But the evidence in favour of the view that it is from these small masses of living matter that all tissue grows is incontrovertible. Without them, nothing characteristic of a living organism is formed. These, and not the formed tissues, are the seat of nutrition, formation, and differentiation, and in them is the sole source of metabolic power.

In theory, at least as it seems to me, every worker appeals to, and ought to be protected by, scientific public opinion, which, perhaps, hardly as yet existing in England, is slowly, but it is to be hoped surely, developing itself. An observer should endeavour to accurately describe what he has seen ; and, having published the results of his inquiries, should announce, in the only way open to him, that such a work has been completed, and can be obtained by those who desire to see it. It will, however, save under very exceptional circumstances, hardly be possible for him to get attention directed to his observations without some sacrifice of independence, to which no real worker will like to submit, although the only alternative may be to be ignored or condemned as one not fitted to survive in the struggle for intellectual existence.

Bioplasm and Formed Material.—The simple living matter of a microscopic fungus, like other forms of bioplasm, is clear, colourless, and structureless, soft, and, when growing quickly, almost diffluent. It is enclosed in a capsule of equally colourless formed material, which, however, is firm, and sometimes even hard. It varies in thickness under different circumstances. By pressure, the capsule may be caused to rupture, and the bioplasm within may be squeezed out. When this simple organism is nourished, nutrient pabulum, dissolved in water, permeates the capsule of formed material, and comes into contact with the bioplasm within. The non-living matter then undergoes changes, in the course of which it acquires the same properties and powers as the bioplasm, which already exists, possesses. The thickening of the capsule of formed material is effected by the deposition of new formed material, resulting from changes in the bioplasm, upon its inner surface.

If the fungus particle be placed under favourable circumstances, it will grow. The particle which is growing not only increases in dimensions, but manifests a tendency to separate into two or more parts. Sometimes the living matter exhibits little projections or diverticula from its surface, each of which, after a time, becomes detached, and constitutes a separate particle, which may grow and divide like its predecessors. Now, these phenomena which I have in few words imperfectly sketched, I hold to be vital actions, differing absolutely from any actions known to occur in any kind of non-living matter whatever. They cannot be imitated, and no actions known can be fairly said to exhibit any true analogy with them. These vital phenomena do not characterise the formed material, for the production of this corresponds to the death of the bioplasm.

Bioplasm of Bacteria.—The living matter of the bacterium is probably the lowest, simplest form of bioplasm in nature. The entire organism is so minute as to be difficult of investigation. In 1864, I carefully examined bacteria under the one-fiftieth of an inch object-glass, and was able to demonstrate that, like the lower fungi, the bacterium consisted of bioplasm, with a layer of formed material upon its surface, as was proved by carefully crushing a very large bacterium while under observation. The membrane was ruptured, and not only was the bioplasm seen to escape, but it exhibited vital movements when free from its envelope.

[Dr. Beale then gave a sketch of the characters of bacteria.]

The germs from which the little particles spring are far more minute. They appear as minute specks, the largest of them exhibiting a circular outline, and probably being spherical. The smallest are too minute to be discerned with the highest magnifying powers at our command. If a specimen of fluid, in which these particles are rapidly growing and multiplying, be carefully examined, many new points will be observed to appear from time to time. After watching with great care for a considerable time a given spot, I have assured myself that new particles actually come into existence ; and that one does not, after intently watching for a time, and concentrating the attention upon a certain space, merely see one coming into view after another, as star after star.

The material in which the minute germs of bacteria are embedded, and which, at least in part, consists of formed material produced by the bacteria, is much softer than the matter of which the capsule of fungi consists. I believe that even the most minute bacterium-germ is surrounded by a layer of such soft formed matter, in which very minute particles of bioplasm divide and subdivide before they attain even the $\frac{1}{100000}$th of an inch in diameter. When, therefore, bacteria in an early stage of development dry, it is not possible to identify them. When moistened, the dry mass swells up, and the bioplasm in the soft mucus-like matter grows, each particle producing a fresh investment of formed material; and then, if the conditions be favourable, the germs either at once divide and subdivide for a time, or grow into perfect bacteria, which move freely and grow and multiply in this more advanced stage of development.

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* As much misconception has arisen as to the exact date of my observations on account of frequent references on the part of authorities to observations of Max. Schultze and Kühne, while mine were wholly ignored, it is only right to draw attention to the fact, that Max. Schultze's *Das Protoplasma* was published in 1863, nearly two years after my lectures appeared, while Kühne's *Untersuchungen über das Protoplasma* did not appear till 1864.

[The lecturer then referred to the apparently universal diffusion of bacterium-germs in health and in disease, and the great power they possess of retaining vitality.]

Germs so minute as those of bacteria are constantly passed over, and, until they have grown somewhat, it is not possible to identify them. This circumstance has led some to suppose that they are really formed anew from non-living matter, or from a substance in a transition state, which is neither living nor dead. But such a view is not supported by facts at present known, nor is there anything to justify any other conclusion than that all matter is either living or not living.

LIVING MATTER STRUCTURELESS.—As far as can be ascertained by examination under an amplifying power of 5,000 diameters, living matter throughout Nature is colourless and *structureless.* Not only does living matter exhibit no indications of structure, but the highest known form of living matter could not be distinguished from the lowest, and the lowest is not more unlike non-living matter than is the highest. One is, in fact, just as near and just as far from inorganic matter as the other. It has been said that certain organisms only differ from a fragment of albumen by their granular character; but the statement is not correct. In the first place, a granular appearance is not characteristic of living matter. If granules be discerned in it, they are not essential, and are at least as likely to be lifeless as they are to be living particles. Secondly, the differences between any fragment of albumen and any living particle are enormous, but of a kind quite distinct from that suggested in the above statement.

If a portion of pure bioplasm be carefully examined with the highest powers at our command, and under the most favourable circumstances as to illumination, it will be found to be entirely devoid of granular character. Clear, transparent, and colourless, there will not be discernible in any part of it the faintest indication of structure. Nay, if motionless, its presence can only be recognised by the fact of it being a very little less perfectly transparent than the fluid which surrounds it, and by its refracting property being slightly different from that of the medium in which it lives.

There are many characters in which the living differs absolutely from any form of non-living matter yet discovered. One broad essential character distinctive of all living particles is a remarkable capacity of movement, which has not been adequately accounted for.

OF VITAL MOVEMENTS.—Every form of living matter exhibits certain movements, the nature of which has not been determined. The remarkable movements of the common amœba, of the mucus-corpuscle, of the pus-corpuscle, and of the white blood-corpuscle, are familiar examples of vital movements, and can be seen and studied. Every nutritive act, every form of increase and multiplication, each kind of growth, the production of buds or offsets, the development, the formation and increase of every tissue, involve active movement of the particles of which living matter is composed. Vital movements affect every form of living matter from the very lowest, supposed by some to have been formed direct from the non-living, to the very highest which is concerned in the development of man; but in certain instances only can the movement be actually seen to occur under the microscope. By very slight alteration of the conditions existing during life, the movements may be caused to cease; but, in many cases in which no movement has been seen, we have other evidence that it has occurred. Vital movement, there can be no doubt, accompanied the first dawn of life, and will continue to characterise living matter to the end of time. In fact, vital movements are essential; their cessation is coincident with the cessation of life. Without them, life is not conceivable; and it is equally impossible to conceive any form of matter not in a living state which manifests movements like those which characterise life.

I propose to consider the subject under the four following heads; viz.:

1. Vital movement which may affect every part of a mass of living matter.
2. The movement of the constituent particles of a living mass, which takes place in a direction from centre to circumference.
3. Movement of one portion of a mass of living matter from the rest.
4. The movement of a mass of living matter from one place to another.

Lastly, there are certain movements which are indirectly due to the vital movements of bioplasm, such as ciliary action, some movements connected with nerve-actions, the movement of certain solid particles in cells, etc.; but these will not be discussed here. Neither shall I enter into a discussion concerning the nature of "contractility", which has by some been considered to be vital in the same sense as the movements which I am about to describe. I have, however, adduced reasons for holding that contractility, as it occurs in muscle, is essentially distinct from the changes now to be discussed.

1. *Vital Movements which may affect every part of a mass of Living Matter.*—These movements are undulatory, and may be seen in many forms of living matter. The wave-like movement gives rise to continual changes in the thickness of the mass, which, as a whole, may remain quite stationary. If the margin of the mass of living matter be studied, its outline will be observed to continually alter; a slight bulge at one place, a slight depression at another. In a few moments, perhaps, the part which projected will recede, and that which was depressed will become prominent, but with no regularity, with no alternation of movement. Such changes may be seen continually proceeding over every portion of a mass, in some cases occurring very quickly, in others slowly. In the amœba, these movements are distinct enough. The matter which moves is perfectly transparent and structureless. Granules suspended in it may be moved, but they are not the cause of the movement. Wave-like movements may be seen in young epithelial cells. I have seen them in epithelium from the throat and from the bladder of man, and I think there can be no doubt that they take place in living matter generally. In the white blood-corpuscle they have been studied by many. I conceive that it is by movements of this kind that the little masses of bioplasm near the surface of the brain, which I believe are concerned in mental operations, act upon the delicate nerve-fibres which are in contact with all parts of their surface.

2. *Movements of the Constituent Particles of a Living Mass which take place in a Direction from Centre to Circumference.*—The actual movements referred to under this head cannot be seen, for they take place slowly, and affect particles too small to be seen with the highest powers. But that motion in the direction indicated does occur, seems to me to be conclusively proved by the fact that in some spherical masses of growing bioplasm, which are increasing rapidly, a new centre (nucleus) appears in the very centre of the mass. After this has grown for a time, another new centre (nucleolus) appears in the centre of the first. The new growth originates centrally, and a newer growth still more centrally. This involves a movement of constituent particles outwards. Now, if bioplasts, in which this change is actually proceeding, be coloured with an ammoniacal solution of carmine, which in some instances may be effected in a few seconds, the remarkable fact will be observed that the new centres have been stained most deeply, although these are situated at the greatest distance from the surface in contact with the coloured solution. All "nuclei" and "nucleoli" are new centres of growth, and invariably consist of living matter. An oil-globule may be formed in bioplasm, and may be called a nucleus or a nucleolus, but the formation of such a body is of no importance. It ought never to have received the name of nucleus. The movement outwards of the constituent particles of bioplasm is, I venture to think, the circumstance which determines the flow of the nutrient fluid in the opposite direction.

3. *Movement of one portion of a mass of Living Matter from the rest.*—This form of vital movement can be seen without any difficulty. A bulge appears upon the surface of a mass of bioplasm. This gradually increases and becomes pear-shaped. The projecting portion of the living matter moves away from the general mass with which, however, it may remain connected for some time by a narrow pedicle. Such movement of living matter may be seen in the Amœba, in the mucus-corpuscle, in pus-corpuscles, and in white blood-corpuscles, and many other forms of bioplasm. What determines the precise spot upon the surface where the formation of the bud or outgrowth commences it is difficult to say.

4. *Movement of a mass of Living Matter from place to place.*—This form of vital movement is also to be seen very distinctly, and so many instances of its occurrence have been recorded, that it must be considered an attribute of bioplasm generally, though in many cases the movement cannot be seen. Not only amœbæ and allied forms, destitute of locomotor organs, move actively, but many of the bioplasm particles of man and the higher animals may be seen to move from one situation to another under the microscope. The movement of entire mucus-corpuscles, white blood-corpuscles, and pus-corpuscles, over a space equal to more than twice the diameter of the corpuscle, has been seen by me many times. In white fibrous tissue, in muscle, nerve,

yellow elastic tissue, and some other textures, there is distinct evidence of the movement of the formative bioplasm during the formation of the tissue. In some cases, the bioplasm is prevented from moving from place to place in consequence of being imprisoned in a cavity, but it may continue to move actively nevertheless. Thus, in many plant-cells the bioplasm moves round and round the circumference, just within the cell-wall. Sometimes bundles of fibres are formed by the movement of the bioplasm in the interior of a cell after the cell-wall has been formed. The fibres of the cells of the cartilage of the epiglottis are produced in this way, and I have seen the bioplasm gradually tapering so as to form a delicate fibre, which seemed to have been spun off, as it were, from the bioplasm as it moved round and round the cell-cavity.

Of the several primary vital movements I have described, none can be imitated. They are peculiar to living matter, and not one of them has been explained by physical law. No mere physical or chemical attractions, or repulsions, on the part of any material particle at all resemble vital movements. Neither can these be adequately accounted for by attributing them to changes in the environment, for no conceivable changes outside would cause such movements. Nor is there any machinery in bioplasm to explain the movement.

Of the several movements of living matter I believe those which affect the ultimate living particles of bioplasm never cease. That moving of matter from centre, which involves the movement of pabulum in the opposite direction, I believe to be an essential phenomenon of life. The movement of living particles amongst one another, the movements of a portion of a living mass from the rest, the movement of a living mass as a whole may entirely cease, but I cannot conceive the cessation of motion in a vital centre.

In this lecture I have shown that in all parts of all living beings, at every period of life, are numerous masses of structureless living matter. From the lowest forms of life to the highest, this living matter or bioplasm manifests certain phenomena which cannot be accounted for by physics. Among these purely vital phenomena I have included certain movements which have not been accounted for. These movements are vital, and, as I believe, due to a peculiar power, "vitality."

## SCROFULOUS PYELITIS.

By J. J. CHARLES, M.A., M.D., M.Ch.,
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SCROFULOUS or tubercular pyelitis is a disease of comparatively rare occurrence; and, as the symptoms which attend its progress are often vague and indefinite, especially in the early part of its course, its diagnosis is frequently difficult. The case which I report at length below is one which, during life, excited much interest among the medical men under whose notice it had fallen, partly, no doubt, from its nature having been surrounded by considerable obscurity. The history is nearly complete, many of the details having been written out for me by the patient himself shortly after he came under my care.

*History.*—A. G., aged 46, latterly a clerk, but formerly a ship-broker (and as such much exposed to changes of weather), married, with a family of ten living children, was first seen by me in consultation in January 1874. I could make out no direct family history of tubercle, but I learned that one or more of his brothers had died of phthisis pulmonalis. In early life, he contracted gonorrhœa, but he never suffered from stricture or venereal sores. His habits were always sober and industrious, and he enjoyed good health until about four years ago, when he received a severe wetting, to which he ascribed the beginning of his illness. This exposure to wet and cold did not seem to have produced any immediate results, for he attended to his business as usual, though not with his wonted vigour. It was some time afterwards, I believe, during the year 1871, that he felt a sudden shooting pain in his left groin; but the exact relation it had, in point of time, to the subsequent hæmorrhages, I am not enabled to say. He appears to have suffered from a pain of a burning or smarting character, over a limited area, in the same region, throughout his whole illness, except occasionally, when it diminished in intensity or disappeared almost entirely under the influence of therapeutic remedies. Micturition also became more frequent, but this symptom does not seem to have given him much concern. On the evening of October 30th, 1871, after running a short distance, he made water; and, to his astonishment and alarm, he discovered that he was passing a large quantity of blood in his urine. He at once sought the advice of a distinguished physician, and was ordered gallic acid and the external application of ice to his loins. Notwithstanding this treatment, blood, almost pure, and to the amount, it is said, of two quarts, continued to come away during the night and greater part of the next day, when it nearly ceased; but, from that time till his death, the hæmaturia never disappeared entirely except for short intervals.

November 4th. As it was feared that calculi were being formed in the kidneys, bicarbonate of potash was prescribed, and the patient was directed to drink large quantities of linseed-tea.

1872. January 10th. The potash having proved effectual in affording relief, it was repeated in combination with the liquid extract of pareira.

February 6th. The patient now placed himself under the charge of another practitioner of eminence, who prescribed tincture of perchloride of iron, twenty minims, three times a day, and a powder composed of powder of uva ursi twenty grains, and compound ipecacuanha powder five grains, to be taken daily. In addition, he afterwards ordered him an expectorant mixture for the cough, which had annoyed him for some time.

March 5th. After one or two examinations with the sound, it was concluded that there was no stone in the bladder; but, on account of the severity of the symptoms, the existence of a tuberculous ulcer of the bladder was considered highly probable. He was ordered bicarbonate of potash with ipecacuanha wine and tincture of morphia.

April 20th. At this time, the urine had improved somewhat, but the cough had become more severe. During the summer, the patient went to the seaside. Here his general health improved considerably; but the irritability of bladder and the cough still continued, and there was almost invariably a small quantity of blood in his urine.

1873. February 4th. A distinguished local surgeon, under whose care A. G. now came, examined him carefully, but could discover neither stone, enlargement of prostate, nor any tenderness on pressure over either kidney. The diagnosis arrived at was chronic cystitis, with tubercular deposit in the lungs. At this time, his appetite was failing, his cough very troublesome, and his expectoration frequent and copious; there was also constant pain in his bladder, and frequently a brick-like deposit in his urine. He was directed to apply a belladonna plaster, eight inches by six, over his loins, and to take ten minims of dilute nitro-muriatic acid thrice daily.

During the remainder of the year, the patient's condition appears to have become gradually worse, and any improvement effected by medicines was only temporary. On one or two occasions, I believe, he had retention of urine, which had to be relieved by the catheter. At different times during this period he was prescribed aromata sulphuric acid, iodide of potassium, tincture of perchloride of iron, and decoction of pareira. In December, small calcareous particles about the size of mustard-seeds were discovered in the deposit from his urine. They resembled pieces of hardened mortar, and, on analysis, proved to consist chiefly of the triple phosphate (phosphate of ammonia and magnesia), with a small quantity of phosphate of lime. None of these calculi (?) had ever been found before; though, at his physician's request, the patient had regularly looked for them with great care since the first attack of hæmorrhage.

1874. January 3rd. To-day I examined A. G. for the first time. He looked pale and anæmic, with an anxious expression of countenance. For some time past he has had profuse night sweats; his weight at this time was eight stones 10 lbs., his average weight in health being 9 stones 4 lbs. He could not retain his urine longer than a few hours; and, of late, on some occasions, it came away quite freely, but, at others, much straining was required. During the last three weeks, however, he had noticed a change for the worse in this respect; for, although his bladder would occasionally retain urine three hours, or even three hours and a half, yet, on making the slightest exertion in the intervals, such as coughing, rising up, or going to walk, his urine passed away involuntarily. The expulsion of urine had also become more difficult, and, to facilitate the process, he was often forced to sit upon some projecting body, such as the end of a staff, or his heel, to press up the bladder. He spoke of three kinds of pain which annoyed him. The first was a general soreness and sense of weakness in his loins, sacrum, and bladder; the second was a special pain or uneasiness in his left loin, which he likened to the sensation following the application of a mild mustard-poultice; and the third was a peculiar pain or soreness over the left side of his bladder, which, as I have mentioned above, had existed to a greater or less degree from the beginning of his present illness. These three varieties of pain were totally different in character, and might exist separately or together. He stated that his bladder was so morbidly sensitive on the left side some time ago, that if it contained much urine, and he turned on that side in bed, the pain there became so excruciating that he was often obliged to change his position at once; but he did not experience this feeling if his bladder happened to be empty at the time. At present, this pain, though diminished and somewhat modified, annoyed him to only a slight degree after his bladder had been emptied; but, when it became filled again, he was compelled to empty it at once to obtain relief. At night, his bladder was more irritable than during the day, so that he could not sleep longer than one and a half to two hours consecutively, the accumulated urine giving rise to such pain or dreadful dreams that he was glad to get up. After passing urine, he had not felt any pain at the neck of the bladder or in the glans penis, except on a few occasions; nor had he observed at any time a sudden stoppage to the flow of urine, or any retraction of the testicle. Walking or carriage exercise did not seem to have any influence in increasing the quantity of blood in the urine.

Usually, a little more than the average quantity of urine passed in the twenty-four hours (fifty to seventy ounces); it was acid, of a reddish colour, and specific gravity 1020; there was a thick creamy deposit, which, on standing, formed about one-tenth of the total quantity of urine passed; there was very little albumen in the clear supernatant portion, and this most likely due to the blood and pus mixed with it. The deposit, under the microscope, seemed to consist of pus, mucus, and blood-corpuscles; no tube-casts of the kidney were discovered. On making him pass urine, I noticed that at first it was clear, but near the last it became thick and whitish, and finally consisted of almost pure blood. This difference was well shown if the first and last portions were discharged into two vessels, as Sir H. Thompson has recommended (*Clinical Lectures*, page 11, 1869). The quantity of blood in a particular specimen of urine appeared to be proportioned, as a rule, to the amount of straining at the end of micturition. On passing a catheter, and afterwards a sound, a slight obstacle was met with at the neck of the bladder, as if from enlarged uvula vesicæ; but no stone could be detected after the most careful exploration.

January 6th. I used the sound to-day again with the same result as before; but, on moving the point of the instrument over the left side of the bladder, the mucous surface was felt rough and irregular, and depressed into a pouch near the entrance of the ureter, where the interior seemed to be most sensitive. Rectal examination was also made whilst the sound was in the bladder, but only negative results were arrived at either as to the presence of a stone or enlargement of the prostate. His bladder was then "washed out" with tepid water by means of a silver catheter, to which was attached a long India-rubber tube, having a funnel connected with its opposite or free end—an apparatus recommended in Bryant's *Surgery* (page 501). His bladder was by this means found to hold five ounces and a half of liquid. The patient derived much comfort from this procedure. A gum-elastic catheter was next retained in the bladder to remove the urine *guttatim* as it entered, a plan proposed, I believe, by Sir H. Thompson (*op. cit.*, page 179). The urine that thus came away was almost clear and free from blood and deposit. There was no marked tenderness on pressure over either kidney. The bowels were costive of late, with a good deal of tenesmus; and the stools often contained scybalous masses, the passage of which intensified the pain in the bladder. There was tubercle in the apices of both lungs. His cough and sputa had lately been much augmented; and progressive emaciation and loss of strength were too plainly visible. The patient was recommended to remain in bed for the next week at least, and to take a warm hip-bath every other night; his bladder to be injected with tepid water once or twice a day, and a mustard-poultice to be applied over the hypogastric region. He was ordered:

℞ Liquor potassæ, one drachm and a half; tincture of hyoscyamus, six drachms; infusion of buchu, to eight ounces. M. Half an ounce to be taken three times a day;

And a suppository containing half a grain of hydrochlorate of morphia to be inserted before going to bed.

January 12th. The morphia suppository was not repeated, as it did not produce the desired effect, the patient seeming to have a peculiar diosynerasy for opium; all preparations of it, he said, generally giving rise to sleeplessness or uneasy dreams. I prescribed

℞ Tincture of hyoscyamus, succus conii, of each six drachms; fluid extract of pareira, tincture of buchu, liquor potassæ, of each one ounce; decoction of pareira, to eight ounces. Half an ounce to be taken three times a day; also four grains of compound ipecacuanha powder three times a day.

To assuage thirst at night, he was advised to drink linseed-tea, or a olution of the acid tartrate of potash.

January 14th. As nausea and vomiting followed the administration f one or two of the powders, their use was discontinued. There was manifest improvement in all his symptoms; but the pains in the ladder were still complained of. At Dr. Redfern's suggestion, the kin above the bladder and over the kidneys was painted once or twice a ay with tincture of iodine (*B.P.*)

January 17th. The patient now learned to wash out his bladder himelf, using the apparatus mentioned above, only substituting a flexible, r the silver, catheter. He washed out his bladder once or twice a day after passing urine, and from this procedure experienced much relief. He was ordered

℞ Tincture of hyoscyamus, one ounce and a half; liquor potassæ, one ounce; decoction of pareira, to eight ounces; half an ounce three times daily. For the cough, which was very distressing, an expectorant mixture of squills, ipecacuanha, and compound tincture of camphor, was prescribed.

January 21st. The urine was nearly clear, and contained little albumen or deposit, the pain in the bladder and loins was greatly relieved, and the cough was less troublesome. The application of tincture of iodine was ordered to be persevered in, and the mixture of hyoscyamus and pareira to be renewed and taken two hours after meals. To improve the appetite, I prescribed quinine in small doses, to be administered with or immediately after meals, so as not to interfere with the pareira mixture. The urine remained slightly acid, though large quantities of potash had been taken lately.

January 24th. The patient was not so well as on the last occasion. The deposit in the urine had increased.

January 29th. Some improvement was visible to-day, though he complained of indigestion, for which tincture of perchloride of iron with sulphate of quinine was ordered. Up to this date, he had been taking cod-liver oil occasionally, and he believed it relieved his cough.

January 30th. Blood reappeared in the urine, mixed up with the liquid, and in the form of a few clots, most of which were long and narrow, like earth-worms, and the rest short and broad. As the patient remained quietly at home for the last fortnight, he knew of no cause for the return of the hæmorrhage: he remarked that rest or exercise appeared to have no direct influence upon its occurrence; it seemed to come on spontaneously.

February 7th. To enable him to sleep more comfortably at night, and to alleviate the irritability of the bladder, syrup of chloral-hydrate was prescribed in thirty-minim doses, to be increased if necessary. He wore a large Crimean plaster across his loins, from which he experienced much relief to the feeling of weakness in the back.

February 17th. Syrup of chloral-hydrate was given in sixty-minim doses. As balsam of copaiba had been found to act beneficially in chronic inflammation of mucous membranes, I thought it advisable to apply it locally to the interior of the bladder. Accordingly, an injection was prepared, containing balsam of copaiba, decoction of pareira, and tincture of opium. The mixture of tincture of perchloride of iron and sulphate of quinine was repeated. The patient went out every fine day for a few hours.

Feb. 19th. As pain was now complained of in the perinæum as well as in the other parts, a mustard-poultice was applied and afforded relief.

February 23rd. The patient stated that, in his experience of different medicines during his present illness, the greatest improvement always attended the use of alkalies. I recommended him to leave off the use of all medicines, and to confine himself to bicarbonate of potash or soda, which he could take in water alone, or with a small quantity of tartaric acid; solution of acid tartrate of potash was ordered to be also drunk occasionally to allay thirst.

February 25th. The urine was nearly neutral, pale, of specific gravity 1010; no deposit or albumen was present; only a few mucus-corpuscles were visible under the microscope, and the amount of blood was diminished. The control over the bladder was greater, and the pain in it less. He still used the injection occasionally, and with apparent benefit. The bowels were costive, but the general health was somewhat better. Notwithstanding this improvement, blood reappeared in a very unexpected manner. I quote from a letter which I received from him on the occasion. "As my bladder emptied itself very frequently this day, and as any time I had occasion to make water it appeared pretty good, Dr. Charles can judge of my surprise, when, in preparing for the washing out this evening, all that is in the cup accompanying this came away at once, completely choking up the instrument. As it is so copious, and appears somewhat different from former discharges, I think it well to send it. Notwithstanding this, my bladder, I thought, had a soothed feeling this day, as if it was getting better." The tea-cup he sent was filled about one-third with clots of blood of different sizes, the majority of them being long and narrow casts, I believe, of the ureter. I ordered one-twelfth of a grain of strychnine in extract of gentian twice or thrice daily.

March 7th. Latterly, although the patient drank a smaller quantity of liquid during the night than formerly, he was obliged to urinate as frequently as ever. The bowels were costive. As his appetite continued to fail, the potash was given over, and the quinine resumed. The injection of copaiba was followed by pain in the bladder and greater deposit in the urine, though at first the patient thought it gave him ease. I ordered an injection of which I had heard Dr. S. Browne speak very highly:

℞ Tannic acid, one drachm; aqueous extract of opium, six grains; chloral-hydrate, one drachm; water, to eight ounces.

Also syrup of chloral hydrate one drachm at night on going to bed.

March 13th. He had vomiting before, as well as after, meals, and frequent diarrhœa. The pulse, which had been quick for some time, was now 120. He had less pain over the bladder last evening, and only a small deposit in the urine. The injection of tannic acid caused some pain, but the patient thought he had more power over his bladder, and required to urinate less frequently. Even with large doses of chloral hydrate, two or three hours was the maximum period of rest he ever enjoyed. Anorexia increased, cough became worse, expectoration very profuse, but not streaked with blood. I ordered compound kino powder, one drachm, to be divided into twelve powders, and one taken every third or fourth hour till the diarrhœa should cease; a warm bath at bed-time; and mustard-poultice to the epigastrium if vomiting continued.

March 20th. From this time, A. G. gradually sank. Emaciation proceeded apace; the cough was still violent; his appetite was almost completely gone; vomiting and diarrhœa were frequent. The perspirations had ceased since January 4th, and his bladder did not seem to trouble him so much as formerly. He continued, however, to attend to his business for two or three hours almost every day. To assist his digestion, pancreatic emulsion (Savory's) was administered, but it did not appear to do him much good.

April 21st. During the last week, he ate no food, and lay in bed almost unable to move from weakness, complaining of great pain in his bowels and bladder. About 1.30 P.M., he got his bladder washed out with tepid water, and expressed himself greatly eased. Half an-hour afterwards, he died very quietly. [I may mention that, two days before his death, A. G. requested me, for the sake of science, to make a *post mortem* examination of his body, as something, he said, might thereby be learned likely to prove of service to some fellow-sufferer.]

*Necropsy*, about twenty hours after death.—As only a short time was allowed, my examination was necessarily confined to the urinary organs. The peritoneum, especially that portion over the bladder, was studded with miliary tubercles, and the small intestines were empty and congested, and some of them firmly adherent to the bladder. The kidneys, ureters, and bladder, were removed for further examination. The *right kidney* weighed 6¼ ounces, and was large, soft, and flabby. The capsule was whitish and opaque, and could be easily peeled off, leaving a smooth pale surface except at one spot on the anterior surface, where the capsule dragged with it part of the substance of the kidney. On section, two of the middle pyramids, as well as the cortical substance outside them, were seen to be of a pale white colour, standing out in marked contrast to the rest of the substance of the kidney, which was somewhat congested. The mucous membrane of the pelvis was smooth and of a dead white colour, but without any deposit. The *left kidney* weighed 5¼ ounces, and was soft and lobulated. The capsule was much thickened, opaque, and very firmly adherent, and the cortical surface very rough and irregular. On section, the pelvis was found immensely dilated, so as to form a large anfractuous cyst, filled with a soft putty-like mass. The degenerate secreting tissue of the kidney surrounded this cyst in a thin layer, and presented a number of deposits of caseous material like that contained in the cyst with which they were continuous. The mucous membrane of the pelvis was of a dull white colour, with villous processes, and of semicartilaginous consistence, and nearly three times its normal thickness, and had a few calcareous crusts adherent to it. The putty-like mass in the pelvis was shown, under the microscope, to consist in great part of round and somewhat shrivelled corpuscles, like those of pus; there were also granular matter in large amount, flattened and columnar epithelial cells, crystals of triple phosphate and uric acid, and fatty granules. The material found in the secreting substance of the kidney presented almost the same appearances. When the putty-like mass had been entirely removed, the kidney weighed only 1⅞ ounces. The *right ureter* appeared normal. The *left ureter* was dilated, for the upper three inches, to one and a half times its normal diameter, and its walls were very much thickened, so as to feel almost like a portion of vas deferens. There was a lymphy exudation around it, well supplied with blood-vessels, forming a distinct coat. In its interior, was a thick white material, similar to that in the kidney, but considerably more solid, which extended downwards nearly five inches below the kidney, blocking up the canal entirely; but, beyond this, no obstruction in the ureter was visible. The mucous lining of the upper portion of the ureter was thickened, and covered with small villous processes, that could be scraped off; and, in some parts of it, there were minute depressions resembling those of the mucous membrane of the gall-bladder. A few calcareous crusts were attached to it. The *bladder*. The walls were so thin and soft, that they tore across on breaking the adhesions between them and the small intestines. The cavity was small, holding only five or six ounces. The inner surface was in some parts irregularly ulcerated and greatly congested, and there was a papillary hypertrophy of the undenuded portions of mucous membrane. The right ureter opened on a vascular papilla, whose width and height were nearly equal and about a quarter of an inch.* The left ureter terminated in the usual way. The *vesiculæ seminales* were dilated, more especially the left; and both were filled with purulent matter, which could be pressed from them into the urethra. The *vasa deferentia*, for the last two inches of their course, were enlarged, their walls thickened and softened, their interior filled with a soft thick tuberculous matter, and their mucous lining covered with villous projections. The common ducts of the vesiculæ seminales and vasa deferentia were so much shortened and widened, that the ducts of the vesiculæ and those of the vasa deferentia seemed to open separately into the urethra. The apertures of the vesiculæ were large enough to admit a large probe. There was much low inflammatory exudation around the vesiculæ, that caused their dissection to be rather difficult. The *prostate* was involved in the disease. The prostatic portion of the urethra was dilated, and the verumontanum, where the seminal ducts debouched, was excavated as if by small abscesses.

REMARKS.—*Résumé of Salient Points in the History and Post Mortem Appearances.*

1. No history of syphilis, but gonorrhœa in early life.
2. Four years before death, exposure to wet and cold, to which the beginning of the illness was attributed. General health then commenced to show signs of decay; and among the symptoms occasionally present during the following year, were pain in the left groin and frequent micturition.
3. Sudden and almost painless attack of hæmaturia two years and a half before death; the hæmaturia and the frequency of micturition almost persistent.
4. No calculi ever discovered in urine, though diligent search made for them. Small mortar-like masses were sometimes found during the last year of the patient's life. These were composed of the triple phosphate with a small proportion of phosphate of lime, and appeared to be hardened portions of a deposit in the pelvis of the kidney which had been passed in the urine.
5. Pain complained of across the front, the left side, and the base of the bladder, as well as in the loins.
6. Urine acid, sometimes neutral, but scarcely ever alkaline, even after prolonged use of alkalies; purulent deposit in variable quantity for last year and a half.
7. Tubercle in lungs, in all probability, for nearly two years before death.
8. Miliary tubercles on peritoneum.
9. Walls of pelvis and portion of ureter of left kidney thickened; cavity enlarged, and filled with a putty-like mass of caseous material. Secreting substance of kidney diminished in bulk, and containing caseous matter continuous with that in the pelvis.
10. Right kidney enlarged and congested; pelvis and ureter nearly normal.
11. No visible obstruction in either ureter; but the caseous material in upper part of left ureter may have sometimes acted as a plug.
12. Inflammation, tubercular ulceration, and suppuration of bladder, vesiculæ seminales, and vasa deferentia.

*Diagnosis.*—In this case, there can be little doubt the disease began in the kidney (pyelitis), and spread downwards to the bladder. But there are several varieties of chronic pyelitis. Sir H. Thompson speaks of three kinds (Holmes's *Surgery*, vol. iv, p. 869): 1, calculous; 2, scrofulous; 3, from obstruction; to which we may add from Roberts's classification (Roberts, *Urinary and Renal Diseases*, p. 451): 4, "from extension upwards of inflammation from the bladder"; 5, "from cold and unknown causes".

In this case, the pyelitis did not arise from "obstruction" in the ureter, for we have no evidence of this at the beginning of the disease. Neither did it result from "inflammation extending upwards from the bladder", as the earliest symptoms pointed to the kidney. Moreover, the necroscopical examination showed that the morbid process had advanced much further in the kidney than in the bladder. Nor are there any satisfactory reasons for saying it arose from "cold and unknown causes" alone, since "it is very rare that pyelitis is not secondary to some antecedent morbid process or mechanical irritation" (Roberts, *op. cit.*, p. 452), though the exposure to cold may have served as the exciting cause. We have now, therefore, only to determine

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* In Mr. Ebenezer Smith's case, "opposite the entrance of the ureter to the bladder, was a highly vascular tumour of the mucous membrane, about one inch long and one-quarter wide". (*Pathological Transactions*, p. 79. 1848.)

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whether the case under consideration was one of calculous or of scrofulous pyelitis.

In favour of calculous pyelitis (under which we include irritation produced by the presence of a foreign body in the pelvis or infundibula of the kidney, such as calculi, gravel, cancer, hydatids, or blood-clots), we have:

1. The occurrence of severe hæmaturia at the commencement of the disease, which continued to a less degree to its termination. Severe hæmorrhage is rare in tubercular pyelitis; but cases in which it has occurred have been recorded by Roberts and by Thomas Smith (*St. Bartholomew's Reports*, vol. viii, pp. 100-104).

2. The microscopical and other appearances of the putty-like mass were not those of *well marked* tubercle. But Chambers states that "these large masses (of tubercle), constituting the form of disease called 'scrofulous degeneration', have such a different appearance from the small, hard, shot-like tubercle, that, were they not the consequence of the same diathesis, one could hardly believe in the relation between them" (*Medical Times and Gazette*, 1852, 2nd part, page 403). Dr. McDowall relates a case of tuberculosis of the kidney in which the tubercular matter was of a "dirty white substance......of the consistence of putty" (*Edinburgh Medical Journal*, vol. xv, p. 1093); and the drawings he gives would almost serve as representations of the kidney under consideration. Besides, a large quantity of pus-corpuscles was mixed up with the tubercular elements in the pelvis; hence the deficiency in the characteristic features; and

3. No ulceration of the pelvis or ureter visible; but there were a few ulcers in the bladder.

Against this theory, and in favour of scrofulous pyelitis, there are the following facts.

1. No calculi were discovered in the urine, though small mortar-like masses were present occasionally during the last year of patient's life.

2. No calculi found in pelvis or ureter at necropsy; and no obstruction in the ureter, except such as might have been caused by the putty-like material.

3. Miliary tubercles on the peritoneum, and, it is believed, in lungs also.

4. Caseous material in the bladder, vesiculæ seminales, and vasa deferentia.

It is clear that the weight of evidence is on the side of the latter hypothesis, though, in the present case, it is possible the whole truth may be in neither theory, but in a combination of both. Thus a calculus formed in the pelvis, after setting up pyelitis in a tubercular constitution, may have been broken down, by the continued passage of acid urine over it, into the particles which were found in the urine in December 1873; and the miliary tubercle on the peritoneum and in the lungs, etc., may have been caused by absorption from the caseous matter in the kidney, the result of the pyelitis. Or microscopic calculi may have existed in the *tubuli uriniferi* (Roberts, *op. cit.*, p. 549) at the beginning of the disease, and have given rise to the first attack of hæmaturia, and afterwards to the pyelitis. It should be mentioned, however, that no such calculi were found at the necropsy. I therefore prefer naming the disease in the present case *scrofulous*, rather than *tubercular*, pyelitis, because the term scrofula is the more generic of the two, and includes instances in which there is no well marked tubercular manifestation (Aitken's *Medicine*, vol. ii, p. 2; 1872).

I may here appropriately give the signs by which the pyelitis in this case might have been diagnosed from cystitis.

1. Pains in the loins were amongst the earliest symptoms.
2. There was profuse hæmorrhage at the beginning of the ailment.
3. A large quantity of pus, etc., almost always appeared in the urine.
4. The urine remained acid, though alkalies were administered for some time (Roberts, *op. cit.*, p. 134). Exceptional cases, however, occur in which the urine is alkaline (Thos. Smith, *op. cit.*, pp. 100 and 102). In cystitis, the urine is eventually alkaline from ammoniacal decomposition.
5. Long vermicular clots of blood were passed in the urine.

[6. At an early period, pelvic and infundibular epithelial cells might possibly have been discovered in the urine.]

The sequence of events in this case, it must be admitted, is rather obscure; but, in all probability, it was somewhat as follows. The patient being of the tubercular diathesis, the exposure to wet and cold acted as the exciting cause of a deposit of tubercle in the secreting substance and in the submucous tissue of the pelvis of the left kidney (tubercular pyelitis). Severe hæmaturia occurred in consequence (or, *less likely*, from the presence of minute calculi in the *tubuli uriniferi*, or from calculus of the ordinary size in the renal pelvis). The inflammation set up by the tubercle spread down the ureter; and the constant passage of urine, carrying pus and blood, excited cystitis, with subsequent tubercular deposit (Rindfleisch). The vesiculæ seminales and vasa deferentia were next affected; but it is difficult to say whether the disease in them gave rise to the pain suffered by the patient on the left side of the bladder. There was not much pain, however, complained of when pressure was made upon them from the rectum. Then the ureter, whose calibre had been already diminished by the thickening of its mucous membrane, underwent temporary occlusion from a clot, when *pyonephrosis* was produced, which terminated in desiccation of the pus and other materials, and in the formation of a putty-like mass.

The blood which appeared in the urine at different stages of the disease came from almost all parts of the urinary mucous membrane. At an early period, as well as throughout the whole course of the disease, it was derived from the secreting substance, pelvis, and ureter of the left kidney; and it passed off nearly pure, as in the severe attack of hæmaturia, or formed the vermiform clots in the ureter, which were expelled at a later stage, or was intimately mixed up with the urine. It is possible that blood also came occasionally from the right kidney, as a consequence of congestion produced by the extra work thrown upon it by the growing degeneracy of the left kidney and the blocking up of the duct (Roberts, *op. cit.*, pp. 338 and 339). This hypothesis is supported by the fact that the putty-like mass in the left kidney showed no tinge of blood, though the subsequent flow of urine may have removed any such stain. The unmixed blood at the end of micturition no doubt came from the bladder.

The varieties of pain complained of can be readily explained. The general uneasiness across the bladder was the result of cystitis; the pain in the loins and on the left side of the bladder depended on the irritation of the left kidney by morbid materials (pus, tubercle, etc.), and sometimes on the passage of clots and portions of the putty-like mass along the ureter; and the pain in the perinæum (behind the scrotum) was ascribable to the cystitis, and perhaps to the inflammation of the vesiculæ seminales and vasa deferentia.*

The frequency of micturition from the beginning of the ailment was the consequence of inflammation in some portion of the urinary mucous membrane; and the loss of power at last over the contraction of the bladder is to be attributed to the degeneration of its walls from long continued cystitis and from tubercular deposit. Tubercle was deposited in the lungs about two years before death, and on the peritoneum shortly before it.

*Treatment.*—I have nothing new to offer in the way of treatment. Tonics of various kinds are the most beneficial remedies; and, of other medicines, none produced more favourable changes in the urine in the present instance than bicarbonate of potash in large doses. Under its use, the blood disappeared, and the pus diminished in quantity. It is possible, however, that the benefit may have been to a certain extent more apparent than real; the alkali having acted chemically on the purulent deposit, and changed it into a viscid, glairy, mucus-like mass, so that it was less visible (Beale's *Kidney-Diseases, Urinary Deposits*, etc., p. 363; 1869). Washing out the bladder with plain water always gave relief.

In conclusion, I beg to thank Dr. W. Roberts of Manchester most cordially for his kindness in examining the kidney in this case, and for his valuable opinion upon some of the difficulties connected with the diagnosis. Sir H. Thompson and Mr. Thomas Smith of London also merit my best thanks for their useful suggestions.

## A CASE OF CONTRACTION OF THE LOWER EXTREMITIES, WITH MUSCULAR WASTING AND COMMENCING ATROPHY OF THE OPTIC NERVES.

By ELIZABETH GARRETT-ANDERSON, M.D.,
Physician to the New Hospital for Women.

JANE P., aged 44, single, was admitted into the New Hospital for Women under my care on January 19th, 1875, for contraction of the legs.

The family history gave no trace of serious nervous disease. Her father was always well and strong, and died at 50, of strangulated hernia. Her mother died at 70, of apoplexy. No near relatives have had epilepsy, asthma, or paralysis.

The patient herself has been very delicate and "hysterical" ever since she was 14 years old; at the age of 15, she had an illness described as "brain fever". It was accompanied by severe pain in the head, high fever, and delirium. Leeches and ice were applied. When consciousness returned, she could not speak. She thinks now that the difficulty lay in the articulation of words; she says she had to learn to speak again like an infant. It is, however, evident, from her own account, that there was also some aphasia, even if the loss of speech were not entirely aphasic. There was no paralysis of the tongue or of the muscles of the mouth; she was in good health; and was able to work regularly as an apprentice to the straw-bonnet trade. Her fellow apprentices gradually taught her to speak again; but for two years she had great difficulty in expressing herself, and would often use one word for another something like it either in sound or in meaning. The catamenia did not appear till she was 20; from this time, the loss was regular and apparently normal till four months ago, when it ceased suddenly. At the age of 22, she had "rheumatism" very badly in her legs. There is no history of swelling of the joints, or of heart-affection. Vapour-baths cured her. At 26, she had an attack of constant crying for nothing. She was not unhappy, but she cried incessantly for three months. From that time to the commencement of the present attack, she was often "hysterical", crying and laughing for nothing, was very nervous, and easily worried, "never good for much".

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* Professor Verneuil states that the vesiculæ seminales, when inflamed, are hard, voluminous, and painful to the touch, and that incessant painful micturition is one of the most prominent symptoms. (*Clinique; Journal de Médecine et de Chirurgie Pratiques*, pp. 16 and 17. 1874.)

*History of Illness.*—Seven years ago, she began to notice that her legs were weaker than they had been. The knees would occasionally give way, and the legs felt very heavy and tired. Soon afterwards, she had some aching of the lower part of the spine, and was always glad when she could lie down. The weakness of the legs gradually got more and more marked till April 1874. She had then not lost locomotive power, but she walked with difficulty, and was very soon tired. There had never been any impairment of sensibility in the limbs. In April 1874, the knees began to contract; the contraction increased rather rapidly, and in a few weeks she was not able to walk at all. One month after the contraction began, she went to a hospital, and was there thirteen weeks. Then she went to another hospital; and here chloroform was given, and she was told that the contraction completely disappeared under its influence. While she was in the anæsthetic state, fourteen-pound weights were applied to each foot. This caused intense pain, and in two days a further attempt was made to straighten the limbs by putting them into screw-splints. This also caused very severe pain, and finally the patient discharged herself in September 1874, rather than submit to it. She thinks that the contraction was much worse after those attempts to overcome it.

*State on admission.*—Both the lower limbs were in a condition of spasmodic flexion; the thighs upon the pelvis, and the legs upon the thighs. The left adductors were also in a state of tonic spasm, so that, while both thighs were flexed, the left one was carried across the right, and the left knee was pressed forcibly against the lower third of the right thigh. The muscles of both thighs were apparently wasted, while to the touch they felt much harder than normal. There was no impairment or perversion of sensibility in either limb; no loss of power over the rectum or bladder; no bed-sores, though the patient had now been confined to bed for ten months. There was no exaggeration of reflex movements. In spite of the contraction the limbs were not entirely without power of movement; they seemed to have some motor power, though it was restrained by the spasm, rather than to be contracted as a result of paralysis. Examination of the spine showed some tenderness over the lower lumbar vertebræ; no feeling of burning was perceived on passing a hot or a cold sponge down the spine. No sense of constriction was felt round the body. As to electro-contractility, very feeble contractions were produced by a strong faradisation current; electro-sensibility also was much diminished. After this was tested, the patient thought the contraction was decidedly worse. Chloroform to complete surgical anæsthesia made scarcely any perceptible difference to the contraction. The anæsthesia was maintained for six minutes. The urine was acid, of specific gravity 1024; no albumen. She complained of dimness of sight; she could only read No. 30 Snellen's types. Even this soon became misty. She said she had "dizziness" of the eyes. There was no strabismus. The corneæ and media were clear; the pupils equal. Dr. Broadbent, who was good enough to examine the eyes, reported that rather more than the outer half (of image) of the optic discs was unnaturally white, and the centre depressed; the inner segment was fairly vascular. The retinal arteries and veins were rather small. The condition was similar in the two eyes. In the right eye, to the outer side of the disc (distant about three diameters of the disc), and a little below the level of the disc, was an irregular patch, in which the choroid and retina were atrophied and white sclerotic showed through. There was slight inequality of the labial muscles; on showing the teeth, the levator anguli oris on the left side acted less vigorously than on the right; the tongue was protruded in the median line and was well nourished; there was no fault of articulation; the palate muscles acted well and equally. There was no sense of weakness nor any contraction of the arms.

REMARKS.—This case seems to me to belong to the group recently described by M. Charcot, in which the tonic contraction depends upon sclerosis of the lateral columns of the spinal cord. In some respects, however, it does not agree with M. Charcot's account. In the cases he has observed, the rule has been for the upper limbs to be the first affected; for the contracted limbs to be in the position of extension; and for wasting of the muscles not to appear early in the lower limbs. In my case, the arms are at present, after ten months' contraction of the legs, quite unaffected; the legs are rigidly flexed, instead of being extended; and there is decided muscular wasting. I have also not observed the trembling of the affected limbs which M. Charcot mentions as a prominent symptom. But, though exceptional in these particulars, I think M. Charcot would accept the case as one of sclerosis of the lateral columns. The diagnosis lies between this and hysterical contraction. As bearing upon the at present unknown pathology of hysterical spasm, it is interesting to note that, so recently as in August 1874, the contraction is said to have disappeared under chloroform; and if this be correct, it might at that date fairly have been described as hysterical. M. Charcot seems to recognise that hysterical spasm may run into the permanent spasm of sclerosis, and this may have been the sequence of events here. If it be true, as maintained by M. Charcot, that tonic muscular contraction means always disease of the lateral columns, either primary or consecutive upon cerebral or upon other spinal disease, it may be that hysterical spasm depends upon some temporary impairment of nerve force or of conducting power in part of the lateral columns, by which the affected part is rendered as useless for the time being as it is permanently in sclerosis. Moreover, if it be found clinically that contractions once hysterical do frequently go on to the permanent contraction of sclerosis, there would be reason for suspecting that the pathological condition of the cord in the two conditions must be related to each other. The muscular wasting, and the loss of electro-contractility and electro-sensibility, indicate, according to M. Charcot, that the sclerosis has extended from the lateral columns to the anterior cornua of grey matter in the cord.

The case does not seem to me to admit of treatment. Electricity in any form is, I imagine, distinctly contraindicated. Tonics and counter-irritants to the spine are not likely to be of the smallest benefit. Cod-liver oil and a little bromide of potassium have been given to help nutrition and to procure sleep. With the view of testing the effect of conium on permanent spasm of this kind, large doses, *i.e.*, four and five drachms of the succus (Bell's), have been given repeatedly. As might have been anticipated, the effect was *nil*.

The propriety of performing tenotomy on the contracted tendons was considered; and, as there seemed to be no reasonable probability of its affecting the tonic muscular spasm upon which the contractions depend, the operation was not advised.

## ON THE VALUE OF TAR IN BRONCHIAL CATARRH AND WINTER-COUGH.

By SYDNEY RINGER, M.D.,
Professor of Materia Medica and Therapeutics in University College, London; and
WILLIAM MURRILL, L.R.C.P.

THE frequent and popular use of this remedy, both by the profession and by the laity, in France and Belgium, led us to try its effects. Patients so susceptible to cold, that they were obliged to remain indoors the whole winter, informed us that this remedy curtailed considerably the duration and lessened the severity of their catarrhal attacks, and that, by an occasional recourse to the tar, they became less prone to catch cold, and could more freely expose themselves to the weather, without incurring an attack. It will be seen that our observations confirm these statements.

We employed tar in two-grain doses, made into a pill, every three or four hours. From October to January, inclusive, we carefully watched its effects on twenty-five patients, whose ages varied from 34 to 70, the average being 44. All these patients had suffered for several years from winter-cough, lasting the whole winter. They were outpatients, and visited the hospital weekly, or oftener. Most of them were much exposed to the weather, whilst some were so ill, that they were obliged to stop work, and, therefore, were less exposed.

These patients suffered from the symptoms common in winter-cough—paroxysmal and violent cough, the paroxysms lasting from two to ten minutes, and recurring ten to twelve times a day, and, in the night, breaking their rest. The expectoration, frothy and slightly purulent, was generally rather abundant, amounting in some cases to half-a-pint or more in the day. The breathing was very short on exertion, but most could lie down at night without propping. The physical signs showed a variable amount of emphysema, with sonorous and sibilant rhonchus, and occasionally a little bubbling rhonchus at the base.

These patients usually began to improve from the fourth to the seventh day; the improvement rapidly increased, and, in about three weeks, they were well enough to be discharged. The improvement was so decided, that the patients returned to their work; even those who in previous years had been confined to the house the whole winter. The cough and expectoration improved before the breathing. In several cases, the expectoration increased during the first three or four days; but its expulsion became easier, and, with the improvement in the cough and expectoration, appetite and strength returned.

On discontinuing the tar, a relapse often occurred in a week or two, and the patients returned with a request for more of the same medicine, and then, a second time, the symptoms quickly subsided. We found it useless in bronchial asthma, and its effects were more evident in cases where expectoration and cough were more marked than dyspnœa.

We have no doubt that tar is a good, useful, though, perhaps, not a striking, remedy in these troublesome affections; and certainly it is more efficacious than the drugs generally employed.

It may be remarked, that tar is useful in the same cases for which the spray of ipecacuanha wine is serviceable. The spray, we find, acts much more quickly, and, unlike tar, it lessens dyspnœa even before it improves cough or diminishes expectoration.

We have this year continued to carry on our observations with ipecacuanha wine spray, and with results confirmatory of the statements made in August last. We find, however, that some patients are very intolerant of ipecacuanha spray, which causes in them a good deal of irritation, and even tightness of breathing. It is advisable, therefore, at first to dilute the wine with one or two parts of water: a precaution especially needful for patients affected with much dyspnœa, with lividity; for the spray may for some hours much intensify the difficulty of breathing and lividity, so as to alarm the patient and friends.

It may be not much out of place to mention here that, in several cases, we have found the spray very serviceable in non-febrile inflammatory sore-throats, the mucous membrane being swollen and very red. We have found it useful, too, in hoarseness from congestion of the vocal cords. Where the hoarseness has lasted a few days only, or one or two weeks, the spray often speedily cures; but, where the hoarseness has persisted three months or longer, the spray even improves the voice considerably, but some hoarseness remains.

# THERAPEUTIC MEMORANDA.

## DOSES OF CAMPHOR.

I AM still of the same opinion as when I wrote to the *Times*. It must not be forgotten that the dose is marked on these bottles "from three to five drops", which will contain about two and a half grains of camphor; and in such doses, if there be nothing but camphor, they may be taken with impunity.

I have received the following letter.

"2, East Parade, Rhyl, March 11th, 1875.

"Sir,—I trust you will excuse the liberty I am taking; but, having read the letters in the *Times* March 5th, and your reply on the 6th, also the rejoinder on the 8th, I send you the copy of a prescription I was told of above thirty-five years ago by a London practitioner who had used it for very many years, and I have used it ever since. ℞ Camphoræ gr. x; spr. vini rect. q. s. ut fiat pulvis; pulv. acaciæ gr. xv; tincturæ opii ♏xx; tincturæ lavand. co. ʒss; aquæ ʒx. M. fiat haustus. This is the best draught I ever used after confinement for after-pains. If the patient could not bear the tinctura opii, I omitted it. I almost invariably gave it with the tinctura opii with the very best results, and never had any unpleasant symptom or mischief produced by it. I have found it extremely useful in painful menstruation or irritation of the uterus. It is unfortunately given just in the state, 'the minute subdivision', said by the physician to be more poisonous. But, after my long experience of its use, I should not give it up upon the mere *ipse dixit* of any person. You are perfectly at liberty to make use of this letter, if you think proper.—I am, sir, your obedient servant,

"G. J. S. CAMDEN, M.R.C.S."

Allowing that opium and camphor are to a certain extent antagonistic, I think the above letter is sufficient to condemn the statement in last week's JOURNAL that camphor is absolutely "poisonous, drop by drop, as the prussic acid of the *Pharmacopœia*". C. R. BREE, M.D.

# CLINICAL MEMORANDA.

## EPIDEMIC JAUNDICE.

IN common with many parts of England, we have had influenza at Stamford to a very great extent since last October. During the progress of the malady, it has been interesting to notice how much catarrhal inflammation of the various mucous membranes has prevailed. In the epidemic, one of the most curious facts was acute jaundice in children. I had fifteen cases in my own practice, in children under 10 years of age, during November and December last, and I heard of others. The digestive tract of mucous membrane was nearly as much affected by the influenza as the respiratory tract, mucous diarrhœa being most common. There can be no doubt that the jaundice was caused by catarrh of the bile-ducts. The disease set in soon after the intense chill; there was often shivering at the commencement of the influenza. The disease was analogous to the jaundice one sees associated with ague in the adult, and which one regards as depending upon active congestion of the liver. Unlike jaundice connected with ague, the jaundice of my cases was more amenable to treatment. No case lasted more than three weeks. The recovery was perfect. Epidemics of jaundice are rather unfrequent, and, when they do happen, it is well to record them for future reference. In Mr. Simon's Sixth Annual Report to the Privy Council, there is an interesting account by Dr. Ord of an epidemic of 2,300 cases at Rotherham in 1863.

J. M. HEWARD, Medical Officer of Health, Stamford.

## THE RELATION OF CROUP AND DIPHTHERIA.

THE following cases, which have recently fallen under my notice as medical officer of health, tend, I think, to corroborate Sir William Jenner's theory of the identity of croup and diphtheria. About the middle of January, I was informed of a death from croup in a village about a mile and a half from this town. Hearing that members of the family generally suffered from "bad" throats, I analysed the well-water, and found it polluted with sewage. On inspection, I found the drainage most faulty, allowing easy percolation into the surrounding soil. I was informed by the medical attendant that, in this case of "croup", not a speck was to be seen in pharynx or fauces. During the ensuing week, a boy from the same house, who had recently returned to a large school a mile and a half on the other side of the town, complained of his throat; the same medical man saw him; the ailment appeared but slight. A few days afterwards, I was requested by the ordinary medical attendant of the school to visit and inspect the place, as he had a very bad case of diphtheria under his care, which in a few days ended fatally. On inquiring into the cause of the disease, I found that on the Sunday before the patient had been for some hours in the hospital ward with the boy previously mentioned. The water-supply of the school was pure, and the sanitary conditions fair. There was no other case. It appears to me that the evidence of direct infection is clear, from the "croup" case to his elder brother at school, and from him to his schoolfellow, whose case terminated fatally. At the same time that this was taking place at the school, another child in the house where the croup first occurred was attacked with genuine diphtheria, and died. HENRY J. ALFORD, M.D., Taunton.

# SURGICAL MEMORANDA.

## SPINA BIFIDA.

IN the BRITISH MEDICAL JOURNAL of March 13th, I observe in the Surgical Memoranda, "Case of Spina Bifida treated by Injection of Solution of Iodine: Death", by Mr. J. E. Burton of Liverpool. The result will not surprise any one who notes the nature of the case. It belongs to a class of cases all but absolutely hopeless, in which the lower limbs and lower part of the trunk of the body are paralysed, and the infants usually die in a few days. Instances of longer survival are rare indeed, and I am not aware that there are any on record in which the paralysis was so very extensive as in Mr. Burton's case. When speaking of such cases to my clinical students, it has been my habit to exclude paralysed cases as unfit for operation; and, though an occasional exception to this rule may occur, it is very likely that I would have declined to treat such a case as Mr. Burton's. I have to thank him, however, for relating it; for, *quantum valeat*, it confirms the rule referred to, and also shows that, even in such hopeless conditions, no immediate bad effect followed the use of the iodine solution. From the refilling of the tumour, I infer that the cerebro-spinal fluid did not continue to drain away, which it is important to prevent. I may mention that, at present, I have under treatment a case in which the site of the tumour is the upper cervical region. It was large, translucent, and growing. Five times already has it been injected without a disagreeable symptom. It is hoped the details will soon be ready for publication.

James Morton, M.D., Surgeon Glasgow Royal Infirmary.

# REVIEWS AND NOTICES.

Materia Medica and Therapeutics. Vol. I. Vegetable Kingdom. By Charles D. F. Phillips, M.D., F.R.C.S.E. Pp. 584, 8vo. London: Messrs. Churchill. 1875.

It has been remarked that some of our most practical therapeutical work has been done by men not holding special appointments, notably by Dr. Rogers and Dr. Waring. The volume before us is another illustration in point. The simplicity of the title-page is a striking feature; there is no list of appointments, no names of previous writings, but the book bears internal evidence of long and careful study.

The plan of the book is excellent for its purpose. There is no attempt at physiological classification; such would be obviously incomplete when the mineral kingdom is not even considered; it would hamper the writer and involve much repetition, as it does so markedly in Neligan. The vegetable kingdom is grouped in botanical orders, and a brief general review of each one precedes the list of its genera that are in use. Under each medicine we have (1) *A Description*, interesting, accurate, and tolerably full without being minute; (2) *Active Ingredients*, giving concise but valuable information on the organic chemistry of alkaloids, glucosides, etc.; (3) *Physiological Action*, described fully when it is of ascertained truth and of importance, briefly when it is doubtful or inapplicable; (4) *Therapeutic Action*; (5) The best *Preparations* of a drug; (6) its *Adulterations*, when important.

In the division, *Physiological Action*, we have much of the special value of the book—its careful *résumé* of the best and latest foreign work, *e. g.*, Hirtz and Achscharmow on aconite, Marmé on helleborin, Binz (and Baxter) on quinine, Traube and others on nicotine, Rœber on picrotoxine, as well as of the numerous modern writers on curarine, opium, digitalis, and belladonna.

It has been observed that references are somewhat wanting: we find these sufficiently full as regards foreign work, especially in this division; though in (4), on *Therapeutic Action*, some additional ones might advantageously be introduced—*e. g.*, to Mr. Barwell's original paper on strychnia injections, Dr. Clifford Allbutt and others on quinine in fever and pneumonia, Dr. Wilkes on guarana.

These therapeutical sections form an important portion of the book, they are fairly full and detailed, and contain much original observation. We notice, amongst the rest, all the modern uses of aconite, and cases illustrating its value in pneumonia and puerperal fever; full accounts of belladonna in pain, spasm, and inflammation; opium and its alkaloids; apomorphia; digitalis; strychnia in chronic palsies; ipecacuanha in catarrh, hæmorrhage, and dysenteries; ergotin in hæmorrhage, etc. We observe, *en passant*, a recommendation of tincture of colocynth, and an adverse opinion to the virtues of valerianates.

Moreover, the range of the book is not limited by the *British Pharmacopœia*, but "From vulgar bounds in brave disorder parts". It contains interesting notes on pulsatilla in dyspepsia and amenorrhœa, hydrastin in ulcers and purulent discharges, briony in dropsies and pleurisies, sanguinaria in chest-diseases, rhus and arnica in rheumatism, etc. On the other hand, no drug has been included simply because it is new; indeed, we miss some that might have been expected, *e. g.*, gelseminum and hamamelis.

The subject of antagonisms is well summarised. That between belladonna and opium is accepted against Harley; also that between belladonna and Calabar bean; Preyer's results as to prussic acid are given, and those of Grisar and others on the oils of camomile and valerian antagonising strychnia.

Under Vitaceæ, we have an account of the "grape-cure".

This arrangement of five or six sections to each separate medicine is adhered to throughout, and each section is headed in large type; so that a clear and easily followed plan is constantly before the reader, and much facilitates reference and comparison; at the same time, a glance shows in what directions the most work has been done, and also—not less important—where knowledge is still wanting. A double index—of remedies and of diseases—complete the volume.

Altogether, the book is well individualised in its scope and character. It is not a student's text-book, crowded with facts and attempting a general view of a vast subject; it is eminently a practical book for the practitioner, interesting and readable. In fact, that we may not raise any undue expectation in the minds of ultra-scientific therapeutists, we may say at once, that to some it may not seem, in parts, what is called scientific enough. We meet with the expressions—"this is good for such a malady"—"this has given me good results in such a case"—without attempting to reason out an explanation. And yet the author distinguishes cases as much as possible; and, where theory really does help us, it is given; much still in therapeutics must remain a matter of experience. An empirical basis, justly objectionable to a scientific mind when it can be avoided, is yet often our only resource in practice.

But, after carefully reading this book, we see little ground for fault-finding. It is full of information; there is no "book-making"; a vast amount of modern work is smoothly arranged, not too condensed; there are few important omissions; we might wish, perhaps, a little more information *e. g.*, as to capsicin, or we might think the value of copaiva in dropsy to deserve record; sometimes again, as under cocculus Indicus, we are directed only to a "very strong tincture", prepared by certain chemists, when we might wish to have it prepared for us accurately elsewhere; but, on the whole, each subject seems just complete enough.

As to style again, it is, as a rule, very good, and well suited to the subject, though here and there some improvements might be suggested. Thus, the first section, "the aconite family", is not a fair specimen of the whole. "The flowers, in the normal genera, are of simple and *intelligible* structure"—a mild satire on Nature, we take it, for her construction of the abnormal genera. The concluding paragraphs of the same section, and such a sentence as we find under the therapeutic action of gentian (page 312), are examples of the fault to which we refer. In a less excellent work, they would not deserve notice.

To conclude, of kindred books, it resembles most, perhaps, that of Stillé. It is not quite so full on some points—*e. g.*, of history and physiological action, and contains no general essays on medicinal subjects; but, with all respect to that admirable work of reference, this is more appropriate to the daily needs of the practitioner, it is full enough where fulness is wanted. To our thinking, the author has hit upon a very happy mean. We have reason to know that this is also the opinion of a large number of special workers on the subject. *Laudari a laudatis* is the highest meed, and this Dr. Phillips has amply merited.

Note-Book of Materia Medica and Therapeutics. By R. E. Scoresby-Jackson, M.D. Third Edition, revised by Dr. Angus MacDonald. Edinburgh, 1875.

We seem to find in each of the three most popular text-books on Materia Medica—those by Garrod, Neligan, and Scoresby-Jackson—somewhat of the respective national characters. The one before us we are accustomed to consider as the very concentrated essence of fact. The number of statements of simple facts, chemical, botanical, and pharmacological, compressed within 700 pages is, to borrow an expression from the book, "truly marvellous".

And, before we attempt to analyse, the question suggests itself, Must one really know all this? How much of this vast array is really available for use? Can we not simplify? Must we put *everything* into our note-book? However, the material being chosen as it is, we must say that it is very well arranged, and very clearly put in different types and paragraphs. The pharmacopœial preparations and tests are printed throughout in italics; and, what is far more important, they are explained neatly and briefly. This is the special value of the book, and one secret of its popularity. That it is popular, the early demand for a third edition is evidence. The editor has left little undone in the way of notice at least of recent work, and has continued to add to the body of *fact*. The appendix to the *Pharmacopœia* is included; and the chemistry is in the new notation.

The introductory part of this book has always seemed to us specially good. Dr. Scoresby-Jackson was very happy in some of his illustrations. For instance, speaking of the classification of medicines, "It is easier to classify medicines physiologically than therapeutically, because it is easier experimentally to trace the cause of aberration than that of restoration. . . . Suppose a ball to be hanging quiescently at the end of a string, and it is desired to prove that two instruments, when alternately brought near to it, have an opposite effect upon it, the one gradually setting it in motion, the other gradually bringing it to a state of rest. By repeatedly observing the fact, that on the approach of one of the instruments the ball begins to move, at first, gently, and then more rapidly, we should conclude that the instrument was the cause of the motion. But of the influence of the second instrument to bring the ball gradually to a state of rest, we should be more doubtful, simply because, if left alone, the ball would of itself become quiescent. In the one case, the proof is positive, in the other, negative."

Again, as to treatment: "Never employ powerful medicines when those of a milder kind will answer the purpose. The more of a man's estate that remains after a lawsuit, the greater is the credit due to his legal adviser, and the more constitutional strength the patient has, at the close of his illness, the more grateful will he be to his physician. Never select a medicine or administer one in such a manner that although the disease may disappear during its exhibition, it may be said of its ultimate effects that they are as bad as, or worse than, the disease itself. When a plan of treatment has been resolved upon, do not impatiently break through it by frequently changing the medicine, in a vain attempt to combat every symptom; and do not cherish the idea that every improvement in the patient's condition is necessarily due to the medicine, and that every change for the worse is attributable to the disease. . . . Always divide the responsibility, by consultation, before pursuing treatment by which life may be placed in jeopardy. Next to his health, be careful of the patient's pocket." Golden rules these.

Turning to the main body of the work, we find it, as already said, very clearly arranged. In the account of the physiological action, there seems too much tendency to rely upon one or more special writers, rather than to place a brief well-digested view before the student. For instance, under Belladonna, Dr. John Harley's views only are quoted, whilst by the profession at large they are by no means endorsed. For the rest, most of the therapeutic work cannot be more than notes; and these require interpretation by a lecturer to be really useful. So large a mass of material requires some guide as to relative importance, and Dr. Harvey's little *Syllabus* might be usefully conjoined.

There is room for some press-correction. Some zinc salts are "nemitonics", and senna has a "glycoside"; and some sentences will bear reconstruction, *e.g.*, "The capability of sulphurous acid (etc.), in the preservation of prepared meat, and of vegetable juices from fermentative and putrefactive changes, is truly marvellous," etc. This word "marvellous" should be used sparingly. We have it again under Aconite, which sometimes gives "marvellously good results in neuralgia"; and again, "Carbolic acid has been administered internally for psoriasis, and this practice so far, seems to have been followed with marvellous success"; a statement, by the way, to which even in this qualified form, we must demur.

However, the general tone of the book is superior to this; and we will conclude with a notice of what we think is really one thing wanting—we mean some general statements as to the great practical classes of medicines. We look in vain for a general explanation of the action, *e.g.*, of diuretics or purgatives, or of the different varieties of these. We notice this want the more, because we felt it much in our own student days; since then, Dr. Garrod has added some very useful classes and commentaries. Neligan, again, has good headings; and similar observations form one of the (few) good points in the abridged Pereira. In the interests of what is really a good work, we venture to suggest some such addition to the accomplished editor, in his next edition of Scoresby-Jackson's Note-Book.

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COMMENTARY ON THE BRITISH PHARMACOPŒIA. By WALTER G. SMITH, M.D., Dublin. Pp. 766. London: Smith, Elder and Co., 1875.

THIS is a practical, accurate, and sufficiently full explanation of the chemistry of the pharmacopœial preparation and tests. It includes, also, paragraphs on physiological and therapeutical action, some of them good, but for the most part too brief for criticism. The speciality, perhaps, of the book, is the frequent introduction of tabular arrangements and synoptical lists, *e.g.*, contrasting the various forms of aloes, and again carbolic acid with creasote: thus,

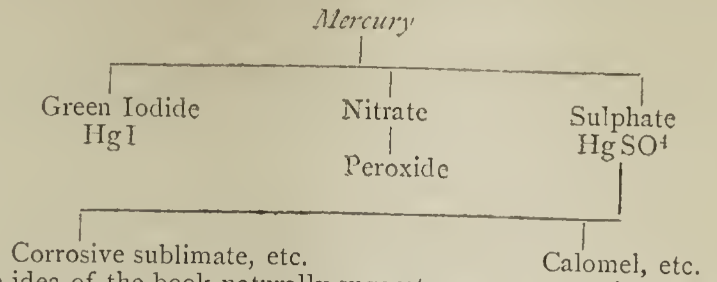
| *Carbolic Acid.* | *Creasote.* |
|---|---|
| Derived from coal-tar. | Derived from wood-tar. |
| In colourless acicular crystals. | Not solidified by intense cold. |
| Specific gravity 1.065. | Specific gravity 1.071. |
| Soluble in twenty parts of water. | Very sparingly soluble in water. |
| Boiling point 370 deg. | Boiling point about 400 degs. |
| With nitric acid yields picric acid, etc. | With nitric acid yields oxalic acid, etc. |

The preparations of metals, etc., are grouped in tables, of which the following one of the ammonias will serve as an illustration:

| | |
|---|---|
| I. *Containing Free Ammonia.* | |
| Ammoniæ Liquor Fortior. | Formula, etc. |
| ,, Liquor. | ,, |
| II. *Haloid Salts.* | |
| Ammonii Bromidum. | ,, |
| ,, Chloridum. | ,, |
| ,, Sulphidum. | ,, |
| III. *Oxysalts.* | |

Of which the (α) monobasic, (β) dibasic, (γ) tribasic, are given separately, and the preparations are afterwards described in the above order.

There are also useful genealogical tables of the metals, showing, after the manner of such, the *relationships* of the different compounds, thus:



The idea of the book naturally suggests some comparison with Professor Attfield's *Pharmaceutical Chemistry*. It does not go so fully into the science of chemistry as that work, nor does it give similar experimental processes on chemical groups; it is, in fact, more especially written from the point of view of a medical student or practitioner than of a chemist. We apprehend that a student, who could give the time and care necessary to go through Attfield, would be more *thoroughly* grounded in chemistry than the reader of the book before us: but, on the other hand, this book gives practically all that is necessary, and is calculated to save time and trouble in looking up certain points. It scarcely professes to be a text-book *per se*, it does not give the text of the *Pharmacopœia*, nor all preparations, nor much botany, and thus space is saved; but the officinal names and headings are retained, and many useful points of information find a place under them. For instance, we have been asked several times about a line on gums caused by bismuth, with the remark "that Garrod and others do not mention it". We find, "according to Brinton, its continuous administration causes a blueish-red line along the edge of the gums, analogous to, but wider and redder than, that resulting from the use of lead". (In no part are detailed references given—only a name.) "The stools are blackened under its use, from formation of sulphide of bismuth." The following sentences express well certain modifying conditions of the action of belladonna.

"1. Children are remarkably insusceptible to its cerebro-spinal effects. 2. Weak and excitable temperaments are more readily and powerfully influenced than the strong. 3. The effective energy of belladonna is inversely as the activity of the renal function. 4. Though atropia is decomposed when left in contact with caustic alkalies, their simultaneous administration does not interfere with the action of belladonna. 5. Acids have no particular influence in this direction."

Under *chloral*, the average dose as hypnotic for adults is put at twenty grains. A brief statement is given of three theories of its action, those of Liebreich, Gamgee, and Byasson. It should be given freely diluted and with some aromatic syrup, or, as we can cordially endorse, with extract of liquorice.

Under *tartaric acid*, we find a note that it covers the taste of quinine, senna, rhubarb, and Glauber's salts; and a reminder that, if "bicarbonate of potash be added to tartaric acid, cream of tartar is immediately precipitated; but, if the acid be added to the bicarbonate, it may be pushed to the point of saturation and yet form a perfect solution".

"Borax is rendered more soluble in water when mixed with cream of tartar, and this mixture has the singular property of inspissating a solution of gum arabic, etc."

These will serve as instances of the mode of putting things: and there are also notes as to history, origin, names, and pharmacy. Altogether, a good deal of useful information is placed conveniently before the eye, and the book well answers to its name of commentary. It may fairly claim a place for itself amongst kindred manuals, and it evinces on every page a considerable amount of careful work on the part of its author. We trust and believe that it will be well appreciated, especially by medical teachers and students.

## NOTES ON BOOKS.

DR. AUSTIN FLINT'S *Essays on Conservative Medicine and Kindred Topics* (London, Baillière: Philadelphia, Lea) are a very readable, pleasing, and sound series of essays, reprinted from American serials which they have adorned. The subjects treated are the following: Conservative Medicine, as applied to Therapeutics and to Hygiene; Medicine in the Past, Present, and Future; Alimentation in Disease; Tolerance of Disease; the Agency of the Mind in Etiology; Prophylaxis; Therapeutics; Divine design as exemplified in the Natural History of Diseases. They do not show any striking originality of thought or peculiar felicity of diction; but they are sound, scholarly productions, which may be recommended for leisurely reading.

*The Breath, and the Diseases which give it a Fœtid Odour*, by Joseph Hart, M.D., from the same publishers, and also by an American author, is a book of a very different class; it has no element of originality or scientific worth. The subject is one which is very well and generally understood, and we can find here nothing to recommend. The semipopular title may perhaps indicate that the book is hardly intended for professional criticism.

The second volume of Dr. Hyslop's *Cheerful Words*, being sermons for delivery before inmates of lunatic asylums, hospitals, gaols, etc., belongs to a class of literature which we do not criticise, but of which the object sufficiently recommends it. We understand that the first volume has been highly appreciated by those for whose solace it was intended, and hence Dr. Hyslop has been encouraged to produce this second volume, which includes twenty-six sermons. The special feature of these discourses to which the author directs attention is, "that not a single discourse in either the first or second volume of *Cheerful Words* can inspire in depressed minds any other feeling than one of hope, of Christian resignation, and of spiritual cheerfulness". He agrees with Coleridge that, "in the treatment of nervous diseases, he is the best physician who is the most ingenious inspirer of hope".

*Fungi, their Nature, Influence, and Uses.* By M. C. Cooke and the Rev. J. Berkeley. Messrs King and Co. have added another valuable volume to their admirable International scientific series of which they are the London publishers. The authors are the two highest British authorities on the subject treated. It is one which is collateral and often ancillary to some difficult branches of medical investigation. The tendency to connect fungoid growths with the etiology of diseases, at times runs wild; but it does so rather from defect than from excess of knowledge. Our knowledge of many forms of skin-diseases and the means of cure, is largely connected with the study of fungoid forms of vegetation; and the still pending investigations in respect to diseases such as hay-fever, cholera, and typhoid fever, demand an intimate knowledge of the development of unicellular organisms of apparently fungoid character. Mr. Cooke's handbook is, therefore, likely to be largely consulted by medical students and medical men, who desire either to investigate for themselves, or to possess the means of controlling by their own knowledge the stated results of the investigations of others.

Dr. Payne, in producing a second edition of Jones and Sieveking's *Manual of Pathological Anatomy* (J. and A. Churchill), has probably had at least as much trouble as, possibly more than, in writing a new book. Only those who have tried, can appreciate the labour here undergone of recasting and bringing up to the day an elaborate manual of an intricate subject, which, in the course of several years, has undergone multiform change without arriving at a stage of precision and certainty. It is a sufficiently noteworthy indication of the necessity for the work which he has produced, that, in his labour, he has had to "constantly consult" four treatises, all of which are foreign. Not but that a great amount of good pathological work has been done in this country during the twenty years which have elapsed since the first edition of this book was produced, but it had nowhere been reduced to the systematic form of a manual. We may soon find space for a more detailed review of the admirable result of Dr. Payne's labour; meanwhile, we must express the opinion that this manual, in its present state, and barring some faults, is a very satisfactory, complete, and useful guide.

Dr. Wilks's *Lectures on Pathological Anatomy*, revised and partly re-written by his successor in the chair, Dr. Moxon (Churchill), are by far more readable, if not always equally reliable. There is a vigour, brightness, and individuality in these lectures which is missing in the manual. This is "Guy's teaching"—excellent teaching—well digested, flowing, sometimes rhetorical, and always hinting an idea while conveying a fact. We should certainly prefer to read "Wilks and Moxon"; but we are inclined to think "Payne, Sieveking, and Jones" the more useful for reference. We prefer the architecture of the former, and the bricks and mortar of the latter. It is a characteristic difference that Payne bristles with references, while Moxon and Wilks rather eschew them. Payne is very shy of theories; Moxon very able and skilful in stating and debating them.

*The Transactions of the Medical Society of Pennsylvania*, vol. x, 1874 (Collins, Philadelphia).—In this handsome volume of transactions are included many papers of considerable interest and value. Among the most noteworthy is a report on one hundred and thirty-two Cataract Extractions by P. D. Keyser, M.D. Vision to one-tenth (perfect) was obtained in $86\frac{4}{11}$ per cent., moderate vision (one-tenth to one-twentieth) in $6\frac{9}{11}$ per cent.; total, $93\frac{2}{11}$. In five cases, there was imperfect vision; in four, total loss of vision. Graefe and Liebreich's operations were those most employed. Dr. W. Pancoast writes on a new treatment of Ununited Fractures of the Limbs, and on a new method of treating Intracapsular and Extracapsular Fractures of the Femur by the "Charleston Reclining Chair", which is so made with joints at the points where the hips and knees are supported as to imitate a triple inclined plane, with the additional advantages of movement in an up or down or vertical direction, if passive motion or change of position be required, as it is mounted on little rollers or wheels to move from one place to another. Dr. J. Solis Cohen has an excellent paper on Croup in its Relations to Tracheotomy; and the whole volume is one of great and varied interest.

# SELECTIONS FROM JOURNALS.

## MIDWIFERY AND DISEASES OF WOMEN.

Utero-Gastrotomy.—At a recent meeting of the Medical Society of New York, Dr. Marion Sims made some remarks on utero-gastrotomy—the removal of large uterine fibroids by abdominal section. The operation, he said, stood where ovariotomy did twenty years ago; it had opposition to encounter, and would doubtless achieve the same victory. In America, it had been performed successfully by Kimball, Burnham, Boyd, Storer, and Darby; in England, by Charles Clay, Fletcher, and Lawson Tait. Koeberle of Strasburg cured four out of six cases; while Péan of Paris gives the minute histories of eleven cases, with seven cures; and his pupil Urdy says that the whole number of Péan's operations up to the present time is twenty, with fifteen cures. Dr. Sims had recently operated twice for the removal of the uterus, with large fibroid, by abdominal section. The first patient was in a feeble state from excessive loss of blood. During the separation of a large fold of intestine from the surface of the tumour, the capsule of the tumour was torn up, large venous sinuses were opened, and the patient suddenly lost about sixteen ounces of blood. She never rallied, and died from the shock and loss of blood in thirty-five or forty minutes after the operation. The second patient had lost large quantities of blood, and was quite anæmic, but was thought to be a favourable case for operation. It was done on November 9th, according to Péan's method. The patient died in seventy-six hours, of septicæmia. Examination *post mortem* showed the pedicle in a sloughing condition below the wire clamp, the slough extending along the line of incision in the abdominal parietes, and on the top of the bladder, and in the broad ligaments. There were eighteen ounces of bloody serum in the peritoneal cavity. Péan's method of operating is to make a pedicle of the supravaginal portion of the cervix, and to draw this out through the lower edge of the abdominal section by clamp, as in ovariotomy. He transfixes the cervix by a double wire, ties one on each side of the cervix, enclosing the broad ligament on its respective side in the wire. Dr. Sims employed Péan's method in both his cases, but would not use it again; but he advocated the use of the actual cautery. He exhibited a clamp *écraseur* on the principle of Nott's (and Isaac E. Taylor's), by which he would compress the broad ligament on one side near the body of the uterus, and then sever the ligament with the cautery down to its junction with the cervix. The same method is to be followed on the side, and then it only remains to cut the tumour from the supravaginal cervix, and cauterise the surface. The several cauterised portions are then dropped into the peritoneal cavity, when, in spite of the eschar, they unite at once by adhesive inflammation to the surfaces with which they lie in contact. Dr. Sims exhibited an automatic alcohol blowpipe for heating the cautery irons. Dr. E. M. Moore of Rochester last summer had a case of uterine fibroid on which he operated successfully, in which the tumour weighed seventeen pounds. The operation was a modification of the one introduced by Dr. Miner of Buffalo, in cases of ovariotomy, and called by him ovariotomy by enucleation. In this case, a pedicle was created by separating a portion of the serous membrane from the surface of the uterus and tumour, and bringing it into the abdominal wound, where it was retained, as in ovariotomy, and formed a cup which received the blood which might escape, and the discharges, and thus prevented their entrance into the abdominal cavity. Dr. Peaslee of New York had seen but two cases in which he thought the operation was advisable; but did not wish to be understood as opposing it. He was perfectly willing to undertake it when the indications were fulfilled.—*New York Medical Record.*

The Earl of Chichester has been elected President of the Sussex County Hospital, Brighton, for the ensuing year.

## BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1875.

SUBSCRIPTIONS to the Association for 1875 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, MARCH 20TH, 1875.

## THE REPRESENTATION OF IRELAND AND OF THE PUBLIC SERVICES.

WE publish in another column a circular letter addressed to the members of the Irish Poor-law Medical Officers' Association by the Honorary Secretary of the Association, Dr. D. Toler T. Maunsell. The general object of the circular is to sum up the changes of the year in the position of Irish Poor-law medical officers, which has been in some respects improved by the Public Health Act (Ireland) of last session; and to point out what grievances remain, and how they may best be remedied. There is one particular paragraph which concerns the British Medical Association and another great medical body, the General Medical Council. The letter recommends that

> "The various great services should be represented upon the General Council of Medical Education and Registration, and also upon the Council of the British Medical Association. The several colleges, societies, and faculties merely, are now represented. These, we do not believe, are in a position to take any interest in their alumni after they have passed through their curriculum. The gentlemen, therefore, who wholly contribute to the funds and expenditure of this body, do not appear to be adequately represented, if at all. We think that the Poor-law Medical Service of the three countries should be represented upon the General Medical Council, and the Army and Navy Medical Service as well. The Poor-law Medical Service in Ireland numbers somewhere about 1,000 medical men, or one-half of the profession; England and Wales, nearly 5,000; Scotland, about 1,000; in all, close upon 7,000 medical officers. The Army Medical Service numbers over 1,000 men, and the Naval about the same. In fact, nearly one-half of the medical men in the United Kingdom are engaged in the public medical services. This arrangement would enable us, through skilled experts, to place our present grievances before Parliament, and perhaps prevent future grievances—a matter which we endeavour to keep always before you."

There is here some little confusion, which tends to obscure the character of the suggestion. The constitution and objects of the British Medical Association and the General Medical Council are so essentially different, that they must be considered quite apart.

The General Medical Council is a Council of Education and Registration. Its constitution is that of a Council consisting of representatives of the bodies which control education and license for practice, and of representatives of the Crown, which directs the public services, and is charged with the general welfare of the public, for whose benefit a monopoly of certain privileges of practice has been granted to the practitioners admitted by the Council to the *Register*. This constitution is open to objection, inasmuch as it is doubtful whether the interests of good education and satisfactory examination and licensing are best guarded by a body consisting exclusively, on its professional side, of the representatives of the bodies which have a vested interest in existing modes of examination. But it is not easy to see how the "services", which, as services, are not at all guided or governed by the Medical Council of Education and Registration, should be separately represented on it in any corporate capacity. With all the grievances which Dr. Maunsell's letter justly enumerates, the General Medical Council is not by its commission or powers at all concerned. It is always well to remember that it is a "Council of Education and Registration"; and that, with the exception of its special charge of the national *Pharmacopœia*, it has no other power or sphere of action than are implied in the control of education and registration. Whether it would be wise to add altogether new powers and functions of another kind, and, if so, of what kind, is a question quite open to discussion; but, until some change is made in this respect, we cannot see of what use to the services it would be if they were represented on it as services; on what ground they could claim any such representation; how it could be effected; or what use they would make of it. As practitioners, they have unquestionably the same right to direct representation on the Council as other practitioners have; and, if the debated privilege of direct representation, for which this Association has long contended, be granted, army and navy medical officers will, of course, profit by it to the same extent as civil practitioners. The presence of Dr. Parkes is undoubtedly useful, as affording the Council information and guidance relating to army medical instruction; and it would, we think, be a graceful and proper thing that a member of the Naval Medical Service and one of the Poor-law Medical Service should be elected to the Council, to afford similar information. But we apprehend that their absence is due to the want of popular influence in the professional elections to the Council, and to the undue preference shown by the Crown to eminent men in "pure" practice and holding high university or collegiate positions. Of this undue preference, complaint may fairly be made; but we are disposed to believe that the remedy lies in the change to a more popular mode of election, and to direct representation, rather than to any further move in the direction of class-representation.

When we come to the British Medical Association, however, we are contemplating a body of a very different character—one having a wide popular basis, a representative constitution, and aims which comprehend all that interests medicine in its social, scientific, and ethical aspects. The governing body of the Association is based on the representation of all classes of its members. The members in Branches are represented in direct proportion to their numbers on the General Council and Committee of Council; and provision is also made for the representation of members of the Association not members of Branches. It is only necessary for a member of the Association to join his local Branch in order to attain at once to the fullest share of direct representation, not only in that Branch, but in the whole Association. In Ireland, however, our members have been slow to adopt the method of organisation in Branches, by which full representation in the governing body of the Association is secured. They have been content to be connected with the Association through the JOURNAL and the occasional visits of some of their members to the annual meetings. This slowness of our Irish members to organise, undoubtedly deprives them of some of the share of representative influence which they would otherwise have, and which lies ready at their hands if they choose to use it. The Committees of the Association have always been very ready to give attention to all subjects interesting to our members in Ireland; this letter gracefully and courteously recognises assistance rendered during the past year, and this readiness has enabled our Irish associates to call in the aid of the Association on public and parliamentary occasions. There is, however, no one but themselves to blame that they are not more largely and formally represented in the Council of the Association, and that they do not always speak with the collective voice which they would have if organised in Branches and represented by delegates on the Council and Committee of Council. It is only necessary for them to meet, say in Dublin, and form a Branch there, and subsequently to select other centres, and in each place to organise the existing members of the Association into local Branches, as has been already done at Cork (South of Ireland Branch), and as has been still more frequently done in the sister kingdom of Scotland.

The Poor-law Medical Service is very largely represented by existing officers of Branches and delegates to the Council, and might easily be more so if it were desired. They have all settled habitations and local connection; they muster largely at every Branch meeting and annual meeting of the Association, and make their voices heard and respected. They may easily do the same in every part of the kingdom.

The case of the Army and Navy medical officers in active service is different, and it is a question whether it might not call for special treatment, if they desire it. They are a very special body, living wholly under a peculiar *régime*, and having in some respects very sharply defined interests. Moreover, they are nomadic, and local organisation is to them not easily attainable. In some localities, as in the Southern Branch, they muster strongly; and there they have at this moment a distinguished representative, an eminent officer of the Naval Medical Service, Inspector-General Smart, C.B., who is President of the Branch, and also a member of the Committee of Council. By the formation of Branches of the Association at Aldershot, the Curragh, Dublin, Chatham, Woolwich, etc., the same result might be attained as has proved very beneficial to the Naval Medical Service from the organisation at Portsmouth. The number of army and navy medical officers who are members of the Association is very considerable, and is steadily, and of late rapidly, increasing. It is a question for them to consider, whether they will not best serve their own interests by multiplying local Branches at stations where naval and military officers are numerous. These Branches will serve all the purposes of other Branches for social and scientific purposes; and the result of their scientific activity, being published in our columns, would no doubt be a valuable addition to the knowledge of the profession, while they would also, in virtue of their delegated officers of Branches, acquire a definite influence in the councils of the Association and the profession, such as is at present attained with difficulty and by the private energy of individuals of variously balanced judgment. If, on the other hand, the naval and military medical officers desired to form an United Service Branch in the Association, they would have to address a collective representation of some sort to the Committee of Council, who no doubt would endeavour to meet their wishes in some other way. We advert to this subject at some length, because it has already been brought before us from various sources. We believe, however, that the balance of advantage would probably be found in the formation of local Branches of the ordinary kind at the places where the services are strongly represented. At Woolwich, Chatham, Plymouth, the Curragh, Dublin, Aldershot, and other places, there are already more than enough of our military, naval, and civil members to form local nuclei, which may be easily increased by a little trouble in further recruiting; and in this we shall be happy to give assistance.

## THE PUBLIC HEALTH BILL.

*Rudis indigestaque moles.* What hopes, what charms, lurked in consolidation of the public health statutes! It semed too good to be true. But *sanitas sanitatum, omnia sanitas* remained; and so we hoped and were charmed. Did not the President of the Local Government Board, in a pleasant and plausible speech weeks ago, promise us, instead of the shoals and quicksands of the treacherous statutes which had for twenty-seven years more or less stranded or wrecked many goodly projects of sanitary improvement, a smoothly flowing broad stream, upon which we might sail in safety, and carry with us freights of health and comfort to every benighted district in the land? Alas! we awake; and lo! it is a dream. It is true we have not been without our warnings. To find a Government intent on consolidating (*sic*) the laws of public health, and in the very same session trying to put on the statute-book a separate Act for improving insanitary areas and districts and the dwellings of the poor, was a little trying to one's confidence and belief; but this was an inadvertence to be remedied, and we hoped. And now we have three hundred and thirty-three clauses in a Bill which is all clauses, with all our difficulties untouched, with all the defects of the past without remedy, and passed by, apparently, without the slightest sense of their existence. It is true, there is some advantage in having only six statutes to wade through for the law, instead of six-and-twenty; but there all advantage ends. The instructions given to the draughtsman of the Bill appear to have been simply mechanical, and to have been carried out in a simply mechanical manner. Clauses entirely inoperative are pitchforked into the Bill without change of a word; incongruous and contradictory provisions are not attempted to be reconciled; omissions are not supplied; and excrescences are not removed. Sanitary authorities are not helped when striving faithfully to exercise their functions. Companies for the supply of gas and water are to be provoked to the direst hostility, as, unless protected by special Acts, their existence is ignored, and their property practically confiscated. Distinctions of the most objectionable character are still instituted between urban and sanitary authorities. There is no attempt at effective compulsion, and no appeal provided for either authorities or for ratepayers; while, where there is an attempt at control, it is of the most weak and impracticable character. There is no attempt at simplification of areas, at rectification of boundaries, or at unification of authority; or any apparent knowledge of the difficulties which practical men, whether officials or consultants, have found in carrying out the law.

In dealing with a subject so eminently important and confessedly so difficult as the detail by which sanitary reforms can with the least possible hardship to ratepayers be carried out in the country, it was to be expected that counsel would have been taken of those whose duty it was and is to carry public health laws into action. No trace of any such knowledge appears on the face of the Bill. Inequalities of rating, difficulties as to private improvements, works without the district of a local board, the provisional order system, nuisances arising in one district, but manifesting themselves in another—these, and many others which space does not allow us to particularise, remain unrecognised, and therefore untouched. However, it is something to have even a Bill in draught introduced into the House. We earnestly counsel delay. Let the measure remain for the session, to be amended and improved by careful consideration and widely taken counsel, to be passed in the next session. Crude legislation is more than aught else to be deprecated and avoided; it will throw back the cause of sanitary progress for the next ten years. Let us be clearly understood: we are not clamorous for further powers; we do not insist on heavily taxing the community; we deprecate too free an use of compulsory powers, even for the good of those for whom they are to be exercised; but this we do ask, that the light which experience has given us may be allowed to interpenetrate and chase away the darkness and doubt of the present Public Health Bill.

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THE Medical Society of Lemberg has decided on holding a congress of Polish physicians and naturalists in that town in September.

THE name of John Pearson Bell, M.D., has been added to the Commission of the Peace for Hull.

DR. ALFRED MEADOWS has been elected a corresponding member of the Medical Society of St. Petersburg.

DR. VON LUSCHKA, Professor of Anatomy in Tübingen, died on March 1st. He enjoyed a high reputation as an anatomist; and is known as the discoverer of the coccygeal gland.

OUR readers will have doubtless noticed the notification in the newspapers that the spring assizes have been removed from Lewes to Brighton. This step was rendered necessary in consequence of the occurrence of a number of fresh cases of typhoid fever. We are however informed, on the best authority, that this recrudescence of the malady, which has been so prevalent in Lewes, is checked, and that it is again subsiding.

A HUNGARIAN lady, Baroness Schuhaj, is reported to have died recently in Prague at the age of 118—having been born in 1757. Her eldest son was killed in 1809, at the battle of Wagram, where he was a staff-officer.

MR. RICHARD STAMPER of Malton has been accidentally poisoned by taking an overdose of chloral, which he had been in the habit of taking. Deaths from this cause have become rather frequent of late.

THE Medical Officers of Health in the counties of Northumberland, Cumberland, Durham, and Westmorland are forming an association for mutual counsel and assistance in the performance of duty, the reading of papers, and exhibitions of sanitary appliances, etc. The inaugural meeting is fixed to take place on the 3rd of April, at the Infirmary, Newcastle-on-Tyne. Dr. Henry Yeld, medical officer for Sunderland, and Mr. Henry A. Armstrong, medical officer of health, Graingerville, are doing the preliminary work of secretaries and organising.

THE amount of money spent by the Metropolitan Board of Works from January 1st, 1856, to March 25th, 1874, amounted to £6,067,228. This sum represents the total amount expended on new sewers, sanitary work, paving, and other expenses. The construction of 635 miles and 298 yards of new sewers, cost £1,731,474 11s.

THE Prince of Bavaria, whose sister married the Crown-Prince Rudolf of Austria, has, it is stated, adopted medicine as his profession. By all accounts he will be a very successful practitioner; for he has not only received a diploma, but he has within the last few days performed a most difficult operation at the Munich Ophthalmic Hospital.

### THE PROPOSED ADULTERATION BILL.

AT the meeting of representatives of the Associated Municipal Corporations held in Westminster, the provisions of the Adulteration of Food and Drugs Bill were considered, and Sir Joseph Heron stated that there was a general opinion that, as the Bill would enable those who sold adulterated food to escape conviction, town councils might as well dismiss their analysts. The Artisans' Dwellings Bill was referred to, and many speakers expressed their approval of that measure.

### QUALIFIED MIDWIVES.

MR. JOHN R. CAMPBELL describes the nursing system in vogue in Norway, and suggests the adoption of such a system in England. "Almost every Norwegian parish has its *Jordemoder*, or professional nurse, a woman educated, as I understand, at a hospital, and who acts under the direction of the doctor of the district, being qualified to attend confinements (where in Norway a doctor is seldom thought necessary), to cup, bleed, etc. On the occasion of a slight contusion received through a fall a few summers ago, the doctor whom I consulted advised cupping, and this was done at my inn by the *Jordemoder*. Her charge, I may mention, was 3d. 'a cup'. Would not such a class of women be extremely serviceable, especially among the poor, in our own country?" There is also a regularly organised system of instruction and supervision for midwives in Sweden and in Denmark.

### THE JACKSONIAN ENDOWMENT AT CAMBRIDGE.

THE vacancy in the Jacksonian Professorship of Natural Philosophy at Cambridge, caused by the death of the late Professor Willis, has been the cause of some discussion in the Council of the Senate. It was thought that the time had arrived when the practice of this Professorship should be brought into closer conformity than heretofore with the general objects indicated in the terms of the foundation; and that the professorship should in future be affiliated to the Board of Natural Science Studies, as more in harmony with the subjects indicated in the will of the founder, as coming within the scope of the lectures. In the discussion on the report presented by the Council of the Senate, Professor Latham took occasion to remark that expressions in Mr. Jackson's will showed that that gentleman was evidently in advance of his time, both as to the mode of lecturing and as to the subjects to be taught in the University. For instance, Mr. Jackson directs that the professor shall read publicly a course of lectures on anatomy, animal economy, chemistry, botany, agriculture, or the materia medica at large, with due and proper exhibitions of the subject to be read upon, or whose properties are to be explained or inquired into, together with proper dissections and analyses of the same according to their respective natures, etc., "so as to form a more certain practice than at present exists of the *art of curing diseases, or preventing or making life more easy under them*". Dr. Latham holds that these expressions point clearly to a professorship of Public Health or State Medicine; and observes that, although Mr. Jackson mentioned one particular disease—the gout—as an *opprobrium medicorum*, and wished the Jacksonian Lecturer to pay special attention to the history and treatment of that disorder, yet, had he lived in these days, he would probably have named typhoid fever as a pressing subject for investigation, together with the cognate subjects of town-drainage, elongated cesspools, etc. Dr. Latham went on to point out that, although the University had only this year established an examination on Public Health, yet students had no special opportunity of studying the subjects of that examination. He, therefore, strongly urged on the Council the consideration of the propriety of making the Jacksonian Professor a professor of Preventive Medicine, State Medicine, or Public Health; and read some of the regulations recently issued by the University for the examination in State Medicine, showing that almost the actual words of Mr. Jackson's will were used in describing some of the subjects of examination. We heartily endorse Dr. Latham's views and recommendations, which are entirely in accordance with our published views on the subject, and trust that the discretionary power of defining from time to time the several objects of the will, referred to by Professor Stokes, will eventuate in the establishment of lectures on sanitary science in connection with the Jacksonian Professorship advocated by the Master of St. Peter's and Professor Latham.

### SANITARY CENSUS IN BIRMINGHAM.

IT appears, from a recent report to the Sanitary Committee of the Birmingham Town Council, that 70,000 houses in that borough have recently been inspected, in 20,000 of which the windows were so constructed as not to admit of their being opened at the top. It was also shown, that 24,000, or a third of those examined, are still dependent on the surface wells of the town, which are most of them polluted with sewage, for their water-supply; and 101 houses were found to be without water-supply of any kind. This kind of sanitary census must be infinitely useful to the sanitary authorities of the town, and might be taken very much with advantage in many other large towns.

### HOSPITAL SUNDAY FUND.

WE are glad to see that the expectation which we expressed last week, that the unsatisfactory proceedings at the Mansion House on the 8th inst. would be as strongly condemned by the public as they have been by the profession, has been already realised. Another meeting, differing widely from the last, in the dignified and business-like character of its proceedings, was held under the presidency of the Lord Mayor on Tuesday. Many men of high standing and influence attended personally, or sent letters expressing their strong disapproval of Dr. Morell Mackenzie's resolutions. Several of these were members of the Hospital Sunday Council, who were desirous of retiring from it if these resolutions were to be carried into effect. Among the latter was Sir James Paget. The feeling of the meeting evidently was that it would be better that the whole scheme should fall to the ground than that such pernicious regulations should be enforced. Canon Miller, Canon Harvey, and several other influential clergymen reminded Dr. Morell Mackenzie and his followers that the fund must be collected before it could be distributed, and they declared that, unless the resolutions were reversed, they would never preach for it again. Sir Rutherford Alcock moved, and the Rev. T. J. Rowsell seconded, the following proposition:—"That the Council declines to act upon the resolutions passed at the public meeting on the 8th inst., believing that those relating to the constitution of the Distribution Committee, and restricting its discretionary power, would, if carried into effect, prove adverse to the just and generally satisfactory administration of the fund." To that an amendment was proposed by Mr. R. Brudenell Carter, in these terms: —"That this Council, having been appointed by the annual public meeting held on the 4th of January last, to make arrangements for the collection and distribution of the Hospital Sunday Fund for the current year, declines to hold itself bound by or to accept otherwise than as recommendations worthy of being considered, the resolutions of any meeting held during its tenure of office." In the end, the amendment of Mr. Brudenell Carter was carried almost unanimously. It was then resolved, on the motion of the Rev. Dr. Kennedy, seconded by the Rev. H. R. Haweis, that, before any further action should be taken, the ministers of religion in the metropolis, with two members of each congregation, should be invited to a conference at the Mansion House on the subject. The meeting closed with a vote of thanks to the Lord Mayor for presiding.

### ACCIDENT TO MR. W. D. HUSBAND.

We regret to learn, that a severe accident happened, on the evening of Saturday last, to Mr. Husband of York, lately President of the General Council of the British Medical Association. Mr. Husband, it appears, was returning from a visit in the country, in a two-horse cab; when, in passing through a narrow portion of the road, the evening being dark, the vehicle came into contact with another vehicle. The driver was thrown from his box, but escaped without injury; the horses ran away, and Mr. Husband, who had been asleep, being awakened by the noise, and seeing no driver, opened the door and jumped out, in doing which he fell, striking his head on the ground. The result was, that he was severely cut about the head, and received considerable injury in one ankle. He was also rendered insensible for some time, and had some symptoms of cerebral congestion. Mr. Husband is, it is reported, progressing as favourably as can be expected, although it is probable that his injuries will confine him to his house for some time.

### THE MARRIED HUTS AT WOOLWICH.

The War Office certainly cannot be charged with undue precipitation (although it is open to the charge of singular hurry), in removing the inmates of the huts at Woolwich, in which zymotic disease of one kind or another has long been endemic. It is not the fault of the medical department that it has not been done long since. We stated many months ago, that the medical reports were decided as to these huts being unfit for human habitation. The War Office has chosen to ignore these representations, and in ultimately beating a hasty retreat to misrepresent their character. It would show how careless the conduct of the military authorities has been, if the whole series of medical reports on the subject, beginning from those of Deputy-Inspector General Barrow, were moved for and produced in the House of Commons. But we suppose it is exceedingly unlikely that Mr. Hardy would produce them; he certainly will not if he listen to some of his immediate personal advisers.

### THE CASE OF MISS WOODS.

The circumstances of this case having been the subject of much comment, it seems desirable that the following, which we believe to be an accurate and careful summary of the leading facts relating her detention, should be made known. Miss Woods was first sent to the asylum, in which she is now detained, on the 27th instant, under an order and medical certificates. The latter were not in substance satisfactory, and she was received into the asylum under Clause 11 of the Act 16 and 17 Victoria, c. 96, which provides that, "If after the reception of any lunatic, it appear that the order or medical certificate or (if more than one) both or either of the medical certificates upon which he was received, is or are in any respect incorrect or defective, such order or medical certificate or certificates may be amended by the person signing the same at any time within fourteen days next after the reception of such lunatic; provided, nevertheless, that no such amendment shall have any force or effect unless the same shall receive the sanction of one or more of the Commissioners". One of the certificates, which was defective, not having been amended to the satisfaction of the Commissioners, this certificate became invalid, and the patient's discharge was the necessary consequence. Her friends, however, had the patient re-examined, as they had a perfect right to do, with the full assent of the Commissioners; and, as a result of the re-examination, she was upon the same day readmitted upon a new order and new certificates. The gentlemen who separately re-examined the patient are both thoroughly competent men; both are physicians to the Salisbury Infirmary, and their certificates are decided as to her being of unsound mind, and also a fit and proper person to be detained under care and treatment. Everything that has been done in this case has been in accordance with the ordinary usage, and with the provisions of the Lunacy Act. When all is said that can be said, and all is known that can be known, it seems probable that the result will be to show how minute and complete are the precautions with which the Act surrounds the person of unsound mind. The action of Miss Woods's friends in this matter has been guided by motives of humanity and justice, and has resulted in removing her from a scene of filth and privation, which it was believed made her life not worth a day's purchase, and has placed her under the protection of the law, in a place where mind and body will be alike cared for, and where, under the highest safeguards, she has the benefit of all that skill and care can provide to ameliorate her physical and mental condition.

### THE LATE SIR RANALD MARTIN.

A committee is being formed for the purpose of establishing a permanent form of memorial in honour of the late Sir Ranald Martin, K.C.B., F.R.S. The idea is that the memorial shall take the form of a prize in connection with the Army Medical School. A meeting to inaugurate the movement will take place on Thursday next (the 25th instant, at 4 o'clock) at Willis's Rooms, under the presidency of Sir Galbraith Logan.

### ROYAL COLLEGE OF SURGEONS.

Mr. John Hilton, F.R.S., consulting surgeon to Guy's Hospital, having resigned his seat as a member of the Court of Examiners, to which he was elected in 1865, a special meeting of the Council was held on Wednesday, the 17th instant, to appoint his successor, when the choice of the Council, not unexpectedly, fell on Mr. John Cooper Forster, also of the same hospital, where he is surgeon and lecturer on surgery. Like his colleagues, Messrs. Savory, Holden, Marshall, and Holmes, he is a Fellow of the College by examination, but not at present a member of the Council, having lost his election by one vote in 1873.

### MEDICAL SOCIETY OF LONDON.

The 102nd Anniversary dinner of the Medical Society of London, was held on Monday the 8th instant. A large number of the Fellows and their friends were present. The visitors included the presidents of the Royal Medical and Chirurgical, the Pathological, the Hunterian, and the Pharmaceutical Societies; the master of the Apothecaries' Society; and Dr. Harvey, U.S.A. The president, Mr. Victor de Méric, in proposing the toast of the evening, "Prosperity to the Medical Society", adverted to its increasing numbers, and the lively discussions which had taken place during his year of office; and acknowledging the admirable way the secretaries had supported him, in the name of the Council, presented Mr. Braine, the retiring secretary, with a silver medal for special services. Dr. C. J. B. Williams, in returning thanks for the other learned societies, alluded to the ancient date of the Medical society, its popularity with the profession, and also to the freedom with which its discussions were carried on. The following were elected office-bearers for the ensuing session: *President:* C. H. F. Routh, M.D. *Vice-Presidents:* W. H. Broadbent, M.D.; H. Royes Bell, F.R.C.S.; F. W. Pavy, M.D.; C. F. Maunder, F.R.C.S. *Treasurer:* John

Gay, F.R.C.S. *Librarian:* J. C. Thorowgood, M.D. *Secretaries in Ordinary:* C. Th. Williams, M.D., F.R.C.P.; Richard Davy, F.R.C.S. *Secretary for Foreign Correspondence:* William Cholmeley, M.D. *Orator:* Erasmus Wilson, F.R.S. *Council:* The Rev. David Bell, M.A., M.D. (Goole); Woodhouse Braine, F.R.C.S.; John Brunton, M.A., M.D.; Thomas Bryant, F.R.C.S.; R. Brudenell Carter, F.R.C.S.; Sir Henry Cooper, M.D. (Hull); R. Farquharson, M.D.; Joseph Fayrer, M.D., C.S.I.; F. J. Gant, F.R.C.S.; Clement Godson, M.D.; J. Hainworth, F.R.C.S.; T. Harvey Hill, Esq.; Wm. Mac Cormac, F.R.C.S.; Victor de Méric, F.R.C.S.; W. D. Napier, Esq.; J. H. Paul, M.D.; J. Russell Reynolds, M.D., F.R.S.; A. E. Sansom, M.D.; Leonard Sedgwick, M.D.; Alfred Wiltshire, M.D.

## DANGERS OF FOOTBALL.

We regret to announce the death of a promising student of St. George's Hospital, Mr. S. J. I. Branson, from injuries received at a football match. The deceased gentleman, who was aged 21, and was in the second year of his medical curriculum, was a member of the St. George's team, and, on Wednesday, the 10th instant, was playing at Battersea Park for his club against the Royal Naval School, Greenwich. Sublieutenant Bayly, of the latter side, was running and carrying the football, when deceased tried to stop him, and seized him near the knee. Deceased fell, and Mr. Bayly came down upon him, so that his knee struck deceased on the chest. Mr. Branson at once experienced great pain in the abdomen, and was conveyed home in a cab. He was shortly attended by Mr. T. P. Pick and other gentlemen; but peritonitis ensued next day, and proved fatal on Monday last. At an inquest held on Thursday evening by Mr. St. Clair Bedford, the above facts were elicited, and the jury returned a verdict of "Accidental Death".

## THE LEVÉE.

The following members of the medical profession were presented at the Queen's Levée last week:—Surgeon Richard W. Coppinger, M.D., R.N., Fleet-Surgeon Thomas Colan, M.D., R.N., Surgeon Edward L. Moss, M.D., R.N., and Staff-Surgeon Belgrave Ninnis, M.D., R.N., on appointment to the Arctic Expedition, by the Director-General of the Medical Department of the Navy; Dr. H. Dobell, by Sir George Burrows, Bart., M.D.; Deputy Surgeon-General Dr. J. Fayrer, C.S.I., President of the Medical Board at the India Office, by the Secretary of State; Surgeon John Lucas, Indian Army, by the Secretary of State; Surgeon-Major C. R. Mosse, M.D., on being made C.B., by the Adjutant-General; Deputy Inspector-General John D. Macdonald, M.D., R.N., on promotion, by the Director-General of the Medical Department of the Navy.

## A WARNING TO NURSES.

In the early part of this month, a woman was charged before the Campden magistrates, near Warwick, with attending a patient in the same clothes which she had worn when nursing a person suffering from scarlet fever, without having had them disinfected. The result of this act was that the defendant's second patient, the wife of a farmer, and her two children were attacked with scarlet fever; the mother's case soon proving fatal. The magistrates inflicted a fine of 20s. and costs; and, at the same time, expressed a hope that the greatest publicity would be given to the case and the sentence as a warning, to all persons engaged in attendance upon the sick. We gladly assist in publishing the particulars of the case, because the successful adoption of precautions against the spread of infectious diseases depends not a little upon the greater frequency of such prosecutions as these. They play an useful part in disseminating a more general knowledge of the importance of precautions against contagion.

## CONSANGUINEOUS MARRIAGES.

Mr. George H. Darwin, in an exhaustive paper on the Marriages of First Cousins and their effects, sums up the result of his investigations as follows. 1. Consanguinity of parents is injurious to the offspring. 2. Where the children seem to escape, the injury may show itself in the grandchildren. 3. In many isolated cases, and even groups of cases, no injurious result can be detected. 4. These unions influence idiocy and imbecility more than the forms of insanity acquired later in life. 5. The frequency of these unions in Scotland (although not so great as supposed) somewhat increases the amount of idiocy there. Mr. Darwin's paper was read before the members of the Statistical Society, and will be published *in extenso* in the forthcoming number of the Society's journal.

## THE WEATHER AND THE DEATH-RATE IN BERLIN.

The following remarks occur in the recently published statistical return of mortality for Berlin. The excess of mortality in January of this year, over that of the same months in 1873 and 1874, is to be in great part ascribed to the frequent and sudden changes in temperature. The change was, indeed, quite unusual in suddenness and in extent; for, on the 2nd and 3rd, we saw the thermometer rise from – 10.6 to + 2.2 Reaumur (8.15 to 36.9 Fahr.); and on the 20th and 21st from – 9.9 to + 4.9 (9.7 to 43.25 Fahr.); followed the next day by a fall to – 0.2 (31.55 Fahr.): while the deaths increased on the 2nd by 13, and on the 20th and 21st by 15. Again, on the 8th, when the thermometer fell from + 0.8 to – 5.3 (32.18 to 22 Fahr.), there was an increase in the death-rate, especially from diphtheria, croup, and phthisis. With few exceptions, however, most of the deaths from consumption occur on warm moist days, with a south or south-west wind. On such days, the mortality from this cause is almost doubled. It is remarkable that January 26th, the day on which the greater number of deaths (87) occurred, has the same mean temperature (– 0.6 R. = 30.65 Fahr.) as January 23rd, on which day the smallest number (48) was recorded. This may in some measure be explained by the fact that, on January 23rd, the thermometer rose from – 2.8 to 0.8 (25.7 to 33.8 Fahr.); while, on the 26th, it fell from 0.6 to – 2.1 (30.65 to 27.12 Fahr.) Thus the following rule may be laid down for winter, though not without exceptions, as regards Berlin; the mortality rises and falls in an inverse ratio with the thermometer. In February, the greatest mortality occurred on the 18th (91 deaths), on the 14th (84), and on the 24th (82). From the 17th to the 18th, there was a fall of temperature from – 0.83 to – 5.53 R. (33 8 to 19.5 Fahr.); from the 13th to the 14th, the fall was from – 3.87 to – 5.90 R. (23.3 to 18.7 Fahr.); and from the 23rd to the 24th, from – 4.9 to 6.1 R. (21 to 18.3 Fahr.) The fall was greatest (– 4.7 R.) between the 17th and 18th; and then the highest mortality occurred: while the lowest mortality of the three mentioned (82) took place in connection with the smallest amount of fall (– 1.2). It would be interesting to carry out these researches with reference to individual diseases.

## ETHER AND CHLOROFORM.

Our Liverpool correspondent writes:—At the Royal Infirmary, on Tuesday last, the proceedings in the operating theatre were rendered more than usually interesting by the attendance of Dr. Fifield of Boston, United States, who, at the request of the surgical staff, demonstrated the American method of giving ether, instead of chloroform, as an anæsthetic. The operations, three in number, were the division of the tendo Achillis in both feet in a child, by Mr. Harrison; removal of a small adenoid tumour from the breast of a young woman by Mr. Hakes; and the removal of a diseased metatarsal bone from a boy about 8 years old by Mr. Banks. In each case, Dr. Fifield gave ether, using no other apparatus than a conical hollow sponge. Complete anæsthesia was produced in each case in from three to four minutes. Addressing the students and those assembled in the theatre, Dr. Fifield said: "That, although an American by birth, he had been educated in England and in Paris; had no prejudice either for or against chloroform, and had enjoyed ample opportunities of witnessing the use of both chloroform and ether. The latter he had given himself in thousands of cases; had seen it given in the hospitals of New York, Boston, and other towns in his own country, and had never seen or heard of a fatal result. He was greatly surprised on his arrival here to find that English surgeons still adhered to the use of chloroform, which in America was almost proscribed. The great superiority of ether was its perfect safety. The operator commenced and completed his task without the smallest anxiety as to the effect of the anæsthetic; whereas, when chloroform was used, it was impossible, in spite of every precaution, to predict with certainty that the patient, although in comparatively good health, might not, before or after the operation was finished, be found a lifeless corpse. As to the mode of administration, no expensive or complicated apparatus was necessary; nothing, in his opinion, was more suitable than a hollow conical sponge. It should be given at once freely; a lavish use of ether at first proved a saving of material in the long run. Etherisation presents three definitely marked stages: first, that of muscular relaxation; second, tetanic convulsive action; third, complete surgical anæsthesia, indicated by stertor, or what he called the 'snoring stage'; and, unless this stage were fully reached, there was risk of partial failure, so far as full insensibility to pain was concerned." We think it probable that the clear and forcible way in which Dr. Fifield has put the matter before the profession here will lead at least to a renewed trial of ether as a substitute for chloroform. In reply to our inquiry as to its adoption in obstetric practice in America, Dr. Fifield informed us that the employment of anæsthesia in labour was, he thought, gradually dying out in the States, many of the leading obstetricians believing that not only did it produce a greater liability to puerperal hæmorrhage, but that, when flooding occurred, the helpless and unconscious state of the anæsthetised woman rendered her incapable of responding to appeals to second by her own volition attempts to cause uterine contraction. It is worthy of consideration, however, whether ether and chloroform, in their anæsthetic operation, are in all points precisely analogous during childbirth. In surgery, profound insensibility is indispensable; not so in all cases of labour; indeed, only so in exceptional cases. Partial etherisation either produces complete muscular relaxation or tetanic spasm, either of which conditions might unfavourably influence the course of parturition. Chloroform, on the other hand, may, by careful management, be so administered as to produce and sustain for hours sufficient insensibility to render a tedious painful labour much easier of endurance. Moreover, we believe that, whatever may be the explanation, the observation of British accoucheurs has satisfied them that the parturient woman enjoys special exemption from the fatal effects of chloroform; no fatal case having yet been recorded in this country, and, unless our memory fails us, Dr. Marion Sims has publicly stated that a similar immunity has been noticed amongst the parturient women in the United States.

### ANOTHER FORM OF INDECENCY.

UNDER the above heading, Mr. F. Lockhart Robertson writes to the *Glasgow Herald* to protest, "in the name of common decency, against the action of the Scottish National Association for the Repeal of the Contagious Diseases Acts, in sending by post bundles of unsavoury tracts and speeches on this most disgusting subject, which might readily fall into the hands of young persons, happily ignorant of the very meaning of the ugly words used. The Acts" (he says) "may be good or bad (it is an open question, to be determined mainly by results); but surely, in seeking their repeal, some care should be taken to protect the innocence of those whose minds are yet unsullied by contact with such tainted themes."

### SOCIETY FOR THE RELIEF OF THE WIDOWS AND ORPHANS OF MEDICAL MEN.

THE officers of this Society have issued the following appeal.

"The numerous appeals which are made from time to time to medical men on behalf of the widows and orphans of their deceased professional brethren, make us anxious to draw your attention to the advantages offered to medical practitioners residing within the London district and in Middlesex by the Society for the Relief of the Widows and Orphans of Medical Men. This Society, instituted in the year 1788, has now an accumulated capital amounting to more than £70,000; the interest on which, together with the subscriptions of members and donations, is distributed in grants to those widows and orphans of members deceased who have been left unprovided for. At the present time, there are fifty-eight widows and twenty children receiving annual grants from the Society, which last year amounted to £2,930:10; and in this manner £89,761:3:6 have been distributed since the formation of the Society. The Secretary attends at the office, 53, Berners Street, Oxford Street, every Wednesday and Friday from 4 to 5 P.M.; and from him may be obtained copies of the laws, lists of members, and forms of proposal for membership. He will also give any information required."

It is signed by George Burrows (President); James T. Ware, William Fuller, Richard Quain, M.D. (Treasurers); and Joseph B. Blackett (Secretary).

## SCOTLAND.

THE University of Aberdeen has resolved to give one of its prizes for an essay on "The University Systems of Scotland and Germany, and their Comparative Advantages".

IN Aberdeen, there has recently been an epidemic, fortunately of no great severity, of small-pox; but is now disappearing. There have been in all 46 cases of the disease in the Aberdeen Small-pox Hospital, of whom 10 died, and 6 remain still under treatment.

THE Council of the Royal Society of Edinburgh have awarded the Neill Prize for the Triennial Period 1871-74 to Charles William Peach, Edinburgh, for his contributions to Scottish zoology and geology, and for his recent contributions to fossil botany.

### PROSECUTION UNDER THE MEDICAL ACT.

THE case of Banzie *v.* Peebles came up before the High Court of Justiciary in Edinburgh last week, in which "Professor" Banzie appealed from a conviction for offence against the Medical Act, by calling himself a Doctor of Medicine, and thus implying that he was registered. It was shown that the appellant possessed the degree of M.D. of the University of Philadelphia, and it was stated by his counsel that this was "after due curriculum and examination". In his advertisement, however, there was no mention made that the degree was an American one. After hearing counsel on both sides, the decision of the judges was deferred.

### WATER-SUPPLY OF EDINBURGH.

WITH regard to the new water-works scheme, an unexpected difficulty has, it is said, arisen in the construction of one of the reservoirs at Edgelaw, which forms an important part of the works. It is supposed that the original borings which seemed to indicate a solid foundation for the embankment at a reasonable depth must have struck upon boulders or some exceptional feature in the substratum; for, on further examination, a bed of running sand was discovered reaching to the depth of over a hundred feet. This position has, in consequence, been abandoned, and fresh borings are being made higher up the glen.

### EDINBURGH ROYAL INFIRMARY.

THE Royal Infirmary Bill was set down for hearing on Tuesday, before a select committee of the House of Lords, consisting of the Duke of Bedford, Lord Thurloe, Lord Rosse, the Earl of Limerick, and Viscount Enfield. But when the committee assembled, it was announced by the agents of the promoters, that there would be no opposition. The Bill will, therefore, go before Lord Redesdale, the Chairman of Committees, and be passed as an unopposed measure.

### EDINBURGH ROYAL MATERNITY HOSPITAL.

A GENERAL meeting of the subcribers to, and other supporters of, the Royal Maternity Hospital was held on Monday, the Lord Provost in the chair, at which the claims of the institution were very warmly advocated by the chairman, Dr. Matthews Duncan, and other speakers. It was reported that £2,300 had been collected, in addition to the £2,500 which was expected as the surplus of the money collected by the Simpson Memorial Committee, towards the erection of a suitable maternity building, adequate for the purposes of the Institution, and worthy of the city of Edinburgh ; the building at present occupied being merely an ordinary three-storey house. The difficulty of raising sufficient money is doubtless, to a great extent, due to the number of charitable buildings at present in course of erection or in contemplation, and the consequent endless calls on the pockets of the charitable.

### PROFESSOR GAIRDNER ON EXAMINATIONS.

In his closing address at the Glasgow University Medical Society, Professor Gairdner took up the subject of examinations. He pointed out that pass examinations were useful for their effects upon the studies of the majority who pass, rather than as "mere measures of police" for those who are rejected. "The examination", he went on to say, "should not aim at finding out what a man *does not* know so much as the discovery of what he *does* know, and of *how* he knows it—the kind of knowledge and the reality of acquirement being of far more consequence than the mere amount or extent of knowledge". He went on to show that cramming would enable a man to pass an examination, but it would not endow him with the power to think and to know his profession thoroughly. "Education is not mere information", says Professor Gairdner, and the expression is neatly turned as well as apposite. A medical education at hospitals and colleges is designed to enable a man to work for himself in after life, is really a means towards his educating himself—not, as some suppose, that a certain point of saturation with information may be reached, upon which a man may trade all his life after. These views of Professor Gairdner deserve careful attention on the part of those who are immediately concerned in the education and examination of medical students. The high class examination having been now fairly tried and been found not to answer—the capacity to answer questions not being the best measure of a man's real knowledge —the views expressed by Professor Gairdner may be found to be seasonable as well as sound.

### EPIDEMIC OF TYPHOID IN CROSSHILL, NEAR GLASGOW.

The inhabitants of Crosshill, one of the best situated and beautiful suburbs of Glasgow, have been very considerably terrified of late by the outbreak of an epidemic of typhoid fever. The number of cases is variously estimated at 100 to 150 ; but, as they are mostly among families of the better class, the excitement is, perhaps, proportionally greater. There seems little reason to doubt that the epidemic has had its origin from infected milk. The supply of milk comes mainly from the neighbouring village of Eaglesham, where cases of typhoid fever have recently been. The man who supplies milk to the district is a most vigorous newspaper correspondent, and, of course, protests that the epidemic has some other origin. Dr. Littlejohn has been sent down by the Board of Supervision to report on the epidemic, and his statements will probably convey some trustworthy information.

## IRELAND.

Owing to the late inclement weather, the deaths registered in Dublin for the past week from affections of the respiratory organs, not including phthisis, amounted to 71, of which 58 were due to bronchitis, being an increase of 16 as regards that disease over that of the preceding week.

From the report of Dr. Cameron (City Analyst) for the month of February, we find that during that period 9,400 lbs. of pork, 360 lbs. of mutton, 150 lbs. of veal, and 4,480 lbs. of fish were condemned in Dublin as being unfit for food. The fines inflicted amounted to £22; and a sausage-maker was mulcted in £20 for having in his possession a large quantity of diseased pork, evidently intended for human consumption.

### MEDICAL CONTRACTS BY THE DUBLIN UNIONS.

Attention has lately been drawn to this matter, by the fact that for the past year the average cost of medicines for each patient, for the North Dispensary Districts, has been six and a half times as much as for each patient in the South Dispensary Districts. The average cost per patient in the southern division has remained nearly the same during the past ten years, but in the northern portion it has nearly doubled ; and, from these circumstances, the Local Government Board intend to have an inquiry instituted as regards the cost of medicines in both unions, to endeavour to ascertain whether there has been an undue expenditure of medicines in the north districts, or sufficient use of them in the south division. Why such an extreme difference should exist between the unions is incomprehensible ; but the promised investigation may perhaps elucidate the mystery.

### ROYAL DUBLIN SOCIETY.

At a meeting of the Royal Dublin Society, the following were appointed as committees for their respective subjects, viz., *Botany:* Thomas Fitzpatrick, M.D. ; Benjamin G. Darley, M.B.; Humphrey Minchin, M.B.; Walter G. Smith, M.D.; Wm. R. McNab, M.D. *Fine Arts:* Evory Kennedy, M.B. *Natural History:* Philip Bevan, M.D.; John Barker, M.D.; Rev. Samuel Haughton, M.D.; Robert McDonnell, M.D.; A. Foot, M.D.; Alexander Macalister, M.D. *Library:* Fleetwood Churchill, M.D.; Edward P. Wright, M.D. *Science:* E. D. Mapother, M.D.; Robert McDonnell, M.D.; Charles A. Cameron, L.K.Q.C.P.; Humphrey Minchin, M.B.; Emerson J. Reynolds, M.D.

### THE DUBLIN MAIN DRAINAGE.

A third meeting of the ratepayers of Dublin was held last week, and resolutions were passed condemning the Dublin corporation for their mismanagement with regard to the matter. The proposed "rubble masonry" scheme was condemned, in spite of the protests of a Mr. Norwood, who is chairman of the Main Drainage Committee of the Dublin Corporation. Mr. Norwood caused no little amusement by declaring that rubble masonry set in lime mortar was quite as good for sewers as bricks set in Portland cement, and stated, amidst the laughter of the meeting, that the only reasons why stone and lime were not used in London was because there were no stones in London, and that English lime is so very different from Irish, that sewage acts upon the former, but not on the latter. Mr. Norwood failed, however, to answer the question put by one of the ratepayers, Why bricks and cement were preferred originally, if stone and lime-mortar were as good? The meeting concluded by electing a committee, and directing it to proceed with a Bill in Parliament to transfer the main drainage power of the Dublin Corporation to a new Board, such as we mentioned last week. We regret that the Bill has miscarried before the Standing Orders Committee of the House of Lords, owing to an omission on the part of the Parliamentary agents to serve all the necessary notices.

### SANITARY CONDITION OF DROGHEDA.

At a meeting of the corporation of this town, held last week, several sanitary reports from the officers appointed under the late Act were brought under the notice of that body, which pointed out the fact that to the insanitary condition of the town was due the present prevalence of a virulent type of fever. The corporation have issued orders to have the various nuisances complained of removed ; and it may confidently be expected that, according as the sanitary condition of Drogheda improves, so in proportion will diseases of a zymotic character diminish. The medical officer of the Drogheda Infirmary, Dr. Adrien, reports that fever is spreading to an alarming extent in various parts of this town. In addition to the insanitary condition, he attributes the extension of the disease to the custom of "wakes", and urges that the sanitary authorities shall have the provision of the recent Act carried out more strictly.

## DISCUSSION AT THE PATHOLOGICAL SOCIETY.

THE following is a short programme of the argument which will be developed by Dr. Charlton Bastian at the forthcoming discussion on the Germ Theory of Disease; being a discussion of the relation of bacteria and allied organisms to the virulent inflammations and to the specific contagious fevers.

The analogy between zymotic processes and fermentations is one which has been long recognised, though the "Germ Theory of Disease" is its present form is a doctrine of modern growth. It has been based on the supposed resemblance between the two sets of processes. Contagia came to be considered as allied to, if not identical with, ferments; and hence, after the promulgation of the Vital or Germ Theory of Fermentation by M. Pasteur, which was founded upon the belief that all true ferments were bacteria, torulæ, or allied organisms, it became an easy step to imagine, and even adopt the notion, that all contagia might also be similar low independent organisms. Recognising the vast importance of such a doctrine for medical science, the writer was induced to undertake a series of researches, in order to test the validity of Pasteur's underlying doctrine of fermentation. Its general acceptance would almost of necessity have entailed most important modifications in our notions as to the true pathology, and consequently as to the treatment of the most important diseases to which the human race is liable. As a result of these researches, the truth of Pasteur's exclusive theory has been challenged in favour of broader physico-chemical doctrines of fermentation, and the whole question is now (as the writer supposes), in the opinion of most impartial critics, to be regarded as still *sub judice.* In the interval, therefore, we may look into this truth of the germ theory of disease from an independent point of view. The principal foundations of this theory seem to be of a theoretical nature. It is contended, with a considerable show of reason, that the multiplication of contagium within the body of the infected person, is a process which can only be compared to organic growth and multiplication. There are, however, other means of accounting for the increase of contagium within the body, which will hereafter be more fully explained. In addition to the germ theory of disease in the most generally accepted sense of the term, there is a rival doctrine advocated by Dr. Beale, which will be briefly referred to.

*Applicability of the Germ-Theory to Virulent Inflammations and their sequelæ.* (*Gonorrhœa, Purulent Ophthalmia, Diphtheria, Erysipelas, Hospital Gangrene, Pyæmia, Septicæmia, etc.*)—The notion that bacteria have a causal connection with the process of infection in these diseases having been stated and its origin explained, an opposite doctrine is then announced; viz., that, instead of being themselves the infectious agents, or "carriers of infection", bacteria and their allies, when met with in diseased fluids and tissues, are for the most part actual pathological products engendered within the body. There is in fact, the writer contends, a bacterial degeneration, which, though not so common and wide spread in its occurrence, and though a process involving phenomena of a different order, may claim to rank side by side with fatty degeneration.

The facts and arguments in favour of these respective views are then briefly summarised. It is true that some of the considerations advanced in support of the latter doctrine may be explained by the hypothesis, that all the tissues of man and higher animals are densely interpenetrated by undeveloped and indistinguishable germs of the lowest organisms. This hypothesis is held by Dr. Beale; but it may be met, and, so far as it appears to be an answer to the writer's doctrine, set aside by evidence of the most convincing nature. But the notion (1) that germs of bacteria and allied organisms pre-exist (in some obscure way) within the tissues; (2) the notion that they enter from without, and are habitually very numerously distributed throughout the tissues of the body; or (3) that they are very commonly engendered by a process of degeneration taking place within tissue elements—all seem equally opposed to the views of Professor Lister and inimical to the theoretical basis on which he has allowed his antiseptic system of treatment to rest, however admirable this system may be in itself.

*Applicability of the Germ Theory to Artificial Tuberculosis, Syphilis, Typhoid, Typhus, Relapsing Fever, Cholera, Measles, Scarlatina, Small-pox, and other Contagious Fevers.*—Although no real boundary line exists between the diseases considered in this section and those referred to in the last, the adoption of some such division is a matter of convenience in regard to the present discussion. Many of the facts and considerations previously advanced in support of the writer's doctrine as to the relation of bacteria and allied organisms to the latter class of diseases, are also applicable in regard to the present series. No positive facts of much weight seem to be forthcoming in favour of the germ-theory as applied to contagious fevers. Although these affections have always been regarded as "blood-diseases", in only one of them does it appear that independent living organisms are to be met with in the blood of affected individuals at any stage of the disease. There is, therefore, here a *primâ facie* inherent weakness in the whole theory, which a more thorough examination tends rather to confirm than to dissipate. The facts and considerations which may be opposed to the existence of any causal relationship between bacteria and allied organisms and the specific contagious fevers are then briefly enumerated.

After some statements and explanations concerning the occurrence of organisms in the blood of patients with relapsing fever, and in connection with diseased tissues in ovine, small-pox, and typhoid fever, as revealed by the researches of Dr. Klein, the writer will make some brief concluding statements concerning (1) Pasteur's recent important modifications of his germ-theory of fermentation; (2) upon the degree of relationship existing between zymosis and fermentation; (3) and as to the probable mode of action of ferments and contagia.

## MEDICAL BOOKS AND MEDICAL ADVERTISING.

THE following rather severe remarks are translated from the introduction to a review of an English medical work in a past number of one of the most serious and weighty of French medical journals, the *Gazette Médicale de Paris.* It has a very obvious and direct bearing upon the question which Mr. James Lane discussed in his recent address at the Harveian Society, and indicates the opinion of a critic who is removed from our way of looking at the subject. The opening paragraph of the review in question runs thus.

"For some time past, English literature has become enriched by a large number of medical works, of which the object is not always the advancement of science and the search after truth. Many of these works are nothing but touting for patients—a kind of costly but paying advertisement, which their authors allow themselves to put forth in order to attract the attention of the lay public. The English are more inclined than the French to this kind of publicity, which is above the means of the French practitioners, who are generally not by any means rich at the outset of their careers, whilst their English brethren are frequently more in want of patients than of means. Thus every day we receive from them a large number of books for criticism, which we take good care neither to read nor to analyse, and of which the first page sufficiently shows the idea which has inspired the composition of the book."

An abuse which has gone to the extent of exciting the attention of foreign critics is not unworthy of our own attention.

We believe, with Mr. Lane, that the practice of advertising medical books, avowedly written for medical readers, in lay newspapers, is responsible for a great many evils. It affords countenance to quacks; it facilitates a system by which young men with long purses can give themselves the gratification of costly, continuous, and unblamed advertisement, on a platform where they are side by side with eminent and distinguished men; it discourages modest, meritorious, and unwealthy labourers in the field of medicine; and it does not elevate the dignity of the profession. The more entirely every man who aims at professional success is taught to rely upon the estimation of his fellows, the more genuine his efforts and his achievements are likely to be. These, among other reasons, seem to us to support the suggestion that medical advertising in lay papers is a custom which is more honoured in the breach than in the observance, and is one which is sooner or later doomed to disappear from the list of authorised medical practices, in which, in this country, it has somewhat exceptionally found a place.

## PRESCRIBING DRUGGISTS.

ON Wednesday (last week) an inquest was held at the County Petty Sessions House, Stratford-on-Avon, before T. B. Couchman, Esq., on the body of John Aubery, labourer, aged 63, who died suddenly on the preceding Saturday. Elijah James said: I am a registered chemist. On Saturday last, the daughter of the deceased called upon me about eleven o'clock, and asked for some medicine for her father, who she said was unwell. She said that he had a bad cough, a pain in the chest, and difficulty in breathing, together with weakness. I made up a bottle of mixture, with directions, and recommended a little brandy occasionally. I did not think that he was in danger. I never saw the deceased from first to last, but knew him well. Mr. Bernard Rice, M.B., gave evidence to the effect that he saw the body of the deceased on Tuesday morning, and from appearances it was not over-nourished. He found no marks of violence, and he considered him a worn-out man. He attributed death to natural causes. There was nothing dangerous in the mixture given by Mr. James, and it could not have caused death. The Coroner then summed up, and the jury returned a verdict in accordance with the medical testimony that the "Deceased died from natural causes". The coroner complimented Mr. James on his capacity, and observed that the country was greatly indebted to such a class of persons. He was a registered chemist, and qualified to give prescriptions, and remarked that such chemists as Mr. James were conferring a great benefit to people by their ministrations, especially to the poorer classes. The jurymen concurred with the coroner in his views. If the case had turned out differently, the comment would probably have been different. Meantime, it would be satisfactory to know on what ground the coroner considers a registered chemist, whose studies and examinations are in no sense medical, but simply pharmaceutical, to be qualified to give prescriptions. The opinion generally entertained is precisely opposite to this.

The following case is very similar to that above related. An inquest was held at Rattlesden on Tuesday (last week), before G. A. Partridge, Esq., coroner, on the body of John Grimwood, labourer, aged 65, who died very suddenly on the previous Saturday morning. Hepziba Davey said: I am the daughter of John Grimwood. I lived in his house. Last Thursday, he was taken with pain in the bottom part of his throat. On Friday, he went to the chemist's at Stowmarket, and got a box of pills and some medicine. In the middle of the night, my father complained of pain in his throat, and asked for ginger-and-water. He had some, and then had some of the medicine. He also complained of pain in his left arm. About four o'clock, my father was better. I made my husband's breakfast, and father took three cups of tea with some gin in them. He sat over the fire till ten o'clock; he then complained of pain, and got up, and then he fell on the floor. I ran for my husband, who was at work a little way off, and before I got back father was dead. He has complained of liver-disease for some time; he has not had medicine of Mr. Leech for seven years. Mr. Henry Payne Leech, surgeon, said: I have made a *post mortem* examination, and found the heart rather fat, the walls of the right auricle extremely thin, so much so that they had given way, and the pericardium was filled with blood, which would cause instant death. He had organic disease of the heart from natural causes. Nothing that he could have taken would have produced the unmistakable cause of natural death which I find. William Thomas Elliott said: I am assistant to Mr. Gostling, chemist at Stowmarket. John Grimwood came to our shop and complained of headache and flatulency. I gave him a little bicarbonate of potash, tincture of calumba, and aromatic spirits of ammonia, and a little tincture of ginger, and bismuth pills with extract of gentian. The verdict was "Natural death".

A correspondent has asked us, in reference to one of these cases, what course must be adopted to proceed against a chemist and druggist for prescribing, and at whose expense the action must be brought. It would be useless to proceed under the Medical Act if the person did not pretend to be registered. The Society of Apothecaries, we believe, have the power of prosecution; but whether they would exercise it in all such cases, we do not know.

# ASSOCIATION INTELLIGENCE.

## COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the office of the Association, 36, Great Queen Street, Lincoln's Inn Fields, London, on Thursday, the 15th day of April next, at two o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

36, Great Queen Street, London, W.C., March 18th, 1875.

## METROPOLITAN COUNTIES BRANCH.

A GENERAL Meeting of this Branch will be held at the house of the Medical Society of London, 11, Chandos Street, Cavendish Square, on Friday, April 16th, at 8 P.M.; when the subject of Legislation for Habitual Drunkards will be discussed.

ALEXANDER HENRY, M.D. } *Hon.*
ROBERT FARQUHARSON, M.D. } *Secs.*

## BATH AND BRISTOL BRANCH.

HE Fifth Ordinary Meeting of the Session will be held at the Royal Hotel, College Green, Bristol, on Thursday evening, April 1st, at half-ast seven o'clock; F. MASON, Esq., President.

Bristol. EDMUND T. BOARD, *Hon. Sec.*

## SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.

THE first meeting of the above district for the present year will be held on Wednesday, March 31st, at Terry's Restaurant (opposite the South-Eastern Railway Station), Tunbridge Wells, at 3 o'clock P.M.; BLACKALL MARSACK, Esq., in the Chair.

Dinner will be provided at 5 P.M., charge 6s., exclusive of wine.

All members of the South-Eastern Branch are entitled to attend these meetings, and to introduce professional friends.

The following communications are expected.

1. Mr. Marsack: Supposed Case of Vegetable Poisoning; Two Cases of Malignant Pustule.
2. Dr. Johnson: Case of Locomotor Ataxy; Case of Thoracic Myalgia.
3. Mr. T. F. Sanger: On Malaria.
4. Mr. W. Wallis: Case of Poisoning by Oil of Tobacco.
5. Two papers by Mr. G. F. Hodgson, of Brighton, President of the Branch.

THOS. TROLLOPE, M.D., *Hon. Sec.*

35, Marina, St. Leonard's-on-Sea, March 16th, 1875.

## STAFFORDSHIRE BRANCH: ORDINARY MEETING.

THE Second Ordinary Meeting of the Session was held at the London and North-Western Hotel, Stafford, on Thursday, February 25th, 1875; present, R. GARNER, Esq., President, in the chair, and sixteen members.

*New Members.*—The following members of the Association were elected members of the Branch. Mr. W. T. Pater, Dr. Cookson, and Mr. G. Reid of Stafford; Mr. G. A. Baddeley of Gnosall; Dr. A. B. Greatrex of Lawton; Mr. E. P. Hamilton of Leek; Dr. J. Grant of Longton; Mr. J. T. Hartill, and Mr. M. P. C. McCormac, of Willenhall.

*Death of Mr. F. Turton.*—It was proposed by Dr. Millington, seconded by Mr. J. T. Hartill, and resolved—"That a letter of condolence be written and sent to Mrs. Frederick Turton of Wolverhampton, sympathising with her upon the decease of her husband."

*Communications.*—1. Dr. MILLINGTON read a paper on Hospital Abuses and their Remedies.

2. Mr. VINCENT JACKSON showed a specimen and made some remarks upon the drug Jaborandi.

3. Mr. COTTERILL made some remarks upon a case of Chronic Rheumatic Arthritis of the right Hip-Joint. The patient was exhibited.

## YORKSHIRE BRANCH: ORDINARY MEETING.

ON Wednesday, March 10th, a meeting of this Branch was held at the Infirmary, Huddersfield.

*Papers.*—The following papers were read.

1. Dr. Eastwood: On the Treatment of Habitual Drunkards. After some discussion, it was unanimously resolved, "That the Bill for the Management of Habitual Drunkards, brought before the House of Commons by the late Mr. Dalrymple, be the basis of any future action on this subject, with a modification of the fifteenth clause, and that the members of this Branch be requested to sign a petition in favour of this Bill, to be presented to the Houses of Parliament."
2. Dr. Heaton: On a Case of Poisoning treated by Belladonna.
3. Dr. Cameron: On Psychological Facts apt to be overlooked in the Treatment of Children.
4. Mr. Atkinson: On two cases of Surgical Injury of the Chest without External Wound.
5. Dr. Alexander made some remarks on the Therapeutical Value of Chloral. Mr. Ellerton related a case of Complicated Pregnancy with Miscarriage at six months.

*Dinner.*—After the meeting, twenty-six members dined together at the George Hotel.

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QUEEN'S COLLEGE, BELFAST.—The triennial visitation of this College was held last week, the visitors, including Dr. Duncan, President of the College of Physicians, and Mr. Joliffe Tufnell, President of the Royal College of Surgeons. From the President's statement it appears that the total number of students in attendance for the session 1874-5 was 384, of whom 211 were students in medicine. Altogether the report was a satisfactory one, and proves at all events that the institution is not losing ground in the opinion of unprejudiced persons. A memorial was submitted on behalf of the College Athletic Club, asking that a suitable ground might be secured for them, and which the President and visitors promised to use all efforts to obtain.

# REPORTS OF SOCIETIES.

## CLINICAL SOCIETY OF LONDON.

FRIDAY, MARCH 12TH, 1875.

SIR WILLIAM JENNER, Bart., K.C.B., M.D., F.R.S., President, in the Chair.

*Hypertrophy of the Lower Parts of the Face.*—Mr. R. BARWELL exhibited a patient suffering from this affection; and said that simple hypertrophy, arising without definite cause—such cause, for instance, as might call forth increased muscular action, stretching, friction, or compression of tissue—was a rare event; especially rare, when no alteration of texture, no induration, thickening, or other change accompanied the malady. He had, therefore, brought this case under the notice of the Society, as no similar case appeared to have been previously recorded. The man, who was aged 20, and a sawyer by trade, went to bed one night, rather less than five years ago, perfectly well, nothing being wrong with his features. On rising next morning, the lips and lower parts of his face were enormously increased in size. There was no pain, heat, or redness; but a considerable discharge from the nose. Even now, when he caught cold, the face enlarged. The history, short as it was, required some consideration—possibly amendment. He said, his face was bigger on that first day than now, and his mouth was then, as now, drawn on one side. Mr. Barwell thought that, as to this first sudden enlargement, the man was probably mistaken; the increase was certainly not inflammatory, and could hardly have been hypertrophy. The first appearance of a marked deformity would make a great impression, which would slowly decline; for instance, he had observed the mouth being on one side at first, but its present crooked position had ceased to attract his notice. Hence it was more than probable that the first change was less marked than he supposed, and also than it now was. At present, the face, beginning at the edge of the jaw, was enlarged as far back as the edge of the masseters; the broad part of this enlargement extended as high as the lower edge of the malar bones; from this point it rapidly narrowed itself upward to the side of the nose, and terminated at the inner corner of each eye. The chief deformation fell upon the lips, which were enormously developed and everted, and for additional space thrown into folds. They were not cracked nor indurated, but in texture perfectly normal. The cheeks also were very thick and bulging. The labial glands were not enlarged. The tongue, though its mucous membrane was fissured, was not increased; the bones of the face were normal. It was very difficult to assign any cause for this condition, whether the malady might have arisen from some affection of the vaso-motor nerves allowing arterial increase, whereby additional nutriment was supplied to, forced upon, the tissues; or whether the tissues taking on increased growth attracted to themselves a greater supply of blood, could not at this date of the affection be determined. One thing, however, was evident, that the area of the increased nutrition corresponded to the distribution of the facial artery. Hence, Mr. Barwell considered, the only treatment likely to prove beneficial was to tie both vessels on the ramus of the jaw; which operation he proposed to perform on the morrow at Charing Cross Hospital.

Mr. HOLMES inquired what were Mr. Barwell's views of the pathology of the case, and what was the proposed treatment.—Mr. BARWELL was unable to state the exact pathology, because the action of the trophic nerves was unknown, whether the increased arterial supply was primary or secondary to other changes. If ligature of both facial arteries failed to benefit the patient, he should recollect that Mr. Bryant had said that the only mode of treatment was to dissect away the whole submucous tissue from the inner surface of the enlarged lips.—Mr. HOLMES thought it was a question whether the local swelling might not be diminished by local treatment, as by free incisions into the hypertrophied tissue, cutting away small pieces, and allowing the incisions to discharge freely: very much as was done for the chronic œdema following upon erysipelas in a limb, or for thickening of a bone when the periosteum was cut down upon and divided. The pulsations of the arteries were certainly increased in this case, and the effect of ligature of the vessels it would be interesting to observe; but he confessed that he should be disposed first to try the effects of free incisions.—Mr. EASTES had seen a case of the kind treated in Guy's Hospital by the excision of a strip of mucous membrane from the whole length of the inner surface of the lip, and by the bringing of the two edges of the wound together by sutures: an operation which resembled that done for entropion by oculists. The result was favourable.—The PRESIDENT asked if the affection were congenital. People often imagined that their disfigurements had come on suddenly, whereas they had actually been in existence for a long time. Perhaps this patient had had an enlargement of the lips for years, and an inflammatory condition simply increased it on the night after which he first noticed it. It was certainly difficult to see how so large a growth could occur in a few hours.—Mr. BARWELL had heard nothing of the history, except from the patient himself; he would endeavour to show the man again at a future day, whatever the effect of the operation might be.

*Tinea Favosa.*—Dr. DUCKWORTH exhibited a boy, aged 8, whose scalp and body were affected by this disease. He had had the disorder for sixteen months, and, it was alleged, had been once cured of it for a short time. The disease was very typically represented in this case, the primrose-yellow cups being distinctly seen in parts. The scalp had a strong mousy odour. There was no history of contagion. The boy's parents, Irish people, occupied three rooms near the Mint. Several brothers and sisters were unaffected. The cat in the house was also said to be free from skin-disease. The microscope revealed the presence of abundant spores of achorion Schönleinii. Dr. Duckworth commented on the extreme rarity of tinea favosa in London; and stated that this was only the fourth or fifth case that he had seen in the last ten years. The boy was poorly nourished, and had enlarged cervical glands. It was proposed to treat the case by poulticing, and the subsequent use of sulphurous acid; epilation would also be practised. Cod-liver oil and steel were to be given internally.

The PRESIDENT remarked that the disease was very apt to return, so that patients went the round of the hospitals. Thus six patients only might supply all the hospitals in London with occasional cases for years. He hoped Dr. Duckworth would bring the boy before the Society again when he was cured.—Dr. DUCKWORTH had exhibited a case last session, which was apparently cured after being under treatment for some time.

*Fatal Pleuropneumonia in a Person addicted to Excessive Use of Alcohol, Morphia, Cannabis Indica, and Bromide of Potassium.*—Dr. WHIPHAM brought forward a case in which pleuropneumonia, though limited to a small portion of one lung, proved fatal in a patient aged 55, who had been accustomed for nearly twenty years to large daily doses of morphia; who had also taken cannabis Indica in excessive doses; and who latterly had been very intemperate in his use of alcohol. The origin of the opium-eating was a pain, real or imaginary, in the rectum, which had attacked him about twenty years ago, from which he had been free until his father died of cancer in that region. He was a person always fond of "physicking himself". Opium in the form of laudanum was prescribed by a surgeon, as an injection *per rectum* in half-drachm doses, to relieve this supposed pain. This dose, though efficacious for a time, gradually lost its effect; and was gradually increased, until the quantity amounted, in ten years, to an ounce of the watery extract of opium in the course of a week. He then tried total abstinence from the drug, which was followed by nasal catarrh, purging, vomiting, and such utter depression, that his life was almost despaired of. After four months abstinence, he began again, and eventually took to morphia as being less bulky. When he first came under observation, he was in the habit of injecting two or three grains of morphia *per rectum*, repeating this dose, at intervals of fifteen minutes, two or three times, until he could "recover confidence in himself". He was advised to try to reduce the quantity gradually. When the daily quantity, however, was less than six grains, the former symptoms, *e.g.*, vomiting, purging, etc., manifested themselves, and he immediately increased the dose. At the same time, chloral hydrate was prescribed as an injection, with a view of diminishing the morphia. So far from this being the case, however, the only result was, that he took it ever after in addition to the morphia. Some six or seven years previously to his death, he tried large doses of cannabis Indica, from which, owing to its failure in relieving his pain, he eventually abstained. Bromide of potassium he injected in scruple doses *per rectum* until six months before his fatal illness. During the last four or five years of his life, he became addicted to the abuse of alcohol, and in consequence suffered repeated attacks of dyspepsia. In the beginning of December 1874, he was attacked with pleuropneumonia of the lower part of the right lung; and, in the treatment of this disease, injections *per rectum* of two grains of morphia were at first productive of good results, but eventually the drug failed in its stimulating properties, and the patient sank after four days' illness. From subsequent inquiries, it appeared that the regular dose of morphia was one scruple in twenty-four hours, in addition to two bottles of sherry, brandy, and champagne, chloral hydrate in fifteen-grain doses frequently, and occasionally twenty grains of bromide of potassium. The points of interest in the case were—1. That a person could tolerate such large doses of these drugs, and at the same time suffer so slightly from their deleterious effects; 2. The catarrh, vomiting, and purging, which always attended any attempt to reduce the quantity of morphia; 3. The marked benefit which resulted from morphia injections during his fatal illness.

In answer to queries, Dr. Whipham said that no *post mortem* examination was allowed; that the jaudice with which the last illness was ushered in was temporary; that the patient gave himself the chloral, using it and morphia together; that the source of the pain in the rectum was not discovered after death, because no examination was permitted. It was suggested by a member that the man was a hypochondriac, and that he had no real pain.—The President asked if it were not a fact, that hypochondriacs did suffer pain; at any rate, they looked ill, and would submit to any violent treatment to diminish their sufferings. In his experience, opium lately was not so commonly used as chloral by the general public; some people took the latter drug night after night for weeks, months, years even, without thinking they were doing themselves any harm.—Dr. Whipham said that his patient took drachm-doses by the rectum twice or three times daily.—Dr. Duckworth remarked that the quantity said by the patient to have been swallowed and that admitted by the chemist to have been supplied was in this case the same. Sir Robert Christison had said that most of those people who took drugs secretly would tell lies to any amount; they did not, perhaps, mean to deceive, but would say they only took a few grains, whereas they were swallowing drachm-doses.—Dr. Southey observed that they would even come to the physician, pay their guineas, know full well from what they were suffering, and yet gravely ask advice. It was a species of insanity.

*Acute Necrosis of Ulna: Removal of the entire Shaft of the Bone.*—Mr. Barwell read notes of this case. The patient, a girl aged 7, was brought to him by Mr. Cope of Croydon, who had attended her for fracture of the ulna. At the time he was called in, considerable inflammation had already commenced; but the case did well for three weeks, when the child again fell, striking her forearm severely. Inflammation of phlegmonous character, with tendency to abscess, and much pyrexia, set in. Six weeks after the primary injury, Mr. Barwell was consulted, and found considerable deep swelling and pink patches of discoloration along the subcutaneous ridge of the ulna. The limb was hot and painful, especially on movement. The temperature in the mouth was 101.2 deg. Acute necrosis was diagnosed, and an incision was made down to the bone through the middle third of the ulna. No pus was found beneath the periosteum, though a little existed in the soft parts of the limb. Some smart bleeding was easily restrained by pressure. The wound filled gradually, with the exception of four sinus mouths, and in five weeks the bone could be felt through these sinuses necrosed; while deep bony enlargement showed that new periosteal bone had been formed. A week later, the former line of incision was reopened, and the dead ulna, almost surrounded by new bone, exposed. Mr. Barwell was anxious to remove the dead, with as little injury to the new, parts as possible. Having therefore separated them, as far as could be done, with a blunt periosteal chisel, he succeeded in drawing out the shaft (which was exhibited to the meeting) lengthwise, leaving the epiphyses and the new bone connecting them entire. The Esmarch bandage having been used, scarcely half an ounce of blood was lost. The case went on perfectly well. Two months after the date of operation, Mr. Barwell saw the patient, and found the wound quite healed, the hand and arm perfect in form and in movements, though these were somewhat restrained. Three months later, Mr. Cope wrote—"The case has gone on without a bad symptom; there is perfect use of both elbow, wrist, and hand." Mr. Barwell remarked that he thought the name acute necrosis more in accordance with the course of the disease than acute periostitis. He spoke of the frequent absence of pus within the periosteum until a later period of the malady, and stated that in all cases early incision was imperative; but, as some difficulty existed in recognising the earliest symptoms of the malady, these were—age of patient, pyrexia, deep-seated and severe pain, uniform, deep, and doughy swelling, red patches (not dusky), mottled, on a normally coloured ground, both lying over the painful bone. If the surgeon waited until the swelling was nearer the surface, and pitted, and until the red patches ran together, and became dusky and glazed, he waited too long.

Mr. Callender inquired if the injury caused fracture of the ulna, and if it were diagnosed as such.—Mr. Barwell could only upon that point say what Mr. Cope had told him.—Dr. John Harley observed that there had apparently been considerable absorption of the necrosed bone. Was it real or only apparent absorption? Was there any opening before the operation performed by Mr. Barwell? or was the absorption the result of that operation? Was all the bone which came away at the operation then exhibited?—Mr. Barwell said that, when he went to operate the second time, he found four large sinus mouths; doubtless, some of the bone had disintegrated and come away through these channels; yet some of the bone was still perfect in shape, and he could not imagine any surgeon leaving the dead bone unremoved, in the hope that it might become discharged of itself or absorbed.—Mr. Heath presumed that it might be taken that there was no fracture. It was a simple case of acute necrosis set up by the original injury. Unless there had been suppuration beneath the periosteum, by which nutriment was cut off from the bone, he was at a loss to understand how such extensive necrosis could have occurred.—Mr. Barwell said that, after the child had its fall in May, the symptoms thereby produced after a time diminished, and she was allowed to run about. She fell again on June 8th; the acute necrosis would seem to have then commenced, and the incision was made on the 26th, eighteen days afterwards, when no pus was found beneath the periosteum. It was a moot point if pus ever formed so rapidly in that situation.—Mr. Callender said it was by no means an uncommon occurrence to find a child sustain an injury to a limb, and things then remain quiescent. A second accident occurred, and then followed acute necrosis of the shaft of the bone. It seemed that the first accident had led to some interference with the nutrition of the bone. Thus, if it caused damage to the nutrient artery, and occluded it, the vessels of the periosteum would then carry a larger quantity of blood to the bone, and the excessive vascularity would cause them to take on acute inflammation readily upon the occurrence of a second accident.—Mr. Heath would like to know how Mr. Callender diagnosed plugging of the nutrient artery in a bone.—Mr. Callender stated that, at a *post mortem* examination where necrosis had occurred, the nutrient artery was often found filled with old clot. Of course, it was difficult, when necrosis had occurred in the surrounding textures, to state exactly that occlusion of the artery had first taken place, although, as the clot sometimes seemed to be of old-standing, he thought he was right in surmising that change first occurred there. At any rate, he threw it out as a suggestion, and as a reasonable explanation of occurrences which he had witnessed.

## PATHOLOGICAL SOCIETY OF LONDON.

March 16th, 1875.

George D. Pollock, F.R.C.S., President, in the Chair.

*Disease of the Heart.*—The Report of the Morbid Growths Committee on Dr. Burney Yeo's case of disease of the heart was read. After describing the naked eye characters of the morbid changes, which agreed in the main with those given by the exhibitor, the reporters added that they found the endocardium unaffected, while the growth extended deeply into the myocardium, without distinct demarcation. There was no obvious degeneration of the mass. No other growth was found in the heart. From the microscopic examination, they concluded that there were (1) hypertrophy of the connective tissues, (2) an accumulation of embryonic cell-growth, (3) atrophy and absorption of the muscular substance. The new growth, they opined, was of syphilitic nature, of recent and rapid growth. There was no degeneration in the structure.

*Skin-Disease in an Infant: Disease of the Nervous System.*—Mr. J. Hutchinson exhibited an infant, the subject of skin-disease in association with disease of the nervous system. The child was the sixth of a perfectly healthy family, and was itself born healthy. The weather was cold; and the child was one day left exposed for some time; after which it had bronchitis and convulsions, which lasted for hours at a time. The skin became inflamed; there were vesicles, and ultimately the skin peeled for several weeks afterwards, and scabs were left, of which there were scars remaining. Beyond the scars, the rest was the mother's statement. There were also dark stains, which did not all mark the seat of a scar. The right eye became diseased, and was excised at the Royal Ophthalmic Hospital. On examination, it was found that the eye was not the subject of malignant disease. There was defective vision of the remaining eye. The child was six months old when first seen by Mr. Hutchinson. It made steady improvement for eighteen months without specific treatment. Its development was defective; it could neither stand nor talk; its hands were bent inwards; and its dentition was imperfect. The head was small, and the anterior fontanelle was completely closed. Mr. Hutchinson had seen no similar case; though he had seen two cases bearing some resemblance to this, which followed exposure to great cold. He thought the history of convulsions important. The face and head had completely escaped, as also the palms of the hands and feet. The stains did not follow any nerve-tracks, and the skin of them was quite supple. The left side throughout was worse than the right.—The President suggested that Mr. Croft should read notes of a case of his before the discussion commenced.—Mr. Croft said that, on November 5th, 1872, he had exhibited before the Society a piece of integument removed from the left side of a child. On the surface, there were vesicles small and fine, from a one-twelfth to one-fourth of an inch in diameter. On the deeper part was an old nævoid growth embedded in fat. The child, then eight years of age, presented this oval patch of vesicles on her side, with a lump under it, which, when squeezed, made the child sick and faint. From August to October 1872, the child was under care without benefit; he therefore excised the whole mass. There were still vesicles on the scar and in its neighbourhood. They returned four months after the operation. The pain and tenderness, with sickness and fainting on manipulation, still remained. He thought it a neurosal affection allied to herpes, possibly chronic herpes. Probably the root of the spinal nerve was affected.—Dr. MURCHISON said that, in reference to the association betwixt exposure to cold and development of pigment in Mr. Hutchinson's case, he could recall a case of a gentleman who was exposed to a severe snowstorm, in which there was an abnormal development of pigment in the skin of the side of the face; the hairs, however, becoming white. This change set in a few days only after the exposure. There was also some atrophy of that side of the face. The pigment went round to the other side. There was no paralysis.

*Intestinal Obstruction.*—Mr. MAHOMED brought forward a case of intestinal obstruction which appeared to be worthy of record from the extreme rarity of its cause. T. C., aged 18, was admitted into St. Mary's Hospital under the care of Dr. Sieveking, on March 5th, 1875, with well marked symptoms of ileus. Eight days before his death, he ate a meal of badly cooked potatoes, which was followed by vomiting and pain in the abdomen; the pain was not extremely severe, nor was it well localised. After six days' continuous vomiting, the matter brought up was distinctly fæcal. His abdomen became tender and tympanitic. He had no action of the bowels, nor did he pass blood or bloody mucus up to the time of his death. No tumour could be felt in the abdomen while he was in the hospital. There was no localised, and but little general, peritonitis. He did not lie on his back, nor were his legs flexed. On the day of his death, coils of the distended small intestine were distinctly perceptible both to sight and touch, through the abdominal parietes. His temperature was never raised, but was usually below normal, falling as low as 97 deg. His pulse was not small, rapid, and contracted, like that of peritonitis; although rather quiet, it was fairly full and soft. At the time of his illness, he was suffering from a hard chancre, which he had had for several weeks. He had condylomata about the anus, indurated glands in the groin, and livid maculæ on the skin. He died from exhaustion on the eighth day of his illness. He is said never to have suffered in a similar manner before, or to have had any trouble with his bowels. At the necropsy, the small intestines were found enormously distended with flatus and fluid fæcal matter. A fibrous band was seen extending from the middle of the abdominal wall, midway between the pubes and umbilicus, backwards towards the right iliac fossa, carrying out with it, from the wall of the abdomen, a triangular fold of peritoneum. On tracing this cord towards its visceral termination, it was found to pass amidst the distended coils of intestine to the lower part of the ileum, where it had formed a noose, encircling a loop of ileum thirty-three inches in length; it passed one and a half times round the gut at the point of constriction, and was then found to extend into the mesentery of the ileum, about three feet from the ileo-cæcal valve. On tracing the fibrous cord between the peritoneal layers of the mesentery, it was discovered to terminate in a large branch, apparently the ileo-colic of the superior mesenteric artery. On following out the fibrous cord that passed across the abdominal cavity towards its parietal termination, it was found, at the apex of the triangular fold of peritoneum carried out from the abdominal wall, to divide into two branches; one ascended to the umbilicus, accompanying the hypogastric artery of the right side; the other branch descended towards the bladder, and was terminated in the left superior vesical artery. It was thus proved to have been an abnormal hypogastric artery in the fœtus, taking origin from a branch of the superior mesenteric, and sending a branch to the upper part of the bladder, to correspond with the usual distribution of the hypogastric and subvesical vessels. An attempt to inject the obliterated vessel from the branch of the superior mesenteric, succeeded to a certain extent. That part of the vessel which ran in the mesentery, but beyond the bowel, where it appeared as a fibrous cord hanging loosely across the abdominal cavity, was impervious. The cord was surrounded by a sheath of peritoneum. The intestines were obstructed at the point where the cord reached the mesentery. Above this point they were greatly distended, and below it they were contracted and pale. There was no strangulation of the gut at the point of obstruction, nor was there any appearance of recent peritonitis, with the exception of a little organised lymph at the point of constriction, both on the gut and on the mesentery corresponding to the lower end of the loop of intestine. The peritoneal surface of the distended gut was of a dark, dull colour, and the peritoneum was much injected, but there was no effusion of recent lymph. The mucous coat was deeply congested. Peyer's patches were much congested, while the solitary glands were enlarged and very distinctly visible. Immediately below the point of constriction was a small diverticulum, about one and a half inches in length, possibly the remains of the vitelline duct. The lungs were much compressed; the upper lobe of the right was congested and carnified. The pericardium was firmly adherent to the whole of the surface of the heart. There were signs of old peritonitis on the liver; patches of puckered, organised lymph on its capsule. The spleen and kidneys were healthy.—Mr. SPENCER WELLS asked if the urine had been examined and biliary acids found in it. He remembered a case where a quantity of bile in the urine was the first symptom of an obstruction. In a case which Mr. Thornton was about to bring forward, the person died from obstruction to the bowels from a coil of small intestine adhering to the abdominal walls. Perhaps Dr. Murchison could tell the Society something as to the connection betwixt bile in the urine and bowel obstruction.—Dr. MURCHISON said that, neither by reading nor observation, was he familiar with what Mr. Wells spoke of. Was it bile acid or pile pigment in the urine? or some discoloration produced by the addition of nitric acid and boiling.—Mr. WELLS said there was a play of colour with nitric acid. There was jaundice, but no liver-disease.—Dr. MURCHISON asked if Mr. Wells intended to suggest that jaundice was a symptom of obstruction of the bowels.—Mr. WELLS replied that that was the point of his remarks, and that he asked for information.—Mr. MAUNDER suggested that it might be desirable to test the urine in strangulated hernia.—Mr. HULKE had noticed two cases of ileus in which there was no bile in the urine, at least to the eye.—Mr. HUTCHINSON said that, in these cases, the vomiting did not allow fluids to enter the system, which might have something to do with the matter.—Mr. JOHN WOOD inquired as to the condition of the hypogastric arteries, saying that the omphalo-mesenteric duct often remained, giving off anastomosing branches.—The case was referred to the Morbid Growths Committee.

*Molluscum Fibrosum.*—The PRESIDENT spoke of his case of molluscum fibrosum, which had, by some accident, been called molluscum contagiosum in one report. He said that, as well as hypertrophy of the skin, there was some albuminoid growth under the skin. The growth was altogether very vascular. The operation, unfortunately, was not successful, and the patient sank in a week.

*Mixed Tumour of the Wrist.*—Mr. BARWELL showed a case of mixed tumour of the wrist. It came from a man aged 56, who was in good general health. It had long existed, and was about the size of a pea. At last, there was some ulceration, and it became painful on pressure, so that the patient gave up work with that hand, in consequence of pain occasioned by accidental blows. It increased in size. It was movable on its base, which was the annular ligament, and its nodules were movable in each other. The tumour was excised, and found to consist of bony particles amidst a cartilaginous structure; the stroma consisted of spindle-shaped cells. On trying to get a good flap from the integument over the tumour, he found it so implicated that he abandoned it. The case did well.—Referred to Morbid Growths Committee.

*Tumour of the Shoulder.*—Mr. BARWELL showed a tumour from a boy aged 10, who had a fall on his elbow, after which the shoulder swelled. It grew so fast that excision was required. The mass was sarcomatous, with cells of very varying sizes; there was much fatty degeneration in the new growth. Cancer was hereditary in this family. The disease returned in the coracoid process.

*Tumour of the Scapula.*—Mr. JOHN WOOD showed a tumour of the scapula, taken, three weeks ago, from a man aged 24. The left scapula had on it a large growth of five months' duration, which extended on both sides, and caused the bone to protrude posteriorly. At the operation, ether was given, and even then there was much depression. Mr. Wood commenced by an incision under the spine of the scapula, so as to feel the growth, as to what it was. The whole glenoid cavity was involved. He then made the incision T-shaped, and, dissecting down, lifted up the scapula, and found the subscapularis and serratus magnus muscle implicated. There was considerable hæmorrhage; the cut surfaces were therefore drenched with a solution of chloride of zinc. All went well; much of the wound healing by first intention. Only two apertures remained, and there was a drainage tube through them. There was no return of the disease.

*Fibro-Fatty Tumour of the Zygomatic Fossa.*—Mr. JOHN WOOD showed a case of fibro-fatty tumour from the zygomatic fossa, from a boy aged 12. The tumour pushed the lower jaw inwards, and the upper jaw outwards. It had been noticed for five years, and vainly subjected to various measures. He made an incision at the temple and another in the mouth, so that the fingers met. There was considerable adhesion at the zygomatic arch; and the tumour had to be twisted off. He passed a drainage-tube through the two incisions, and the case had done well. He was using pressure to the distorted zygomatic arch.

There were some cells in the tumour like polypus cells.—Mr. Maunder had seen two cases where polypus growths had passed into the zygomatic fossa.—Mr. Wood asked if these tumours had been examined microscopically.—Mr. Maunder replied that they had been; they were fibrous.—The President asked Mr. Wood if much blood was lost in the removal of the scapula. He had compressed the subclavian in two such cases, and this had considerably diminished the loss of blood.—Mr. Wood replied the loss was not great.—Both cases were referred to the Morbid Growths Committee.

*Ovarian Cyst with Papillomatous Growths.*—Mr. Knowsley Thornton exhibited an ovarian cyst with papillomatous growths in its interior. The tumour was tapped in July last, but only grew the faster for it. It was removed by Mr. Wells. There were no adhesions, and the ovary could have been detached and left, if desirable. It was an unilocular mass covered with a cauliflower-growth in its interior. It was covered externally by a capsule formed of thin layers of the broad ligament. In structure, the cyst-wall consisted of connective tissue, with round and fusiform cells. Though apparently an extraovarian cyst, it was really an enlarged Graafian follicle. A second single cyst was described, also a single Graafian follicle. Unilocular cysts were often cured by tapping. Though their growth was slow, they resembled malignant growths.—Mr. Spencer Wells remarked that careful microscopical observation of ovarian fluid often gave good indications as to the nature of the disease. Not only did it often indicate ovariotomy without delay, but, if the fluid escaped into the abdomen, secondary malignant disease might follow.

*Secret Preparations.*—The Council of the Society have decided, "That, inasmuch as it is contrary to propriety and opposed to the advancement of science, that secrecy should be observed with regard to the mode of preparation of any specimen brought before the Society, the Council resolve that Dr. Hoggan's communication on melanotic sarcoma in the cod, and specimens from a case of general cancer, which were illustrated by specimens, the mode of preparation of which he declined to explain to the Society, be not admitted to the *Transactions.*"

# CORRESPONDENCE.

## THE CONTAGIOUS DISEASES ACTS.

Sir,—It is difficult for a single combatant to meet at one time three opponents, each more practised and accomplished than himself in the use of their weapons, which is the case in the present instance; in which I have to reply at the same time to Dr. Parkes, Mr. Lawson, and Mr. Ffolliott. I must simply do my best.

First, to take Mr. Ffolliott's letter; I have again to complain of small numbers, a picked regiment, and figures that do not admit of being checked; but, as he sees no unfairness in this, I will accept his figures, though the necessity for some means of checking unofficial numbers is again shown by Dr. Parkes's acknowledgment in his last letter, of "a slight misprint" of 54 for 44 in his previous letters. But, assuming the correctness of Mr. Ffolliott's figures, they are as follows. His regiment of 573 men was for seven months in Aldershot, a protected place, and had 4 cases of primary syphilis. It was 655 strong, and for twelve months in Colchester, also a protected place, and had 19 cases. Now, when the smaller strength and shorter period at Aldershot are made to correspond with the strength and time at Colchester, the number of cases rises from 4 to 7.8; so that we have—

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|---|---|
| Aldershot (protected) ............ | 7.8 cases |
| Colchester (protected) ............ | 19 cases |

Or much more than double. But, if Colchester had been unprotected, it would immediately have been said—"See: on removal to an unprotected station, the amount of disease was at once much more than doubled." In fact, it is upon a smaller difference than this that Dr. Parkes has based his strong expressions in his letter to the Journal of February 20th last, for the amount of primary syphilis in unprotected Parkhurst is only just double (instead of being much more than double) the amount in protected Portsmouth; and upon this difference, he writes as follows: "Can, then, anyone doubt that the unlucky 106th, by being sent to the unprotected station, has had, in proportion to its strength, more than two cases of syphilis to one case in the fortunate regiment in the protected station. . . . If figures can prove anything, they prove that the Acts have greatly lessened disease." As, however, Aldershot and Colchester are both protected, no notice whatever is taken by Mr. Ffolliott of this important difference in the amount of disease which furnishes such a text for Dr. Parkes about an unprotected place.

But his regiment afterwards removed to Dublin, which is unprotected, and, being there for six months and a half, and 534 strong, there were 35 cases of primary syphilis. When the strength and time are again made to correspond with Colchester, the number rises to 79 cases; and Mr. Ffolliott "has no doubt what will be the opinion of every person whose mind is not biassed by a foregone conclusion"; that is to say, much more than twice the amount of disease in one protected town compared with another is of no consequence, and is not even alluded to, though barely twice the amount in an unprotected town is the ground for Dr. Parkes's strong expressions about Parkhurst. Much more, then, may four times the amount in another unprotected town, viz., Dublin, appear such an irresistible proof that no one "whose mind is not already biassed by a foregone conclusion" can fail to be convinced that the difference of disease was solely due to the absence of protection.

Now, I commenced this inquiry into not six *months'* disease in a small picked regiment, but into twelve *years'* disease *throughout the whole army and navy*, with the impression, like Mr. Ffolliott's, that the sanitary results of the Acts had been favourable; and my "foregone conclusion", therefore, corresponded with his own. But when I found the following amongst many other similar cases, my foregone conclusion was at fault; and I must ask him how he accounts, on his own principles, for the following from the Navy Report for 1870, p. 22. In the same ship, with the same crew, and in the same station, and that a protected one, viz., Portsmouth, the cases of primary syphilis rose from 3 in the first quarter of 1869 to 16 in the last quarter; and fell from 17 in the first quarter of the next year to 1 in the last quarter. Now, if a rise from 1 to 4 in his cases is an unquestionable proof that the increase was due solely to the absence of protection in Dublin, what was the increase from 1 to 5 due to in Portsmouth? And, if nobody but "a person with a foregone conclusion" can resist conviction from such a difference as 4 to 1 between a protected and an unprotected station, what will be said by an unbiassed and perfectly impartial person to the difference of 17 to 1 in the same protected station throughout?

The fact is, as Mr. Lawson most truthfully expresses it in his letter to the *Medical Times and Gazette*, December 26th, 1874, "no weight can be attached to the ratios of attacks for single years at small stations, when the whole or the greater part of the force employed may have belonged to a single regiment"; and Mr. Ffolliott must take larger numbers and longer periods of time before he is justified in assuming that only determined and invincible prejudice can fail to be convinced by the results from five or six hundred men for half a year.

In reply to Mr. Lawson, who refers me to his criticism of one portion of my "statement" in the *Medical Times and Gazette* of December 26th, 1874; the bulk of that criticism is occupied upon the following paragraph in my "statement". "Such, then, is the nature of the error, sometimes raising and sometimes lowering the averages, which influence every year in the tables (except the last, in which there were no transfers from one table to another), and renders the conclusions drawn in the Parkes papers as to the influence of the Acts upon those two sets of stations so fallacious as to be without value, including the sanitary question at issue between the advocates and the opponents of the Acts." Mr. Lawson contends that the ultimate result of the process described above as erroneous and fallacious was not unfair, but was practically true, and, therefore, ought not to be objected to. Unfairness is nowhere imputed; and, as he does not disprove the fallaciousness of the process in itself, and as the battle is now being fought upon other grounds than the fallaciousness or otherwise of a particular process, it is not necessary to pursue this particular subject in this correspondence.

The following are the objections (to which Mr. Lawson does not reply) to classing the 14 subjected stations together and the 14 unsubjected, and then comparing them as if they corresponded in every respect, except that one set is under the Acts and the other is not.

1. The stations differ so widely from one another, that, for all other health purposes, Dr. Balfour divides them into eight separate classes in the Army Report, because they cannot be classed together.

2. The ratio of disease has been so widely different from the first in different stations as to make it impossible to compare them together; for example, 81 per 1,000 in Aldershot, and 126 per 1,000 in Dublin in 1866, before the Act was in force.

3. The variable amount of disease in the large manufacturing towns which are all "not" under the Act, compared with the military towns which are "under the Act", is shown by the extreme fluctuations of disease in one class of towns (up a hundred one year, and down a hundred the next) compared with the other, long before the Act was passed—a characteristic difference which still continues, and makes comparison impossible.

4. The *large ratio of fall* in disease *in the military towns*, compared with the small fall in the manufacturing towns, years before the Act was passed, showed the existence of some agency in the one set of places which did not operate in the other, quite independently of the

Act, which was not in existence, and made subsequent comparison impossible. For the continued reduction of disease is attributed by the opponents of the Acts to a continuance of causes operating before, whilst the advocates of the Acts claim the whole of the difference as the result of the Acts; as if there had been no substantial reduction in disease and no notable difference in amount between the manufacturing and the military towns before the Act was passed.

The fact is, moreover, that the fourteen protected stations have each such distinguishing characteristics that any mode of classing even them together into one set will be open to valid objections on one side or the other; and until the War Office supplies the statistics which are not contained in the Army Reports for 1860, '61, '62, and '63, the influence of the Acts upon primary venereal sores in the subjected and unsubjected stations must be left in suspense. It is acknowledged in the latest Army Reports that gonorrhœa is higher in the subjected than in the unsubjected stations; and, whilst secondary syphilis was rapidly and steadily declining throughout the army for six years before the Acts, it has risen by an average of a twelfth since they were in force, though the Army Returns do not afford any means of judging whether this rise is most marked in the subjected or the unsubjected stations. The one question of primary venereal sores remains to be settled by the information for which we are looking from the War Office; and, until it is supplied, the subject is, to a great extent, conjectural.

Dr. Parkes's statistics of single selected regiments (judging from Mr. Lowndes's recent letter) appear to be claimed as the battle-field which is to decide the question by the advocates of the Acts; and the answer to them must be postponed, as you are already aware that some engraving is necessary for their illustration, which requires time for its completion.—Yours faithfully, J. BIRKBECK NEVINS, M.D.Lond.

Liverpool, March 5th, 1875.

# PUBLIC HEALTH
AND
# POOR-LAW MEDICAL SERVICES.

## IRISH POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

THE following circular, marked "Important", has this week been issued to the district medical officers in Ireland.

1, Harrington Terrace, Dublin, March 6th, 1875.

My dear Sir,—As usual, it is my duty to direct the notice of the members of this Association to the business already laid before Parliament for the present session, much of which is calculated to affect the medical profession, and more especially those gentlemen who are connected with the Poor-law Medical Service. I would direct your attention to the notice of motion of Mr. Secretary Cross for the introduction of a Bill "for the Improvement of the Dwellings of the Working Classes in Large Towns". The Chancellor of the Exchequer also will bring in a Bill to amend the law relating to Friendly Societies. Mr. Sclater-Booth will introduce a Bill to consolidate and amend the Acts relating to Public Health, England (Ireland?); also to repeal the Adulteration of Food Acts, and to make better provision for the sale of food and drugs. A Building Societies' Bill will be introduced this year; and a County Boundaries Bill, which might be made applicable to the squaring of dispensary districts as well. A Bill to promote the erecting and improvement of dwellings for agricultural labourers in Ireland will be brought in by Mr. Bruen, M.P. for Carlow county. Upon the subject of the character of the agricultural labourers' habitations in Ireland, it would be, of course, quite unnecessary for me to attempt to offer you any information; but I may quote an observation lately made by His Excellency the Duke of Abercorn at the Lord Mayor's banquet; viz.: "I am strongly of opinion that the unsuitable dwellings of the agricultural labourer in this country is the strongest reason for his desire to seek his fortune in a foreign land; and I trust that, simultaneously with the increase of wages, a more suitable style of dwelling, a style more in accordance with the rising wealth of the country, may be the future of the agricultural labourers of this country." It is now very generally admitted by statisticians that, owing to the want of proper accommodation for agricultural labourers in Ireland, and the consequent overcrowding, that the real death-rate of this country, even in rural districts, is higher than in either England or Scotland, and very much higher in urban districts in Ireland than in those of the sister countries, with the exception of one or two of the cities in the most populous manufacturing districts. Yet it is asserted that the dispensary medical officer has but little additional duty to perform in his capacity as sanitary officer of his district, although it is well known that this discrepancy in the death-rates of the various portions of the United Kingdom is almost entirely due to zymotic or preventable disease (the aversion of which is the very object of the Public Health Act), as well as the fact that, in the performance of the duties of sanitary officer, he is liable to come into collision occasionally with certain of the sanitary authorities who might, perhaps, be in such a position as would enable them to make the office untenable: a fact that, it is to be hoped, will ultimately cause the Poor-law Medical Service to be made a branch of the Civil Service Department, possessed of its advantages, and paid out of the National Exchequer, instead of from local funds.

With regard to the Public Health (Ireland) Act, I may mention that, from numerous letters I have received upon the subject, the Poor-law Medical Service consider that the medical profession, in all its branches in this country, took a most enlightened view of this most important and vital question, assisted in its furtherance in every way, not only with advice, but at very considerable expenditure. This assistance, however, does not appear to be reciprocated by those most interested in the question—namely, the sanitary authorities—if we may judge from the statements daily appearing in the press, and the salaries proposed to be awarded to the various sanitary officers. The latter are based upon a scale much lower than those in other parts of the United Kingdom, and, it is feared, are not by any means calculated to produce a direct interest in sanitation amongst sanitary officers, considering the dangers and difficulties they will be required to undergo in the performance of their arduous duties. Whether the remark of Professor Haughton of Trinity College, Dublin, upon a recent occasion—namely, that it is notorious that the medical officers of the Poor-law Medical Service in Ireland are not paid sufficiently well as it is, and that the proposed additional remuneration for the imposed additional labour will hardly obtain "willing" labourers—is possessed of a very considerable amount of truth or not, it is not for me to instruct you. In the passage of this very valuable Act through Parliament, it is due to both the Colleges of Physicians and Surgeons in Ireland, to the Irish Medical Association, and to the Irish Poor-law Medical Officers' Association, to mention that every facility was afforded towards its success. The British Medical Association also gave most valuable assistance. It is hardly necessary for me to allude to the advantages which we gained from the experience and advice of the chairman of their Parliamentary Committee—the editor of the BRITISH MEDICAL JOURNAL, Mr. Ernest Hart.

Under the Public Health (Ireland) Act, the organisation of medical officers of health is complete. The chaotic condition of sanitary legislation, however, is so confusing and uncertain, that it throws a great difficulty in the way, and it sadly requires consolidation, if not regeneration.

It has been stated that the medical officers of health in Ireland do not understand the subject of hygiene. It might have been said, with more truth, that heretofore they were not called upon to act on it, and that now that a Health Act has become law, they are rather obstructed than otherwise in carrying out its objects. (I may mention here that some excellent works upon hygiene have been already published; the eminent medical publishing firm of Messrs. Fannin and Co., Grafton Street, Dublin, will, I have no doubt, give any information upon this subject required.)

These obstructions are of a threefold character under this Act:—1. Their employers and masters are those with whom the sanitary officers are most likely to come into collision; 2. They may not find it to be for their interest to come into collision with the powers that be; 3. They will find that they will not always be supported for this collision.

It has been very freely stated that it is a matter of regret that the Local Government Board of Ireland do not treat the Irish Poor-law Medical Service of Ireland as liberally as the medical sanitary officers of England and Scotland are at present. These duties have been imposed upon the Irish Branch of the Poor-law Medical Servicc, *nolen volens*. Yet they are informed that their remuneration cannot exceed one-fourth of their present salary: this rule does not appear to exist in either of the sister countries. And, as I have been requested to state by a great many informants that the increased price of everything connected with the maintenance of a family has, within the last few years, been so great, that an addition of one-fourth of the present salary would not place it upon the same status that it was some ten years ago, independently of the trouble and risk of this imposed duty.

It is worthy of consideration why the medical profession in Ireland are not treated as fairly as those in the sister countries, and this more particularly affects the Poor-law Medical Service; and, if an opportunity be afforded you, you might ask your Parliamentary representative the reason why. In Ireland, the maximum is ordained, and in England and Scotland the minimum. For instance, for the committa of dangerous lunatics, the maximum in Ireland is "without fee o reward"; in England and Scotland, there is a minimum fee, and it is not limited. For vaccination in Ireland, the maximum fee is one shilling; in England, the minimum fee is one shilling and sixpence; it is not limited; and, by the last report of the Local Government Board, it was three shillings for each successful vaccination, irrespective of donations. There is no provision for the payment of medical witnesses in courts of law in Ireland, or in the coroners' courts, as there is in England; and there are many other disadvantages that our profession labours under in this country, which you might also bring under the notice of your member of Parliament. I think I could also adduce other instances, if necessary.

In order to remedy this grievance, it is recommended that the whole of the profession should take a broad view of the question, and that it should be sought for: that the various great services should be represented upon the General Council of Medical Education and Registration, and also upon the Council of the British Medical Association. The several colleges, societies, and faculties merely are now represented. These, we do not believe, are in a position to take any interest in their alumni after they have passed through their curriculum. The gentlemen, therefore, who wholly contribute to the funds and expenditure of this body do not appear to be adequately represented, if at all.

We think that the Poor-law Medical Service of the three countries should be represented upon the General Medical Council, and the Army and Naval Medical Service as well.

The Poor-law Medical Service in Ireland numbers somewhere about 1,000 medical men, or one-half of the profession; England and Wales, nearly 5,000; Scotland, about 1,000; in all, close upon 7,000 medical officers. The Army Medical Service numbers over 1,000 men, and the naval about the same. In fact, nearly one-half of the medical men in the United Kingdom are engaged in the public medical services. This arrangement would enable us, through skilled experts, to place our present grievances before Parliament, and, perhaps, prevent future grievances—a matter which we endeavour to keep always before you.

These are matters to which I am instructed to direct your particular attention during the present session.

I may mention, that our treasurer, Dr. Speedy, informs me that the Association is indebted to the amount of about £30. It would be of great importance that this should be paid off at once, in order to carry on the Association. I would, therefore, ask you, if you have not already joined it, to do so; if you are a member, it would oblige by your letting him have your subscription at your earliest convenience.

I remain, yours very truly,
D. TOLER T. MAUNSELL, Hon. Sec.,
Irish Poor-law Medical Officers' Association.

## POOR-LAW MEDICAL APPOINTMENTS.

BENNETT, C., M.R.C.S., has been reappointed Medical Officer for the Second District of the Daventry Union.

CREAN, Richard, L.K.Q.C.P.I., appointed Medical Officer for the Township of Cheetham, *vice* J. Hunstone, M.R.C.S., resigned.

GODFREY, T., M.R.C.S., has been appointed Medical Officer for the First District and the Workhouse of the Mansfield Union, *vice* N. Cooper, M.R.C.S., resigned.

HUNT, A. D., M.R.C.S., has been appointed Medical Officer for the Chagford District of the Ohehampton Union.

SIMPSON, W. S., M.R.C.S, has been appointed Medical Officer for the Workhouse of the Pontefract Union, *vice* H. Muscroft, L.R C.P. Lond., M.D., resigned.

SMITH, John Grant, L.R.C.S Ed., appointed Medical Officer and Public Vaccinator for the Parish of Reay, Caithness-shire, *vice* W. Bruce, M.D., deceased.

SUTHERLAND, D. M'Gregor, M.D., appointed Medical Officer and Public Vaccinator for the Parish of Dunnett, Caithness-shire, *vice* W. Bruce, M.D., deceased.

# MILITARY AND NAVAL MEDICAL SERVICES.

## MINISTERIAL EXPLANATIONS.

N the House of Commons on Monday night, Dr. Lyon Playfair asked ie Secretary of State for War some questions which naturally fol- owed from the observations which we recently made on the result of ie recent examinations, whether it was true that there were only even candidates for the last army medical examination? how many acancies there were to fill up? and if it was true that the highest on ie list for the army medical service only obtained sixty-four marks eyond the last of the successful candidates in the Indian medical ser- ce. To these questions, Mr. Hardy replied that it was true there ere only eleven candidates, and that there were no vacancies; in fact, at there were now seven officers in excess of the establishment. We id it difficult to understand Mr. Hardy's statement as to the fact of ere being no vacancies; and a reference to the following statement will ow the cause of our dilemma. Losses to army medical department during the past twelve months are—*Dead:* Surgeons-general, 3; Deputy Surgeon-General, 1; Surgeons-Major, 6. *Half-pay:* Director-General, 1; Surgeons-Major, 23; Surgeons, 18. *Resigned:* Surgeon, 1. *Transferred to African Branch:* Surgeons, 2.—Total, 55. The corresponding gains to the Army Medical Department during the same period were:—*Brought in from half-pay:* Surgeons-Major, 2; Surgeons, 5. *Gazetted:* Surgeons, 16. *Now at Netley:* Surgeons, 8. *Transferred from African Branch:* Surgeon-Major, 1.—Total, 32. Making loss, 55; gain, 32. Balance (loss), 23. It therefore appears that, notwithstanding Mr. Hardy's assertion that there are no vacancies in the Army Medical Department, yet the Department is 23 below what it was twelve months ago; and the Army Estimates (Vote 4) do not show any reduction whatever. It is stated, however, in explanation of this apparent contradiction, that the Department is being reduced in a quiet and concealed manner, so as to avoid the just and natural expostulations to be expected from the officers of the Department. If this be so, it affords matter for just complaint; and it is very desirable that an independent member should afford Mr. Hardy opportunity for further explanation on the subject when the Army Estimates come up for discussion.

# MEDICO-PARLIAMENTARY.

### *HOUSE OF COMMONS.—Thursday, March 11th.*

*Unqualified Naval Surgeons.*—Sir C. ADDERLEY, in reply to Captain Pim, said no unqualified British subject was allowed to sign ships' articles as a surgeon.

### *Friday, March 12th.*

*Proposed Fever Hospital at Hampstead.*—Mr. COOPE gave notice that on the 9th of April he would call attention to the action of the Metropolitan Asylums Board, with respect to the proposed erection of a fever hospital at Hampstead, and move that a select committee be appointed to consider and report upon the subject.

*Lunatic Paupers in Scotland.*—Captain HOME asked the Chancellor of the Exchequer whether he contemplated extending to England the same relief granted for the maintenance of lunatic paupers in lunatic wards of workhouses, as had been recently promised for similar cases in Scotland.—The CHANCELLOR of the EXCHEQUER said it was not quite correct to speak of a provision having been "promised for similar cases in Scotland". There was no similarity between the cases in the two countries. In Scotland the cases were under the direct control of the Commissioners of Lunacy, which was not the case in England. He could not, therefore, undertake to extend the same regulations to the two countries.

*The Outbreak of Diphtheria at Woolwich.*—Mr. G. HARDY, in reply to Mr. SHERIFF, said the outbreak of diphtheria at Woolwich took place in November last, and was not confined to the cottages, although the disease assumed a bad form in them. In Woolwich itself there were eight or ten cases, nearly all of which were fatal, and out of thirty-five cases in the cottages, fifteen were fatal, so that the proportion of fatal cases was greater in the town than in the cottages. Certain remedial measures were recommended, such as throwing two rooms into one, cementing the walls, etc. These did not appear to have been sufficient to stop the progress of the disease, because there had been another outbreak within the last few days. Further investigation had been made into the matter this morning, and it was now recommended that no further progress should be made with the remedial works at first proposed. It was therefore intended to remove the 49th and 50th brigade depôts from Woolwich.

### *Monday, March 15th.*

*Medical Service of the British Army.*—Mr. HARDY, in reply to Dr. Playfair, said it was quite correct that on the last occasion only eleven candidates offered themselves to compete for the vacancies in the medical service of the British army. There were no vacancies at present. It was quite true that the first of the eight successful candidates in the competition for the Indian medical service had only 84 marks beyond the last of the 20 unsuccessful candidates, but the eight candidates selected were well qualified for the posts they were elected to fill. The first candidate for the British army in 1873 had 2318 marks, against 2195 for the first Indian candidate. This showed that the numbers varied sometimes, but generally India had the advantage.

*Notices.*—The following notices have been given:—*Ships' Surgeons:* Captain Pim. Return of the names, ages, and nationalities of those persons who have been permitted to serve on the articles of British ships as surgeons, but who are not possessed of a diploma or other qualification required by Act of Parliament.—*Mining Villages:* Mr. Macdonald. To call attention to the sanitary condition of the mining villages of

England, Scotland, and Wales, and the tenure by which the houses are held by the workmen; and to move a resolution on the subject.—*Coroners' (Ireland) Bill:* Mr. Meldon. After second reading (May 12th) to move, That it be referred to a Select Committee, with an instruction to inquire into the expediency of amending the law relating to coroners in Ireland, and to report thereon.—*Adulteration of Food and Drugs (re-committed) Bill: in Committee:* Mr. Pell. Clause 19, page 5, line 26, after "result", insert "together with the sums paid to him", and at end add, "And every such authority shall annually transmit to the Local Government Board, at such time and in such form as the Board shall direct, a certified copy of the number of articles analysed, and shall be entitled to receive the sum of two shillings and sixpence, out of moneys to be provided by Parliament, in respect of every analysis, to be applied towards the expense of executing this Act."—Mr. Thomas Hill. Schedule, page 9, line 24, at end of note add, "in the case of a certificate regarding milk, butter, or any article liable to decomposition, the analyst shall specially report whether any change had taken place in the constitution of the article that would interfere with the analysis."—*Artisans' Dwellings Bill:* The following are the principal amendments proposed: —Mr. Muntz. That it is expedient to make such provisions in the Bill as would allow purchasers or lessees of areas, referred to in Clauses 5 and 7, to provide accommodation for persons of the working classes to be displaced in such areas, in such places other than the areas, as might after due investigation be sanctioned by the local authorities.—Mr. Cawley. Clause 3, page 2, line 17, after "where" insert "this Act is in force, it shall the duty of the sanitary authority to divide the sanitary district under their control into such number of subdistricts as may be necessary, in order to show the comparative death-rate in the several portions of the district, regard being had to the character of the dwellings therein, and to publish quarterly and annual returns, showing the number of deaths in each subdistrict, and the proportion of deaths to the number of persons living therein; and in every case in which the death-rate shall exceed the average of that of the whole district, it shall be the duty of the sanitary authority to inquire into the causes of such excessive death-rate; and the medical officer of health shall, in every such case, report to the sanitary authority his opinion as to the cause or combination of causes of such excessive death-rate; and if it should appear that such excessive death-rate is in any degree due to imperfect, defective, or improper sanitary arrangements, it shall be the duty of the sanitary authority to cause all such defects to be removed, and such alterations to be made as may be necessary, in order to comply with the provisions of any Act or Acts in force within such district."—Mr. Kay-Shuttleworth. To add: "The Local Government Board may, at any time, send one or more medical officer or officers to make a special inquiry into the sanitary condition of any part of any urban sanitary district, who may make an official representation, and such representation shall have the same incidents as if made by the medical officer of health of such authority."—Mr. Muntz: That it is expedient to make such provisions in the Bill as would allow purchasers or lessees to provide accommodation for the working classes who may be displaced.

# MEDICAL NEWS.

Royal College of Surgeons of England.—At a meeting of the Council on February 25th, the following members were elected Fellows.

Messrs. Alfred George Roper, L.S.A., Northend, Croydon; and Peter Broome Giles, L.S.A., of Staunton-on-Wye, Hereford, their diplomas of membership of the College bearing date respectively October 9th and December 14th, 1840.

Apothecaries' Hall.—The following gentleman passed his examination in the science and practice of medicine, and received a certificate to practise, on Thursday, March 11th, 1875.

Sworder, Horace, St. Mary's Hospital, Holly House, Luton, Beds.

The following gentleman also on the same day passed his primary professional examination.

Coumbe, John Batten, St. Mary's Hospital.

## MEDICAL VACANCIES.

The following vacancies are announced:—

BANTRY UNION—Medical Officer for the Workhouse. Salary, £50 per annum. Applications to be made on or before the 24th instant.—Medical Officer for the Bantry Dispensary District. Salary, £100 per annum, and fees. Applications on or before the 24th instant.

BECKETT HOSPITAL AND DISPENSARY, Barnsley — House-Surgeon. Salary, £140 per annum, with furnished rooms, gas, and coals.

BIRKENHEAD BOROUGH HOSPITAL—Senior House-Surgeon. Salary, £100 per annum, with board. Applications on or before the 22nd instant.

BRADFORD INFIRMARY AND DISPENSARY—Physician. Applications to be sent on or before June 12th.

BRADFIELD UNION—Medical Officer for the Fifth District. Salary, £53 1s. 8d., and fees. Applications on or before April 6th.—Resident Medical Officer. Applications to be made on or before April 2nd.

BRISTOL LUNATIC ASYLUM—Assistant Medical Superintendent.

CHARING CROSS HOSPITAL—Resident Medical Officer. Applications on or before the 24th instant.

CLIFTON UNION—Medical Officer for No. 3 District. Salary, £25 per annum.

COVENTRY AND WARWICKSHIRE HOSPITAL—House-Surgeon and Dispenser. Salary, £100 per annum, with board, lodging, and attendance. Applications to be made on or before the 25th inst.

DEVON AND EXETER HOSPITAL—House-Surgeon. Salary, £150 per annum, with board.

DOVER UNION—Medical Officer for the St. Mary's District and the Workhouse. Salary, £180 per annum.

DURHAM COUNTY ASYLUM—Assistant Medical Officer.

FARRINGDON GENERAL DISPENSARY AND LYING-IN CHARITY—Two Physicians. Applications on or before the 27th inst.

FETTERCAIRN, Parish of—Medical Officer and Public Vaccinator. Apply to Colonel M'Invoy, Chairman of the Board, The Burn, Brechin, not later than the 27th instant.

HALIFAX UNION—Medical Officer for the Southowram District. Salary, £50.

HENSTEAD UNION—Medical Officer for the Second District.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST—Resident Clinical Assistant.. Applications on or before April 5th.

KINGSTON, Jamaica—Two Medical Officers for the Public Hospital.

LIVERPOOL ROYAL INFIRMARY — Resident Medical Officer. Salary, £100 per annum, with board, lodging, and washing. Applications on or before April 10th.

MANSFIELD UNION—Medical Officer for the Fifth District. Salary, £32 10s.

MILFORD UNION, co. Donegal—Medical Officer for the Ramelton Dispensary. District. Salary, £100 per annum, and fees.

POOLE UNION—Medical Officer for No. 2 District. Salary, £60 per annum,

QUEEN ADELAIDE'S DISPENSARY, Bethnal Green — House-Surgeon-Salary, £100 per annum, with furnished apartments, coals, and light. Applications on or before April 1st.

QUEEN'S HOSPITAL, Birmingham—House-Surgeon and Dispenser. Applications on or before the 25th inst.

ROYAL EDINBURGH ASYLUM—Assistant-Physician.

ROYAL INFIRMARY FOR WOMEN and CHILDREN, Waterloo Bridge Road—Physician.

SEAMEN'S HOSPITAL, Greenwich—House-Surgeon. Salary, £100 per annum, with furnished apartments. Applications on or before the 24th instant.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY—Assistant House-Surgeon. Salary. £65 per annum, with board, lodging, and washing.

ST. THOMAS'S HOSPITAL—Assistant Obstetric Physician. Applications on or before the 24th instant.

SOUTH ESSEX DISPENSARY—Surgeon.

SOUTH SHIELDS UNION—Medical Officer for the Westoe District. Salary, £40 per annum.

SPILSBY UNION—Medical Officer for the Spilsby East District. Salary, £40.

STRATTON UNION—Medical Officer for No. 3 District. Salary, £70 per annum.

TORBAY INFIRMARY—House-Surgeon. Salary, £100 per annum, with board and lodging.

WESTMINSTER HOSPITAL—House-Physician. Applications on or before April 5th.

WEST NORFOLK AND LYNN HOSPITAL — Resident Medical Officer. Salary, £100 per annum, with board, lodging, and washing. Applications on or before the 30th instant.

WEST BROMWICH DISTRICT HOSPITAL—Salary, £80 per annum, with board, lodging, and washing. Applications on or before the 22nd instant.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL—House-Surgeon. Salary, £100 per annum, with board, washing, and furnished apartments. Applications on or before May 3rd.

WORCESTER AND CITY LUNATIC ASYLUM, Powick—Assistant Medical Officer. Applications on or before April 5th.

## MEDICAL APPOINTMENTS.

*Names marked with an asterisk are those of Members of the Association.*

*Coe, Robert W., F.R.C.S.Eng., appointed Consulting Surgeon to the Bristol General Hospital.

Fry, John F., L.R.C.P.Lond., appointed House-Physician to Guy's Hospital.

*Garstang, Walter, M.D., appointed Physician to the Blackburn and East Lancashire Infirmary, *vice* E. S. Morley, M.D., resigned.

Greening, Frederick J., M.R.C.S.Eng., appointed Surgeon to the Dispensary, Ryde, *vice* W. B. Wilmot, M.D., deceased.

Hill, J. Wood, L.R.C.P., appointed Surgeon to the Western District of the Chelsea, Brompton, and Belgrave Dispensary.

Johnston, John, M.B., appointed Resident Medical Officer to the Birmingham and Midland Free Hospital for Sick Children, *vice* M. A. Messiter, M.R.C.S.Eng., resigned.

*Keall, William P., L.R.C.P.Ed., appointed Surgeon to the Bristol General Hospital, *vice* R. W. Coe, F.R.C.S.Eng., resigned.

*Lord, Charles F. J., M.R.C.S.Eng., appointed Consulting Medical Officer to the Hampstead Provident Dispensary.

*Robson, Robert N., M.R.C.S.Eng., appointed Surgeon to the Durham County Hospital.

Seccombe, George S., L.R.C.P.Lond., appointed Assistant Medical Officer to the Metropolitan District Asylum for Lunatics at Caterham, *vice* E. G. Younger, L.R.C.P.Lond.

Shearer, George, M.D.. appointed a Medical Officer to the North Dispensary, Liverpool.

Steele, John W., M.D., appointed a Medical Officer to the East Dispensary, Liverpool.

Younger, Edward G., L.R.C.B.Lond., appointed Apothecary to the Middlesex County Asylum, Hanwell.

Bequest.—Miss Sarah O'Farrell, late of Merrion Square, Dublin, has bequeathed £5,000 to St. Vincent's Hospital in that city; the testator also devised her house for the benefit of the same hospital.

## OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY ......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.

FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

## MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Clinical Evening. Mr. Gant, "Epithelioma of the Tongue, with Laryngoscopic Iillustration": Dr. Theodore Williams, "On a Case of Arrested Phthisis, in which Complete Contraction of a Tinkling Cavity took place": Dr. Broadbent, "Illustrations of different Forms of Uræmic Poisoning".

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Mr. Walter Rivington, "Case of Pulsating Tumour of the Left Orbit, cured by Ligature of the Left Common Carotid Artery: with a *Résumé* of recorded Cases of Intraorbital Aneurism".

WEDNESDAY.—Hunterian Society, 8 P.M. A General Meeting.

## NOTICES TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

### ACIDITY OF THE STOMACH.

SIR,—A correspondent in your last issue asks for a remedy for this, states all the ordinary ones having failed. I would suggest a very old one, which has often proved successful. It consists of equal parts of assafœtida and ox-gall, made into pills, and taken in full doses three times a day. A scruple of each should, at least, be used daily. Need I remind your correspondent of the different effects, in this state, between animal and vegetable food?—I am, Sir, yours,

Dublin. H. KENNEDY.

M.D.—If the cause of death be not clear to a practitioner in attendance without *post mortem* examination, he would, we apprehend, refuse to make what would possibly be an erroneous guess. If urgently called upon to fill in a certificate in accordance with the terms of the Act of Parliament, he would state death to have occurred from "internal disease, nature uncertain": whereupon a *post mortem* examination would probably be ordered, and the certificate returned for further particulars.

### THE MEDICAL BENEVOLENT FUND.

MR. JAMES MORRIS, (Dunfermline), in forwarding an annual subscription of a guinea to this fund, through the General Secretary of the British Medical Association, writes as follows.

"I am very anxious that this fund should be well supported, but am afraid unless some special action is taken it will never rise to that position the profession has a right to expect. If the JOURNAL or some man of note would take up the subject and keep it before the profession, or if any one could be persuaded to read a paper at the Annual Meeting, good might come out of it. If the whole profession could be led to see the importance of such a subject, and could be induced to give 1 per cent. of their income for one year, it would realise about £100,000—a splendid amount to begin with—which would enable the acting committee to do full justice to old or disabled brethren in want, or widows and orphans in connection with the profession. Unless some such general plan as this is adopted, I am afraid the Benevolent Fund will never be in a position to meet all the wants of the profession. Trusting that you or some one through your influence will take up and ventilate this matter,—I am, etc., JAS. MORRIS.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, twelve o'clock.

### THE SOUTH HANTS DISTRICT MEETING.

SIR,—Permit me to correct a slight error which has crept into the report of the late meeting of the South Hants District of the Southern Branch. The specimens of membranes I exhibited were not fibrinous exudations as stated, but, as I was very careful to insist on in my paper, true examples of the exfoliated lining membrane of the uterus, showing under the microscope the utricular glands.—

Faithfully yours, W. H. AXFORD.

### SUPERFŒTATION.

SIR,—I lately attended Mrs. W., a healthy young woman, in her second confinement. The baby was born before my arrival; the placenta followed in the usual way, and the uterus contracted normally. There was no indication of any unusual circumstances in the case, which progressed favourably. The patient suffered little or no after-pains; but forty-eight hours after delivery, she became conscious of the presence of some foreign body, and there presently passed, without difficulty. the unmistakable proofs of a second conception. Fœtal development was apparently two months advanced—the rudimentary placenta, etc., being present.

I could supply further particulars, which would, I think, convince your readers (if sceptical) that the case recorded was one of superfœtation, though I know many powerful arguments could be opposed to this theory.—I am, etc.,

Littlehampton, March 6th, 1875. H. J. KENDRICK VINES.

ARCHÆOLOGIST—Mr. Joseph Warner was a member of the Court of Assistants of the College of Surgeons in 1800. With the family estate, he inherited a ring, famous in history as the one given by Queen Elizabeth to the Earl of Essex, and which the Countess of Nottingham never delivered to the Queen.

### THE CONTAGIOUS DISEASES ACTS.

SIR,—I have only now become aware of the publication in the JOURNAL of the 6th inst., of what purports to be a correction of statements made by myself in a letter published on the previous Saturday. Your informant says that I am under a misapprehension in stating that the five members of the Liverpool Royal Infirmary School of Medicine who did not sign the memorial concerning the Contagious Diseases Acts, "constitute more than one-third of the entire staff", and then goes on to add that, of the five non-contents, three are not medical practitioners. This is an absolute, and as it seems to me, most careless error on the part of your informant, for a moment's inquiry from me would have elicited the information which I have now to give, viz., that every one of those alluded to by me as not signing is a medical man in active practice. I should have considered it to be as improper on my part to include among those who did not sign, gentlemen whom the very terms of the memorial—viz., "we the undersigned medical practitioners"—altogether excluded from signing, as I do on your correspondent's part to include them on the staff. If I had considered them as forming part of the staff contemplated by the memorial, I should have had to reckon them as not signing, and it would then have made the numbers of those who signed and did not sign almost precisely equal. But I felt that this would not be fair. I now repeat that the entire staff who were capable of signing the memorial comprised fourteen and only fourteen members, twelve lecturers and two demonstrators; that of this number, five lecturers, viz., those on materia medica, medical jurisprudence, children's diseases, physiology, and botany, respectively, did not sign; and that five are more than one-third of fourteen.—I am, etc.,

WILLIAM CARTER, M.B.

74, Rodney Street, Liverpool, March 13th, 1875.

⁂ The total number of gentlemen on the staff of the Royal Infirmary School of Medicine is seventeen. Of these, three (Messrs. Brown, Snape, and Stewart), are not medical practitioners, and were not asked to sign the memorial. Of the remaining fourteen, three (Drs. Nevins, Whittle, and Carter), being well-known opponents of the Acts, were also not asked to sign. Of the remaining eleven, only two refused (Drs. Caton and Gee), but not because they were opposed to the Acts. The numbers, therefore, are strictly nine in favour of the Acts, three against,

### COTTAGE TREATMENT OF THE INSANE.

SIR,—I shall feel much indebted if you or any of your readers will oblige by informing me—1. Whether the "cottage system of treatment for the cure of the insane is carried out in any part of the United Kingdom or of the Continent under the management of English speaking people? 2. Whether in any or all of the localities in which this system is pursued the houses in which the patients are domiciled are subjected to regular inspection by competent and respectable officers? or is any other efficient method of supervision exercised over their management, so as to preclude the danger of capricious severity, insufficient dietary, or other harsh or injudicious treatment? 3. Whether in any published work on the subject, the items of information which I desire are supplied.—I remain, yours respectfully,

CARDEL.

⁂ We referred the above communication to Dr. Batty Tuke of Edinburgh, who kindly writes to us as follows.

"The 'cottage system' of treatment of chronic lunatics is carried out extensively in Scotland, and with considerable success. About 1.500 lunatics are provided for in this way. The machinery for supervision is as follows. 1. A yearly visit from a deputy commissioner in lunacy; 2. Occasional visitation by the inspector of poor (relieving officer) of the parish to which the lunatics are chargeable; 3. When necessary, a visit by the local medical officer. The deputy commissioner reports to the General Board of Lunacy, and has considerable powers as to the removal and disposal of the patients. In Scotland, there are some two or three colonies—one at Balfour in Stirlingshire, and another at Kennoway in Fifeshire. There are some smaller ones, but those named are the most important. In each, from thirty to forty lunatics live in the houses of the villagers, and on the whole are well provided for. Full information on the subject will be found in the blue-books of the Scottish General Board of Lunacy; and Dr. Arthur Mitchell, Commissioner in Lunacy, would, I am sure, be only too happy to supply further details. Although in my individual opinion the supervision is not sufficient, and is quite capable of improvement, I regard the 'cottage system' as a most important and valuable method of providing for the insane poor. I send you herewith copies of two papers I wrote on the subject. Since the larger one was written, great improvements have been effected at Kennoway, the village described. I must confess that in it the system is now fairly worked. The great results of the system are these. 1. The county asylums are relieved by the removal of chronic harmless cases, and so the necessity of constant additional buildings is obviated. 2. There is some saving of maintenance of lunatics. From 4s. to 6s. per week is the sum charged; in addition to which, clothing and bedding are found by the parish. 3. Some patients improve. But the chief good result is *the check the system affords to the overgrowth of asylums.* Tell your correspondent that my paper does not quite represent my present views on the subject, except so far as it applies to the pro- machinery for inspection. I still think the superintendent of the county asylum should be the district inspector. This would assure against all abuses, or at least would do so as far as possible. If the 'cottage system' had not been at work when I was superintendent of the Fife and Kinross District Asylum, it would have been absolutely necessary to have enlarged the accommodation; but I found that the admissions were balanced by cures, deaths, and the removal of improved and harmless cases to private dwellings. I feel confident that the 'cottage system' affords the only solution of the great difficulty *in re* lunacy. An overgrown asylum—*i.e.*, an asylum for more than 400 patients—is a great social evil; it is a manufactory of dementia and chronic lunacy. Practice shows the system to be feasible, but practice also shows that it is capable of improvement. I shall be happy to afford any further information to your correspondent."

### MEDICAL DEGREES AND TITLES.

SIR,—Your correspondent, M.D. Erlangen, M.R.C.S. and L.S.A., whose letter appears in the JOURNAL for February 13th, omits to mention whether the examination he underwent was conducted in the English or German languages. I can say from experience, that at Würzburg the German language only is used at the examination, which consists of the following stages:—Several days' written examination upon eight subjects; one day's *vivâ voce* upon the same subjects; the reading of a short paper of medical interest; debating publicly upon two or more medical questions, and finally, the publication of a thesis approved by the examiners. The latter are seven in number, being the professors in the University of the subjects upon which they examine. Certificates are required of at least six sessions' study at a recognised medical school.

Let me now call the attention of your readers to the conditions upon which alone foreign medical degrees are inserted in Messrs. Churchill's *Medical Directory*, they are as follows: 1. That the degree is registered under the Medical Act; or, 2. That the professor has qualified in Great Britain or Ireland, and is practising abroad; or, 3. That the holder of the degree has also a British Qualification, and that his possession of the foreign diploma, and its attainment by examination have been certified to the editor of the *Medical Directory* by two registered practitioners, not themselves possessing foreign degrees. It thus appears that only reputable foreign degrees will be found inserted in this Directory.

I enclose my card, and remain, Sir, yours, etc.,

February 22nd, 1875. M.D., Würzburg, M.R.C.S. and L.R.C.P.E.

SIR,—With your kind permission I will make a few observations on the letter signed "M.D.Edin. and M.A.Dublin", which appeared in the JOURNAL of the 27th ultimo. As to some degrees being higher than others, I firmly maintain that the degrees of the London University undoubtedly stand pre-eminent, and will continue to do so, unless the examinations be made considerably more lenient, and the examinations of other qualifying bodies made comparatively more searching. The degrees of Oxford or Cambridge are not to be considered of more value than those of London, even though the cost of obtaining the former be greater. A degree should be valued by the searching mode and severity of the examinations which have to be undergone before it is obtained, and not by its intrinsic price. The London University is exclusively an examining body, and the candidates for its degrees need not expect to have their teachers for examiners, so, according to your correspondent its examinations are a more accurate test of a man's knowledge, in as much as its examination papers are considerably more difficult than those of any other University in this country. If a man swear by his place of education, let him also swear still stronger by the test which his knowledge gained at such place has undergone.

He also states that an M.D. is no more a physician, than a LL.D. is a barrister, or an M.A. a clergyman. Now, we are all aware that LL.D.s and Q.C.s are appointed barristers to preside over Quarter Sessions in Ireland, then they are legally and officially barristers. But to come to the point concerning the degree of barrister: a doctor in law must be previously a barrister in the same faculty. He is therefore in possession of both degrees, and can affix to his name with impunity either he may prefer; and to say that an M.A. is a clergyman, is as absurd as to say that an M.D. is a lawyer. No matter whence the origin of a degree, it always bears with it a distinction, and a letter signed "Studens Medicinæ", in the JOURNAL of the 20th ultimo, will prove conclusively that if any preference be given, an M.D. is more a physician than a Licentiate of a College. The M.D s have never coveted the L.R.C.P., neither do they raise any row about the F.R.C.P., because if they want it they can get it by examination: whereas an ungraduated Licentiate cannot. This is another point where the Councils of Colleges place more confidence in the knowledge of graduates than that of licentiates. You have heretofore, in answer to correspondents, asserted that in the medical profession, the right of the title Doctor is the peculiar property of an M.D. Your correspondent, I am glad to see, admits that "grinding" will pass a man at a College of Physicians, but he very wisely states that moderate diligence, with residence, is required to pass a man at an University. And it does not matter much if persons, whom one meets in society, consider examinations indifferent tests of knowledge; as a rule, society often ventures opinions on questions with which it is wholly unacquainted.

Now for the question of the judiciousness of a certain British University conferring degrees on existing Licentiates, after a good practical examination. Oxford graduates are perfectly justified in objecting to ungraduated Licentiates obtaining honorary degrees from the University where they—the Oxford graduates—have spent both time, money, and labour, in order to obtain the coveted degree Your correspondent has no right to expect the London University to lower the status of its graduates, by conferring its degrees upon, I may say, unworthy men. If a man wants a degree from the said University, let him pass the examinations entitling him to such: and if it come to pass that the London University will confer its degrees on the existing Licentiates, after one practical examination, then future medical students need no longer submit to a "string" of severe examinations; they can study where they please, become licentiates, and then, as your correspondent would have it, "graduates of London". Then he says, if the London University do not comply with a petition, such as he mentions, there is still a method of obtaining the coveted letters, by (I think he must mean) having a fixed programme of subjects for matriculation, as this examination, in his opinion, is the only obstable; and he thinks that if this examination, which he terms the asses' bridge, were passed, the remainder of the course would be as easy as elsewhere.

This reminds me very much of the asses' bridge in geometry, the demonstration and proof of which no doubt confuse the beginner a little, but is only one of many difficulties which have to be surmounted, before the learner can enter upon a higher grade of study. Now, supposing the matriculation to be modified, and the remainder of the bye-laws to remain as at present, still licentiates would find it a very difficult and inconvenient matter to obtain the degree. According to the regulations of the London University, the several examinations must be passed not at any time, but at or beyond fixed periods, and between each examination certain lectures must be attended at recognised schools and hospitals for that purpose, even though the candidate be a graduate in medicine of a different University. If he be a graduate in arts, then he can get credit for his degree, and will not have to undergo the matriculation, but will have to commence by passing the preliminary scientific examination. I have considered the matter carefully, and am of opinion that the Scotch Universities are the easiest sources whence a licentiate can obtain the degree—I mean at present, without any reformation of those qualifying bodies, inasmuch as one year's residence is only required. And most graduates will agree with me when I say, that although residence at any particular place is not required by the London University, yet its degree is more difficult to be obtained than any other in the United Kingdom: and I would direct your correspondent's attention especially to the position which London graduates hold, no matter where they settle. He will invariably find them enjoying first-class positions in professional life.

In conclusion, I beg to remark that a gentleman who holds degrees both in arts and in medicine, should not be so innocent of the right which degrees confer upon him. Every man who possesses a respectable degree should be justly proud of it. And every graduate who holds that a licentiate is a doctor is unworthy of his degree, inasmuch as he does not uphold the status of the University of which he is a graduate.

Apologising for this already too long communication,

I remain, Sir, your obedient servant,

George Town, Merthyr-Tydvil, March 1875. J. LOWE.

MR. BOLLAND.—What a news writer did in England in 1622, on his own responsibility, was effected ten years afterwards in France, under the patronage of Louis XIV, by Theophrastus Renaudot, a member of our profession, who issued the first number of the first French newspaper, viz., the *Gazette de France*, in 1632.

WE are indebted to correspondents for the following periodicals, containing news reports, and other matters of medical interest:—The Cork Constitution; The Glasgow Herald; Saunders' News Letter; The Argylshire Herald; The Birmingham Morning News; The Birmingham Daily Post: The Hamoshire Telegraph; The Newton Directory; The Sheffield Daily Telegraph; The Berkshire Chronicle: The Hackney Express; The Bath Argus; The Portsmouth Times; The Liverpool Mercury; The Alcester Chronicle; The Hereford Times; etc.

COMMUNICATIONS, LETTERS ETC., have been received from:—

Dr. Headlam Greenhow, London; Dr. R. J. Lee, London; Dr Aveling, London; Dr. Charlton Bastian, London; Dr. Farquharson, London; Mr. Fairlie Clarke, London; Dr. Robertson, Buxton; Mr. Berkeley Hill, London; Dr. Lionel Beale, London: Dr. Marcet, Nice; Dr. E. Crisp, London; Dr. J. B. Nevins, Liverpool; Dr. Burdon Sanderson, London; Mr. J. Rogers, Swansea; Mr. J. H. Galton, Norwood; Dr. J. P. Cassells, London; Mr. G. Pollock, London; The Secretary of the Joint Counties Lunatic Asylum, Carmarthen; Dr. A. Ford, Bradford; Mr. R. B. Cook, Scarborough; Dr. Tilbury Fox, London; Dr. Humphry, Cambridge: Our Paris Correspondent; Dr. J. Morton, Glasgow; Dr. Procter, York; Mr. Vincent Jackson, Wolverhampton; Mr. D. W. Morris, Llanelly; Mr. Whalley, Southam; Dr. J. Crichton Browne, Wakefield; Dr. J. Macnaughton, Lochgilphead; Mr. W. Carter, Liverpool; Mr. A. O'Sullivan, Burnley; Dr. C. R. Bree, Rhyl; Dr. C. Lewis, Liverpool; Dr. D. T. Maunsell, Dublin; Mr. J. T. Harthill, Willenhall; Dr. Dobell, London; Dr. W. C. Grigg, London; Mr. H. Burdett, Greenwich; Dr. J. B. Ferguson, Cheltenham; Dr. F. Howard, Ferozepore; Dr. Latham, Cambridge; Dr. R. Dominichetti, Louth; Dr. J. B. Hamilton, Chatham; Dr. Hatherley, Radford; Dr. Graily Hewitt, London; Dr. G. H. Savage, London; Mr. W. H. Sandham, Cork; Dr. A. Harvey, Aberdeen; Dr. W. Marshall, Nottingham; Mr. W. S. Oliver, Halifax, Nova Scotia; Dr. A. E. Sansom, London; Dr. Cobbold, London; Mr. W. Axford, Southsea; Mr. F. Gordon Brown, London; Mr. J. W. Groves, London; Dr. J. J. Luce, Stratford-on-Avon; Dr. Stanley Haynes, Malvern; Mr. Chapman, Oxford; Dr. C. R. Henry, Hazeldean: Dr. R. Temple Wright, Norwich: Dr. H. C. Garde, Youghal; Dr. E. Wilson, Cheltenham; Mr. H. P. Leech, Bury St. Edmund's; Mr. J. G. Carruthers, Northampton; Mr. A. W. Stocks, Salford; Mr. J. E. Wakefield, London; The Secretary of the Delancey Fever Hospital; The Secretary of the Chesterfield and North Derby Hospital; The Secretary of the Hereford City and County Lunatic Asylum; Messrs. Willis and Co., London; Dr. J. H. Galton, London; Mr. H. Kennedy, Dublin; Dr, J. Braithwaite, Leeds; Our Dublin Correspondent; Mr. W. H. Michael, London; Dr. T. Trollope, Tunbridge; Mr. J. Leonard, London; Mr. G. A. Driver, Buxton; Mr. C. F. Dennet, Brighton; Dr. Tripe, Hackney; Dr. T. De Villière, London: Dr. A. S. Galabin, London; Mr. Poole, London; Mr. T. W. Bogg, Louth; Dr. Hughlings Jackson, London; Mr. J. Hay, Wolverhampton; Dr. J. M. Fothergill, London; Messrs. Hooper and Co., London; Mr. Donelly, Dublin; Dr. J. W. Moore, Dublin; Mr. J. Sandford, London; Mr. J. Wood Hill, London; Dr. C. F. Hutchinson, Scarborough; Dr. W. Garstang, Blackburn; Mr. W. T. Marshall, London: Dr. Steele, Liverpool; Dr. M. T. Sadler, Barnsley; Dr. W. H. Corfield, London; Our Edinburgh Correspondent; Dr. Morgan, Manchester; The Secretary of the Manchester Medical Society; Dr. F. T. Bond, Gloucester; Dr. Wiltshire, London; Mr. E. C. Board, Clifton; Dr. J. Carmichael, Edinburgh; Dr. A. Barr, Glasgow; Dr. T. B. Henderson, Glasgow; etc.

# LECTURES

ON

# THE OCCURRENCE OF ORGANIC FORMS IN CONNECTION WITH CONTAGIOUS AND INFECTIVE DISEASES.

*Delivered at Owens College, Manchester.*

BY

J. BURDON SANDERSON, M.D., V.P.R.S.,

Jodrell Professor of Physiology in University College, etc.

## LECTURE III.

### SPECIFIC CONTAGIA.

IN the last lecture, we entered on the consideration of the question, whether or not, in those cases in which fever is produced by a poison of septic origin, the organisms which associate their life and development with all putrefactive processes, are concerned in the pathological phenomena which manifest themselves. It was shown, on the ground of experiment, that, although pyrogenic liquids in the crude state are septic, and, therefore, contain bacteria in greater or less numbers, it is possible to obtain from them a material of great activity, *leaving behind the microphytes.* In stating this fact, I pointed out that it would afford no ground for denying the influence of bacteria in the production of the morbific material; for, although they may not themselves constitute it, there is nothing in the fact observed which makes it less probable than before that they are concerned in those chemical changes of which its presence is one characteristic. At the close of the lecture, I drew special attention to a fact of great moment, namely, that, in my pellucid pyrogenic liquid, the active principle, although apparently in solution, is really particulate, for it can be separated by an appropriate mode of filtration (filtration through a "porous cell").

To-day we pass to a subject which must be kept apart from the other —that of the relation of microphytes to specific infections. The two questions are distinct by nature, and consequently the modes which have to be employed in their investigation are necessarily different. It is, therefore, desirable to keep them separate. In fever, we have to do with a process—an aggregate of functional disorders, all of which have their seat in the organism. In contagion, we have to account for its effect on ourselves, and also (what is more difficult) for its behaviour outside of us—the wonderful fact that it preserves itself for long periods, and is conveyed to immense distances quite independently of its ultimate destiny.

The doctrine that microphytes have to do with the process of contagion is based on two sorts of observations, viz., those relating to the physical characters of contagious liquids, and those relating to the existence of organisms of characteristic form in them. As regards the physical characters of contagious liquids, the fundamental fact is that contagium is *particulate.* I do not hesitate to use this word, for there is no other which answers the purpose. It stands for the general result of observations made by Chauveau as to the non-diffusibility of the infecting part of a great many contagious liquids, particularly those of small-pox, vaccine, glanders, the so-called small-pox of sheep, or sheep-pox. The method employed by Chauveau in these investigations is now so well known that I need only advert to it very shortly. As a link in the chain of evidence on which the notions we now entertain as to contagium are supported, it is too important to be omitted. The method, like that of which in last lecture we considered the application to the investigation of the fever poison, is one of mechanical analysis. A liquid known to be actively virulent is placed at the bottom of a small test-tube, which stands upright on a foot, or is otherwise supported in the same position, care being taken to avoid the slightest contact between the liquid and the sides. Water is then allowed to flow over the surface of the liquid until it forms a layer a few lines in thickness. The result is that, if the liquid remain absolutely still, diffusion takes place between the liquid and the water. The soluble salts pass into the water, along with a quantity of albumin: everything which is particulate remains below, everything that is diffusible rises. The process differs from that of diffusion through a membrane in this respect, that, whereas in the "diffusion cell" bodies which are very slightly diffusible, such, *e.g.*, as albumin, pass through the membrane in extremely small quantity, so that practically they may be said to remain behind, in the present case, the only constituent which remains at the bottom consists of particles which, although they are small enough to pass readily through filtering paper and act so little on light that they do not render the liquid turbid, can yet be seen under the higher powers of the microscope. Hence, if the contagium is particulate, it will be found exclusively in the lower layer; if diffusible, it will be in the surface layer of water, albumin, and salts. Experiment showed, as regards all the contagia I have mentioned, that it remained below; and, therefore, was insoluble and indiffusible.

These experiments were made in 1868-9. I became acquainted with them when spending some time at Lyons in the latter year, and afterwards repeated them in London in their application to vaccine. I had previously (in 1866) made analogous experiments on the contagious liquid of Rinderpest, but by another and very inferior method. I had introduced a liquid of known contagiousness into an ordinary diffusion cell, and had observed that the active part did not pass through the parchment-paper septum. This is a bad method, because in this kind of diffusion the albuminous compounds which are very slightly diffusible, are stopped by the septum; so that it might be objected that the toxic agent was contained in the albumin, not in the particles. Indeed, a blunder of this sort has been very recently promulgated by a French writer, M. Onimus.*

On this inference as to the particulate nature of contagium, I founded in 1870, an *à priori* argument in favour of the probability of *contagium animatum*—that is to say, in favour of the doctrine that the property of contagiousness as manifested in contagious morbid products is associated with the presence in such products of particles *which possess a life which is not that of the tissues of the human or animal subject of disease.* If contagium be conveyed from place to place and maintain its activity in the form of particles, those particles must consist either of bits of protoplasm or of living organisms; for those are the only sorts of particles of which we have any indication in contagious liquids.

Now, considering that of all perishable things protoplasm is among the most perishable—so much so, that no living particle of our bodies can be abstracted from its place in the organism, even for five minutes, without dying and being disintegrated—it appeared to me quite out of the question to suppose, as Dr. Beale had suggested, that the particles could be of this nature, consistently with the astonishing power which they evidently possess of retaining their activity for such long periods, in spite of their being subjected to enormous varieties of moisture, temperature, and all other conditions. And considering that life—*i.e.*, organisation—is the only condition whereby a body of chemically unstable composition is enabled to hold its own against such disintegrating agencies, I thought then, and I still think, that the only possible explanation of this fact of the persistence of contagium was to suppose its particles to be living. Then at once the question arose—"What sort of life is it that they possess?" Two facts help us to conclude in favour of the group of organisms I described in last lecture; first, they are the smallest and simplest of known organic forms; and, secondly, they possess the wonderful property of passing into a state of persistent inactivity or latent vitality, in which they perform no function, but can be at any moment wakened up into active function whenever they are brought under favourable circumstances. If I am asked what ground I have for the statement, that bacteroid microphytes possess the property of latent persistence, I will content myself with drawing your attention to the undisputed facts relating to the inoculation of "test-liquids". If I find that a particle of dust which has remained on the ceiling of the room for some time, when added to a solution of ammonic tartrate, determines an enormously active vegetation of bacteria in it, I find it difficult not to suppose that the particle of dust contains living material; and inasmuch as I know that, if I examined it under the highest powers, I should see nothing which I could recognise as vegetable by any vital manifestations which it would present to me, I am compelled to express the result of the experiment in some such terms as I have used. Particles are there, which, so long as the dust remains on the ceiling, undergo no changes, manifest no process. You may object that I have no proof that the dust contains anything living. True; but I have proof that it contains that which produces life, and express this state of things; viz., the absence of manifestations of life, on the one hand, and, on the other, the fact, that the stuff in question possesses the power of impregnating something else which before was barren, by saying that the dust possesses latent vitality.

I have now to run over, as briefly as possible, the cases in which observations have been made as to the presence of organisms in contagious products. As vaccine and small-pox have been already mentioned, I will refer to that subject first.

The earliest published observations as to the existence of microphytes in the infective liquids of vaccine and small-pox were those of Hallier and Keber (1868), both of which were made with bad instruments, and attracted less attention than they would otherwise have done from the speculations with which they were associated. My own description of the organisms of vaccine appeared in an appendix to the Twelfth Report of the Medical Officer of the Privy Council in 1870. About the same time, but quite independently, they were much more completely investigated by Cohn, the eminent professor of botany at Breslau.[*] The description of Cohn agrees entirely with mine: a fact which I think important enough to mention, on account of its bearing on certain statements recently published by Dr. Beale, to which I must refer immediately.

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* See *London Medical Record*, November 19th, 1873.

Cohn has given to the organism seen in vaccine the designation of *Microsphæra Vaccinæ*. In fresh vaccine, it consists, according to his description, of minute spheroids grouped in couples or isolated. If a preparation of lymph be observed under the microscope on the warm stage, these particles divide repeatedly, and thus resolve themselves into chaplets. By this fact, as well as by their chemical reactions, they are easily recognised as micrococci. There is, I think, no particular reason to doubt the accuracy of the observation, discovered as it was in the first instance by observers working quite independently of each other, and in ignorance of each other's results. I was, therefore, rather surprised that, in a recent work on *Disease-Germs*, Dr. Beale should have criticised my very brief description of these organisms, and particularly the woodcuts with which it is illustrated, in such strong terms as he has employed. I cannot show you my woodcut, but I have placed before you a copy of Cohn's drawing made by a draughtsman. I have also placed on the board an exact representation of Dr. Beale's drawing of the particles in vaccine which he distinguishes as "true disease-germs", in contrast to mine, which he regards as false ones. Be it remembered that I have not asserted that the particles in question are "disease-germs" at all. All that has been stated is, first, that they are independent organisms, and, secondly, that they are to be observed in fresh vaccine.[†]

Shortly before the appearance of Cohn's first paper, another Breslau observer—a pathologist and hospital physician, not a botanist—published a short communication founded on the microscopical examination of the skin in persons who had died of small-pox, in which he stated that he had found the lymphatic vessels of the cutis plugged with a granular mass which exhibited all the characters of micrococci. These lymphatic vessels were met with for the most part in the tissue of the corium underneath and around pustules in various stages of advancement. Here, in some cases, they occurred so constantly, that they could be found in every vertical section of the skin which comprised a pustule, though they were absent in others.

This statement being founded on a considerable number of cases, is probably well worthy of confidence. It is to be noted with respect to it, that the appearances in question were observed only in cases which terminated early in the disease, *i.e.*, before the seventh day. In more advanced cases, the infiltration of the tissues and the consequent impletion with the cellular products of inflammation, rendered it impossible to make out with certainty whether the vegetations were present.

The two facts you have before you, viz., the existence of organisms in vaccine matter, and the occurrence of similar organisms (not ascertained to be identical with the other) in the lymphatics, suggest the probability of their having to do with the morbid process, but cannot be accepted as an adequate proof that they possess the property of reproducing or propagating the disease. For the establishment of such proof with respect to any contagium, it would have to be shown either that when deprived of its organisms, though otherwise unaltered, it is deprived of its activity; or that when the organisms are introduced alone, they manifest the contagious property of the liquid or tissue from which they were derived. An imperfect approach towards the first of these demonstrations was made in Chauveau's experimental investigations; for it was shown that many contagious liquids lose their activity when they are deprived of the suspended particles in which whatever organisms they contain are included. The second demonstration must, with our present means of observation, be regarded as impossible, on the ground that the bodies in question are so minute that there is not the slightest prospect of our being able to separate them in anything like purity.

Another reason why no method based on the separation of the living contagious particles could possibly be successful is, that the particles themselves, if removed from the conditions adapted to them, would in all probability, as a direct consequence of that change, entirely alter their properties. Even organisms much higher in the scale, for example, many plants containing active principles, become inert when removed from an appropriate to an inappropriate soil. Much more, therefore, should we expect a similar result in the case of organisms, the vital processes of which are so much more under the influence of conditions.

Considering these difficulties, I set myself last year to consider whether there might not be methods of investigation within reach, which, if they did not come up to the strict requirements of the problem, might help us to approach it. If, it occurred to me, in any disease capable of propagation by the insertion of a contagium containing recognisable living organisms, however minute, it were in our power to observe the behaviour of these organisms during and after the act of infection, even if it were impossible to separate them from the contagious liquid or substance along with which they were introduced into the body of the infected person or animal, we should be able, by comparing the transformations or other manifestations of vital activity in the lower organism or parasite, with the functional derangements and textural changes in the higher organism resulting from the infection, to ascertain with the utmost precision the nature of the relation, if any, between the two series of phenomena. If this method could be carried out, I thought it might be anticipated with great certainty that it would be possible by means of it to determine in the particular case, that the one process is or is not the efficient cause of the other.

As regards many infective or contagious diseases, the application of such a method would be impossible, for we have no sufficient knowledge either of the door by which the contagium enters, or of its whereabouts in the organism after its entrance. In the case of small-pox these difficulties do not exist; and of all human contagious diseases it is theoretically the most fitting for such an inquiry. We have the virus, we have the organism, we have the process. We know how the virus enters. We know how it is scattered over the surface as thistle down is scattered over a field; and how each seed sown serves as a centre of origin for a morbid process, complete in itself. If we could —imitating Dr. Weigert's method, but carrying it out much further than he did—not merely search for our organisms at the sixth day, but at each successive period in the local process, from the first sign of functional disturbance in the rete Malpighii at the seat of the future papule, to the maturation of the pustule, and could trace the two developments—that of plant-life life on the one hand, and that of pathological and structural change on the other—going on side by side; and, as has been already explained, see that both were correlative manifestations of the same action, the object would, as regards small-pox, be accomplished.

But here we are met by an insurmountable practical difficulty. No opportunity is ever likely to be afforded us of investigating the pathological anatomy of small-pox in those early stages, about which it is most important to obtain information. Happily, comparative pathology affords us a means of circumventing this difficulty. In the sheep there is a disease which, as regards its origin, progress, and local manifestations, is the very counterpart of human small-pox.

The virus of sheep-pox, as I had the opportunity of observing in 1869, contains organisms similar to those of small-pox and vaccine. The analogy, therefore, is complete—so complete, indeed, that whatever can be ascertained by observation as to the behaviour of the organism of sheep-pox within the body of the infected animals, might be applied with the greatest confidence to the elucidation of the corresponding processes in human disease. On these grounds, I suggested to the Chief of the Medical Department of the Government that my colleague at the Brown Institution, Dr. Klein, should be requested to undertake an anatomical investigation of the disease, for which I was enabled to obtain material through the kindness of Professor Chauveau of Lyons and Professor Cohn. The results have been already communicated to the Royal Society, and will shortly be published in the *Philosophical*

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[*] The reader will find a full account of these investigations in a prefatory paper entitled Recent Researches on the Pathology of the Infective Processes, in the first of the series of scientific contributions about to be issued by the Medical Officer of the Privy Council. It is expected that the first number will be out in a few days.

[†] For the information of the reader, I transcribe the passage referred to. "The drawing given by Dr. Sanderson conveys no idea of the actual appearance of the matter represented. A few minute circles may be made to indicate very fairly the appearance of microscopic fungi; but they are no more like the particles of vaccine lymph, or any contagious poison, or any kind of living matter known, than an oil-globule or an air-bubble is like a white blood-corpuscle or a pus-corpuscle. Such illustrations only help to retard investigation, and to convey erroneous ideas regarding the character of the matters referred to" (*Disease Germs*, second edition, p. 237). There can be no doubt that my drawings are not like those of Dr. Beale; but that they give a true notion of the objects represented, the reader may satisfy himself by comparing them with those of Professor Cohn: the resemblance between them is complete. No doubt Dr. Beale, regarding us both as "blind leaders of the blind", would find both representations alike faulty. The explanation of the discrepancy is obvious. I had before me certain spheroidal bodies of extreme minuteness, which I represented in my woodcuts in the usual conventional way—*i.e.*, by what Dr. Beale calls "minute circles". Professor Cohn's figures are of the same character. Dr. Beale had before him "bioplasts" of various shapes and sizes, all admirably drawn (see *Disease Germs*, fig. 66). It could hardly be expected that the pictures should be like each other.

*Transactions*, as well as in the forthcoming Report of the Medical Officer of the Government.

Before giving a short account of them, I must refer for a moment to well known facts relating to the development of the pustule in human small-pox. Each pustule must be regarded as what is called in pathology a focus of inflammation—an acute process which has a centre of origin. Where is this centre? If we refer to a diagram of the skin, as to a map, we fix the first localisation of the process at the junction-line between corium and epithelium, *i.e.*, between the structure called the rete Malpighii, and the very vascular layer beneath it which forms the papillæ. Let us consider what lies on each side of that line. Above it there are small cells, polygonal and closely packed—the growing cells of the epithelium. As you trace the stratum upwards, they flatten, then suddenly change their character and become horny. This we call the natural *stratum corneum*. Below the line referred to, there are papillæ composed of a dense but transparent tissue, so closely packed with loops of capillaries that, when these are distended, it looks as if it were all blood-vessels. Below this is a layer where there are fewer vessels, but they are still very numerous.

The anatomical changes in the structures of the corium and epidermis which result in the formation of the small-pox pustule have their principal seat and origin on either side of the well defined line, which, as I have just said, separates in a vertical section of skin the rete Malpighii from the vascular tissue of the papillæ. Above that line, the pathological processes consist at first merely in overgrowth—*i. e.*, in germination of the cells of the deep layer of the epidermis; but, as it progresses, two remarkable changes occur. Cavities (the future "vesicles" or "cells") form in the Malpighian layer, which are at first full of clear liquid, afterwards of pus; and, secondly, the epidermis-elements appear to fuse together into a horny material. This horny material constitutes not only the covering of the vesicles, but the septa by which the adjoining cells are separated from each other; and it is by the shrinking which attends its formation that the central depression afterwards observed is produced. In the corium, on the other hand, the lymphatic spaces fill, the tissue swells, and thus the prominence or "papule" is formed.

In sheep-pox, the same changes take place; but they have been much more completely studied, as I have said, by Dr. Klein. To save time, I must carefully avoid all that, however interesting, is not essential. Let me draw your attention once more to the rete Malpighii and to the superficial lymphatics of the cutis. In the rete, there is at first a general germination. Then certain cells become distinguished as being larger; these expand by vacuolation; they become cysts. The cysts coalesce, and thus are formed cavities (the cells of the older pathologists) in the thickened rete. In the corium, we having filling out of the tissue by liquid which occupied the interfascicular spaces of the lymphatic network. Then (tracing the process further) we observe that, in the rete, the vesicles continue to enlarge, and their contents alter. Instead of containing clear liquid with granules, they are full of pus-corpuscles. In the corium, the change is of the same nature, but goes on earlier; the whole tissue becomes inundated with leucocytes.* This inundation begins from the lymphatics, the appearances being such as to suggest an obstruction or blocking up of these vessels. Rapidly the tissue of the corium becomes fuller and fuller of corpuscles, the final act being the extension of the cellular inundation to the rete Malpighii. How do they get there? They are certainly not formed in the vesicular cavities. Dr. Klein has no doubt that they migrate into the vesicles from the papillary layer below, by virtue of their amœboid movements.

As yet I have said nothing about the organisms. It will be remembered that Dr. Weigert found them only in the early stage of the pustule of small-pox; so here it would be in vain to look for them in the stage of suppuration. With this consideration in mind, Dr. Klein devoted his whole attention to the early changes. I may as well state at once that the anticipation that the early stages of the papule would be accompanied by the development of vegetation has been realised. The process has been studied both in the primary inoculation-pustules and in the general eruption, with results which may be thus stated. From the first, the cavities in which liquid collects, whether the lymphatics of the corium or the vesicular cavities of the skin, begin to show indications of containing organic forms. As the process is observed in sections made at various stages, its nature becomes more and more manifest. At first, it might be said, "Oh, these are merely the ordinary septic organisms with which we are familiar". Soon, however, this becomes impossible. First, the form which is most characteristic—that of the *rod*—is entirely absent. Secondly, the stage of the process is not that at which ordinary septic bacteria present themselves. In all infective inflammations, when they assume the destructive character, bacteria may appear in the inflammation-products, but they never appear in the early stages of the process.

Then, finally, the development of the vegetations, whether it was examined in the primary pustules or those of the general eruption, whether in the corium or epidermis, presented everywhere the same characteristics—characteristics which differed entirely from anything we have up to this moment had under our consideration. It consisted in the formation of a felt-work of extremely delicate filaments, which, although they were not jointed, were unquestionably branched, and gave off at the growing ends minute acrospores or conidia, after the manner of the fungi of the penicillium group. These *mycelia* were first discovered in the initial stage of the disease in the lymphatics. Although the most scrupulous precautions were used—the portions of skin examined being plunged in the absolutely fresh state into alcohol—the fact was so strange, so unexpected, that it could hardly be credited. Whatever doubt, however, existed, was at once removed when it was found that the development was repeated in the "cells" or vesicular cavities of the epidermis, the same forms exactly presenting themselves; and the intimate relation of the whole process to the disease was rendered still more certain when it was observed that, on the appearance of the secondary eruption at the tenth day after inoculation, each of the small papules was an epitome of the large one, not only as regards the structural changes, but also as regards the evolution of plant life which was associated with it.

[In the remaining portion of this lecture, with which the subject will be concluded, were noticed the results of recent researches regarding the only other diseases in respect of which a definite relation between contagious processes and specific forms has, as yet, been made out, viz., relapsing fever and the splenic fever of cattle.—J. B. S.]

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* From an abstract just received of Dr. Weigert's further researches on small-pox, it appears that the migration of leucocytes takes place in the pustule of this disease in the same way as above discussed in sheep pox.

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## ON THE APPLICATION OF COTTON-WOOL TO THE MEATUS AUDITORIUS.

In the JOURNAL of January 9th and February 20th, correspondents accuse cotton-wool of being injurious to the ears; and they seem acquainted with only this, the smallest (and avoidable) portion of its effects. It is true that, if dry cotton-wool be pushed *far* into an ear whose cutaneous lining is already in a congested or irritable condition, it will most likely do much more harm than good. The value of cotton-wool, properly employed, in cases of otorrhœa and perforated or lost membrana tympani, is beyond price, and none the less real because not in vogue with German aurists, who somehow seem to have adopted modifications of Toynbee's India-rubber artificial membrane, rather than Yearsley's cotton-wool substitute. In England (and in America too, I believe), the preference is quite the reverse; and I should say that, in this country alone, there must be hundreds of persons who are daily introducing and wearing these little pledgets of cotton-wool, pushed home against the remnants of their "drums", not only without the slightest inconvenience, but with immense benefit. I know of a goodly number myself. As a rule, these dossils are not introduced dry, but saturated with plain water, glycerine, oil, or other fluid, according to circumstances; and it is a good plan to remoisten before withdrawing them, if they have been in any time. I see that the ear-fungus from which D. McD. suffered is said by one German aurist (Bezold) to be caused by the use of olive-oil; but, if that be so, one would think that the parasite would more frequently be met with than it is. G. F. HODGSON, Brighton.

## POISONING BY BICHROMATE OF POTASH.

A PHOTOGRAPHER in this neighbourhood recently drank a quantity of a strong solution of bichromate of potash, having mistaken the jug for another which contained ale. I found him very prostrate, sweating profusely, and complaining of severe abdominal pains. He was also slightly purged, the evacuations being of a greenish-yellow colour. The pupils were dilated, and the pulse very weak and fluttering. I administered sulphate of zinc in water two or three times, until vomiting and active purgation had been induced. Subsequently, olive-oil was given him. He remained very weak for some time, and the stomach could only tolerate the mildest food.

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# THE CROONIAN LECTURES
## ON ADDISON'S DISEASE.

*Delivered at the Royal College of Physicians, London.*

By E. HEADLAM GREENHOW, M.D., F.R.C.P., F.R.S.,
Physician to and Lecturer on Medicine at the Middlesex Hospital.

### LECTURE II.

[*Concluded from p.* 371 *of last number.*]

IT will be remembered that, in dealing with the total number of three hundred and thirty-two cases bearing upon the subject of Addison's disease, I set aside, in the first instance, for subsequent discussion, all those which I found reported as bronzing or discoloration of the skin without disease of the suprarenal capsules. These cases are twenty-one in number; and a brief analysis will show that, in almost all of them, the abnormal pigmentation was due to one or other of the pathological conditions which I have mentioned.

Two of the twenty-one cases published by Vernois and Averbeck precisely resemble the case of the woman exhibited by me at the Pathological Society; the age, circumstances, uncleanly habits and state of health, as well as the characters of the discoloration, having been nearly identical in all the three patients. The patients in these two cases died, and the capsules were found to be normal. It is significant of the confusion which prevails on this subject, that Averbeck, who did not consider his own case as a true example of Addison's disease, nevertheless tabulated the parallel case of my patient, who recovered, among the so-called cured cases of that disease—which, as he justly observes, must be received with suspicion. In three other cases published by Puech and Gordon, there was constitutional syphilis. In two cases recorded by Sloane and Luton, the darkening of the skin was associated with phthisis. The first patient had suffered from liver-complaint with permanent discoloration of skin; and, although the whole surface was bronzed, the mammæ round the nipples were much paler than the surrounding parts, and there were many white spots on the breast and back. In two other cases related by Gibb and May, there was disease both of the lungs and the heart. Dr. Gibb's patient had aortic disease, which sufficiently accounted for the pale bronze hue of the face and neck; whilst in Mr. May's case the patient had also had gout, and the small brown spots scattered over the normal coloured skin point to the possible remains of some gouty eruption. In four cases published by Hutchinson, Harley, and Fricke, the discoloration dated from attacks of fever, jaundice, and hepatic derangement. Mr. Hutchinson's patient died of pneumonia, after an illness of fourteen days. His skin had been dark from the time he had had yellow fever in the Crimea. The entire surface was more or less bronzed, and the pigment was chiefly situated in the rete mucosum, but the face and hands were the lightest parts; whereas I need not say that they are generally the darkest parts in Addison's disease. In one of Dr. George Harley's cases, the darkening of the skin followed an attack of jaundice, and the patient remained five years in good health. The face, neck, and arms were dark; but the discoloration of the body was diversified with irregular white patches. The patient died of diseased liver and ascites. In Dr. Harley's other case, the patient had suffered during four years from occasional hepatic symptoms and gastric disorder. The face, arms, and trunk were all of a dark bronze colour, except the scar of a burn on the breast; but apparently the discoloration was quite uniform, and, unfortunately, the condition of the liver was not noted. In Dr. Fricke's case, the bronzing was limited to the forehead, face, and neck, and merged into jaundiced skin. The patient had suffered from ague, and died of cirrhosis of the liver. A case allied to these, but much more complicated, is reported by Dr. Merkel. The man's skin had been always dark; he had suffered from ague, and died of bronchitis and pleurisy. He was found, on *post mortem* examination, to have a large liver and spleen; and there was fatty degeneration of the heart, liver, and kidneys. The whole surface was bronzed, equally on covered and uncovered parts; and there were large grey-black patches on the buccal mucous membrane. Two cases of discoloured skin without disease of the suprarenal capsules, recorded by Dr. Bucknill and M. Regnard, occurred in women who were maniacal at the climacteric period of life—circumstances in which extreme duskiness of the skin is by no means uncommon. Two cases of internal cancer, not involving the suprarenal capsules, are reported by Mitchell and Fremy as presenting a certain degree of discoloration of skin; though of the first, it is only said that the skin became of a leathern hue, much darker in eczematous scars and in the site of a blister than in other parts; and of the second case, that, some days before death, the skin assumed in places an evident bronze hue. Dr. Hodges found on the bodies of two old men, one of whom died insane, and the other of age and debility, general darkening of the skin, with a bronze hue on the genital organs; but the face and other parts were much less discoloured.

There still remains one case of bronzed skin without disease of the suprarenal capsules, published by Rossbach in Virchow's *Archiv* for 1870, which requires more special notice. The case is most fully reported, and, on the supposition that it is a true case of Addison's disease, is made the basis of a new theory on the pathology of that disease, to which I must hereafter revert. The patient, a lady aged 62, had always been prone to excitement and sleeplessness; and these natural tendencies had been aggravated by long continued distress of mind. She suffered from anæmia, debility, loss of appetite, occasional vomiting, and also from pains in the epigastrium and in the right scapula, which she had hurt by a fall. These pains gradually extended round her body with all the violence of the neuralgia of shingles, and were always worst at night. Scleroderma began to develope on the right hand and forearm, and spread more or less to other parts of the body. The skin and subcutaneous tissue became as hard as stone, split, and formed fissures; and, together with this rare and peculiar cutaneous affection, appeared a dark and extensive pigmentation of the skin, of which large patches sometimes developed in a single night. Meantime, the patient's restlessness of mind and body increased; she could bear no position in or out of bed for fifteen minutes together, and at length she became totally sleepless and actually deranged at night. Towards the close of life, her pulse was quick, hard, and occasionally intermitting. She had albuminuria and anasarca, and sank under a slight attack of pneumonia, after nine months' illness. The cerebellum was very soft; the brain and lungs were œdematous; and there was some fatty degeneration of the heart, liver, and kidneys: but the suprarenal capsules and neighbouring nerves were perfectly normal. The pigmentation of the skin was coextensive with the scleroderma. In the paler parts, it was produced by innumerable dark points, and on the darkest parts there were dendritic patches of colourless skin. On examination under the microscope, the pigment was seen to be deposited chiefly in the papillæ and upper layers of the cutis. I need not point out in detail the totally opposite characters of this discoloration of skin from those of the discoloration in Addison's disease. The chief constitutional symptoms—namely, the morbid excitement of mind and body—were also conditions totally uncharacteristic of Addison's disease; whilst the anæmia, loss of appetite, and other symptoms, which did resemble some of those of Addison's disease, were all fully accounted for by the obvious mental and physical ailments of the patient.

From this analysis of the twenty-one cases I have found published as cases of bronzing of skin without disease of the suprarenal capsules, I think it is evident that in all of them the discoloration of the skin was due to other pathological causes, and that it presented in none of them the really characteristic features of the bronzed skin of Addison's disease. I should add, what is even more important, that in none of these cases are any constitutional symptoms recorded but such as are easily referable to the morbid conditions I have mentioned as present in each. They are of course only representative cases, as others of similar characters are continually occurring, though I have not found them brought forward with reference to the question of bronzed skin and suprarenal disease.

The second allegation against the truth of Addison's discovery, viz., that disease of the suprarenal capsules not unfrequently exists without discoloration of the skin, is also, as I have said, perfectly true. Apart, however, from the small number of cases which have terminated before the development of the bronzing, it may be positively enunciated, that disease of the suprarenal capsules which is not attended with discoloration of skin, presents totally different characters from the particular lesion of those organs which I have described. Out of the thirty-seven cases which I have found published as examples of disease of the suprarenal capsules without bronzing of skin, twenty-four are cases of cancer of one or both capsules, invariably secondary to cancer of other neighbouring organs. In three of the other thirteen cases, the capsules had undergone fatty or amyloid degeneration. In one case, there was cirrhosis of the capsules, associated with kidney disease. In three cases, there were cysts; in three, apoplexy; in three, sarcomatous, fatty and plastic tumours, respectively; and, in seven cases out of the nine, only one of the two capsules was diseased. It is obvious that none of these lesions bear any resemblance to the one particular lesion of the suprarenal capsules which is attended by discoloration of skin; nor were any constitutional symptoms present in any of these cases except such as were due to disease existing in other organs. I have myself, moreover, seen in the Middlesex Hospital several cases of cancer, in which the suprarenal capsules were involved, some of which I had had the opportunity of observing during life. The structure of the capsules was entirely destroyed in all those cases, yet in none of them had there been any constitutional symptoms or discoloration of skin resembling those of Addison's disease.

Hence, therefore, although it is quite true that bronzed skin does occur without the existence of any disease in the suprarenal capsules; and, again, that disease of the suprarenal capsules does exist, to the extent of entirely destroying their structure, without producing any bronzing of skin; it is also, on the other hand, equally clear that, in the one case, the bronzing of skin is not the peculiar discoloration indicative of the existence of Addison's disease; and that, in the other case (with the few exceptions already explained), the lesion in the suprarenal capsules is not the particular lesion of those organs which constitutes Addison's disease.

Were these the only misconceptions with regard to the relation of suprarenal disease to discoloration of skin, I might here quit this part of my subject; but, unfortunately, a small number of misunderstood cases have given a certain degree of prevalence to another opposite misapprehension, viz., that "any disease of the suprarenal capsules involving destruction of their tissues will produce the same effects as the particular lesion characteristic of Addison's disease".

Had not attention been too entirely directed to the bronzing of skin, to the neglect of the constitutional symptoms, and of Addison's original reservation that other pathological causes must first be excluded, such a misconception could never have arisen. It began, however, with Addison himself, who published four cases of cancer of the suprarenal capsules, as having been attended by some discoloration of the skin. I have also found published since his time, five cases of so-called cancer of the suprarenal capsules, and five cases of other diseases of the capsules, associated with bronzing of the skin. A glance at these fourteen cases will show that they afford no true cause for this misconception.

In the first of Addison's four cases, the patient was a woman aged 60—a time of life when the skin, even in healthy subjects, is apt to assume a dry brownish appearance; and she was suffering from extensive cancer of the left breast, lung, and surface of the liver. The only discoloration noted was a light brown swarthy hue on the face, arms, and chest. The second case was that of a woman, aged 53, who died of cancer of the stomach. She had previously had an eruption on the body; her skin was harsh, dry, and of a darkish hue; the folds of the axillæ were dark, and dark-coloured patches of the size of the palm of the hand were observed, raised in wrinkles and resembling slight ichthyosis. The third case was that of a woman, aged 28, who died of cancer of the uterus, and the only discoloration noticed was a peculiar dingy appearance of the skin, not very strongly marked. The fourth case was that of a man who died of cancer of the thorax and the lungs. When cancer was unexpectedly found in one of the suprarenal capsules, it was ascertained from the clinical notes, that the patient's face had presented a dingy hue. Addison had seen none of these cases during life, and knew nothing of their history or symptoms. Two more recent cases of cancer of the capsules, with discoloration of skin, are recorded by Drs. Gibb and Cayley. Dr. Gibb's patient had cancer of the liver and right capsule, associated with a proliferous ovarian cyst, and the only darkening of the skin observed was a brownish discoloration of the abdomen, especially below the navel; and of the chest, especially over the sternum. Dr. Cayley's case was that of a woman, aged 45, who died of cancer of the uterus, with secondary deposits in most of the abdominal organs. There was only a small nodule of cancer projecting from the surface of the suprarenal capsule; but during the last month of life the surface was very dusky and sallow, especially on the face and neck. I need scarcely point out that, in none of these six cases, was the discoloration observed in any degree characteristic of Addison's disease, and in none of them were any constitutional symptoms present, but such as were due to the disease in other organs.

The three remaining cases of so-called cancer of the capsules, with discoloration of skin, are of a very different character, having all presented, in a typical form, the constitutional symptoms and bronzing of skin described in my first lecture; and having been, in fact, as I believe, three typical cases of Addison's disease. In the first of these cases, Dr. Mettenheimer merely says, that the capsules were replaced by cancerous deposits; but he was so little clear as to the nature of such deposits, that he further reports the presence of some tuberculous or cancerous indurations of the left lung; and I think, as no cancerous disease was found in any other organ, there is no doubt that the deposits in the capsules were also of the so-called tuberculous character. Dr. Duclos, in the second case, says that the disease in the capsule was perfect scirrhus, but he had apparently made no microscopical examination, and his account of the condition of the organs is, on the contrary, a perfect description of the lesion peculiar to Addison's disease. The capsules formed tumours of the size and shape of eggs, were very hard, and much nodulated; and, on section, they grated against the scalpel and presented the appearance of lardaceous tissue. The third case, which is published by Dr. Gage of Worcester, United States, had a history which evidently led to the inference that cancer existed in the capsules, though it is not expressly asserted. The patient, a lady, aged 51, was said to have had scirrhus of the right breast, which, though of several years' growth, had not involved any of the neighbouring lymphatic glands, and had been removed two years before her death without recurrence. Her last illness was of six months' duration, and both the constitutional symptoms and the bronzing of the skin were characteristic of Addison's disease. Both the capsules were much enlarged, and joined together by a thickened mass of enlarged and diseased lymphatic glands. The right capsule was adherent to the under surface of the liver; and it is stated that from the point of attachment several broad lines of reddish-white deposit, resembling soft cancer, radiated into the substance of the liver for one inch and a half. In this case, also, there seems to have been no microscopical examination of the diseased organs; and, although the description is less clear than in the previous cases, the conviction that the disease was cancer having evidently been present to the mind of the writer, it bears on the whole a greater resemblance to Addison's disease than it does to cancer. Besides, it must be borne in mind that, if these three cases were indeed cases of cancer of the suprarenal capsules, they are the only cases on record in which cancerous disease of those organs has ever given rise to the constitutional symptoms and bronzing of the skin characteristic of Addison's disease, or has ever been attended by fatal results without the implication of other important organs—circumstances so incredible that they seem to justify the hypothesis which I have ventured to form concerning their real character.

Of the five cases of other diseases of the suprarenal capsules accompanied by discoloration of the skin, two are cases of amyloid disease. In one of these, published by Averbeck, the patient, a man aged 53, presented a dirty grey brown colour of the skin, deepest on the shoulders and back, whilst the face was of a lighter hue. In the other case, recorded by Wolff, the patient had suffered for several years from a large hydatid cyst in the left kidney. A year before death, the face and forehead had assumed a dark sunburned hue, but the mucous membranes were anæmic, and the only signs of discoloration on the body were a few black spots on the neck, abdomen, and extremities. The debility, loss of appetite, vomiting, and epigastric pains, present in this case, were all, as well as the emaciation, obvious results of the general abdominal disease, and increasing discharge of fœtid pus. In the remaining three cases, there was fatty degeneration of the capsules. One, related by Sir H. Thompson, was the case of an old woman, aged 81, who died of bronchitis. The skin was bronzed except on the face and hands, and the whole skin was permeated by colouring matter. In another of these cases, recorded by Charcot, the patient, a man aged 57, showed brown patches on most parts of the body, with a slight lichenoid condition of skin; the face, hands and feet remained of normal colour. The third case, published by Schet, is worthy of fuller notice, because the discoloration of the skin was, according to the description, identical with that seen in Addison's disease. It dated, however, from nine years' work under the glowing sun of a tropical climate, where the man had suffered from repeated attacks of intermittent fever, which continued at intervals during the four years he lived after returning to Europe, when he died of an epileptiform attack following copious spirit-drinking. The spleen was found to be much enlarged, and the blood contained pigment-granules and an excess of white corpuscles. The discoloration in this case, therefore, was doubtless due, in part to the effects of climate, but mainly to melanæmia, arising from malarious poisoning and enlarged spleen. It seems tolerably clear that these cases afford no real ground for the misconception that any disease of the suprarenal capsules, involving destruction to their tissues, may produce the same effects as Addison's disease of those organs.

Another misconception, nearly allied to the last, appears to exist in some quarters, to the effect that any abnormal condition of the suprarenal capsules is sufficient to raise the question of the existence of Addison's disease. Under the influence, apparently, of this misconception, a considerable number of cases have been published, in which the descriptions of the condition of the suprarenal capsules are too vague to justify any conclusions as to the nature of the lesion; whilst, in others, it seems doubtful whether there was any pathological lesion at all, and not rather some *post mortem* change. A few cases, also, of doubtful and anomalous affections of the suprarenal capsules have been published, as, for instance, one by Dr. Tuckwell, to show the necessity of caution in forming a diagnosis of such cases.

It is impossible to discuss in detail the thirty-two cases I have placed in this group; but it is certain that the characteristic features of the suprarenal lesion in Addison's disease are not described in any one of them. I must, however, advert to the most recent of these cases, published by Dr. Wickham Legg, in the last volume of the *St. Bartholomew's Hospital Reports*. The patient, a woman aged 37, unquestionably exhibited some of the constitutional symptoms of Addison's disease, for she suffered for eighteen months from debility, shortness of breath, occasional vomiting of food, and constipation, and she died after five weeks' residence in the hospital, of vomiting and exhaustion. But, on the other hand, there was a distinct bilious tendency to explain the vomiting; the appetite was fair, and there was great thirst, with a red fissured tongue, swollen spongy gums, and a temperature above the normal. Moreover, the patient had lost four stones in weight during her illness: an absolutely unprecedented circumstance in Addison's disease, unless when resulting from some serious coexisting wasting disease. The discoloured skin, also, was harsh, dry and warm, instead of being soft and cool, and was not more deeply pigmented in the axillæ or areolæ of the nipples than at other parts. At the *post mortem* examination, the right suprarenal capsule could not be found, its place being filled by a mass of yellow fat; and the left was only represented by a black body as thin as paper. This was a most peculiar and interesting condition of the suprarenal capsules, but it obviously bore no relation whatever to Addison's disease of those organs; nor were the constitutional symptoms and discoloration of skin, taken as a whole, characteristic of that disease. The most difficult point in the case is the absence of any apparent cause of illness and death.

One case remains of the whole number collected, which represents another misconception so remarkable, that it cannot be entirely passed over. The case is related by Dr. Gilliam of the United States, and is that of a man aged 45, who suffered from many of the constitutional symptoms of Addison's disease. Gradually increasing debility, dyspnœa and palpitation on exertion, loss of appetite, and tendency to vomiting, which became more and more obstinate until the patient died of exhaustion—were symptoms which, in the absence of any other discoverable cause might fairly lead to a diagnosis of Addison's disease, although no discoloration of skin was present. But when, after death, not only were the suprarenal capsules found to be healthy, but advanced degeneration and atrophy of the gastric tubules were discovered, which, as the author himself observed, fully accounted for all the symptoms, the diagnosis had clearly been a mistake. From this case, however, Dr. Gilliam concludes, first, that the bronzing of the skin is quite an unimportant feature of Addison's disease; and, secondly, that Addison's disease itself consists, not in a lesion of the suprarenal capsules at all, but in disease of the gastric tubules. The misconception lying at the root of this singular theory seems to be, that the presence of constitutional symptoms resembling those of Addison's disease was, in itself, sufficient evidence of the existence of that disease, and that the lesion which produced them might safely be regarded as the essential lesion constituting Addison's disease. That, in the case referred to, the lesion found in the stomach was the cause of the gastric and other symptoms, is obvious enough, but I trust I have made it equally clear that no symptoms, obviously referable to other morbid conditions can justify any assumption as to the existence of Addison's disease.

The question naturally arises, how misconceptions, so baseless in fact and disproved by such conclusive evidence, can have been so widely propagated and have survived so long. I believe this has been mainly due to the great rarity of the disease, which has prevented all but a small minority of medical men from acquiring even the degree of practical acquaintance with its true characters which the observation of a single typical case would afford.

If, however, the relation between the clinical phenomena and the specific suprarenal lesion in Addison's disease may be considered as proved, the obscure pathological processes involved in that relation, and the equally obscure causes of the suprarenal lesion itself, will still afford ample field for investigation. To these parts of the subject, I must endeavour to address myself in my next lecture, although perfectly conscious of the insurmountable difficulties they present, in the present vague and imperfect state of our knowledge with respect to many essential facts.

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ACUTE GLOSSITIS IN SCARLATINA.—An instance of this extremely rare complication has lately been published by Dr. Wm. Moore, of Dublin. It occurred in a young gentleman aged 18, and was the only example Dr. Moore had ever seen in this disease. He strongly advocates the treatment by iron and stimulants, when this complication takes place. A somewhat similar case has been described as occurring in the practice of Dr. Banks, but the complication is unusual.

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# THE GOULSTONIAN LECTURES
## ON PUERPERAL FEVER.

*Delivered at the Royal College of Physicians, London.*

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### LECTURE III.—(*Continued.*)

WHEN Professor Lister remarks, "We now see it is not essential to assume the existence of a special virus at all, but that organisms common to all the sores in the ward may, for aught we know, assume specific properties in the discharges long putrefying under the dressings" (*Microscopical Journal*, vol. xiii), it is clear that he is indisposed to allow that a poison apart from bacteria can be brought into existence. It is not really because these points, so difficult at present to decide, are of practical importance that I refer to them. But they are interesting, as showing pretty clearly where the various parties of investigation have started from in search of fresh knowledge. We have claimed the privilege of testing all reports thus returned by the rules of general experience, supposing there is any great difference of opinion as to their correctness. There has been little occasion, however, to do this as yet; for the most valuable contributions we have received are the results of the labours of men of practical experience in the clinical phenomena of the disease produced by septic infection. It seems to me that, for this reason, we may accept the conclusions of Virchow, Lister, Billroth, Heiberg, and others, who are quite able for themselves, and are in the habit, of applying to their researches the test of clinical experience.

There is one case, for instance, in which we might find it difficult to explain, by the theory of bacteria, certain morbid phenomena, if we confined ourselves to the limited effect which the particles produce on the tissues: those changes, namely, which we term inflammatory. It is well known that there are cases in which we find no collections of pus, or secondary abscesses, and no well marked pathological alterations, cases usually of the acute form of puerperal fever, and where the constitutional symptoms have been the chief evidence of septic infection. In such instances, morbid anatomy reveals conditions not unlike those which we meet with in certain other contagious diseases: enlargement and softening of the spleen, congestion of the mucous and serous membranes, fluid condition of the blood, and slight general congestion of the pulmonary tissue. It is in these cases that Heiberg felt a difficulty in retaining the use of the term pyæmia; for there is neither a primary focus of purulent matter, nor are there any evidences of the presence of pus in any part of the body.

This is the reason why Professor Billroth uses the term septhæmia to signify the resorption of septic stuff, and pyæmia the resorption of pus. We have also septicæmia contrasted with icorrhæmia in some recent German works. These terms are intended to separate cases of acute septic infection from those of longer duration; for, as it is well known, in cases of abortion, retained placenta, and others, where the origin of the decomposing substance is not very doubtful, we observe a series of symptoms which lead to the belief that a slow process of poisoning is going on in the system of the patient. Such a process would be termed ichorrhæmic.

If we follow Professor Heiberg, as certainly we are inclined to do, on the grounds of clinical experience, we should regard these puerperal processes, in whatever form they present themselves, and whatever characters the symptoms and pathological changes may assume, as depending on one and the same cause, the action of which on the nervous system, the organs of circulation and respiration, on the temperature, and on the fluids and tissues of the body, may be modified by circumstances similar to those which we know to be capable of modifying the action of poisons generally.

For some reasons, therefore, we might feel disposed to rest satisfied with the old term putridity, which involves no such theory as septicæmia, pyæmia, and others; or we might fall back on the simple classical term sepsis as a convenient one for general use. In the clinical observation of cases in which septic agents are more or less actively at work in the system, whether in simple puerperal fever, in cases of abortion or retained placenta, in carcinoma uteri, or under any other circumstances, we are led to divide our attention between local and constitutional symptoms; that is, between local pathological changes and general constitutional disturbance.

This evidently becomes necessary for the purposes of treatment. Allowing that the local action of septic agents is the production of those changes of tissue which we term inflammation, the question arises whether there are other causes for the same effects as well as septic material.

This question is answered by some in the following manner. "It is possible that inflammation may be excited by various causes other than the presence of bacteria; and we would distinguish the former from the latter by the term simple traumatic pyæmia and specific traumatic pyæmia, pyæmia being used in the general signification of sepsis. From simple traumatic pyæmia may follow metritis, endometritis, parametritis, perimetritis simplex, or diffuse peritonitis. In surgical cases, this disease assumes the form of erysipelatous rubor around the wound; that is to say, conditions depending on local causes. Phlebitis and thrombosis may also be consequences of simple traumatic pyæmia. The only difference between these and the specific form of pyæmia is the presence of bacteria." These are the views of Billroth, Heiberg, and others.

Now, it does not unfrequently occur that cases present themselves in which we find only those alterations of tissue which are attributed to simple traumatic causes, and yet the history and other circumstances of these cases are the same as those in specific traumatic inflammation. What must always be a difficulty appears to me to be the diagnosis between the one and the other form of inflammation. It is difficult, I think, to obtain a very clear idea of what simple traumatic inflammation is, as distinguished from the other. Does it not seem that we are defining it by negative characters; in fact, that, instead of being simple, it is a very complex expression, for it may be anything; that is, any substance or force except bacteria? If we are to call one simple in its nature, the most definite ought to have the first claim to the title. We are aware that, pathologically considered, there is no difference, as far as we can tell at present, between cellulitis or phlebitis of the thigh, as it occasionally occurs in men, or as we meet with it in the puerperal condition in women; so that, in any particular case, we are obliged to depend upon the history for information as to the origin of the disease, and upon the general symptoms for evidence of septic infection.

This is the clinical aspect which the subject presents, and, regarded in a practical point of view, it appears doubtful whether the division proposed is consistent or useful. We may have cases of metritis which have originated in abortion; but, by active treatment, the decomposition of organic matter within the uterine cavity has been prevented from infecting the system, and no symptoms are present which enable a diagnosis to be made between simple traumatic metritis and specific metritis. It may be remarked, that the difference which is assumed and appears to exist between simple and specific inflammation was present to Cullen's mind when he observed: "Whether there be any belonging to the order of phlegmasia is doubtful." (*Op. cit.*, p. 80.) In speaking of erysipelas, he remarks: "It is doubtful if this disease be properly, in nosology, separated from phlegmasia." (*Op. cit.*, p. 377.) Or, again, "It is probable that an erysipelas is sometimes attended with, or is a symptom of, a putrid fever." (*Op. cit.*, p. 379.) Looking at the question from a common sense point of view, we may reasonably ask whether there is not a danger of making confusion in our views of the symptoms, pathology, and treatment of the disease we are considering by allowing the use of an indefinite or ill-defined word like "traumatic" into the terms of definitions. It sometimes happens than we can discern the flaw in an argument or proposition without much trouble; at other times, we are withheld from consent by a feeling that, though the logical process by which the conclusion is arrived at be correct, there is a certain want of character in it which makes us hesitate. If we take the trouble to examine carefully any proposition of this kind,—and we know how frequently they present themselves to the physiologist and physician,—we shall find that there is some slight incorrectness in the premises of the argument. It is quite open to discussion whether metritis in all its forms, which are said to be traumatic, may not have been occasioned by the influence of an organic poison developed under certain conditions, or of external forces, such as cold, injury, and others. It is not difficult to perceive the direction which such reflections must give and are giving to pathological research. To return, however, to puerperal fever—a disease which, we are induced to believe, is to be explained in all respects by the influence of septic poison—it would appear that, in most cases, we are to search for the focus of decomposition in the cavity of the uterus or the surface of the mucous membranes which are connected with it. Whether we can prove that there is organic substance undergoing decomposition or not, we are to be satisfied by the symptoms which are present that such is the case. We are also required to admit that, under several conditions, all of which involve the presence of septic substance, symptoms similar to puerperal fever may be developed; and that, whatever differences are observed in the acute or chronic character of such symptoms, we are to refer them to the rate of admission of the poison into the system. We assume that we may explain the peculiarly acute form of puerperal fever with which we are acquainted by the fact of the existence of venous sinuses in the walls of the gravid uterus, and of large lymphatic vessels by which the septic material easily enters the circulating fluids; and, when asked to define what we mean by a septic agent, by sepsis, or by any other term involving the same idea, we may make the basis of our definition the existence of active living organisms resulting from the decomposition of organic matter, having special microscopical characters, producing special effects on the system of man and beast, and the transmission of which is regulated by ascertained principles.

(*To be continued.*)

# ON THE ACTIONS OF PICROTOXINE, AND THE ANTAGONISM BETWEEN PICROTOXINE AND CHLORAL HYDRATE.

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THE admirable report of the Committee of the British Medical Association, appointed to investigate the antagonism of medicines, which we owe to Dr. Hughes Bennett's powers of lucid exposition, suggested to me, when reading it, various instances beyond those which received the attention of the Committee, in which a direct physiological antagonism between the actions of remedies in all probability exists. Of the conjectures which thus occurred to me, I have as yet been able to put one only to the test of actual experiment; but the results which this single investigation has afforded me are so interesting and important as to appear to me to merit early publication.

It was when perusing the description given of the effects of chloral hydrate in reducing the force and frequency of the tetanic convulsions which follow a fatal dose of strychnia, that I began to speculate that, in all likelihood, the same agent might exercise a similar influence over the somewhat analogous symptoms which follow the administration of a fatal dose of picrotoxine. An inquiry, which I commenced some years ago, into the actions of that substance had satisfied me that, in some respects, its effects upon the living organism resemble those of strychnia. Tonic and clonic spasms of great severity and violence, culminating speedily in death, are induced by large doses of it, and opisthotonos and gasping and respiration are frequently present. The very particular in which the toxic effects of picrotoxine differs from those of strychnia, in that they are exercised to a greater extent over the cerebral and to a less extent over the spinal centres, seemed to hold out an additional hope that chloral hydrate would effectually counteract them; for chloral hydrate powerfully diminishes the activity of the brain, and so might be expected to mitigate the influence of any agent which irritates that organ and stimulates it to excessive and irregular discharges of energy.

In proceeding to put to trial the theory thus formed as to the antagonism of picrotoxine and chloral hydrate, it was thought desirable, in the first instance, to arrive at definite notions as to the physiological actions of the former. And these could scarcely be derived from books; for, although cocculus Indicus, of which picrotoxine is the proximate principle, has been recognised as a medicine since the days of the Arabian physicians, by whom it was designated *Maderadsch*, its modes of operation and uses may still be said to be undetermined. Christison says of it, that it was probably first known in Europe as a means of taking fish, which it first throws into violent irregular motion and then stupefies; and that it is an active poison, adequate to occasion death, producing chiefly giddiness, staggering, tetanic convulsions and coma. He adds, that nothing is known of its medicinal properties or actions in small doses, more than that it is beneficial as an external application in scabies, ring-worm, and porrigo. Taylor intimates that it gives rise to nausea, vomiting, and griping pains, followed by stupor and intoxication; and he describes one of the few recorded cases in which it has proved fatal, and in which these symptoms were present, and extended over a period of nineteen days. Dr. Glover describes it as a narcotico-acrid poison that acts on the spinal cord, raises the animal temperature, and causes great congestion at the base of the brain. Dr. Roeber of Berlin, who experimented with picrotoxine, and whose researches, published originally in the *Archiv v. Reichert und Du Bois Reymond*, 1869, are quoted in the *Journal of Anatomy and Physiology*, found that, in frogs, a comatose condition is first produced by it, and then a series of tetanic spasms, which, by and bye, become clonic. He further demonstrated that during the stage of clonic spasms, the inspirations are greatly exaggerated, so as abnormally to inflate the lungs; and that the heart's action is rendered slow, and the diastole prolonged. He alleges that the occurrence of spasms could not be prevented by the removal of the cerebrum or optic lobes, but that they never appeared after separation of the medulla oblongata from the medulla spinalis. He infers, therefore, that the spasms are dependent on stimulation of the medulla oblongata, and that the slowness and even stoppage of the heart's action, as well as the inflated condition of the lungs of the frog, are caused by this stimulant action affecting the vagus centre. To verify the observations of Roeber, and to obtain practical acquaintance with the action of picrotoxine, a few preliminary experiments were performed. In these, as in all subsequent experiments, the picrotoxine employed was obtained from one of the most trustworthy of sources, the house of Messrs. T. and H. Smith of Edinburgh, and was dissolved in ether, and administered by hypodermic injection.

*Experiment* I.—Rabbit weighing 2 lbs. 10 oz. One-fortieth of a grain of picrotoxine was injected under the skin of the shoulder. In four minutes, the animal was dull and lethargic. In ten minutes, it was exceedingly listless and stupid, and had lost its natural timidity, making no efforts to move when approached, touched, or pushed. It was not drowsy nor comatose, however, and its head did not droop nor nod; but it sat huddled together, its fur ruffled, and with a general aspect highly suggestive of a feeling of sickness and oppression. In twelve minutes, it voided a large quantity of urine, and its bowels acted copiously. In fifteen minutes, it was more lively, but somewhat unsteady in gait, and exhibiting stiffness and clumsiness in its movements, particularly in those of the hind limbs. In seventeen minutes, its bowels were again freely evacuated, the fæces being of a rather soft and pulpy consistence. In twenty minutes, its breathing was very hurried and irregular, and there was slight shaking of the head. In four-and-twenty minutes, there were twitchings of the ears, which were held rigidly erect, and occasionally moved about in a singular jerking manner. In five-and-twenty minutes, the movements of the ears continued, and there were also munching movements of the lips, with dribbling of saliva from the mouth, which was drawn to the right. In thirty minutes, all movements had ceased, but there were considerable prostration and drowsiness; the animal lay upon its belly, with its legs stretched out as if helpless. In forty minutes, there was more liveliness. In sixty minutes, there was restlessness and uneasiness. In ninety minutes, recovery might be said to be complete.

*Experiment* II.—Rabbit weighing 2 lbs. 12 oz. One-twenty-fourth of a grain of picrotoxine was injected under the skin of the back. In five minutes, there were stupidity and lethargy. In seven minutes, there were a large evacuation from the bowels, and hurried and embarrassed respiration. In fifteen minutes, there was restlessness; the animal was moving about stiffly, manifesting no apprehensions of the persons around, but trembling a little from time to time, especially in the hind legs. In twenty-two minutes, there were twitchings of the ears, which had a distinctly paroxysmal character. The ears were raised, and rapidly jerked about for eight or ten seconds, and then remained at rest for twenty or thirty seconds. In twenty-three minutes, there were shakings of the head and clonic spasms of the eyelids and eyebrows, causing forcible winkings. In twenty-four minutes, the ear-twitching still continuing with increased severity, the head was drawn slowly and rigidly backwards, until the erect ears rested upon the back; the fore-paws were spread out, and the body was then, with convulsive starts, drawn backwards and upwards, until the fore-paws were raised in the air, and the animal sat in the position of a squirrel when eating, all its muscles, however, being agitated by clonic spasms. In a few seconds more, the animal tumbled backwards, and, the clonic spasms suddenly ceasing, it scrambled on to its feet. In twenty-six minutes, there was another convulsive seizure, like the former one, and also ending in a tumble backwards; and, in twenty-seven minutes, there was another, in which the head was drawn round to the right side, until the nose was pressed against the shoulder; the animal then turned round rapidly three times from left to right, after which all the muscles were affected by clonic spasms; these were at first coarse in character, causing sudden startings, and then fine, causing tremblings and twitchings. There was dribbling of saliva from the mouth, with incessant movements of the lips, whiskers, and cheeks; the eyeballs were drawn upwards and backwards, and were occasionally affected by nystagmus. The pupils became dilated at the close of each fit. In twenty-eight and in twenty-eight and a half minutes, there were further seizures, and, at the close of the last, the animal fell on its left side, and was unable to regain its feet. The convulsions then became continuous. The head was thrown back, the ears were jerked about, the limbs were all extended, and worked rapidly, as in running, and there were incessant munching movements of the lips and cheeks. Peculiar murmuring noises or little short cries were emitted, and a large quantity of viscid saliva streamed from the mouth. Universal clonic spasms of this kind continued uninterruptedly for ten minutes; but their severity gradually abated. In thirty-eight minutes after the injection, there was a brief period of freedom from convulsions, and thereafter snatches of rest became more frequent and prolonged. In fifty minutes, the rabbit was lying quietly on its side in a drowsy state, broken in upon by occasional sudden irregular muscular twitchings, but giving no evidence of sensibility, or even of reflex excitability. Pinching of the tail or paws did not evoke movement of any kind. In two hours after the injection, the rabbit was still on its side, and subject to slight twitchings. Then, however, it got on to its feet, and endeavoured, in a helpless stumbling way, to move about; but, for three hours more, it was sickly and feeble, and not until five hours after the injection was it quite itself again.

*Experiment* III.—Rabbit weighing 3 lbs. One-quarter of a grain of picrotoxine was injected under the skin of the shoulder. In two minutes, it was sickly and frightened-looking, and its respirations were much quickened. In five minutes, it was able to move about, but was very unsteady, and dragged its hind legs after it. In seven minutes, there were quiverings of the ears, shaking of the head, and sudden startings. In nine minutes, munching movements of the mouth began; every effort at voluntary movement at once increased the twitchings of the ears and lips. In ten minutes, there were violent twitchings of the eyebrows, cheeks, and mouth, and the head was drawn first downwards, the ears at the same time becoming erect, and then backwards. At the same time, the bowels acted, and saliva began to trickle from the mouth. In eleven minutes, there was a distinct and violent convulsive seizure, characterised by sharp twitchings of the ears, drawing of the head first to the right side and then backwards, munching movements of the lips, lapping movements of the tongue, and clonic spasms of the paws, causing the animal to jump and prance upon the floor. The fit lasted twenty-five seconds, and then ended abruptly, and was followed by four other similar fits, each, however, more severe than that which preceded it. These four fits, with the intervals between them, were spread over three minutes. It was quite obvious that any attempt at voluntary movement on the part of the rabbit during the intervals between the fits at once brought on tonic and clonic spasms. At the end of the fifth fit, the rabbit, after manifesting some restlessness, suddenly sprang forward in the wildest and most precipitate manner, and ran about the room with great unsteadiness and recklessness, dashing itself against obstacles, and struggling violently. In ten seconds, however, it fell upon its side, and was strongly convulsed. The head was drawn backwards, the back formed a curve, with its concavity upwards, and the tail was raised and drawn towards the head. The ears, which felt hot, were twitched, and so were the eyebrows, eyelids, and eyeballs, the latter being drawn upwards and backwards, and oscillating a good deal. The pupils were widely dilated; the nostrils were distended; the lips were retracted, so as to expose the teeth, which were ground together; and the tongue was forcibly protruded every now and then. Large quantities of saliva, mixed with blood from the tongue, which had been bitten, flowed from the mouth. The limbs were extended, and were in incessant movement, as in vigorous running, and the toes also, with each clonic spasm, were extended and abducted. From this time, there were no distinct interparoxysmal periods; but convulsions of the kind just described continued without interruption and with extraordinary violence. In nineteen minutes, however, it was observed that the movements of the limbs were feebler, though those of the head and face were as severe as ever. The head was drawn back to the extreme possible point, and was shaking incessantly. The crunching of the teeth was loud and frequent, and the contortions of the nose and lips were unmitigated. The animal was quite unconscious; but peculiar short cries and murmuring expiratory noises were emitted from time to time, and saliva still drained away in large quantities from the mouth. The pupils were dilated to the fullest extent, and a considerable amount of a milky whitish secretion trickled from the eyelids. There was no sensibility nor reflex irritability. In twenty-two minutes, the spasms were much weaker; and, in twenty-three minutes, death took place.

*Experiment* IV.—Rabbit, weighing 3 lbs. 12 oz. One-fortieth of a grain of picrotoxine was injected under the skin of the back at

5.55 P.M. Normal temperature taken for 12 consecutive minutes, 103.2 deg. Fahr.

| | Temperature | | Temperature |
|---|---|---|---|
| 6 P.M. | ...103.2 deg. Fahr. | 6.45 ,, | ...100.1 deg. Fahr. |
| 6.5 ,, | ...103.2 ,, | 6.50 ,, | ... 99.8 ,, |
| 6.10 ,, | ...102.9 ,, | 6.55 ,, | ... 99.4 ,, |
| 6.15 ,, | ...102.4 ,, | 7.0 ,, | ...100.0 ,, |
| 6.20 ,, | ...102.0 ,, | 7.5 ,, | ...100.2 ,, |
| 6.25 ,, | ...101.5 ,, | 7.10 ,, | ...100.1 ,, |
| 6.30 ,, | ...100.9 ,, | 7.15 ,, | ...100.8 ,, |
| 6.35 ,, | ...100.4 ,, | 7.20 ,, | ...102.1 ,, |
| 6.40 ,, | ...100.2 ,, | | |

*Experiment* V.—Rabbit, weighing 2 lbs. 8 ozs. One-thirtieth of a grain of picrotoxine was injected under the skin of the shoulder, at 6.54 P.M.; the normal temperature having been, by observations extending over 15 minutes, ascertained to be 102.0 deg. Fahr.

| | Temperature | | Temperature |
|---|---|---|---|
| 6.55 P.M. | ...103.0 deg. Fahr. | 8.5 P.M. | ... 96.9 deg. Fahr. |
| 7.5 ,, | ...103.2 ,, | 8.15 ,, | ... 97.6 ,, |
| 7.15 ,, | ...100.9 ,, | 8.25 ,, | ... 97.9 ,, |
| 7.25 ,, | ... 99.9 ,, | 8.35 ,, | ... 98.4 ,, |
| 7.35 ,, | ... 98.4 ,, | 8.45 ,, | ... 99.2 ,, |
| 7.45 ,, | ... 97.8 ,, | 8.55 ,, | ...101.3 ,, |
| 7.55 ,, | ... 97.4 ,, | | |

*Experiment* VI.—Rabbit, weighing 2 lbs. 10 lbs. One-third of a grain of picrotoxine was injected under the skin of the shoulder at 3.44 P.M.; the normal temperature having been ascertained to be 99.8 deg. Fahr.

| | Temperature | | Temperature |
|---|---|---|---|
| 3.45 P.M. | ... 99.9 deg. Fahr. | 4.5 P.M. | ... 96.6 deg. Fahr. |
| 3.50 ,, | ... 98.2 ,, | 4.10 ,, | ... 96.1 ,, |
| 3.55 ,, | ... 96.8 ,, | 4.15 ,, | ... 95.2 ,, |
| 4.0 ,, | ... 96.6 ,, | Death took place at 4.16 P.M. | |

*Experiment* VII.—A terrier dog, weighing 10 lbs., had three-eighths of a grain of picrotoxine injected under the skin of the back. In eleven minutes, there were general tremor and shivering; and in twelve minutes, convulsions, ushered in by rotation of the head to the right, and twitchings of the cheeks, mouth, and fore-paws, and rapidly becoming general. The fit lasted nearly two minutes, and ended abruptly, when the head fell forwards as if the muscles of the neck had become powerless, and the breathing became stertorous. After a minute's interval, convulsions again came on with marked opisthotonos, in which the head was drawn back and the tail became erect and rigid. After four more fits, all terribly severe, and lasting each about two minutes, the convulsions became continuous, and then very soon feebler in character, while deep coma set in. The animal died just ninety-one minutes after the injection. On opening the head, the dura mater and its sinuses were found to be enormously engorged with dark blood. In the cavity of the arachnoid, was a large soft layer of dark clot covering the anterior half of the left hemisphere. All the vessels of the brain were much engorged with dark blood, as were also those of the spinal cord. The grey matter was much injected. The right side of the head was full of dark and clotted blood, and the left side was uncontracted, and contained a small quantity of dark fluid blood. The lungs were unusually pale and anæmic; and the liver was in the same condition. The bladder was empty, although no urine had been passed during the experiment. During the action of the picrotoxine, the respirations and cardiac pulsations of this dog were from time to time carefully counted, and its temperature was taken in the rectum.

TABLE I.—*Showing Number of Respirations and Cardiac Pulsations and Temperature in a Dog after a Fatal Dose of Picrotoxine.*

| No. of minutes after injection | Condition | Respirations | Cardiac Pulsations | Temperature |
|---|---|---|---|---|
| 2 | Somewhat agitated | — | 138 | 100. |
| 8 | Quiet and natural | 17 | 66 | 99.7 |
| 11 | General tremor | 30 | 126 | 99.4 |
| 15 | Much convulsed | 38 | 164 | 98.1 |
| 18 | Severely convulsed | — | 132 | 98.6 |
| 20 | ,, ,, | — | 69 | 98.8 |
| 22 | ,, ,, | 36 | 63 | 99.3 |
| 28 | ,, ,, | 18 | — | 99.4 |
| 33 | ,, ,, | 18 | 25 | 99.4 |
| 43 | Coma | 33 | | 99.4 |

*Experiment* VIII.—Guinea-pig, weighing 1 lb. 6 oz. One-fortieth of a grain of picrotoxine was injected under the skin of the back. In six minutes, it was dull and stupid, and its respirations were much hurried. In nine minutes, there were general shuddering and quivering of the upper and anterior part of the left ear. In thirteen minutes, sharp paroxysms of general shivering continued to recur every few seconds. In nineteen minutes, it voided a large quantity of urine, and its bowels acted. In twenty-four minutes, the head was drawn to the right, there were munching movements of the right side of the mouth and right cheek, and the left paw was raised off the ground, and performed a number of rapid beating movements in the air. The fit lasted twelve seconds. In twenty-seven minutes, there was another and more severe fit, in which the head was drawn to the left, and there were violent twitchings of the face and fore-paws. Throughout the fit, consciousness was not apparently lost, and after it the animal was quite lively and well.

*Experiment* IX.—Guinea-pig, weighing 1 lb. 3 oz. One-thirtieth of a grain of picrotoxine was injected under the skin of the back. In eight minutes, it was drowsy, and there was quivering of the ears. In fifteen minutes, there were shakings of the head. In sixteen minutes, the head and mouth were slightly drawn to the left. In thirty-five minutes, the bowels acted, and the animal was very unsteady in its movements, stumbling as it endeavoured to walk about. In thirty-nine minutes, there was a fit. The head shook, the mouth twitched, the body was thrown first on to the left and then on to the right side, after which the animal regained its feet. By a series of jerky movements, the body was then raised, the fore-paws drawn backwards until they were off the ground, and the animal tumbled over when the fit ceased, upon which there were violent sneezing, and severe foaming at the mouth. In forty-four minutes, there was another fit, followed by repeated yawning and drowsiness. After this, there were several violent fits, accompanied by unconsciousness, incessant low cries, and copious flow of saliva, distinct nystagmus, and crunching and grinding of the teeth. Then came continuous clonic spasms, gradually becoming feebler, coma, and death sixty-two minutes after the injection.

(*To be continued.*)

## SOME NEW RESEARCHES ON THE CAUSE AND ORIGIN OF FEVER FROM THE ACTION OF THE SEPTINOUS POISONS.*

By B. W. RICHARDSON, M.D., F.R.S.

THIS was a continuation of the author's paper read before the Society ten years ago, viz., in 1865. The author commenced his present lecture by giving a *résumé* of that which he had read in 1865. In that communication he had shown, from a series of experiments made with the serous fluids derived from a patient suffering from pyæmic fever, and under the care of Mr. Spencer Wells, that such fluid when inoculated into healthy animals, produced a distinct and fatal disease which could be transmitted to other animals through several series or generations. To the poisonous matter thus produced he had given the name of *septine*, and he had laid before the society specimens of salts obtained from the septinous matter, viz., a hydrochlorate and a sulphate, both of which possessed poisonous properties similar to those belonging to the mother liquor. He had inferred, therefore, that the poisonous substance was of an alkaloidal character. He had also, in the same paper of 1865, stated the following conclusions as the result of his experimental researches.

1. All the organic disease-producing poisons are modified, *i. e.*, poisonous secretions.

2. The secretions are rendered poisonous by two processes: (*a*) by contact with organic poison pre-existing; (*b*) by direct decomposition.

3. The poison of each secretion possesses several qualities: it can only be absorbed by particular channels, and it can only provoke farther disease by coming into contact with a secretion allied to that from which it was itself derived.

4. The reproduction of the poisons depends on the continuance of the process of physical changes in a continuous secretion. The force of secretion is the force of reproduction.

5. The poisons kill by various means: (*a*) by the secretion causing obstruction of necessary function; (*b*) by exhaustion from excessive secretion; (*c*) by extreme irritation of nerve and reflex injury; (*d*) by the absorption of the poisoned secretion into the blood and disorganisation.

From this point Dr. Richardson went on to describe that since the announcement of the facts had been put forward originally respecting septine, similar results had been obtained by Coze and Felz, Davaine,

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* Abstract of a paper read at the Society of the Medical Officers of Health.

Béhier, Vulpian, and MM. Thin and Clementi. It had further been discovered by Davaine that the intensity of the poisonous matter increased in the most marked degree, and in a manner that seemed to defy computation, with the transmission of the poison through fresh series of animals.

The author now proceeded to the details of his new research, illustrating it step by step by experiment. He had put to himself the question, Why does the poisonous septinous matter produce a definite order of morbid symptoms, and why, specially, does it produce fever? In the first parts of this inquiry he had put aside altogether the animal body, and had tried to learn what effect the poisonous substance would exert when it was brought into contact with other organic bodies of unstable composition. Would it act like ferment on saccharine substances? Would it modify the process of acetification? Would it interfere with the oxidation of readily oxidisable matters? Without entering into details that were negative, he found, he said, one affirmative fact from his experiments, upon which he should base to-night a new theory on the cause of the fever and other symptoms that occur in the living animal under the influence of septine. He found that it was the property of all the septinous poisons to liberate oxygen from that solution of oxygen known as peroxide of hydrogen. This fact was illustrated by showing the action of minute portions of pyæmic poison, vaccine, pus, decomposing blood, and other similar bodies. The solution, which contained ten volumes of oxygen, was placed in tubes, and was inoculated with the various specimens of septinous matter, with the effect in each case of causing a rapid evolution of the oxygen. The same result was produced by the action of fibrine on cellular tissue, but was shown to be negative with mucus, upon which fact, the author incidentally remarked, a new diagnostic test between mucus and purulent matter is established. The septinous matter in every form seemed, from its action upon peroxide of hydrogen, to have been derived, either from fibrine or from cellular tissue, or from derivations of these bodies.

From the action of the septinous product on oxygenised water, the author indicated their action on oxygenised blood. To a specimen of blood which had been charged with oxygen, he added solution of the peroxide to saturation. Into this he now plunged a thermometer, the bulb of which was armed with a little fibrine. Upon this oxygen began to liberate from the blood with evolution of heat, the mercury in the thermometer rising four degrees.

After adding some other experimental facts and summing up the results of all the facts he had placed before the Society, Dr. Richardson stated the theory at which he had arrived as to the effects of the septinous matter on the living organism, with special reference to the febrile state. The theory was that the septinous product acts upon the blood in the extreme circulation, when it has accumulated in sufficient quantity by liberating a portion of the oxygen. Upon this occur the same phenomena as had now been observed in experiment; but, as the poisonous organic product is itself destroyed in the process, the effects it produces may remit until a new charge of the poison has been produced in sufficient quantity to cause a repetition of the febrile state. Thus the theory suggested a simple reason for the remittency of fevers.

The various phases of febrile disturbance were next adverted to. It was indicated that in some instances, as in the most malignant forms of small-pox, the blood may be so charged with septinous matter as to be unable to take in oxygen in the process of respiration, then death takes place by asphyxia after a brief period of febrile heat. In another variety of cases the liberation of the oxygen is so persistent that remission of the fever is hardly perceptible; and in other exceedingly light cases, where the quantity of poison is very small and is not reproduced, one sharp paroxysm of febrile phenomena may be all that is witnessed. In cases of abscess or of cavity in the lung this same order of phenomena may be observed in a modified degree.

The lecturer continued by showing that some chemical agents added to water charged with the peroxide solution tended to fix the combination and to neutralise the action of substances which liberate the oxygen. An experiment illustrating this fact by the action of quinine brought the lecture to a close.

## OBSTETRIC MEMORANDA.

### DOUBLE MONSTROSITY: MATERNAL IMPRESSION.

On November 18th, 1874, I was called to assist Dr. Bourns of Oxted in a case of difficult labour. I found that the patient, who had borne several children without misadventure, had had labour-pains, more or less for two days; that, six hours before my visit, the head had been delivered by forceps, having been within reach, and making no progress for some hours previously; and that all the effort and power that had been applied had been insufficient to deliver the body. The woman was tired, and full of apprehension, but her condition otherwise was not unfavourable. On placing my hand on the abdomen, I was led, from the size of the womb, to pronounce at once that there were twins. A large head and shoulders protruded from the vagina, much decomposed, livid, and with cuticle peeling off at a touch. On carrying my left hand along the child's back in the hollow of the sacrum, I felt a small foot and leg packed down between the pelvic brim and the child's pelvis; and my impression was, that the case was one of locked twin, the obstruction to delivery arising from the lower extremity of the second child having descended below the pelvis of the first. I tried to push up this leg, but unsuccessfully. Taking a firm hold of the shoulders, and using all the force of which I was capable, I could not move the child in the slightest degree. I now extended the arms above the head, wrapped them in a towel, to give a firm hold, and, whilst using powerful traction, made an effort to rotate the trunk. This was successful in moving the body, and, by continuing the force, the lower part of the body was brought down. The leg which I had felt, proved to be a supernumerary limb attached to the sacrum of the child; and, by continuing my manipulations, I was soon able to bring down the breech and two proper legs of the child. But, now it was evident that a second body sprang from the abdomen of the first; and, by a little further forcible traction, the delivery was completed. The child had one pelvis, with two well-formed lower extremities and a third smaller one attached to the sacrum, forming a tripod. Male genital organs and rectum were apparently perfect; there were a single cord and umbilicus. From the level of the umbilicus there were two distinct trunks, each with perfectly formed upper extremities and heads, well nourished and of full size. Plate 83 in Dr. Ramsbotham's *Obstetric Medicine* gives a fair idea of the monster, if a third leg be added. It was remarkable that the body of the second part was pink, and looked as though it were viable, whilst that first extruded was livid and decomposed. The cord did not pulsate; the placenta was removed without difficulty, and the uterus contracted well. When the delivery was accomplished, during which nothing had been said to give the woman a hint of what she had brought forth, I told her that she would do well, but had got a dead child, adding that it was deformed. She replied: "I thought it would not be all right; for I was frightened, at Limpsfield fair, by two men outside a show, who kept hugging each other closely and posturing. I was frightened by them, but could not keep my eyes off them." This fair happened when she was about three months pregnant. Anyone who has Ramsbotham's *Midwifery* will see at once that the figure in plate 83 resembles exactly two men hugging in a wrestling match. The mysterious subject of maternal impression has been so well handled in two good papers in the JOURNAL of February 6th, that I will add no more.

C. ROBERT THOMPSON, M.R.C.S.

## CLINICAL MEMORANDA.

### CASE OF POISONING BY CHLORAL HYDRATE: RECOVERY.

SHORTLY before one o'clock on the morning of February 26th, I was summoned to see a druggist's assistant, who, it was stated, had fallen down, and was totally unconscious. On my arrival, he was lying on the floor of the sitting-room adjoining the shop, quite insensible, breathing heavily, and at times almost stertorously; his face was dusky; pupils much contracted; pulse weak and about 76. He could not be roused, and he made no attempt to reply to questions put to him. I was informed that he had been out spending the evening with a friend, returned at 12.30 perfectly well, and conversed with the inmates of the house in his usual manner. He had been in the habit for some time of taking chloral hydrate; and, on leaving him alone in the sitting-room, the druggist charged him not to take any that night. On returning, however, after only three or four minutes' absence, his master found him lying on the floor in pretty much the state above described. He immediately sent for me, and not much more than twenty minutes elapsed before my arrival. A stomach-pump not being at hand, an emetic was immediately administered. He vomited freely, rousing himself at each act, and uttering some inarticulate sounds, but falling back into a more or less insensible condition. Gradually, however, the breathing improved; consciousness returned; he looked about him, answered questions, and soon after 2.30 was taken up stairs to bed. After a few hours' rest, he appeared perfectly well. He admitted having taken the chloral, and that he drank it out of the bottle used in the shop, containing a solution of the strength of a grain to a minim; and, from fear of being caught, drank it hurriedly, and took more than he intended. It is difficult to estimate the quantity that he took; but, as an ounce and a half of the solution were gone from the bottle, and the druggist was only able to account for three drachms of it, and from the fact that drachm doses were known to have little effect on him, it would appear that the amount was considerable. He is forty-six years of age, and has been an inmate of an asylum, from which he was discharged only five weeks before. While there, he says, chloral was frequently administered to him.

SIMEON SNELL, L.R.C.P.Lond., M.R.C.S.Eng., Sheffield.

## THERAPEUTIC MEMORANDA.

### USE OF TAR IN BRONCHIAL CATARRH.

DR. RINGER's communication, on the value of tar in bronchial catarrh and winter cough is likely to interest many others besides myself. But in seeking, at once, to prove the usefulness of the remedy, I was met by the difficulty of its administration. Tar is a liquid (in fact liquid pitch), and cannot be mixed with flour (as recommended by Dr. Garrod) even with the addition of compound tragacanth powder; and yet Dr. Ringer employs tar in two-grain doses, made into a pill, every three or four hours. Would he kindly tell us his method of doing this?

"Pitch is the altered resin resulting from the distillation of tar." Is it this which is prescribed by Dr. Ringer, and not tar?

Were the observations made by Dr. Ringer with ipecacuanha wine-spray last August published in the BRITISH MEDICAL JOURNAL? If not, would he very kindly explain the whole process? The quantity of wine in those who can bear it, and the intervals he advises between the applications?

R. R. CHEYNE, Nottingham Place.

# REPORTS
OF
# MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

## LONDON HOSPITAL.

### CARCINOMA UTERI: UTERINE HÆMORRHAGE CONTROLLED BY HYPODERMIC INJECTION OF ERGOTIN.

(Under the care of Dr. HEAD.)

For the following notes we are indebted to Mr. H. T. SHAPLEY, Resident Accoucheur.

ELIZABETH S., aged 33, was admitted into Victor Ward on November 10th, 1874. She had been married fifteen years, and has been a widow for eight years. During her seven years of married life she bore five children. She first menstruated at the age of fifteen, and suffered from dysmenorrhœa until her marriage at eighteen. She enjoyed moderately good health till seventeen months ago, when considerable pain came on at her menstrual period, with profuse bleeding. Hæmorrhage had continued on and off ever since, but always worse at her periods, and was attended with sharp cutting and expulsive pains, especially referred to her right side. She had had a discharge for about the same time, but said that it had never been "particularly" foul smelling. Examination *per vaginam* revealed a very advanced malignant disease all around the cervix, and extending high up into the fundus. Her constitutional signs, also, were indicative of the character of her malady. During her stay in hospital, she had two hæmorrhages. The first followed an examination with the sound; it was not excessive, and was stopped by the introduction of ice. The next was more severe, and could not be arrested till the perchloride of iron was applied. Hæmorrhage returned on January 8th, 1875; it came on severely about seven o'clock P.M. Ice was tried, but to no purpose; plugging had not the slightest effect; the resident accoucheur was, therefore, compelled at last to swab the whole of the interior of the uterus with perchloride of iron. This took some time to arrest the flow of blood which was issuing freely from the irregular and scarcely distinguishable os. A plug of cotton-wool, saturated with solution of perchloride of iron, was left in the cervix, and the hæmorrhage ceased; since then, she had two hæmorrhages. On February 1st, the first took place, and was very profuse. The resident accoucheur injected at once two of Dr. Sansom's ergotin discs into the forearm, dissolved and introduced after his plan. (There is one-third of a grain in each disc.) No plug, ice, nor other means was employed. For the first five minutes, the quantity of blood seemed as much as before, but slowly and surely afterwards the quantity decreased, till, at the end of half-an-hour, hæmorrhage had entirely ceased. She had not the slightest inconvenience following this treatment, neither had she the elevation of temperature (103.5 degs.) which she had after the perchloride of iron swabbing. So confident was the patient of its efficacy, that she said, "I hope, sir, that if the bleeding comes on, you will give me another of those things in the arm".

The next hæmorrhage occurred on February 17th. She had bled a little in the morning early; and, whilst the resident accoucheur was in the ward, it came on, but not so profusely as in the previous attack. This time three discs were used. They acted more quickly than on the former occasion, and hæmorrhage all stopped in about twenty minutes. No bad symptoms followed.

Her other treatment has simply been to relieve symptoms, opium and chloroform, stimulants, etc. She has had no hæmorrhage since.

## BIRMINGHAM GENERAL HOSPITAL.

### SYPHILOMA OF THE CEREBRAL MEMBRANES IN THE MIDDLE LINE, AND ALSO OF THE SPINAL MEMBRANES IN THE CERVICAL REGION: REPEATED EPILEPTIC AURA ON EACH SIDE OF THE BODY AT DIFFERENT TIMES: LOBULATED LIVER: ENLARGED SPLEEN.

(Under the care of Dr. RUSSELL.)

SOME points of interest are connected with the following case which may deserve a brief notice. In the first place, I may observe, in connection with the enlargement of the spleen, that the patient presented during life an anomaly which, for a short time, threw doubt upon the diagnosis; the splenic tumour was distinctly resonant on percussion, as though the intestine passed in front of it; the resonance, however, concerned only the inner portion of the tumour, leaving the outer portion dull, a circumstance which would not have happened had the colon been in front of the tumour. This resonance was correctly referred to the presence of the stomach over the enlarged spleen; though why that organ should occupy such a position, and should besides remain permanently distended, was not accounted for until we found, after death, that, through its adhesion to the liver, the stomach was tilted down over the spleen, whilst the adhesions around the pylorus rendered the free exit of flatus difficult.

I need not notice the thickened condition of the spinal membranes and their adhesion to the cord further than to point out how strikingly this portion of the disease, together with the thickening of the cranial dura mater, illustrated the local and limited character frequently observed in visceral syphilis. I may, however, ask the question whether the shivering and pain from which the patient suffered at times, and the remarkable perspirations which followed the fits, may not have been due to the disease of the spinal membrane partaking of the character of spinal epilepsy.

In remarking on the epileptic attacks (I use the word epilepsy in its widest application), I need do no more than mention Dr. Hughlings Jackson's name as the author of the clear knowledge we possess as to the cerebral disorders which accompany foreign formations within the cranium. In the present case, we had two out of the three symptoms of cerebral tumour formulated by Dr. Jackson—severe headache and double optic neuritis. Moreover, the epileptic attacks which frequently accompany these intracranial formations often present that phenomenon known as an aura; the nature of the aura differing according to the position of the tumour, according, that is, to the arterial region within the cranium affected by it. When the tumour is seated in the region covered by the branches of the middle cerebral artery, the aura is seated in one of the limbs, of course, on the opposite side of the body, and by far most frequently in the upper extremity. In my present case, however, the attacks chiefly concerned the lower extremities; but two or three of them commenced in the left upper extremity, presenting the characteristic type, the thumb being first affected, afterwards the arm, and then the left side of the tongue and the left angle of the mouth.

It will be remarked that the intracranial growth occupied the middle line at the vertex, having much larger dimensions on the right side than on the left, but affecting both sides. Now, it is interesting to note, with this fact in view, that the fits affected each side of the body, but at different times; and that they were more frequent in the left lower extremity than in the right, corresponding to the larger size of the growth on the right hemisphere. The foreign formation on the vertex was still within the field occupied by the middle cerebral artery. We shall not fail to notice the success of the ligature in cutting short most of the fits.

The last remark which I would make is, that (as Dr. Jackson has often observed) the headache and the optic neuritis are neither of them localising symptoms; neither of them affords any information as to the position of the tumour within the skull. In my present case, the growth was on the part of the cerebrum apparently most widely separated from the optic apparatus (on the vertex), and was equally removed from the parts of the head in which the headache was seated, the forehead and right temple.

The patient, aged 36, was admitted on May 25th, 1874, on account of diffused, deep-seated thickening, with some external enlargement, occupying the posterior and lateral regions of the upper part of the neck. This thickening was of three months' duration. During the fortnight preceding admission, a considerable amount of paralysis had attacked certain muscles of the upper extremities, with diminution of electro-muscular irritability and sensibility, but preservation of cutaneous sensibility. The paralysis was limited to particular muscles, and was evidently due to pressure on the anterior roots of certain nerves by the foreign matter deposited around the cord. During the first month of residence in hospital, the patient had frequent paroxysms of intense pain in the frontal and right temporal region; he had felt the pain for five months. There had been no vomiting. The man had had some indefinite venereal symptoms fourteen years ago, but no secondaries; and a severe attack of rheumatism seventeen years ago, lasting fifteen weeks. Iodide of potassium in full doses (twenty-five grains) procured considerable amendment; and the patient left the hospital on July 3rd, but with considerable remains of the cervical induration. He fully regained the use of his upper extremities.

The patient was readmitted on October 7th. The cervical thickening was now more consolidated; and a soft, but nearly painless, node had formed on the vertex of the cranium in the middle line.

Mr. Priestley Smith, at this period, discovered the presence of double optic neuritis. The liver and spleen were both considerably enlarged; there was extreme pallor, with subsequently (for a time) a faint lemon yellow tinge of the skin and conjunctiva, but no increase in the white corpuscles of the blood. The urine was free from albumen, and continued so; it was tested for sugar at a later period, but did not contain any. The treatment employed consisted of iodide and bromide of potassium, steel, cod-liver oil, subsequently minute doses of strychnia, with good diet; but, beyond the removal of the external node, little amendment was effected. The man progressively, but slowly, emaciated, and died January 7th of the present year.

I have now to mention some nervous symptoms of interest, presented chiefly during the second residence in hospital. Power over the lower extremities was gradually lost, though the paralysis did not become quite complete; cutaneous sensibility and electro-muscular irritability also became lessened in the lower extremities; finally, the sphincters became implicated.

Pain in the head was a less prominent symptom during the second, than it had been during the preceding, residence; but the patient suffered from repeated epileptic fits presenting a curious variety of type. Two only had occurred on the former occasion.

The most numerous attacks began with numbness or tingling over the entire *left* foot, not, however, selecting any particular toe (in this matter the patient was very positive), but felt most intensely on the plantar surface; a pain or sensation then ran up the leg, on some occasions along the course of the external saphenous nerve, behind the outer ankle, and, on reaching the middle of the thigh, or in some cases the trunk, the patient became insensible; the convulsions, when they occurred and could be ascertained, were bilateral. These fits, however, were generally interrupted by the ligature round the thigh, and convulsions occurred only three or four times. In other and different attacks, the *right* foot became cold, then the leg was "deadly cold", according to the report both of the nurse and of the patient (unfortunately, the thermometer was never employed). These attacks never ran into a fully developed fit, being always arrested by a ligature; but the coldness continued, and extended over the entire trunk, lasting for a whole night (these latter fits were very few, and occurred late in the evening), followed at length by very profuse perspirations.

Two or three times a different kind of fit took place. A tingling sensation began in the left thumb, then extended to all the fingers, and ran up the arm, extending over the trunk; last of all, it reached the left angle of the mouth and left side of the tongue; speech was never interfered with, but the patient broke out into most profuse perspirations; the sweating continued for hours, literally saturating the body, the bedclothes, and the pillow. On one occasion, the thermometer, in the axilla, during the perspiration, registered 101 deg.

During the last two weeks of life, slight shiverings affected in paroxysms the upper part of the body; and it was then that the upper extremities first gave decided evidence of failing power. During the last two days of life, paralysis of the arms was nearly complete, and of the intercostal muscles also, with anæsthesia of the chest.

*Post Mortem Examination.*—The spleen weighed forty ounces, examined with the microscope, in its fresh state, by Mr. Bindley, the pathologist to the hospital; it was found free from any foreign element. The liver weighed ninety-two ounces; it presented the extremely lobulated character figured by Frerichs (Sydenham Society's Translation, vol. ii, p. 166), in his chapter on Syphilitic Disease of the Liver. Throughout its substance, bands of condensed connective tissue ran, giving it the so-called hobnail appearance. The capsule was not thickened, but the liver was generally adherent to all the surrounding organs. The condition of the stomach, resulting from its close connection with the liver, has been already described. The kidneys weighed each nine ounces; their capsule peeled off easily. In the cervical region of the spinal column, the tissues lying upon the arches of the vertebræ were found matted together and much indurated; from the atlas to the third vertebra inclusive, the membranes of the cord were massed together, and thickened nearly to the extent of one-third of an inch; the dense tissue thus formed closely surrounded the cord, and adhered so firmly to the anterior common ligament, that the knife was required to effect their separation. The interior surface of the first three vertebræ was eroded, and a small exostosis projected from the third vertebra. At the vertex, the cranial bones were deeply eroded for an extent corresponding to the diseased portion of the membrane, the erosion affecting alike the inner and the outer table. The dura mater was much thickened and very rigid along the median line, beneath the interparietal suture, for the extent of two inches and a half by one inch and a half on the right side of the falx, to a considerably less extent on the left side of the falx; the longitudinal sinus was completely obliterated in this part. A firm elastic flattened growth, of a lemon-yellow colour, divided into two lobes, grew from the inner surface of the thickened membranes on the right side, and compressed the corresponding convolutions. It commenced just half an inch behind the fissure of Rolando, and ran for two inches along the middle line of the hemisphere; the greatest thickness of the growth rather exceeded a quarter of an inch. On the left side, in the corresponding part, a similar growth existed, but of much smaller dimensions. The falx itself, the rest of the membranes, and the brain, were quite healthy.

Mr. Philip Bindley reports that the parts of the nervous centres invaded by the new growth presented the usual appearance of syphiloma. In the cord, the hyperplasia was confined to the outer layers of the dura mater; the part adjacent to the cord consisting of fibrous stroma, without any cell-elements. The cord itself was not involved. The roots of the nerves, especially the anterior, were much contorted in passing through the thickened membrane. Connective tissue-overgrowth, infiltrated with small cells and nuclei, extended through all parts of the liver, in many places being intercellular as well as interlobular. The uniformity and regularity of this overgrowth, as being universal, is worthy of note; it did not seem to have produced atrophy or destruction of the hepatic cells.

# REVIEWS AND NOTICES.

A PLEA FOR THE GENERAL HOSPITAL SYSTEM. By J. M. GRANT, M.D., Deputy-Surgeon-General and Principal Medical Officer, Curragh District, 1875.

WE recently received a pamphlet entitled *The Present State of the Army Medical Service as a Life Career for the Surgeon*, and written by Dr. E. Hamilton, Vice-President of the Royal College of Surgeons of Ireland. (See the BRITISH MEDICAL JOURNAL of January 9th, p. 48, and, more particularly, the JOURNAL of January 23rd, p. 121.) In this pamphlet, Dr. Hamilton decried the system of army medical administration by general hospitals, and strongly recommended a return to the regimental system of organisation which was in vogue prior to the change made by the Warrant of March 1873. Dr. Hamilton's remarks on this head have now led to a rejoinder by Deputy-Surgeon-General Dr. GRANT, under the title which has been placed at the head of these remarks. Although the pamphlet is marked "printed for private circulation", we presume, since it has been forwarded to us, that a brief notice of it may not be unacceptable.

Dr. Grant confines his remarks to the strictures which Dr. Hamilton has made in his pamphlet on the system of general hospitals in the army, and to each of these strictures he replies in succession. At the same time, Dr. Grant expresses very freely his feelings of gratitude to Dr. Hamilton for the disinterested efforts which he has made to advance the interests of the army medical officers in respect to the improvements in their pay, promotion, and retiring allowances, which he has advocated in his publication.

The first of Dr. Hamilton's allegations against the general hospital system which Dr. Grant notices is, that the status of the medical officer has been materially damaged by breaking up the regimental system. To this Dr. Grant replies that, inasmuch as the duties and responsibilities of medical officers are the same—the difference between the two systems being only one of detail—the status of the medical officers can hardly be said to be affected by the change from one to the other; if, however, it be at all affected, then, inasmuch as the medical officers are under the command of military officers of higher rank than formerly, their military status is rather raised than lowered. Dr. Hamilton's remarks on the extravagance of a system of general hospitals is answered by an enumeration of the expenses entailed in the maintenance of a separate hospital establishment for each regiment at a station, and the contrast afforded by a general hospital calculated to meet the requirements of all. "Imagine", writes Dr. Grant, "such an arrangement adopted in our city hospitals—one set of wards being exclusively set apart to one street or district, and another to another—and the extra outlay in buildings, fuel, and attendants that would follow, will be more apparent than it seems to be to our brethren in civil life". Dr. Grant maintains, that the balance of advantage in economy, efficiency, and in comfort to the sick soldier, is all on the side of the general hospital system. When a regiment moved from its quarters, the worst cases in the regimental hospital "had always to be transferred to another hospital, and such of the sick as did accompany the regiment did so at the cost of much discomfort and very considerable risk. Regimental unity and regimental *esprit de corps* are not regarded by Dr. Grant as being of much concern to the army surgeon. "Medical officers, not having any military command, never could have any share in the military glory of their regiments, and with them *esprit de corps* should take a much wider range." On the other hand, unity in the medical service is very desirable; and, referring to the regimental system involving a division of the medical department into regimental medical officers and staff medical officers, Dr. Grant writes, "it has always appeared to me that the separation of the department into two classes, with different interests and looking to different quarters for support, has detracted from its strength and efficiency, and lowered its standing".

We have not space to notice Dr. Grant's remarks in reply to Dr. Hamilton's views on the necessity for regiments in time of war having surgeons of "their own"—not merely having a sufficient number of surgeons with them; but must conclude by quoting part of the summary which the author himself gives of the general hospital system and its advantages. "The general system", he writes, "provides for the embodiment of all the officers of the department into a corps, to be distributed throughout the *districts* at home and abroad, in which troops are stationed; the raising and maintaining in a state of efficiency a corps of trained hospital atrendants; and the maintenance of hospitals with *fixed establishments* of medical officers and subordinates, in such number, and at such stations as the general wants of the military service may require; and its advantages to the public are, economy of hospital accommodation, fuel, and attendance; a more even distribution of medical aid to meet all contingencies during peace and war; a constant supply and sufficient reserve of trained hospital attendants, without drawing on 'the already too much attenuated British battalions' for them; saving of money and trouble in carrying about heavy and perishable hospital stores each time that a regiment changes quarters; and last, but not least, the sick remaining undisturbed in hospital when a regiment leaves a station, and their reception at all times into hospitals already in occupation, thoroughly warmed and aired, with all necessary appliances, fit for immediate use, where they can remain, with proper management, under the care of the same doctors till they are cured and fit to rejoin their regiments."

We have not adverted in the foregoing remarks to all the points on army hospital organisation to which attention is called in the pamphlet before us. We feel that those who are engaged in making a study of the subject will do well to read the pamphlet itself, and to compare for themselves the arguments adduced in it with those which have been recently circulated in the pamphlets by Surgeon-General Mouat and by Dr. Hamilton, on the same topic.

## COLUMN FOR THE CURIOUS.

The Whipping-Post and Ducking-Stool.—The former of these two modes of punishment was in use at the beginning of the present century; the latter was discontinued about a hundred years since. The ducking- or cucking-stool was chiefly used, like the brank, to chasten scolds of the female sex. They were sometimes only exposed in it without being ducked, or the apparatus was wheeled to their doors and left there for a time. Mr. Acton will find the answer to his question in the following quotation from the *Universal Spectator*. "Saturday, October 14th, 1738. Last week, at the Quarter Sessions at Kingston-on-Thames, an elderly woman, notorious for her vociferation, was indited for a common scold, and the facts alleged being proved, she was sentenced to receive the old punishment of being ducked, which was accordingly executed upon her in the Thames by the proper officers, in a chair for that purpose preserved in the town; and, to prove the justice of the court's sentence upon her, on her return from the water-side, she fell upon one of her acquaintance, without provocation, with tongue, tooth, and nail, and would, had not the officers interposed, have deserved a second punishment even before she was dry from the first." The ducking-stool was also used to punish women upon the town and other notoriously bad characters.—J. H. Aveling, M.D.

Aqua Vitæ: Aqua Mortis.—The following quaint lines on the history of alcohol well depict its disastrous effects on the human race. "Is 'aqua' alcohol? Yes; aqua fortis: '*Aqua vitæ*' once, Now '*aqua mortis*'." In explanation of these lines, it must be stated that alcohol, when first introduced to the world in its concentrated form in the eleventh century, was invested by the imagination of men with a strange potency. Its vendors claimed for it the virtues of an elixir—of a catholicon; and physicians doled it out under the pretentious name of "aqua vitæ". But, passing from the shops of the apothecaries into general use, it soon earned a title to the appellation of "aqua mortis".

# SELECTIONS FROM JOURNALS.

## MIDWIFERY AND DISEASES OF WOMEN.

Electricity in Cases of Anteflexion and Retroflexion.—M. Tripier was led to employ electricity in these cases by observing that, in a case of encysted hydrocele of the cord, the spermatic artery could be felt pulsating as long as the electric current was being applied, but not at any other time; from this he concluded that the electric current produces hyperæmia during its application. Also, since the contraction of a muscle determines the amount of its nutrition, if it can be incited to contract, its nutrition can be increased. If, therefore, it were possible to localise the electric current to one or other wall of the uterus, that part would be incited to contract, and so counteract a flexion in the opposite direction. M. Tripier has had a sound constructed with a curve corresponding to that of the sacrum. At its extremity is an olive-shaped knob, the stem being isolated. This can be passed into the rectum, and the extremity brought into contact with the posterior wall of the uterus. A similar sound, but without the sacral curve, is now passed into the uterus; and, when both sounds are connected with a battery, the current passes through the posterior wall of the uterus, causing it to contract, and thus lessening any anteflexion that may be present. In cases of retroflexion, the second sound is passed into the bladder and placed against the anterior wall of the uterus; the result being, that retroflexion is lessened. In both cases, the uterine sound is connected with the negative pole of the battery. The pain is of two kinds: first, that caused by the sensibility of the mucous surface to the electric current, and, second, that caused by the contraction of the uterus, which is generally the more severe. M. Tripier has never known inflammation caused by this proceeding, or the pains to persist after the circuit has been broken. At the commencement, the current should not be strong, but should gradually be increased till uterine action is aroused. As soon as this takes place, the current should be maintained at the same intensity for about three minutes. The sittings should be commenced about fifteen days after a menstrual period, and continued daily during the first month till the period. During the second month, the sittings may be less frequent. Fever contraindicates the use of electricity, as the pains are then very severe. In cases of simple congestion, relief has usually followed the second or third sitting. Absolute rest is not essential; on the contrary, exercise is beneficial to the patient, and any fatigue felt will be removed after the application of the electric current.—*Gazette Obstét.*, July 5th, 1874.

## THERAPEUTICS.

Action of Digitalis on the Evolution of Typhoid Fever.—Dr. Bernheim, Professor Agrégé at the Faculty of Medicine at Nancy, publishes, in the Memoirs of the *Société de Médecine de Nancy* for 1873, his conclusions on this subject. They are as follows. 1. The thermometric evolution of typhoid fever is comprehended in the following formula, initial period from three to five days. Period of actual disease from one to two weeks, period of decline from six to eight days. In serious cases, a second irregular period commences about the middle of the third week. 2. Digitalis, when administered in typhoid fever, always produces lowering of the temperature; either complete defervescence or remission. 3. The first effect of digitalis on the temperature shows itself two days after administration, the lowest temperature is obtained on the following day, sometimes only on the fourth day after its administration. 4. The lowering is generally progressive; sometimes it terminates by a more rapid fall. In some cases, there is a very rapid fall in the interval between two thermometric observations, from the evening to the morning, or from the morning to the evening. 5. During the action of the digitalis, the temperature may rise again in the evening, often it is equal, or inferior to that of the morning. Defervescence, or the greatest remission, may occur in the evening. 6. This defervescence, or greatest remission, lasts from a few hours to three days, the temperature then rises. In about two-thirds of the cases, it no longer rises to the same height as before the administration of the digitalis. 7. The action of digitalis on the thermometric evolution of typhoid fever may be thus expressed, the temperature is lowered. Taking into account the descent, the minimum, and the reascent, it may be said that the duration of the influence on the temperature varies from three to twelve days, the average being seven days. In two-thirds of the cases, the thermometer never reaches the original point. 8. The pulse generally falls gradually with the temperature; the temperature rarely falls before the pulse, or the pulse before the temperature. 9. It is very rarely that either the pulse or the temperature is alone influenced. 10. The pulse and the temperature fall together, but not in a parallel manner. Sometimes the pulse is lowered at night whilst the temperature still undergoes the evening exacerbation. 11. After the reascent of the temperature, the pulse generally remains low; it may even slacken still more, and attain its minimum several days later, even remaining slow during three weeks. 12. The lowering of the pulse varies from thirty to sixty pulsations. In the greater number of cases it falls below the normal. 13. The sphygmographic tracings undergo modifications through digitalis. Dicrotism between two pulsations appears on the line of descent. It rises again on that line. The pulse first becomes irregular, often reduplicate; then the line of descent becomes longer and more oblique, and tends to show a convexity above. These characteristics are explained by increase of tension and arterial tonicity. 14. Digitalis has never produced any unpleasant action on the nervous system nor on the digestive canal. The delirium often ceases or diminishes with the decrease of heat, and respiration is calmer. The intestinal hæmorrhage pointed out by Ferber as being probably produced by digitalis, does not appear in any case to have been due to this medicament. 15. The fever may evolve itself with a slackened pulse. The acceleration of the heart's action is not necessary to fever, it is a secondary phenomenon which appears to be due to the augmentation of the heat itself. In the tracings of pulse and temperature taken about the beginning of an attack of fever, the thermometric tracing rises before that of the pulse. 16. The slackening of the pulse obtained by digitalis, is not the cause of the lowering of the temperature. 17. The physiological mechanism of the antipyretic action of digitalis is not explained. This action is at least partially independent of the heart and of the modifications of the arterial tension. Digitalis does not seem to act directly on organic combustion. A nerve-poison and not a blood-poison, it appears to act on the nervous system, the regulator of the animal temperature, an apparatus which, on one side, directs the waste of caloric notably by the vaso-motor nerves, and which, on the other hand, regulated the production of caloric by special ways, yet unknown, but admitted by most physiologists.

Use of the Stomach Pump.—Washing out of the stomach, and the aspiration of liquids secreted by it, is more and more practised in Germany, since Kussmaul highly praised this method. Dr. Schliep uses it in nearly all affections of the stomach, especially in chronic gastritis, with or without dilatation. The cure of chronic catarrh, according to his account in the *Deutsche Klinik*, vol. xiv, would require but a limited number of applications. In simple catarrh, five would suffice on an average. He uses this method even in the dyspepsia of consumptive patients. In dilatation of the stomach, he empties that organ with the pump every day. He performs the washing out even in cancer with pure water; or adds bicarbonate of soda to the water, if the liquids be very acid; or permanganate of potash, if these liquids show signs of fermentation; carbolic acid, when they contain vegetable parasites; boracic acid, as a disinfectant; and tincture of myrrh, in atonic dyspepsia with abundant secretion of mucus.

## BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1875.

Subscriptions to the Association for 1875 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. Francis Fowke, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, MARCH 27TH, 1875.

## PROVIDENT INSTITUTIONS AND HOSPITALS.

### I.—Out-Patient Departments.

The most difficult problem which presents itself to those who have earnestly studied the question of medical relief to the poor is, how to draw a line which shall, while admitting all applicants who are really deserving, rigorously exclude those who are able to pay, at any rate something, for medical attendance in the day of sickness. We propose to examine this question under various aspects, and to endeavour to show how a practical scheme of relief can be adopted by the authorities of hospitals having large out-patient departments, which shall enable them to materially diminish, or, as we believe, to entirely remove, the abuses complained of. Most hospital authorities admit that the present system of out-patient relief enables persons of all stations in life, who are mean enough to avail themselves of the opportunity it presents, to obtain skilled medical attendance, which they ought to be prevented from receiving, as they can well afford to pay for the advice their cases require. We are fully aware of the difficulties which surround this subject; and, as we are anxious to do full justice to it, we propose, while considering the question as a whole in reference to the bearing it has on the provident system, which has grown to so great an extent in the last twenty years, still to keep in mind the public and professional interests with which it is intimately associated.

We propose to give a brief outline of

I. The most important provident dispensaries, their systems of management and work;

II. The different hospitals and dispensaries which have some form of the provident scheme—working men's subscriptions, small payments for admission, Hospital Saturday collections, and so forth—associated with them;

III. The best way of utilising these means to secure a complete system of relief to all deserving cases, by which those members of the lower, middle, and upper working class who are able to pay something to their doctor, may secure the best advice without forfeiting their independence and self-respect.

All must readily agree that a working man—be he the artisan or labourer—should be taught to value highly his independence, and, to the utmost of his ability, to maintain himself and his family respectably, without the assistance of any charitable agency whatever. It is only natural, therefore, that the general public and many members of the medical profession should be strongly in favour of the provident system, because it enables the respectable poor to obtain adequate medical treatment and advice for their families and themselves, by paying weekly a certain fixed sum, which is probably less of a burden to them than the premium on a life insurance policy is to those poorer members of the upper middle class who, with equal foresight, adopt this means of providing for their families in case of death. Many members of the medical profession, however, are opposed to the establishment of provident dispensaries, because they declare that all such institutions are much abused in practice, and that those people who can best afford to pay their medical attendant liberally are usually the first to avail themselves of this means of defrauding the medical profession by obtaining their medicine and treatment for a merely nominal sum. We freely admit that at one time we held somewhat similar views; but, after studying the subject with much care and examining thoughtfully the working of some of the largest provident dispensaries, we have come to the conclusion that, if proper precautions be taken by the managing committees to prevent abuse, objections of this kind come, in the main, to nothing. We are convinced that the profession are most anxious not to set up their interests as a class against any project which, after free and full discussion, is proved to be of vital importance to a large number of their fellow countrymen. No profession has done, or is doing, more public work without fee or reward than ours; and it is because we are convinced the gratuitous work done at the present time is far in excess of the requirements of the case, that we are anxious to see the provident principle brought into intimate connection with the working of the hospital out-patient departments throughout the country.

We believe that, if the public and the profession would calmly consider this question on its merits, their joint deliberations would result in a workable scheme, which would so sift that large class who now receive gratuitous medical relief in this country, by utilising the three great schemes which are now, as it were, working without any adequate method or control—viz., the provident dispensaries, the hospital out-patient departments, and the Poor-law medical system—that not only would the relief now given at our hospitals be reduced to reasonable proportions, but the whole country would be materially benefited in addition. At the present time, these three great schemes are practically opposed to each other, and so the mean and designing are able with impunity to make them available to as great or small an extent as they think fit. Unity of action, or a system which, while leaving the individual management of these schemes in the hands of the present authorities, would secure their harmonious working on one definite principle, would abolish imposition for ever by making it a practical impossibility.

We would warn those members of the profession who differ from us, that it is a mistaken principle to try to delay the inevitable by strenuous opposition; for, so soon as public attention is fully awakened to the abuses and anomalies of the present system of medical relief to the deserving and undeserving poor, the establishment of the provident principle in connection with the management of our medical charities will follow as a matter of course. Those who have studied this question from a truly liberal standpoint, agree that the interests of a class must never be allowed to override the welfare of the majority, and we are convinced the words of Mr. John Becke, who for thirty years has laboured in the cause of reform, and has devoted a large share of his time and attention to this subject, having during the whole of this period held the office of Honorary Secretary to the Northampton Provident Dispensary—probably the most successful in the kingdom—will meet with the hearty approval of, at any rate, many of our readers. He says:

> "I quite agree that the true interests of the medical profession should always be considered by every thinking man; that anything that would tend to lower the love of that profession would be a national calamity. As a member of the community, I gratefully acknowledge the zeal and devotion they have always displayed in the care of the poor; but I unhesitatingly say that, with them as with any other profession, it is utterly impossible that their interests can be allowed to stand in opposition to the public weal. All questions affecting the public health must be discussed not with reference to the interests of any profession or class, but with reference to the good of the community."

Let us all endeavour to examine the provident system on the liberal basis here laid down, and then each of us will be able to judge it fairly and upon its merits.

There is one other point which we wish to allude to before concluding this article, and it is this. We are convinced that the philanthropic portion of the public, who give most liberally to the support of charitable institutions, are not sufficiently alive to the fact—as the Rev. Canon Miller well put it the other day—"that there are a great many classes of working men, and it is not right *to talk of working men and the poor together*". It is not true that the great mass of the working men of this country are poor. Anyone who has lived in a large manufacturing district knows that the workmen not unfrequently dine off the greatest delicacies the market can produce. People are too apt to judge by appearances, to look at the dirt and untidiness they often find in a workman's cottage, and to jump to the conclusion, from what they see, that the family are in great want, when actually they ought to be, and probably are, in receipt of high wages, enabling them to gratify all their inclinations and fancies without restraint. The working man of the present day does not regard the relief he receives at a hospital as a charitable gift at all. He not infrequently considers it his legitimate right, and will sometimes say, with some pride, and much commendable candour, that, since he contributed to "Hospital Saturday", or some similar movement, he considers himself not only entitled to receive medical advice for himself and his family at the hospital, but he further believes that his contribution *entitles him* to have a voice in the management of the institution also. We would not be mistaken; we would not discourage the contributions of the working man, but we would take care that he is not asked to contribute on a false principle alike injurious to the institution and to himself. Much reform is needed in the present system of hospital relief to the working classes, and we are anxious to see far less of the eleemosynary principle in the matter. The provident system does away with this abuse, and it not only secures to the working classes an independent position for themselves and their families in the time of sickness, but it enables them to provide it for themselves in a business-like way, and removes the reasonable and well founded grievance which the general practitioner has against all hospitals under the present system. Is it surprising that many thoughtful and earnest minded men are endeavouring to develope the provident system to its utmost legitimate limits, and that we are determined to aid them by all means in our power?

## PYREXIA AND APYRETICS.

THE increasing use of the clinical thermometer by medical men generally, gives an importance to the subject of pyrexia, and renders a clearer comprehension of the matter than hitherto has existed eminently desirable. The mere insertion of the thermometer into the axilla of a patient, and its withdrawal after some minutes, and a reading of the temperature registered, do not constitute all that the thermometer can teach us. It is not the mere ascertaining an interesting fact, and the impression upon the mind of the patient and the surrounding friends, which should be the sole outcomes of thermometrical observation. The amount of rise of temperature is in itself certainly a matter of importance, from the effects of an increase of temperature upon the tissues of the organism. But there are other matters to be noted as well as the mere amount of the increment of body heat. In fact, the use of the thermometer necessitates an accompanying intelligence upon the part of the observer, just as much as in the case of the stethoscope. The mere increase in temperature is a barren fact, if it carry not with it a clear comprehension how that increase of temperature is arrived at. There are practical considerations associated with this question which are of much importance. It may then be desirable to consider briefly the various modes by which an increase in body heat may be attained.

Rosenthal has divided the body into an internal heat-forming zone, and an external or heat-losing surface, with an intermediate zone lying betwixt them. By the back and forward play of these two areas, the body-heat is maintained. When the surrounding temperature is low, the skin is cold, dry, and marbly. That is, there is little circulation through the skin; a small quantity of blood only is in the cutaneous area, and, consequently, little heat is lost. Not only that, but there is a corresponding increase in the bulk of blood in the internal parts—the heat-forming area; that is, there is, as far as is practicable, a diminution of heat-loss, and an increase of heat-production. On the other hand, in tropical climes, there is high vascularity of the cutaneous surface, a large bulk of blood in the heat-losing area, and a correspondingly small bulk of blood in the internal or heat-producing zone. Furthermore, as well as a large bulk of blood in the cutaneous vessels, there is the action of the sudoriparous glands with the cooling effects of evaporation. The amount of heat rendered latent, when water assumes a gaseous form, is very large indeed, and the cooling effects of perspiration, sensible or insensible, are very pronounced. When much heat is evolved by muscular exertion, or the body is surrounded by a high temperature, free perspiration comes on; and, in the one case, dissipates the superfluous heat produced, while, in the other, it maintains the normal temperature of the body at a surrounding heat which would soon cook a corpse.

In fever, there is a disturbance of the balance normally existing betwixt the heat-forming and the heat-losing areas. This disturbance may arise in several ways. There may be an increased heat-production without corresponding heat-loss, or there may be merely diminished heat-loss. The first definite idea about fever was that of Cullen, and he attributed it to spasm of the cutaneous vessels and lessened heat-loss. This view of Cullen's has more recently received the support of Traube and of Senator. That there is diminished giving off of heat in febrile conditions, with a dry skin, is more than probable. The view of Leyden, as to the production of an increased temperature, is this—there is an increased heat-loss in fever, but there is also such an increased heat-production that there is a rise in the body-temperature. Leyden has made further observations; namely, that in increasing fever there is no evaporation of water, while the defervescence of apyrexia is accompanied by well-marked perspiration and exhalation of water; when this last is present, there is a rapid heat-loss and a fall of temperature till the norm is quickly attained. Senator also says, "The greater part of the waste of heat depends in pyrexia, as in health, upon conduction and radiation; but, in the critical defervescence, upon evaporation."

From this it would appear that there may exist a highly vascular condition of the cutaneous or heat-losing area, without any corresponding activity of the sudoriparous glands; in fact, according to Leyden, with entire loss of the insensible perspiration which normally exists. The loss of this heat-losing agent will account for the diminished dispersion of heat with a dry, burning skin, even though there be a large bulk of blood in the cutaneous area. It is, then, a matter of much importance to observe, along with the indications of the thermometer, whether the skin of the patient be moist or dry. An equal rise of temperature with a moist skin, indicates a greater increase of heat-production than the same rise with a dry skin.

There is no necessary incompatibility betwixt a pyretic condition and a moist skin. In rheumatic fever, there is notoriously a high temperature, with a skin bedewed with perspiration. In many pyretic conditions, and in puerperal conditions with accumulations of pus in the areolar tissue of the pelvis, there is usually a moist skin along with a fever-temperature.

What, then, are the practical indications furnished to us by these variations in pyretic states? For it is obvious that these different states point to different remedial measures for their relief. What the different apyretic measures are, and what are the indications for the use of each, will now engage our attention.

The measures which lower temperature are various. Our immediate forefathers were attached to venesection; and, recently, Bouchut has shown that venesection will lower the temperature of the body two or three degrees. Frese has found, however, that shortly it rises again; and it would appear that the effect upon the body-heat produced by bleeding should be maintained afterwards by those agents which depress the circulation, and at the same time act upon the cutaneous vessels, of which antimony and aconite are types. Such a line of practice is clearly indicated where the febrile condition embraces a bounding pulse, a strongly acting heart, and a dry skin; such conditions, in fact, as obtain in simple inflammatory fever, whether connected with any local inflammation or not. Now-a-days, no one would think of such practice in those febrile conditions mentioned above as being accompanied by a moist skin. It is in pyretic states with a dry burning skin, that those apyretic agents which induce perspiration are indicated. Here we want to restore the cooling effects of evaporation; and, for this end, we resort to a class of agents which have recently received the term of depressants of the circulation, and which possess the double action of lowering the activity of the heart, and dilating the cutaneous vessels. By this double action, they produce a decided impression upon the production of heat. In depressing the action of the heart, they depress the circulation, and so lower the rate of chemical interchanges; while, at the same time, they increase the bulk of blood in the cutaneous or heat-losing area, and so tend to dissipate the body-heat; while they further tend to throw the sudoriparous glands into action, and to secure the cooling effects of the evaporation of water. It would appear that, in some febrile conditions, there may be a highly vascular condition of the skin without secretion in the sweat-glands, just as in the early stage of bronchitis there are high vascularity and tumidity of the bronchial lining membrane with arrested secretion. In both cases, the administration of vascular depressants induces a less turgid vascular condition, with a resumption of secretion. Of old, this end was secured by the administration of antimony in full doses, and, in the case of the dry burning skin, by the combination of antimony with opium; indeed, Hufeland regarded tartar emetic and opium, with bleeding, as the basis of all therapeutics. More recently, the use of aconite has been upon th increase; and the observations of Störck in 1763, have been corroborated by those of Fleming and Ringer, until the use of aconite in pyretic conditions may fairly be regarded as the treatment of the future in conditions of simple pyrexia. In chloral hydrate, we possess an agent which combines the properties and action secured by the union of opium and antimony. Hydrate of chloral not only affects the heart and cutaneous vessels, but it exercises no slight effect upon the nervous centres; consequently, it is highly serviceable where a pyretic condition is united to nervous excitability, and the nervous system, as well as the vascular system, needs to be calmed.

In many instances, the condition of pyrexia, associated with a dry burning skin, may be successfully alleviated by the use of the warm bath, which will often restore the arrested perspiration. There is no more efficient and yet convenient means of so acting upon the skin, than the bath proposed by the late Sir James Simpson. From its adaptability to the exigencies of the poor, it deserves description. It consists of from six to eight soda-water bottles filled with boiling water, and tightly corked; of as many woollen stockings, wrung out of hot water, each one being drawn over a soda-water bottle; and the bottles so covered being packed around the patient in bed. The moist stockings modify the heat, and convert it from dry to damp heat; so that, betwixt the heat and the moisture, the skin is thrown into action, and in from twenty minutes to half an hour free perspiration is induced, and with it increased loss of heat, and a reduction of the temperature of the body.

Such are the measures which are indicated when the pyretic condition is associated with a dry burning skin, and arrested action of the sudoriparous glands. They are not, however, the measures to be adopted when the skin is moist, while the temperature is abnormally high. Here there is already in action a decidedly pronounced heat-loss, including the effect of aqueous evaporation; and, consequently, the measures to be employed are rather those which strike directly at heat-production than those which increase heat-loss. Such agents we possess in cold, in quinine, and in digitalis. For careful and thorough investigation of the action of these agents, we are chiefly indebted to the Germans. As to the effect of cold in dispersing heat, whether given internally in the form of ice and iced fluids, or applied outwardly to the external surface, there is no question; its effect is direct and unmistakable. But, while cold is a direct disperser of accumulated heat, it does not check the production of heat. This last, it is asserted, quinine and digitalis do. Liebermeister found out, from a very large number of observations, that quinine distinctly lowered the temperature in typhoid patients. Kerner and Jürgensen found that quinine arrested the rise of temperature which ordinarily follows exercise. Wunderlich found digitalis to affect the temperature of typhoid patients. Ackermann has explained the apyretic action of quinine and digitalis as lying in their effect upon the vaso-motor centre, and the increase of blood-pressure, which follow their administration. He states that, as the blood-pressure rose, the temperature fell. That there is a certain antagonism betwixt the amount of the blood-pressure and the temperature seems borne out by one's general experience, and that digitalis may so act as an apyretic remedy is probable enough; but that such is the explanation of the action of quinine is very questionable. The observations of Briquet and Eulenburg agree in showing that quinine produces decided lowering of the blood pressure, instead of the rise supposed by Ackermann to be the result of its administration. An elaborate series of observations and experiments by Binz, lead to the following conclusions as to the apyretic action of quinine. There is some effect produced upon the white blood-corpuscles, but Wood is of opinion that this exercises but little influence; though he says, "from the experiments of Binz himself upon the lower organisms, it would appear that quinia acts upon all animal germinal matter; and it is probable that the protoplasm of the nervous system, being more specialised than that of the white corpuscles, would be more susceptible of the influence of the alkaloid". That there is some effect exercised by quinine upon the nerve-centres which affect temperature is more than probable; though it is impossible to say what that influence exactly is. The work of Binz, however, leads one to suppose that the apyretic action of quinine lies to some extent in its checking the ozonising power of the blood. That quinine does possess an apyretic action, is unquestionable.

When, then, we meet with cases of febrile temperatures with a moist skin and distinct perspiration, the indications for treatment point to the remedies just mentioned, as preferable to the depressant and diaphoretic antipyretics. The effects of a few grains of quinine every three or four hours, especially if given along with mineral acids—the utility of which in febrile conditions is well known—is often very marked. Under such circumstances, too, alcohol is often very useful; and by means of quinine, supplemented by repeated doses of alcohol, many cases ultimately recover, which, under other circumstances, would in all probability have sunk. That they would have sunk under the use of depressant diaphoretics, is more than probable.

It is in the discrimination of the nature of each case, and the indications for treatment furnished by the observations made, that registration of temperature is so valuable in practice. But it is perfectly obvious from the foregoing, that the mere noting and registering of the patients' temperature will not give practically useful results, and that the application of the trained intelligence of the medical attendent to the clear comprehension of the how and why of the febrile state, is necessary to the selection of the appropriate remedy for the reduction of the pyretic condition.

In addition to the diagnostic aid furnished by the clinical thermometer, much information is afforded by it, when taken along with other information given by noting the condition of the skin when applying the thermometer, as to the cause of the rise of temperature; and, with that information, indications also for the proper selection of the apyretic measure suited exactly to the exigencies of each case.

## THE RECOGNITION OF THE DEGREE OF MASTER IN SURGERY BY OUR HOSPITALS AND OTHER INSTITUTIONS.

OUR attention has been called by a correspondent to a very great and serious hardship to which he is subjected. He is a Master of Arts of the University of Cambridge, a Bachelor of Medicine and a Master of Surgery of the same University, and a Licentiate of the Apothecaries' Society; and he appears on the *Medical Register* with the three last named qualifications. He writes as follows:—"I apply for an appointment at a public institution, and am asked whether I am a member of the Royal College of Surgeons and a Licentiate of the Society of Apothecaries. I state that I am a Master in Surgery of the University of Cambridge, which degree gives me full power to practise as a surgeon. I am afterwards told that I am not eligible as a candidate because I am not a member or a Fellow of the Royal College of Surgeons. Now, of course, the authorities have a perfect right to stand by the wording of their bye-law, but, surely, are equally empowered to use it in a wider sense. Doubtless, the original intention was that the officer should be a legally qualified surgeon, and at that time the diploma of the College of Surgeons was the only one to be obtained. The requirements for the Master in Surgery from its foundation have been far greater than those for the membership." This, we need not say, is a very important matter, affecting deeply the credit, as well as the interests, of the Universities, and one which it becomes them at once to look into and to have rectified, as, indeed, it ought to have been ere this. A similar rule to that which thus bars our correspondent from the candidatnre for a post in the institution to which he refers, exists in the case of many other institutions; and the fact is, that at the present time a literal rendering of the rules and bye-laws excludes the University graduates from not a few surgical appointments. Even in the instance of the Poor-law service, the consultant in cases of operation must be a Member or Fellow of the College of Surgeons. Doubtless, as our correspondent remarks, there was no intention of excluding other legally qualified surgeons; but, at the time in which these laws and regulations were passed, or most of them, the College of Surgeons was the only body granting a qualification to practise in surgery. Now, however, nearly every University in the United Kingdom confers the degree of Master in Surgery after a special examination, which, in most instances, if not in all, is as good as that for the membership of the College of Surgeons; and this we say without in the least depreciating the latter. At Cambridge, the candidate for the examination must have passed the general examinations required for a degree in Arts, or nearly the same, have gone through all the curriculum, and passed the three examinations required for the degree of Bachelor of Medicine, and must have, in addition, attended lectures on anatomy and surgery, have practised dissection a second season, have attended the surgical practice of a hospital for three years, and been house-surgeon or dresser for six months. The examination for the surgical degree is, as we happen to know, an exceedingly thorough one. The examiners are selected, in part at least, from among the most eminent metropolitan surgeons. The examination is conducted in a practical manner in the dissecting-room and the hospital, as well as in writing. Indeed, the provisions, both as regards the curriculum of study and the examination for insuring competency in the graduates, can scarcely be exceeded. The regulations and provisions in the other Universities are of a similar kind. In each instance, the candidate is required to have passed the examinations required for the degree in medicine before he presents himself for the surgical examinations. It is obviously, therefore, most unjust that the graduates in surgery at our Universities should be excluded from any of those posts or offices to which the members or Fellows of the Colleges of Surgeons are admitted. All that is required is that the laws of our institutions should be brought into accordance with the present state of things in surgery and with the *Medical Register*. This ought to be done; and the sooner it is done the better. It is the duty of the Universities to see to this, and take measures that their graduates are duly cared for, and not subjected to the indignity and serious disadvantage of which our correspondent has good reason to complain.

DR. GEE has been promoted physician, and Dr. Thomas Barlow elected assistant-physician, to the Hospital for Sick Children, Great Ormond Street.

AT the meeting of the Obstetrical Society to be held on Wednesday, April 7th, Mr. Spencer Wells will open a discussion "On the Relation of Puerperal Fever to Infectious Diseases and Pyæmia".

THE next quarterly meeting of the Managing Committee of the Stamford and Rutland Infirmary is to be made special for the purpose of considering a proposal to pay the medical staff for their services, which have hitherto been honorary.

### ROYAL COLLEGE OF PHYSICIANS OF LONDON.

At the annual general meeting, held on March 22nd, Sir George Burrows, Bart., M.D., F.R.S., Physician in Ordinary to the Queen, was re-elected President of the College. He delivered an address, which will, at the request of the Fellows, be separately published.

### THE LEWES EPIDEMIC.

The epidemic of typhoid at Lewes, which it was hoped had almost disappeared from the town about a month ago, made its reappearance in a rather severe form during the past two or three weeks. Five or six fatal cases occurred recently. The return for the past week, however, shows a decrease both in the number of cases and the intensity of the disease.

### A PROVIDENT HOSPITAL FOR BRIGHTON.

The question of a Provident Hospital for Brighton continues to engage the attention of the medical men there, and it seems likely that this admirable proposal will be carried into effect. A correspondence on the subject has been going on in the *Sussex Daily News*, and the main questions have been well discussed. As it appears that the Sussex County Hospital is unable by its statutes to entertain the idea of opening a provident branch, the platform upon which a self-supporting hospital would have to be founded must now be well considered. There seems to be little difference of opinion as to the desirability of endeavouring to raise the tone of the working classes in the matter of medical relief. One correspondent writes:—"'The quality of mercy is twice blest, it blesses him who gives and him who takes', but when I see that the working men of our country, its bone and sinew, are becoming morally emasculated, intellectually debased by misapplied charity, I am disposed to say such charity is a poison, such mercy is a curse; it curses him who gives (and unfortunately his fellow-citizens too) in the shape of poor-rates, and him who takes in the shape of pauperism and degradation. Looking at the matter thus, I would exclaim with Mr. Marriage Wallis at the Town Hall meeting, 'in the matter of medical charity, he gives twice who gives not quickly, but wisely'." It has been a question how far the existing medical charities of the town are abused. But this, we venture to think, is rather beside the mark. It is only the gross cases of abuse which can be recognised by casual observation; and these are comparatively rare. It is for the rank and file of the industrial classes that it is necessary to devise a system of medical relief, adapted to their circumstances and to their earnings. "M.D." puts the case well when he says:

> "At present, great numbers, especially of the working classes, are, in case of accident or disease, driven to the hospital because they either cannot afford or their homes are not adapted for home treatment. On such persons applying at the hospital, there is now no alternative but to admit them, but, if a provident hospital existed, the governors would be able to refer them to such an institution. I grant that a provident hospital would be impotent in reforming such abuses as now exist, if our gratuitous institutions continued to keep their doors wide open to all comers; but it is to be hoped and expected, from a knowledge of the spirit actuating influential members of their governing bodies, that a provident hospital existing and a provident dispensary existing, they would narrow their portals, and, in the interests of the working classes and of society at large, refuse to admit anyone to the benefits of the charity they dispense but 'the sick and lame poor'."

### PREVENTION OF TRICHINOUS DISEASE.

The Prussian ministry has recently issued some modifications of the regulations made in 1865 and 1866 for the prevention of trichinous disease. One of the new regulations orders that everyone who kills a pig, or has one killed, must have it examined by an official inspector; and the flesh of the animal must not be delivered to other persons, nor prepared for human food, unless the inspector certifies that "the pig has been found free from trichinæ". An order issued in 1865 for the burial of the bodies of pigs found to be infected with trichinæ is repealed; and it is now declared that the fat of pigs, which have been found on microscopic examination to have trichinæ, may be used for technical purposes, or for food, after being boiled without the addition of sulphuric acid. The meat, however, must be cut into small pieces, and boiled for three hours in the presence of an official inspector. The portions of flesh remaining after the removal of the fat are to be buried. An inspector of meat is not allowed to make a microscopic examination of the flesh of more than six pigs on the same day; and he must, after July 1st, make an entry of the particulars and results of his examinations in a book of forms provided for the purpose.

### THE ROYAL INFIRMARY AT MANCHESTER.

An association of local capitalists have made a proposal to purchase this institution and the ground attached to it, for a sum exceeding three quarters of a million sterling. The proposal is supported by many conversant with the merits of the question, on the sensible grounds that the hospital would be more advantageous to the general health of the patients, if it were removed into the purer air of the suburbs, than as it is now, situated in the heart of the city. A site would probably be sought in the direction of Owens College, and there would be a manifest advantage in the establishment of a clinical hospital near to the Royal School of Medicine, which now forms a part of the College. If, however, the decision of the Infirmary Board be adverse to the disturbance of the *status quo*, an extension of the present building will, in all probability, be proposed, as it is too small to meet the demands on its accommodation.

### WATER-SUPPLY.

Dr. T. Orme Dudfield, the Medical Officer of Health for Kensington, recently drew attention to a nuisance which existed in his district, similar to that which caused the outbreak of typhoid at Lewes, viz., the suction of sewer-gas through water-pipes supplied on the intermittent system. The particular nuisance has been abated; but Dr. Dudfield very truly remarks, that dangerous nuisances of the kind described may occur at any time, or in any locality, under similar circumstances, so long as the intermittent system of water-supply is maintained. Fortunately, however, in the above case, no serious epidemic occurred; but that was from good fortune rather than good judgment.

### MILK CONTRACTS.

The Guardians of St. Pancras have issued a form of contract to be signed by all persons who tender for the supply of milk for parochial use. By the form, the contractor undertakes to supply "new unskimmed milk as milked from the cow at per barn-gallon (to be of such quality as will produce at least ten parts of cream in every hundred parts, the milk to be properly tested)". The intention of this clause is, no doubt, to ensure the supply of an excellent quality of milk as milked from the cow. The provision that there shall be constantly a yield of 10 per cent. of cream is, however, so far unfortunate, inasmuch as it will not really secure that object. It frequently happens that very excellent and perfectly genuine milk sometimes will not spontaneously yield 10 per cent. of cream, although it may, by watering judiciously, be made to give the required percentage of cream. The clause, therefore, might in some cases become ineffective.

### THE EXAMINATIONS AT THE COLLEGE OF SURGEONS.

During April, there will be two primary examinations for the membership; viz., on the 3rd and 24th of the month; and one pass examination, commencing on the 16th. The College authorities advertise that they require the schedules of candidates for the primary examination to be posted ten days beforehand; but we understand, from a demonstrator of anatomy in one of the London schools, that schedules will be accepted even up to the day of examination, provided the possible number of candidates is not completed; at the last examination in January, this was done. When the numbers were all taken, other students who applied to be examined were refused, but were told that they might apply again on the day of examination, when they would have the chance of the places of those who retired. Two or three men came from Liverpool on this chance, and then were refused. Surely this is not right. A complaint is also made of an innovation introduced in January last by the separation of the questions in physiology from those in anatomy, on the ground that it is absurd to test a man's knowledge in physiology by two questions only. But we expect the examiners will require the experience of more than one examination to test the working of the change.

### VOLUNTEER SERVICE ACCIDENT FUND SOCIETY.

THE annual meeting of this Society, which was instituted in 1862 for the purpose of affording pecuniary aid, on the principle of mutual providence, to volunteers disabled by injuries received in the performance of military duty, was held on Wednesday, March 24th. The report for 1874 showed that during the year, among 14,255 members, 102 accidents had been reported, of which 97 were admitted as claims, sums of money varying from £14 to 10s., and amounting in all to £291, being distributed among the injured persons. In the previous year, the number of accidents admitted as claims was 162, among 16,199 members; and the amount of grants £580 : 15. The allowances were made at the rate of £1 for each week of total disability. Tables given in the report showed that, during the Society's thirteen years of existence, £950 had been distributed to the widows and families of five volunteers killed by accident, and £4,343 : 10 to 1,108 volunteers who had received injuries of various degrees of severity. The following gentlemen were elected members of the Committee of Management for the next year: Colonel MacLeod of MacLeod; Lieut-Colonel the Hon. C. H. Lindsay; Lieut.-Colonel Wilkinson; Lieut.-Colonel Stedall; Lieut.-Colonel Vickers; Major Pott; and Dr. W. Dickson, R.N., Medical Officer to H.M. Customs. We desire to call the attention of our readers, many of whom are connected with volunteer corps, to the existence of this useful Society, the object of which is consonant with that principle of providence, the development of which among the working classes we have always advocated; and to ask their aid in making it better known and appreciated than it is at present. The subscription is only one shilling yearly from each member; and from the sum raised in this way each year, allowances not exceeding £1 per week are granted. All communications regarding the Society are to be addressed to the Secretary, Dr. A. Henry, 57, Doughty Street, London, W.C.

### HARVEIAN SOCIETY OF LONDON.

IN accordance with a suggestion contained in the annual address of Mr. J. R. Lane, the late President of the Harveian Society, the Council of the Society agreed to recommend that an annual lectureship should be established. At the ordinary meeting of the Society held on Thursday, the 18th instant, the proposals of the Council were unanimously adopted by the members. It was resolved that "a lectureship shall be instituted by the Society, to be entitled the Harveian Lectureship, which shall consist of either two or three lectures on some subject of practical interest in medicine, midwifery, or surgery, to be delivered annually or at the discretion of the Council. The lecturer shall be chosen by the Council from among the members of the Society, and shall receive an honorarium for each lecture". The Society rejoices in the possession of a surplus, and seems disposed to make good use of the funds which began to accumulate under the careful administration of the late treasurer, Dr. Fuller.

### A BRITISH DENTAL ASSOCIATION.

THE current number of the *Monthly Review of Dental Surgery* contains proposition for the formation of a British Dental Association, the object of which is to bring the large and constantly increasing number f members of the dental profession in the United Kingdom into more requent and intimate relation with each other. It is proposed to assimilate the character and constitution of the Dental Association to hose of the British Medical Association. The General Council would e in London, and made up both of provincial and London practioners. Branches would be established in various centres throughout e kingdom, having an organisation of their own for all local purposes. An annual session, lasting three or four days, would be held once a year; and it is suggested that they should be held at the same time and in the same town as the session of the British Medical Association. For obvious reasons, the President would be elected from the town in which the British Dental Association met. Further details of the scheme will be found in the periodical already referred to.

### DR. RUMSEY, F.R.S.

WE desire to call attention to the report of the meeting held by some of the friends of Dr. Rumsey of Cheltenham, under the presidency of Dr. Farr, on Tuesday last. The great services rendered by Dr. Rumsey to Public Health are too well known to need recapitulation, and are a striking example of what may be achieved by a country practitioner, unaided by official position, but having enlightened conviction combined with unwearied industry, ability, and perseverance. On the British Medical Association, the labours of Dr. Rumsey give him a peculiar claim; he utilised its organisation in the fullest and most practical manner; and it will always remain a lasting credit to the Association, that to it, largely in consequence of Dr. Rumsey's impulse and under his direction, through the State Medicine Committee, the country is indebted for the sanitary measures which have distinguished the parliamentary legislation of the last few years. It is, therefore, we think, incumbent on the Hon. Secretaries of the various Branches of the British Medical Association to bestir themselves heartily in support of the resolutions passed at the meeting at Somerset House, and thus to give substantial proofs of their recognition of Dr. Rumsey's life-long services in the cause of State and Sanitary Medicine. He has spent himself in the service of the country. Such work as he has done cannot be achieved without the constant sacrifice of personal interests. Hence we look in vain at this moment for any to succeed him even in the least difficult part of his work, the vigilant and suggestive criticism of sanitary measures. His mind, however, was always not less constructive than critical. His withdrawal from public life is an immeasurable loss. His enthusiasm, his experience, his earnest and single-minded devotion to sanitary progress inspired others, who will greatly miss the influence, and missing it, may shrink from the tasks to which he encouraged them. Fortunately for the cause of Public Health, his activity endured over the most critical periods of legislation, and his untiring energy has left upon the statute-book monuments of his word. But this is distinctly not the work which pays in coin. Mothers have a distrust of the physic of philosophers. Work such as Dr. Rumsey's reflects honour on his profession, adds to its knowledge and its influence and credit in the State, and its power of usefulness. But it is the reverse of lucrative. It has its own dignity, its own rewards, its own nobility; but it carries pains and penalties, and in this case a sudden infirmity has aggravated and increased them. In carrying out the resolutions of the meeting to which we refer, and bringing them under notice in their Branches, the Local Secretaries will fulfil what may almost be considered a moral obligation.

### THE LUNACY LAW.

IN the course of comments on the case of Miss Wood, we observe complaints that the existing Lunacy Law is in an unsatisfactory condition. An arrest under the present order and certificates ought, it is said, to have only a provisional effect, and no lunatic ought to be permanently imprisoned without a certificate from a medical officer of the Government. But this is exactly what now takes place: every patient is visited by a medical officer of the Government, to wit, a commissioner in lunacy; he can demand a private interview, and will be discharged if found sane. No one is "permanently imprisoned" without such inspection, but if, as some suggest, every patient is to be inspected by a commissioner immediately after admission, commissioners will have to be appointed by the hundred, for the admissions amount to many thousands; and we question whether the taxpayer would approve of the arrangement.

### THE LIVERPOOL ROYAL INFIRMARY.

OUR Liverpool correspondent announces the completion of the enlarged operating theatre, which is now as commodious, well lighted, and otherwise suitably appointed, as could well be desired; at the same time, a new and much enlarged dead-house and *post mortem* room have been added to the infirmary, with all necessary adjuncts for teaching and demonstrating morbid anatomy and practical pathology. These additions are but the commencement of considerable improvements contemplated by the Committee, with a view to develope to the utmost the facilities this large hospital affords as a school of medicine and surgery. Amongst other arrangements in perspective, the intern medical staff is about to be increased by the appointment of six house-surgeons, who will be selected by competition from the students of the school on the completion of their curriculum, and after having obtained a qualification. These and other suggestions which the progress and rapidly increasing requirements of the Medical School have forced upon the somewhat too conservative leaning of the Infirmary Committee, are most encouraging and satisfactory to those who take an interest in the advancement of medical education in general, and of provincial medical schools in particular.

### REJECTED CANDIDATES AT THE COLLEGE OF SURGEONS.

FOR the last year or two, the Council of the College of Surgeons has published a return of the number of rejected candidates at the primary and pass examinations for the diploma of membership, from all the recognised schools. Being desirous of extending the usefulness of this return, Mr. John Gay brought forward the following motion for discussion at a recent meeting of the Council. "That a report from the Court of Examiners be annually laid before this Council at the quarterly meeting in July, of the number of candidates who have presented themselves during the year for the professional examinations for the diploma of fellow, showing the number who have passed and have been rejected from each medical school in the period; and that a similar report from the Court of the number of those passed and rejected during the past collegiate year (1873-74) be laid before this Council at the earliest convenient opportunity." This proposal, however, failed from want of a seconder.

### THE LEAMINGTON PROVIDENT DISPENSARY.

THIS institution has just held its sixth annual meeting, and we are glad to observe that it continues to make steady progress. The number of cases treated during the year was 3,776, as against 3,698 in 1874; and the sum divided among the three medical officers was £379 : 15 : 10, as against £336 : 6 : 3 in the previous year. Lord Leigh, who presided at the meeting, in his opening speech, said: "He could hardly conceive a more useful institution than a self-supporting provident dispensary. There was an old saying, which would bear repeating, that charity could not be more effectually shown than by helping those who endeavoured to help themselves. He was proud to say that Warwickshire was one of the first counties to adopt provident dispensaries. The Coventry dispensary was founded by the philanthropy of one who had now been dead many years, the late Mr. Smith of Southam, who was assisted in the good work by several friends; and some few years afterwards a similar institution was started at Warwick, and was still being successfully carried on there. When they heard that there were 3,385 members, and that during the last six years and a half 20,000 cases had been treated in connection with the Leamington Dispensary, these figures alone spoke volumes for the success of the institution. He hoped sincerely that the institution would continue to progress and flourish, as he was satisfied of this, that the more self-supporting dispensaries were adopted throughout the country, the greater would be the benefit to poor people."

### RECENT URBAN MORTALITY.

DURING last week 3,791 births and 4,194 deaths were registered in London, and twenty other large towns of the United Kingdom. The annual rate of mortality was 28. It was 25 in Edinburgh, 35 in Glasgow, and 29 in Dublin. In the eighteen large English towns the rate was lowest (23) in Leicester, whilst in Norwich it was 31, Sunderland 31, Liverpool 31, Manchester 33, Nottingham 36, Oldham 36, and Wolverhampton 37. The zymotic rate was 6.0 in Oldham, and 6.9 in Sunderland. Scarlet fever continues somewhat fatally prevalent in Bradford and Hull, and the deaths from measles have steadily increased in recent weeks. In London, 2,518 births and 1,728 deaths were registered. The births exceeded the average by 26, and the deaths by 80. The annual death rate was 26. The deaths referred to zymotic diseases were 180; were 56 below the average: and gave a zymotic rate of 2.7. The deaths referred to diseases of the respiratory organs, which in the two previous weeks had been 612 and 566, declined to 498, but exceeded the average by 103. Of persons, aged eighty years and upwards, 59 died during the week. In outer London the death rate from all causes and from the seven principal zymotic diseases was 19.5 and 1.8 per 1,000 respectively, against 26.2 and 2.7 in inner London. At Greenwich the mean reading of the barometer was 30.05 inches: the mean temperature of the air was 37.0 deg. or 4.5 deg. below the average; and the general direction of the wind was north and north-east. Rain fell on Friday only, to the amount of .10 of an inch.

### EPSOM COLLEGE.

THE authorities of the College have decided that for the future there shall be three terms, each of thirteen weeks' duration. The Christmas vacation, which formerly lasted four weeks and a half, is now restricted to four weeks; whilst the summer vacation, which used to extend over six, is now prolonged to seven weeks. The Easter vacation remains as it was, viz., a fortnight in length. In accordance with the new arrangements, the Easter vacation for this year will begin on Friday, April 16th.

## SCOTLAND.

### EDINBURGH ROYAL INFIRMARY: MODE OF ELECTION OF MANAGERS.

A SPECIAL general meeting of the Court of Contributors to the Royal Infirmary was held last week, for the purpose of making "a bye-law to regulate the mode of election of six managers by the contributors on the first Monday of January yearly". This course was rendered necessary by the troublesome discussions which took place at the election meeting at the beginning of the present year, when, it will be remembered, the ruling of the Chairman as to the proper mode of election was so disapproved of by a section of the meeting, that it was at one time thought probable that the law-courts would be applied to. Fortunately, pacific counsels prevailed, and the present meeting was intended to prevent similar difficulties in future. The chair was occupied by the Lord Provost; and the meeting, which was not a large one, unanimously passed the following rules: "That the name of any person proposed as a manager must be lodged with the Clerk of the Infirmary a week before the meeting; that all names so lodged shall be publicly advertised; that a printed list of persons so proposed shall be handed to members of the Court of Contributors as they enter the room; that, when a poll is demanded, the voting shall be by crosses opposite the names of the nominees it is desired to elect; that not more than six names shall be so marked; that the slips shall be collected by tellers, and the result reported to an adjourned meeting of contributors; and that it shall not be competent to propose any person whose name has not been lodged with the Clerk a week before, except with the unanimous approval of the contributors present at the meeting." These rules, it will be hoped, will prove satisfactory. At the same meeting, it was mentioned that the average cost of each patient in the Infirmary has risen within the last few years from £35 to upwards of £50, and that increased subscriptions were urgently needed to meet the additional outlay. To help in raising subscriptions, the work of canvassing has for the past two years been taken vigorously in hand by some ladies and gentlemen, with the result of a considerable increase. Now that the work has been again handed over to the paid officials, the Committee trusted that the newly acquired subscribers would not fall off.

### ROYAL MEDICAL SOCIETY OF EDINBURGH.

THE annual dinner of the Royal Medical Society was held in the Douglas Hotel a week or two ago, and, as usual, was a successful and pleasant gathering. Dr. Saundby, the senior President, was in the chair, and was supported by several of the Professors, the Presidents of the Royal Colleges, Dr. Matthews Duncan, Dr. Gairdner of Glasgow, etc. The Chairman, in proposing the toast of the evening, "Success to the Royal Medical Society", pointed out that the Society continued to be as prosperous as ever, and that the number of members was increasing, in spite of the great demands now made upon the time of medical students.

### ROYAL SOCIETY OF EDINBURGH: THE MAKDOUGALL-BRISBANE PRIZES.

AT the last meeting of the Royal Society of Edinburgh, Professor Crum Brown, on the part of the Council, stated shortly the grounds on which they had awarded the Makdougall-Brisbane prize and gold medal for the biennial period 1872-74 to Professor Lister for his paper on the Germ-Theory of Putrefaction and other Fermentative Changes. It was important as a contribution to microscopic botany; as a great step towards settling the question, "Do living beings ever arise from putrescent matter?" as to its chemical bearings, especially in regard to fermentation; and as to the bearing of the observations as the basis of the system of antiseptic surgery. The President then presented the medal to Professor Lister, and expressed the hope that he would continue his important researches.

### DEATH OF PROFESSOR INGLIS OF ABERDEEN.

THE news of the death of Professor Andrew Inglis of Aberdeen was received in Edinburgh with general regret, where he was well known as an able obstetrician, and greatly esteemed by a large circle of private friends. He commenced practice in Edinburgh in 1860, and in 1867 became one of the lecturers in midwifery in connection with the Extra-Academical School of Medicine. Shortly afterwards, in 1869, he was appointed to the Chair of Midwifery in Aberdeen. Two years ago, however, his health broke down under an overstrain of anxiety and fatigue, and he was compelled to apply for leave of absence from the Senatus for two years, which he obtained. He was a good deal improved in general health until a short time since, when he was seized with an attack of congestion of the lungs, to which he succumbed in a few days.

### THREATENED BURNING OF THE UNIVERSITY.

THE University buildings and the Museum of Science and Art were in no little danger of being destroyed by fire last Sunday week. The South Minster Music Hall, a building of wood, which stood near them, caught fire, and the wind blew quantities of burning wood and cinders in their direction. Owing principally to the exertions of Professors Turner and Maclagan and a number of students, the danger was averted from the College by a hose being carried to the roof, and a stream of water being kept in readiness to extinguish any burning masses. The lantern roof of glass and wood of the Museum presented an even more favourable place for a conflagration, and Mr. Archer and his assistants were kept hard at work for upwards of an hour in running water along the gutters where the burning wood had alighted. No damage was done to either building.

### UNIVERSITY OF EDINBURGH.

AT a recent meeting of the University Court, leave of absence in the early part of next summer session was given to Professor Lister, for the purpose of visiting foreign schools during the session; and arrangements under which the class of Clinical Surgery is to be taught by Mr. Chiene, Assistant-Surgeon to the Royal Infirmary and Lecturer on Surgery, were approved. The following University examiners were selected to conduct the examinations for graduation in science in the Department of Public Health: *First Examination*, Chemistry, Professor Crum Brown; Physics and Engineering, Professor Fleeming Jenkin; Sanitary Laws and Vital Statistics, Professor Maclagan; *Second Examination*, Medicine and Practical Sanitation, Professors Maclagan, Laycock, and Sanders.

### DR. CHADWICK DE BANZIE.

"DR." CHADWICK DE BANZIE, who appealed last week from the decision of the Sheriff to the Court of Sessions against a conviction for illegally practising, was successful in his appeal, on the ground that, the charge against him being general and including more than one statutory offence, the conviction did not shew specifically of which offence or offences the appellant had been convicted.

## IRELAND.

AT the annual meeting of the members of the Royal Irish Academy held last week, Professor William Stokes, M.D., D.C.L., F.R.S., was appointed president for the ensuing year.

ON the 18th instant, the appointment of medical officer to Kilmainham Gaol was filled up by the selection of Dr. Kirkpatrick out of a large number of candidates.

AT a meeting last week of the Belfast Guardians, it was resolved that a superannuation allowance of £50 *per annum* should be allowed to Dr. Henry M. Johnston, late visiting medical officer of the workhouse.

DURING the last quarter of the year, the birth-rate in Ireland amounted to 24.4 in every 1,000, and the death-rate to 17 per 1,000, the latter being somewhat beyond the average of preceding years, and the higher mortality being due to the prevalence of scarlet fever and to the inclement weather.

### DUBLIN HOSPITAL SUNDAY.

OUR readers may remember that three institutions in Dublin, viz., the Meath and Adelaide Hospitals and the Hospital for Incurables, refused to co-operate with this movement, and declined to receive any portion of the funds collected. We learn that the Meath Hospital will join the movement this year, but regret that the Adelaide Hospital should still stand aloof. The advisers of the latter institution, in our opinion, are acting most injudiciously, and we sincerely trust that before it is too late better counsels may prevail as regards this matter.

### ROYAL COLLEGE OF SURGEONS OF IRELAND.

A MEETING of the Council was held on the 18th instant, in reference to the appointment of a professor of chemistry, including practical chemistry, in the room of Dr. Reynolds, resigned. The following members of the Council being selected by lot to make the appointment—viz., John K. Barton, William Colles, Henry G. Croly, Michael H. Stapleton, William Stokes, Edward Ledwich, Albert J. Walsh. The candidates were three in number: Charles A. Cameron, City Analyst, and Lecturer on Chemistry in the Ledwich School of Medicine; Edmund William Davy, Professor of Medical Jurisprudence to the College; and Emil Königs; Dr. Cameron, as was all along expected, being successful.

### MEDICAL OFFICERS FOR BELFAST.

AT a meeting of the Committee of the Belfast Dispensary District held last week, Dr. Wilberforce Arnold moved, "That, in view of the facts disclosed in the reports of Mr. O'Brien, Government Board Inspector, regarding the exceedingly onerous duties of the several medical officers, and the amount of duty discharged by them, it is imperative that additional medical officers be appointed for the Belfast Poor-law District".

In support of this motion, Dr. Arnold referred to the additional duties imposed by the Vaccination and Registration and Sanitary Acts upon the medical officers, whose number had not been increased since it was fixed twenty years ago. The modern methods also of investigating disease by the aid of chemical tests, the microscope, the stethoscope, the ophthalmoscope, and the clinical thermometer, require considerable time for their proper application; and Dr. Arnold very properly contended that the sick poor are as justly entitled to the benefit of these aids to diagnosis as any other class of society. Dr. Arnold also pointed out that, within the last few years, three out of the six dispensary doctors had died, it was believed, victims to overwork. The motion was, however, negatived, on the ground that only one of the medical staff had made any complaint of overwork, and had then refused an offer to relieve him of a portion of his district for reasons connected with his practice. It was also suggested by one of the Committee that, if the medical staff had any reason to complain, they now had an excellent opportunity to resign their posts. This, however, is an extreme measure, which most medical men would hesitate before taking, even if they had considerable grievances. It might, perhaps, be as well if these grievances were taken into consideration before forcing them to such a step. Besides, even from an economical point of view, it is a well demonstrated fact that to treat the sick poor thoroughly well is to keep their families off the rates, and thus to spare the pockets of the ratepayers. This aspect of the matter may yet recommend itself to the Dispensary Committee of Belfast, and eventually result in the appointment of the needed increase in the dispensary staff of that city.

### DR. MONKS.

We regret extremely to hear that Dr. Monks of Dublin, who, our readers may remember, was injured in a railway accident in England some time since, is suffering so much from the effect of his injuries, that it will necessitate his retirement from the practice of his profession.

## THE INTERNATIONAL MEDICAL CONGRESS AT BRUSSELS, 1875.

The fourth Session of the periodical International Congress of Medical Science will commence at Brussels on September 19th, 1875, and will last a week. It will be composed of those native and foreign medical men who send in their names to the Committee, and who alone will have the right of taking part in the discussions. The only expense incurred by members will be 12½ *francs* (10s. 6d.) for a copy of the Report of the Proceedings of the Session. A card of admission will be forwarded with the receipt for this subscripton. Applications for admission are to be made on and after July 1st; and members' names will be forwarded and cards of membership distributed on the afternoon of September 18th and the morning of the 19th. Members must have their names put down in the section to which they desire to belong. A member may belong to several sections. The Congress will meet twice daily; in the morning for the work of the sections, in the afternoon for general meetings, which will be devoted to conferences on questions of general medical interest not included in the programme, and to reading the reports of the sections and discussion of their contents. Members wishing to read papers on any subject not included in the programme, must give notice to the Committee at least a month before the opening of the Congress. No one will be allowed to speak more than twenty minutes; this restriction, however, does not extend to the sectional reporters. All papers read at the Congress must be left at the Committee room for publication at the discretion of the Committee. The proceedings will generally be conducted in the French language, but foreign members will be allowed to express themselves in their native tongue. If wished, the sense of their discourses will be briefly interpreted to the meeting. The Committee consists of M. Vleminckx, President; and MM. Deroubaix, Bellefroid, and Crocq, members; with M. Warlomont, General Secretary, to whom all communications relating to the Congress should be addressed. The programme of the Congress is as follows. 1. *Medicine* (comprising Pathology, Pathological Anatomy, and Therapeutics): the Prophylaxis of Cholera; Alcohol in Therapeutics; the Inoculability of Tubercle. 2. *Surgery* (comprising Military Surgery and Syphilography): on Surgical Anæsthesia; and the Dressing of Wounds after Operation. 3. *Obstetrics* (including Diseases of Women and Children): Lying-in Hospitals. 4. *Biological Science* (comprising Anatomy, Physiology, Comparative Medicine): the Vaso-Motor Nerves and their Mode of Action; the Value of Experiments based on Artificial Circulation. 5. *Public Medicine* (comprising Hygiene, Forensic Medicine, Medical Statistics): the means of making Workshops in which Phosphorus is manipulated healthy; the Organisation of the Public Health Service; the Manufacture of Beer. 6. *Ophthalmology:* Defects of Vision in relation to the Military Service. 7. *Otology:* the means of Measuring Hearing and Registering in an uniform manner in all Countries; Defects of Hearing in relation to the Military Service. 8. *Pharmacology:* Should the Medical Employment of Chemically defined Principles immediately be extended, and should the Preparations of them be Multiplied in the Pharmacopœias? the establishment of an Universal Pharmacopœia.

### DR. RUMSEY, F.R.S.

At a meeting of the friends of Dr. Henry W. Rumsey, of Cheltenham, held at the General Register Office, Somerset House, on Tuesday last, Dr. Farr in the chair, the following resolutions were carried unanimously:

1. Proposed by Dr. A. P. Stewart, and seconded by Dr. G. Buchanan, That considering the distinguished services rendered, during forty years, by Dr. Henry W. Rumsey to the cause of sanitary science and state medicine, the instruction accruing to the medical profession, and the advantages to the public at large from his self-sacrificing labours, and in view of the recent attack of paralysis which has incapacitated him from continuing the practice of his profession, it is desirable that some substantial token of public and professional gratitude should now be presented to him.

2. Proposed by Dr. Sibson, F.R.S., seconded by R. B. Grantham, Esq. (Institute of Civil Engineers), That a subscription list be opened for the above purpose, and that the general public, as well as the medical profession, be appealed to.

3. Proposed by John Simon, Esq., F.R.S., and seconded by Captain W. Clode, That a memorial, setting forth the particulars of Dr. Rumsey's career and the strong claim which he has thereby established to a national recognition of his services, be presented to the Prime Minister, praying that a pension should be granted to him out of the Civil List.

It was then resolved, that those present, with others who have sent in their names, should form a committee to carry out the above objects, and that they should invite Dr. Rumsey's friends and admirers to join them.

Dr. Farr, F.R.S., was elected chairman of the committee, Dr. G. Buchanan treasurer, Dr. Corfield secretary, and Mr. Rendle, of the General Register Office, assistant secretary.

Subscriptions to the fund should be sent to Messrs. Robarts, Lubbock, and Co., bankers, to be placed to the account of the "Rumsey Testimonial Fund".

## THE SOCIAL POSITION OF OUT-PATIENTS.

A fortnight ago we gave extracts from a report upon the social position of the out-patients at the Royal Free Hospital, which has recently been printed by the Charity Organisation Society. The inquiry was undertaken at the request of the hospital authorities, and is highly creditable to them. If a few other hospitals and dispensaries—some general and some special—would institute similar investigations, valuable statistics would be obtained, which would supply the *data*, upon which a well-devised and practicable scheme might be based for the reform of our medical charities. As it is, the information contained in this report goes far to establish the need of such reforms. We have always contended that the gross and flagrant cases of abuse, which are sometimes used to point the moral of a speech, though they undoubtedly occur, are yet comparatively few. What we have often insisted upon is, that the hospitals and dispensaries are to a great extent resorted to by the well-to-do artisans, and that it is for this class more especially that some alteration is needed in the mode of administering medical charity. Both these points are fully borne out by the report. Of the 641 cases which were investigated, 172 were set aside because they had given either false addresses, or insufficient information. Of the remaining 469, only twelve were considered to be in a position to pay a private doctor. Though this number may at first sight appear small, yet it must be remembered that it represents 2½ per cent. of the cases that were classified; and it is not too much to infer that the proportion would have been at least as great in those who gave false addresses. If we are justified in assuming that this percentage may be taken as fairly representing the average amount of gross abuse at the general hospitals, the total figure would amount to a very serious evil. Out of every 20,000 out-patients there would be 500 who ought to be employing general practitioners; and how small a number is 20,000 compared with the total number of the out-patients at the general hospitals of the metropolis!

But great as this evil is, the report has demonstrated another which, if not so flagrant, is of far wider extent. It has shown that a proportion of 49 per cent. though "unable to pay even the lowest scale of a general practitioner's charges, are well able to contribute a small amount towards the cost of their own treatment". When we call to mind the large number that were set aside for giving false addresses, and at the same time notice that the report tells us that the investigators were studiously moderate in assigning cases to the various classes, we may safely say, for convenience of reckoning, that one-half of all the out-patients at the general hospitals could pay 6s. a year, on the provident system, towards the expense of their own medical attendance; and how large a sum again does this represent abstracted from the earnings of the profession!

Perhaps it may be argued that the Royal Free is not a fair example of the general hospitals, because it requires no Governors' letters of recommendation. There may be some force in this objection. But, after all, a subscriber's letter is only too easily obtained, and offers but a very slender barrier against abuse. While, on the other hand, it must be remembered that the Royal Free has not the prestige of the older foundations, and is not backed by a medical school: both of which circumstances add to the attractions of the other large general hospitals.

It must be borne in mind that the inferences we have drawn from this report refer only to general hospitals. Probably the case would be much stronger if an investigation were undertaken at one of the special hospitals: and any such institution which would set on foot a similar inquiry, would add a most important supplement to the information furnished by this report.

Though, as the report very properly remarks, it is beyond the scope of the instructions from the Committee to suggest alterations in the mode of conducting the hospital, yet a hint is given of the path in which, in the opinion of the investigators, reforms ought to advance. "If," they say, "a provident branch could be established, or if a provident dispensary could be affiliated to the hospital, this would very materially facilitate the better regulation of out-door medical relief. A large proportion of the applicants for out-patient relief might then be rejected, or rather referred, without the least appearance of harshness. Any such institution ought to be self-supporting. It should be served by the out-patient staff of the hospital, and a great part of the members' payments should go to form a fund from which the medical officers should receive an honorarium for their services." This suggestion is not so novel as it may appear to some of our readers. The plan here recommended was adopted six years ago by the Royal Albert Hospital, Devonport, and has proved remarkably successful.

We must not omit to draw special attention to the opinion expressed by those who conducted the investigation, that "the whole body of the out-patients is really divisible into two sections. (1) Those who might reasonably be expected to pay something for their medical relief, and (2) those who ought to be referred to the parish." We lately expressed a similar conviction ourselves, and we are glad to find it endorsed by such high authority as the Charity Organisation Society.

The report, as a whole, is the most important paper that has appeared for a long time upon the much debated question of hospital abuse. It is the first systematic investigation, upon a large scale, that has ever been attempted in the out-patient department of any Metropolitan Hospital. The Managing Committee of the Royal Free deserve great credit for the courage and candour which they have manifested in thus submitting their institution to a public inquiry. They have shown an admirable liberality in listening, with an unprejudiced ear, to the voice of public opinion, and have adopted the best means of satisfying themselves of its correctness, so far as their own institution was concerned. Whatever conclusion they may draw from the facts stated in the report, and whatever action they may think proper to take in consequence, we feel sure they will reap their reward in an increased measure of public confidence.

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THE Duke of Devonshire has been elected President of the Chesterfield and North Derbyshire Hospital and Dispensary. His Grace has presented a large case of books for the use of the patients.

DR. WILLIAM R. WARWICK has been presented with a clock and side ornaments, an inkstand of solid silver, and an illuminated address, by the subscription of his friends and patients, on the occasion of his leaving Southend, Essex, to reside at Brixton.

# SPECIAL CORRESPONDENCE.

## PARIS.

[FROM OUR OWN CORRESPONDENT.]

March 14th, 1875.

*Copper in the Human Organism.—Ferments or Fermentation.—Germs.—The School of Medicine.—Professor Pajot.—Retirement of M. H. Roger.*

IN my last, which appeared in the journal of February 27th, I gave a short account of the results arrived at by MM. Bergeron and L'Hôte in their researches as to the quantity of copper that exists normally in the human organism. This quantity was estimated to be somewhat less than two milligrammes, or 3-100ths of a grain; but in the bodies of the deceased wives of the famous Moreau of St. Denis, the above-named experts found in the liver of one of them a hunded and twenty milligrammes, and, in the liver of the other, only eighty milligrammes.

MM. Bourneville and Yvon have since read before the Academy of Sciences a paper touching the same subject. Investigations have been carried on conjointly by these gentlemen in M. Charcot's ward at the Salpêtrière, where a certain number of epileptics were submitted to treatment by the ammoniated sulphate of copper, one of whom was carried off by tuberculosis. It was stated that this patient had had none of the medicine for three months before her death, as it had been suspended, the salt not having produced the desired effect. The liver of this patient was submitted to chemical analysis, and the following conclusions were given by the authors of the paper as the result of their investigations.

I. The ammoniated sulphate of copper, far from reducing the epileptic fits, increased their number. The quantity of the salt administered daily was gradually increased from ten to fifty centigrammes (about one and a half to seven and a half grains). The only accidents noticed were; 1. Vomiting, consisting sometimes of alimentary substances, and, at others, of a glairy fluid of the colour of verdigris, which attracted the attention of the other patients; 2. Colicky pains and diarrhœa, which, however, were of a temporary character.

II. At the *post mortem* examination, nothing was to be seen in the stomach or intestines that could be attributed to the action of the sulphate of copper.

III. The chemical analysis of the liver showed that this organ contained as much as 295 milligrammes of metallic copper, which would correspond to one gramme and sixteen centigrammes of the sulphate of that metal. This quantity is considered enormous, particularly as the medicine had been suspended for three months before the death of the patient, during which time a certain proportion must have been eliminated. Thus it may be seen that, in the case under notice, the quantity of copper found in the body is more than double that found in the bodies of the poisoned subjects referred to.

The question of ferments or fermentation germs is still being discussed at both the Academies. At the Academy of Medicine, M. Colin, professor of Veterinary Medicine at the Ecole d'Alfort has taken up the subject, and disposes of M. Pasteur's theory in a most summary manner. M. Colin's arguments are to the effect that putrefaction may and does take place without the intervention of germs or other inferior organisms, and he produces, as an example, an ordinary fowl's egg, through the shell of which no germs can penetrate, as, according to M. Pasteur's own showing, a little cotton-wool is sufficient to keep them out. Moreover, in examining a rotten egg, M. Colin detected certain bodies which resembled not real living beings, but simple albuminous corpuscles; from which he inferred that putrefaction is not due to organisms produced by spontaneous generation. And, from all this, M. Colin concludes that putrefaction is the result of chemical action which takes place without the necessary intervention of inferior beings, or without homogeny or heterogeny. In the open air, however, or in ordinary condition, the lower organisms play a certain part in the process of putrefaction. They live on the products of the putrid decomposition, which are favourable for their existence; they modify them after the manner of acari, the larvæ of insects, worms, cryptogams, which are mere passive agents in the process of putrefaction; in other words, they are simple spectators, beneficiaries, and not actors.

The winter session at the School of Medicine has just come to a close, and that for the summer begins on the 15th instant. The following is a list of the professors who are to lecture during the coming session: Professor Baillon, Medical Natural History; Professor Béclard, Physiology; Professor Charcot, Pathological Anatomy; Professor Trélat, Surgical Pathology; Dr. Bergeron, acting for Professor Tardieu, Legal

Medicine or Medical Jurisprudence; Professor Regnauld, Pharmacologie; Professor Pajot, Midwifery and Diseases of Women and Children; Professor Vulpian, Experimental and Comparative Pathology; Professor Hardy, Medical Pathology; Professor Bouchardat, Hygiene; Professor Gubler, Therapeutics and Materia Medica. Clinical Medicine: Dr. Hayem, acting for Professor Bouillaud, Charité Hospital; Professor G. Sée, Charité Hospital; Professor Béhier, Hôtel Dieu; Professor Lasègue, La Pitié. Clinical Surgery: Professor Richet, Hôtel Dieu; Professor Gosselin, La Charité; Professor Verneuil, La Pitié; Professor Broca, L'Hôpital des Cliniques. Clinical Obstetrics: Professor Depaul, L'Hôpital des Cliniques. Supplementary Lectures; Diseases of Children: Dr. Blachez, Hopital des Enfants: Ophthalmology: Dr. Panas, Lariboisière; Syphilitic Affections: Dr. Fournier, Lourcine Hospital.

You will observe from the above list that Professor Pajot, who has been prevented by over-fatigue from lecturing for the last two years, is to resume his functions at the School of Medicine, much to the gratification of the medical students, among whom he is a great favourite.

The inexorable law of age has removed from the office of hospital physician the highly esteemed and well-known "children's doctor" M. Henri Roger, he having completed his 66th year. He was for many years physician to the Children's Hospital in Paris, and is succeeded by Dr. Blachez.

# ASSOCIATION INTELLIGENCE.

## COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the office of the Association, 36, Great Queen Street, Lincoln's Inn Fields, London, on Thursday, the 15th day of April next, at two o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

36, Great Queen Street, London, W.C., March 18th, 1875.

## METROPOLITAN COUNTIES BRANCH.

A GENERAL Meeting of this Branch will be held at the house of the Medical Society of London, 11, Chandos Street, Cavendish Square, on Friday, April 16th, at 8 P.M.; when a discussion will be opened by Mr. HOLTHOUSE on the subject of Legislation for Habitual Drunkards.

ALEXANDER HENRY, M.D. } *Hon.*
ROBERT FARQUHARSON, M.D. } *Secs.*

## BATH AND BRISTOL BRANCH.

THE Fifth Ordinary Meeting of the Session will be held at the Royal Hotel, College Green, Bristol, on Thursday evening, April 1st, at half-past seven o'clock; F. MASON, Esq., President.

EDMUND T. BOARD, *Hon. Sec.*

Bristol.

## SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.

THE first meeting of the above district for the present year will be held on Wednesday, March 31st, at Terry's Restaurant (opposite the South-Eastern Railway Station), Tunbridge Wells, at 3 o'clock P.M.; BLACKALL MARSACK, Esq., in the Chair.

Dinner will be provided at 5 P.M., charge 6s., exclusive of wine.

All members of the South-Eastern Branch are entitled to attend these meetings, and to introduce professional friends.

The following communications are expected.

1. Mr. Marsack: Supposed Case of Vegetable Poisoning; Two Cases of Malignant Pustule.
2. Dr. Johnson: Case of Locomotor Ataxy; Case of Thoracic Myalgia.
3. Mr. T. F. Sanger: On Malaria.
4. Mr. W. Wallis: Case of Poisoning by Oil of Tobacco.
5. Two papers by Mr. G. F. Hodgson, of Brighton, President of the Branch.

THOS. TROLLOPE, M.D., *Hon. Sec.*

35, Marina, St. Leonard's-on-Sea, March 16th, 1875.

## SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.

A MEETING was held on March 11th, 1875, at the Crystal Palace Hotel; E. R. RAY, Esq., in the Chair.

*Next Meeting.*—It was agreed that the next meeting should be held at Reigate, on October 14th, 1875; and that J. Sisson Steele, Esq., be requested to take the Chair.

*Secretary.*—Dr. Galton was re-elected Secretary.

*Puerperal Convulsions.*—Dr. GALABIN read a paper on the causation of puerperal convulsions. A discussion ensued, in which Mr. Stilwell, Mr. Eccles, Dr. Mansfield, Dr. Galton, and others, took part.

*Cystic Degeneration of the Chorion.*—Mr. ECCLES exhibited a specimen. The case occurred in a primipara. Menstruation ceased in July; a fright happened in September; in November, the first bloody discharge appeared. In January, the patient was seen. She presented an uterus of apparently three months' pregnancy, with patulous os. The mass, of ovoid shape, burst before passing; three days after which, there was large secretion of milk from the breasts. Mr. Stilwell and Dr. Ogilvie made observations on the case.

*Recovery from Tubercular Peritonitis with Cerebral Symptoms.*—Dr. DALTON read a case which occurred in a child aged 10. Subacute ulceration of the bowels was followed by abdominal tenderness and pain, with fluid in the abdomen. There was inequality of the pupils, the right being larger; strabismus; twitching of left arm and leg; intolerance of light and sound. Pulse 100, temperature 100. For twenty days, cerebral symptoms continued, with screaming at night, etc. The case was treated with iodide and bromide of potassium, with complete recovery. A few months afterwards, a distinct hard lump was to be felt in the abdomen, to the left of the umbilicus. The father died of rapid breaking up of pneumonic consolidation at the upper lobe of the lung, and the brothers suffered from enlarged glands, etc.—A discussion followed, in which Dr. Miller (who thought it probable that typhoid fever might account for the symptoms), Dr. Galton, Mr. Stilwell, Dr. Galabin, Mr. Ray, and Dr. Dixon, joined.

*Cardiac Rheumatism.*—Dr. MILLER read notes of a case occurring in a patient aged 23, without any joint-affection. On December 22nd, he had urethral discharge; on January 7th, general pains, with pulse 84; tumultuous heart-action; normal area of præcordial dulness; double friction-sound, with mitral systolic murmur; no perspiration or acid smell. In the progress of the case, the temperature was 102 deg., and distinct acid sweat occurred. The mitral systolic murmur was persistent. He considered the case to be one of a class, as we constantly find cases of heart-disease with no history of previous rheumatism or scarlet fever.

*Acute Endocarditis.*—Dr. GALTON read a case of acute endocarditis, seen from its commencement, in a boy aged 8, in which there was no joint-affection or rise of temperature throughout. Dr. Mansfield and Mr. Stilwell made remarks on the case.

The interest of the meeting was increased by an excellent collection of surgical and other instruments exhibited by Messrs. Millikin of St. Thomas Street.

*Dinner.*—Fourteen members and three visitors sat down to dinner.

# REPORTS OF SOCIETIES.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MARCH 23RD, 1875.

Sir JAMES PAGET, Bart., F.R.S., D.C.L., LL.D., in the Chair.

### A CASE OF PULSATING TUMOUR OF THE LEFT ORBIT, CONSEQUENT UPON A FRACTURE OF THE BASE OF THE SKULL, CURED BY LIGATURE OF THE LEFT COMMON CAROTID ARTERY, SUBSEQUENTLY TO INJECTION OF PERCHLORIDE OF IRON, AFTER DIGITAL COMPRESSION AND OTHER MEANS OF TREATMENT HAD FAILED; WITH REMARKS AND AN APPENDIX CONTAINING A CHRONOLOGICAL TABLE, AND A RÉSUMÉ OF THE RECORDED CASES OF INTRAORBITAL ANEURISM. BY WALTER RIVINGTON, M.S.LOND., F.R.C.S.E.

THE author prefaced the narrative of the case with an historical *résumé* of the views and observations placed on record by previous writers. The first known case was described by Mr. Travers, in 1809, as a case of aneurism by anastomosis, and the second by Mr. Dalrymple in 1812, under the same designation. Notwithstanding the observation of Guthrie, in 1823, of a case in which similar symptoms existing on both sides were shown by *post mortem* evidence to have resulted from an aneurism of each ophthalmic artery within the orbit, the views of Travers were generally adopted for many years, as explanatory at least of the idiopathic cases of intraorbital aneurism. Mr. Busk, in 1835, met with a case which arose gradually after a fracture of the base of the skull, and was able to cite the prior case of a boy, under the care of Mr. Scott, in 1834, at the London Hospital, in which protrusion and pulsation of the eyeball supervened after an injury to the head, occasioned by a fall into a ship's hold, and in which the subsequent occurrence of violent arterial hæmorrhage from the nose rendered it necessary for Mr. Scott to ligature the carotid ; a cure resulting. Mr. Busk combated the views of Travers, and advocated the view that his own case, and previous ones had been cases of ordinary aneurism affecting the ophthalmic artery within the orbit. His paper had a marked influence on subsequent observers, as might be judged from the fact that M. Pétrequin, Mr. Curling, M. Bourguet, M. Legouest, Mr. Zachariah Laurence, M. Gioppi, Dr. Morton, and Dr. Schmid of Odessa, all diagnosed their cases as examples of aneurism of the ophthalmic artery; whilst M. Demarquay, Mr. Nunneley, Mr. Jos. Bell, Mr. Ernest Hart, Dr. Delens, Mr. Holmes, and others who had ably and successfully opposed the view of Travers, had repeated, with reinforcements of their own, Mr. Busk's arguments. To Mr. Nunneley was due the chief credit of first directing forcibly the attention of pathologists in England away from the orbit to the vessels lying behind it; and he showed from *post mortem* observations in two out of six cases which he had met with, that the symptoms might be due to an aneurismal affection of the internal carotid artery in the cavernous sinus, or an aneurism of the ophthalmic artery within the skull. The record of Mr. Bowman's well-known case, by Mr. Hulke, in which no change was found in the arteries, but in which the cavernous, transverse, and petrosal sinuses were obstructed by clot; and M. Aubry's case of obliterated inferior petrosal sinus; and MM. Wecker and Richet's fatal case, were all so many indications that aneurisms within the orbit were only exceptional conditions. A brilliant light had been thrown on the pathology of the traumatic cases, by the publication of two cases under M. Nélaton, in which all the symptoms had resulted from a direct communication between the internal carotid artery and the cavernous sinus produced by the fracture of the base of the skull; and a similar case observed by M. Hirschfeld. These cases, and cases of spontaneous rupture of an aneurismal carotid, related by M. Baron, in 1835, and M. Gendrin in 1841, were little known in this country until the publication of Dr. Delens' monograph, and Mr. Holmes's lectures at the College of Surgeons. The author's own case was briefly this. W. C., aged 24, was admitted into the London Hospital in July 1873, with a fracture of the skull. Six weeks later, the patient heard a noise in his head, like wind blowing; the eye gradually became prominent, pulsation of the eyeball was seen for a day or two, followed by the formation of a pulsating and thrilling tumour between the eye and the margin of the orbit. There was a *bruit*, continuous, vith reinforcements, and the *bruit de piantement* could be heard at ntervals. At the time of the commencement of the aneurismal symp- oms, Mr. Reeves was in charge of Mr. Rivington's wards, and carried ut very thoroughly digital compression, without making any impres- ion on the disease. Ligature of the carotid was discussed, but nega- ived at a consultation. A further trial of compression, digital, instru- nental, and direct, having been made without effect, combined with eratrum, and the affection at the end of a year being decidedly aggra- ated, threatening extinction of vision and preventing work, an injec- on of five drops of a neutral watery solution of the perchloride was ade; but, this proving to be insufficient in quantity to cause sufficient agulation in the dilated ophthalmic vein, and a second injection eing impracticable, on account of subsequent swelling, the carotid rtery was tied by Mr. Rivington, and effected a cure of the disease; slight *bruit* only remained, but superficial ulceration of the cornea curred a few days after ligature, and resulted in opacity. The thor then discussed at length the causation, symptoms, patho- gy, differential diagnosis, and treatment of the affection, the following ing a few of his conclusions. 1. Of 62 recorded cases, 29 were idio- thic, and 33 traumatic; of the 29 idiopathic cases, 11 were affected the left side, and 13 on the right; whilst of 33 traumatic cases, 22 ere affected on the left side, and nine on the right, the side affected t being mentioned in the others. Thus, the preponderance of cases which the affection had existed on the right side was entirely main- ined by the traumatic cases. 2. Pulsation of the eyeball and a pulsat- g tumour might be absent, but no case should be regarded as one of -called intraorbital aneurism unless, in addition to exophthalmos and emosis, a *bruit* were present. 3. The only true basis for the pathology intraorbital aneurism was the record of *post mortem* examinations, to ich allusion had been already made. By this the doctrine of aneurism anastomosis had been negatived, and a variety of morbid conditions been disclosed (*vide supra*). 4. It was of great importance to ollect that, in eight out of twelve cases examined after death, the thalmic vein had been found varicose and enlarged, and in four tainly had formed the pulsating tumour observed during life at the ital margin. The distension of veins migh reach to the bridge of the nose and the forehead. After specifying the distinctive features of erectile tumours of the orbit, pulsating encephaloid cancer, spheno-orbital meningocele, and rejecting as efficient causes of the affection arterio-venous aneurism of the orbit, cirsoid aneurism, and aneurism by anastomosis within the orbit, and morbid conditions of the sympathetic nerves and ganglia, the author pointed out the necessity of studying the mode of occurrence of the symptoms, the nature of the paralytic symptoms of orbital muscles (if present), the character of the *bruit* and pulsating tumour, and other points, for the purpose of forming an opinion as to the pathological cause of the affection in any given case. Having discussed the means of treatment, and given the statistical results, the author showed that the symptoms might return in three different ways; that loss of vision might occur in cases treated by any method, or not treated at all, the result depending chiefly on the degree of interference with the circulation by the formation of coagula before anastomosing channels could be established. The conclusions as to treatment were the following. 1. Belladonna, digitalis, veratrum, and ice were worthy of a trial; 2. Digital compression should always be essayed; 3. Instrumental compression was more difficult, and more likely to injure important nerves; 4. Galvano-puncture was not well suited for application to a thin-walled vein; 5. Coagulating fluids were adapted only for cases of arterio-venous aneurisms; 6. Ligature of the carotid was the remedy most generally applicable, but should not be hastily employed. The author expressed his obligations to Mr. Holmes for his interest in the case and supply of valuable information.

Mr. HENRY POWER said that the affection was a very rare one. Among 15,000 or 20,000 patients in ophthalmic practice, he did not remember to have seen one case; and the late Sir William Lawrence, in his work on the eye, did not mention that he had seen one. He doubted whether the forms described could be distinguished accurately from each other. With regard to treatment, he thought the injection of perchloride of iron dangerous, and would prefer the ligature. He showed a drawing of a nævus of the eyelid in an infant, which had begun to extend backwards into the orbit, and which he had treated successfully by a figure-of-eight ligature.—Mr. HULKE said that the value of the paper would be more perceptible when it was in print. Mr. Rivington had spoken of aneurism by anastomosis. This term had been used in different senses: William Hunter applied it to arterio-venous aneurism. With regard to the question of the formation of erectile nævus in the orbit, he would call Mr. Rivington's attention to a case described by von Gräfe some years ago, in which an encapsuled cavernous tumour was found in the orbit; also to a similar case recorded by Mr. Critchett. As to the *bruit*, he doubted whether its tone was of any value; but it was important to observe whether it was continuous or interrupted. From what he had seen and read, he regarded injection of perchloride of iron as a proceeding fraught with the gravest risk, unless the communications with vessels around could be cut off. He had heard of a case where the injection of a few drops of solution of perchloride of iron into a nævus over the sternum was followed by death; and of two other cases (one of which, he believed, died), in which extensive sloughing took place.—Mr. CURLING agreed with Mr. Power that the malady was very rare. The author had collected his materials from very various sources extending over a long period of time, and had found only sixty-two cases. Still it was important that surgeons should know something of the subject, lest they might meet with cases. As to treatment, he would speak of traumatic cases, and in these he regarded the early application of the ligature as of importance where vision was seriously threatened. He would not even wait to see what effects might be produced by digital compression. In idiopathic cases, where there was no indication of injury, digital compression and other measures might be tried before resorting to ligature.—Dr. C. J. B. WILLIAMS desired to call attention to the medical aspect of the subject. The disease described in many instances closely resembled exophthalmic goître. He believed that in all such cases there was an enlargement of the carotid arteries, extending to the arteries at the back of the eye, and sometimes accompanied by a murmur. Usually there was also enlargement of the thyroid, from enlargement of its vessels. The cases seemed to belong to a diseased condition that had scarcely received sufficient attention; viz., partial enlargement of arteries. There was often at the same time an anæmic state of the system. He thought that, in such cases, medical treatment, applied early, was quite as successful as surgical. As he had said on a former occasion, "the physician's iron was better than the surgeon's steel"; and cases of the kind were readily amenable to the internal use of perchloride of iron, with strychnia, digitalis, good living, etc. His remarks, of course, were not applicable to traumatic aneurisms of the orbit.—Mr. W. ADAMS called attention to Pravaz's experiments on the injection of perchloride of iron; he had found that one drop was sufficient to coagulate one drachm of blood. The solution of perchloride of iron contained free hydrochloric acid; and this, if it escaped into the cellular tissue, would produce serious destruction of the parts. He briefly related a case in which he had injected perchloride of iron into the tibial artery of a child.—Mr. Hulke said that, some years ago, he had injected two drops of solution of perchloride of iron into the vein over the tendo Achillis in dogs, by Pravaz's plan: the result was instantaneous death; extensive coagula were found in the veins.—Mr. C. Heath had seen a case where a *bruit* was heard, and a ligature applied to the common carotid artery: after death, no aneurismal state of the arteries was found. Another case of the same kind had been referred to by Mr. Rivington; and, if two cases had occurred, could it be inferred that there had been aneurism in all the successful cases?—The President had never seen a case of pulsating tumour in the orbit; but he would point out that any tumour deeply set in bone would commonly pulsate, even though it had no blood-vessels, receiving an impulse from the vessels, however small, in the neighbourhood. This might be noticed in tumours of the antrum. Pulsation, perceptible to the eye, was also communicated to the pus in cases of necrosis. In the same way, he considered, increased pulsation of the ophthalmic artery from any cause would be followed by a communication of the pulsatile movements to the eye.—Mr. Rivington having replied, the Society adjourned.

## OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, MARCH 3RD, 1875.

W. O. Priestley, M.D., F.R.C.P., President, in the Chair.

*Clinical Notes on the Early Course of Cancer of the Cervix Uteri.*—Dr. Charles Liebman read a paper on this subject. After quoting the opinions of many authors, he narrated the particulars of four cases observed by himself, in which he showed that the disease generally spreads much higher in the lining membrane of the cervical cavity than in the exterior part of the neck. Amputation of the neck he considered useless in all cases of cancer, excepting those of the pedunculated cancroid papillary tumours of the cervix.—Dr. Wiltshire thought the "beginning of cancer" of singular importance to the profession as a matter of clinical as well as of pathological interest. It involved an important practical point; for it was obvious that, if we could find out the beginning of the disease, and were thus enabled to treat early the implicated tissues, we might at least have the satisfaction of arresting the disease, and that sometimes for a considerable period. Dr. Wiltshire mentioned two cases in illustration of his remarks. In both, considerable benefit followed removal of such portions of the diseased tissues as could readily be attained. He had sometimes used chromic acid with considerable success.—Dr. Heywood Smith remarked on the far greater frequency of cancer in the lips of the uterus than the fundus or body. He had tried Dr. Gibb's method of treatment, with plugs of strong perchloride of iron, and in a large proportion had seen, with some arrest of discharge, grave symptoms supervene, symptoms as of septicæmia. He laid stress on the rule on which Dr. Barnes had insisted viz., that in all cases, when practicable, early removal should be had recourse to.—The President remarked that Dr. Liebman had drawn attention to an interesting pathological subject. The object of his paper was to point out that authorities generally regarded the vaginal portion of the cervix as the seat of the beginning of cancer, whatever its form might be, but that he had observed cases in which the disease commenced in the cervical cavity, and he had been able to demonstrate the development of masses of epithelioma in that locality, while the external labia were entirely unaffected. The author, however, did not seem to be conversant with the researches of Virchow and other pathologists, who had observed cancer originating both in the mucous membrane of the cervix and body of the womb, and had demonstrated the development of cancroid in the uterine walls themselves. Cancer beginning first in the fundus uteri was not uncommon. Sir James Simpson had written a paper on the subject, and he believed instances had been published by Dr. Barnes and others. He had in recollection more than one case where he had watched the progress of malignant disease in the body and fundus of the uterus, and where ulceration had made its way into the peritoneal cavity, with the cervix to all appearances scarcely at all involved. The difficulty of diagnosis in cases of cancer of the interior of the uterus was no doubt very great, and he knew no way of distinguishing a malignant growth situated in the fundus from the enlargement of a benign character, except by observing the nature of the discharges, the comparatively rapid growth, and the persistent pain associated with the former. In the treatment of epithelioma or other malignant disease of the cervix, he believed that there was a general concurrence of opinion that, when the tumour had a margin of healthy tissue above, it was desirable to amputate the cervix, but he had not yet made up his mind whether in worse cases, viz., when the disease had advanced above the line of demarcation between the cervix and body of the uterus, and it was not possible to remove the whole morbid growth, it was desirable, by operative procedure, to remove a considerable portion by way of staying the progress and lessening the discharges. He thought this might be justifiable where the discharges and loss of blood were great and rapidly reducing the patient; but where the symptoms were less urgent, his experience rather indicated abstinence from interference, as any but palliative measures had seemed to give an impetus to progress, and to lead to more rapid development of the disease.—Dr. Rogers thought the paper was useful to the Society, if only to elicit the opinion of the Fellows. He considered it impossible to cure cancer by means of escharotics, though of these bromine was the most useful. If the tissue were scraped first, and destroyed effectually by means of bromine, it often produced an amount of benefit that warranted our doing it, but it required great care, as it was a powerful escharotic.—Dr. Barnes, not having heard the paper, would limit his observations to one question of treatment referred to by the President. After the experience of quite a considerable number of operations, he had arrived at the conclusion that the most effective as well as the most safe mode of dealing with cancer of the cervix uteri was by the galvanic cautery. If the diseased mass were projected into the vagina in such a manner as to permit of being surrounded by a wire, it should be removed flush with the vaginal roof. There was rarely any serious bleeding, sometimes almost none; now and then, if a small artery spouted, the use of the porcelain cautery of the battery had effectually stopped it. In those cases in which the disorder did not form a projecting mass, the button galvanic cautery could be moved over the surface, destroying the necrosed portion. Comparatively healthy granulations commonly followed. The so-called cachexia disappeared for a time; there was almost always freedom from hæmorrhage for a time, and the general condition greatly improved. He had only known one casualty from the proceeding. A woman in St. Thomas's Hospital died a few days after operation from peritonitis. In all the other cases, reprieve and benefit were experienced. In one case, the subject had two pregnancies, and she was alive five years after operation although the disease returned.—Dr. Wynn Williams remarked that the cancerous matter might be deposited in any of the tissues of the uterus, as in other parts of the body; also that different forms of cancer began more frequently in one structure than in the other. Thus, the epithelial form commenced in the skin and mucous membranes, whereas the medullary commenced in the deeper seated parts; and with the uterus there might be cancerous deposit in any part of the uterine organs. He had seen in consultation three cases within the last twelve months, where he diagnosed cancer of the fundus. He did not think that anyone could well mistake the peculiar odour of a cancerous mass in its latter stages for the odour of a disintegrating fibroid. In cancer of the fundus, the greatest care should be taken in passing the sound, as a very eminent physician informed him, on one occasion, whilst examining the uterus, he was unfortunate enough to pass the sound through the cancerous tissues into the peritoneum, the patient dying in a few hours of peritonitis. There could be no doubt that the cancerous mass, wherever situated, should be removed when practicable, either by the *écraseur* or by the galvanic cautery, as mentioned by Dr. Barnes; and even if the whole of the mass be not removed, if the uterus be mobile, the surrounding tissues not infiltrated, we should endeavour to destroy the remaining portion, by injecting bromine into it, or applying it by means of cotton-wool. This he had done in several instances, where the neck of the uterus had been removed, and the actual cautery applied by other medical men, with the result apparently of removing the whole of that disease, for after a lapse of six or seven years the disease had not reappeared.—Dr. Routh said the Society might recollect his bringing the subject of uterine cancer forward several years ago, and subsequent experience only confirmed the opinions then expressed; indeed, one of those women, a case then believed to be hopeless, was, he had heard, still alive and in perfect health. He did not believe cancer of the fundus was quite so rare as had been stated; occasionally it was mistaken for fibroid; indeed it was quite impossible in many cases to make a diagnosis, because the bloody or fœtid discharges were common to cancer and disorganising fibroids, or might occur independently of these, but if there was marked pain at night, which persisted for any length of time with hæmorrhage it was safe to put down the case as one of cancer. Perhaps some very rare forms of neuralgic uterus with hæmorrhagia, might puzzle occasionally, but the previous history generally cleared up the case. Whe the cancer affected the cervix exclusively, and always in cases of papillary or epitheliomatous cancer, it was the right thing to remove it a once. He had done so in several cases, and many had had no recu rence. He usually employed the ordinary wire *écraseur* in preferenc to the electric cautery, as it was much more easy of application, especially if the tumour was large or irregular, because the electric wire was so thin. Then, again, the electric wire often burnt a good way around the burning wire; and, if the cervix had to be taken away high up, there was fear of injuring the attachment of the vagina and uterus, and so getting into Douglas's space from the after sloughing, and producing death by peritonitis. He was not satisfied with leaving the case to heal at will after such excision. He waited four or five days, and then destroyed the surface again by means of bromine or the actual cautery, allowing the destruction to extend to part of the lining membrane of the uterus, if he had reason to fear it was diseased at all. And he often expedited the healing process, especially by a solution of gastric juice, which had a marked effect in bringing about cicatrisation. This he had proved often, not only in cancerous sores but in others which turned out very obstinate and difficult of cure by other means. The marked difference between it and the perchloride of iron in healing power could be seen often, if we dressed a wound half with the iron and half with gastric juice; and he was glad to find that Dr. Barnes confirmed the healing power of this agent. A relapse would not justify cessation from further interference. A second operation often proved effective where the first had failed. Lastly, in cases of hopeless cancer, accompanied by fœtor and loss of blood, and when a patient was dying a miserable death, he thought we should interfere. Destruction of the ulcerating surface often stopped both the general cachexia and gave great relief, and the patient gained temporary restoration of health. When the hæmorrhage proceeded from the cavity, he applied the persulphate solution of iron, or the perchloride, directly to the cavity, on lint; and, more recently, by means of an instrument similar to that devised by Simpson for passing caustic into the womb—though larger—he introduced into the cavity, either after dilatation by sea-tangle or without, if the opening were sufficiently patent, the dry solid perchloride, with the best results. Sometimes, the arrest of hæmorrhage was instantaneous, and seldom gave rise to any trouble; once only he had seen some metritis which supervened, and lasted three or four days. In any case, he thought it was perfectly unjustifiable to leave even hopeless cases of uterine cancer to die a miserable death, and be a pest to themselves and others, in our present state of knowledge, when so much temporary relief could be given.—Dr. AVELING stated, that after scooping or removing by any other means the cancerous structures, he had found nitric acid as efficacious and more easily applied than the actual cautery.—Dr. WILTSHIRE said he had used chromic acid with great benefit; it acted as a deodorant as well.—Dr. BLOXAM said, that all present would agree that it was of the utmost importance in those cases which were beyond the reach of operation, to mitigate the suffering caused to patient and friends by the extremely fœtid discharges. He had heard bromine named, but not iodine or iodoform. The last was both a deodorant and an anodyne, and deserved more notice than it had yet received in this country. It could be applied in powder or wool, as a pessary with cocoa, butter, or in solution in glycerine.—Dr. EDIS remarked that the object of Dr. Liebmann's paper was to show that, in the majority of cases of cancer of the uterus, the disease commenced in the lining membrane of the cervix, and not primarily in the lower portion of the cervix itself. He (Dr. Edis) had long recognised the fact, and, in place of amputating the cervix by means of the *écraseur* or galvano-caustic, he had been in the habit of employing the actual cautery in the form of a pear-shaped bulb, to destroy the lining membrane and interior of the cervix, thus producing a conical cavity. He had represented the os uteri, which ultimately contracted, leaving merely a small aperture. In several instances, this had been attended by marked success, the patients living for many years after the date of operation without any apparent return of the disease. The chief points enabling us to arrive at a correct diagnosis as regards he fact of its being cancer were the almost undilatable condition of the cervix, the extreme tendency to bleed on the slightest touch, the fixidity of the cervical mucous membrane, and the rapidity with which the disease extended.—Dr. J. BRAXTON HICKS said, with regard to the deep burning of the galvanic wire mentioned by Dr. Routh, this was obviated by making the battery more powerful, and screwing up the wire more quickly. The galvanic wire had one great advantage over the rdinary *écraseur;* it cut quite clean and knife-like, and was adaptable o the more sessile growths; whereas the *écraseur* drew in and puckered p such forms, and brought away the softer portions, gliding off the arder, which it left behind. This he had seen frequently. With egard to the practice advocated by most of the speakers, viz., removing hose parts which we could, and destroying the rest by cautery, caustics, r styptics, or other plan, he coincided; indeed, these he had advoated in papers elsewhere and at this Society. It afforded much benefit nd comfort to the patient, removing the cachexia very effectually till he return of the disease. This he had shown ina paper in the *Guy's Hospital Reports* some years since, and concluded that the so-called malignant cachexia was owing, not to the malignant diathesis, but to the absorption of the material from the malignant growth prior to the existence of sloughing, and though, after breaking up occurred, it was increased. Regarding the place of origin of malignant disease, he considered, as the result of observation, that it could spring from any tissue in the uterus and then spread to other tissues; that each fresh tissue affected would take on the action more according to its own nature than of that from which it was influenced; for instance, that epithelioma would not communicate epithelioma to fibrous or connective tissue; but, supposing epithelioma were first affected, and the malignant action extended to fibrous tissue, then rather that scirrhus was formed, and so in connective tissue we get the infiltrating kind, like that which occurs in the connective tissue in the breast. However, this opened up the question as to the nature of malignant disease at large, which was too wide a subject for the present time; but he would say, that he had seen on the confines of malignant disease of the cervix removed by amputation under the microscope, the mode of extension taking place in the nuclei of the fibre-cell, enlarging, then dividing, inside the old cell, bulging out its centre. In like manner, as he had pointed out in the *Guy's Hospital Reports*, and again in the *Pathological Transactions*, he had seen the nucleus in the wall of the blood-vessels enlarge, and then divide into two or three cells, bulging into the canal of the blood-vessel, giving it a bead-like appearance, but ultimately going on so far as to obstruct the current completely; and this would serve to explain why it was that sloughing readily occurred in some of these growths.—Dr. MURRAY agreed with the President as to the difficulty of diagnosis in cases of cancer of the fundus uteri and fibroid disease of the body of the uterus. He had lately seen a case where not until after death was it shown that true cancer of the fundus uteri existed, and death resulted from perforation of the uterine walls, with hæmorrhage into the peritoneal cavity. During life, none of the symptoms present more especially belonged to either cancer or fibroid disease.

*Epithelioma of the Cervix Uteri, complicated with Pregnancy: Removal of diseased portions: subsequent Delivery of a Healthy Child: recurring Pregnancy.*—Dr. CLEMENT GODSON communicated, for Dr. CHARLES T. SAVORY, the particulars of this most interesting case. J. W., aged 35, married sixteen years, with eight children, had a sanguineous and, at times, watery discharge, offensive in character. A large cauliflower excrescence was detected and removed by the *écraseur* on October 27th, 1870. On January 12th, 1871, she was delivered of a female living child: both doing well. On June 25th, 1873, she was again taken in labour, and, after some little difficulty, turning was accomplished, and a dead child extracted, no undue hæmorrhage occurring. The patient succumbed thirteen days afterwards, apparently from sheer exhaustion, two years and nine months from the date of the first operation.—Dr. GORDON remembered the case well. The enlargement of the uterus was attributed to the disease supervening so immediately on parturition. Pregnancy being overlooked, the patient was, perhaps, spared the perils attending Cæsarean section. The case showed how much might be done to the uterus and its appendages during pregnancy, without abortion taking place.—The PRESIDENT asked whether the question of making incisions in the cervix to facilitate the expulsion of the child had been proposed in place of Cæsarean section.—Dr. MURRAY remarked that a practical point of great interest was that, even if pregnancy be diagnosed, there would be no harm in removing the mass.—Dr. J. BRAXTON HICKS remarked on the importance of having some rules for the management of cases of pregnancy in malignant disease of the cervix. He thought it, however, almost impossible to obtain any. Each case must be judged of by itself. However, in considering whether we should induce labour, or leave the case for Cæsarean section at full time, a primary question would arise, Can the woman live till full time? Again, in determining the question in regard to the induction of labour, Is the disease limited to the os and lower cervix, or does it extend to the lower part of the body of the uterus in such a way as to render delivery very difficult? If these be difficult, a third may arise, Can we leave the induction to the viability of the child, or must we procure abortion? So much depended on the amount and position of the disease, and the state of the patient, that Dr. Hicks feared it would be difficult to lay down definite rules. He instanced some of the cases which he had seen.—Dr. HEYWOOD SMITH thought it fortunate delivery did not happen soon after the operation, for he was sure that the puerperal state was a very great element of additional danger. He had a similar case some three years ago. Labour set in about the fifth month; delivery was effected by podalic version, and the child was born alive. Removal of the malignant disease of the cervix was effected by means of the *écraseur*, the tissue cut through being apparently healthy. The patient, however, died on the fifth day. The better practice would have been to have postponed the operation until the puerperal state had been recovered from.—The PRESIDENT thought one of the most interesting points in the paper was, that the operation was performed without bringing on labour. It was generally supposed that no operation should be performed during pregnancy, even removing a tooth; but the case proved otherwise.

Mr. Spencer Wells, at the next meeting, will introduce the subject for the evening's discussion, The Relation of Puerperal Fever to Infectious Diseases and Pyæmia.

## WEST KENT MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, MARCH 6TH, 1875.

JOHN ANDERSON, M.D., President, in the Chair.

*On some Varieties of Pneumonia and Pulmonary Congestion.* Dr. THOROWGOOD read a paper on this subject. He commenced by saying, that pneumonia may be looked at either as a disease attacking lung from without, as effect of cold, east wind, etc., or may be considered as a disease generated from within, the result of unhealthy condition of the blood. Any prevalent epidemic influence may modify either kind. Pneumonia is more prevalent during cold months. Grisolle's statistics show that, out of 296 cases, 20 occurred in January, 40 in February, 47 in March, 62 in April, 8 in June, 3 in July, 3 in August, 5 in September. Pneumonia prevails much in Iceland (Dr. Hjaltalin). In an epidemic (1873) strong healthy persons died in two or three days; this occurred often, and was the rule where no medical treatment was adopted. Dr. Hjaltalin saved many by bleeding, tartarated antimony, and calomel. Dr. Leared has observed that, though pneumonia is so common, phthisis is an almost unknown disease in Iceland. Dr. Thorowgood said, that very often pneumonia attacked the apex of the lung. In 224 of Grisolle's cases, the apex was affected in 101; the base in 133; the middle lobe in 30. Pneumonia is apt to attack the apex of the lung in persons in weak health, and exposed to insanitary conditions. Cases of complete recovery were adduced, proving that special pneumonia does not necessarily imply tubercle. In conclusion, the author drew attention to gravity of secondary pneumonia following pyæmia, and secondary to bronchitis; here, pneumonia was often central, and patchy or in blocks, not easily demonstrable by physical signs. Death seemed often to follow sudden suppression of expectoration from paralysis of the lung.

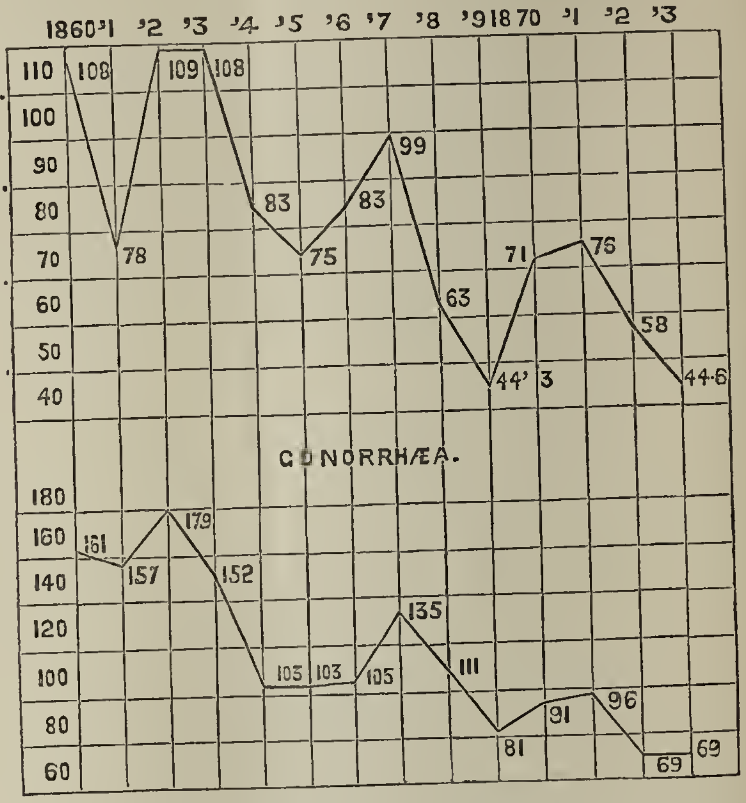
# CORRESPONDENCE.

## CONTAGIOUS DISEASES ACTS.

SIR,—A reply to Dr. Parkes upon any question of hygiene carries with it a sense of grave responsibility; and this is not a little increased when the question is one relating to the health of the army, and when (if we may judge from a letter in the JOURNAL of February 27th) his statistics, derived from one or two picked regiments, and for very limited periods, are to be accepted by the medical profession generally as conclusive of the beneficial operation of the Contagious Diseases Acts, notwithstanding the increase of secondary syphilis by one-twelfth, the increase of gonorrhœa, especially in the protected districts, and the increase of invaliding by about one-half in the whole army since the Acts were in force; the increase in the navy of gonorrhœa doubled at home and in the Mediterranean; the increase of primary syphilis doubled in the Mediterranean; the increase of constantly sick at home by one-eighth; the increase of invaliding above doubled in the home station; and, lastly, disease amongst the registered prostitutes increased by one-fifth, and deaths doubled since the Acts have been in force. The only form of disease in which there has not been an increase is the most indefinite class "venereal sores", which embraces both true syphilis followed by constitutional disease, and mere superficial sores of no consequence whatever. Of these, the true syphilitic element has increased (as is shown by the increase of secondary syphilis) ever since the Act of 1866 was in force; and the comparative reduction in the protected and the unprotected stations in the unimportant cases of disease remains to be determined by the information promised by the War Office.

In reply, however, to Dr. Parkes's letter in the JOURNAL of February 27th. He appears to think that I have not analysed his tables fairly, or as might have been expected from any one accustomed to figures. If I have been unfair, I sincerely regret it; but, as columns of figures, averages, and ratios, etc., convey little definite impression to most persons, especially if they become a subject of controversy, I will simply put them into a diagram, which will present them at one glance to the eye in all their strength or weakness, and will probably convey a more definite or intelligible impression to the mind than mere figures.

*Explanation of Diagram.*—The figures at the top of the diagram represent the years, in Dr. Parkes's table, from 1860 to 1873 inclusive.* Those at the side indicate so many cases of disease per 1,000 men, and the figures in the body of the diagram are copied from his table, and show the exact ratio of cases of disease year by year. The lines show the direction of disease, whether increasing or lessening.



It would be impossible for any one examining the curve that represents either syphilis or gonorrhœa to fix upon the period of time in which a new agent came into operation, and showed itself of marked sanitary value by its effect upon the future progress of disease. It is perfectly certain that, if any one should make the attempt, and afterwards compare it with the real date of either the partial or complete operation of the Act (which I give below from Dr. Parkes's letter), he will find that he has selected a wrong year, and he will relinquish the attempt with the conviction that, so far as the course of disease amongst the Royal Engineers at Chatham is concerned, the Act, whether partially or fully enforced, has produced no perceptible effect in reducing it.

The diagram relating to primary syphilis shows clearly that, under the influence of causes which are still at work, this disease fell, though with considerable fluctuations, before the Act was passed, from 108 to 75 per 1,000, or a total of 33 per 1,000 in five years, equal to an average of 6.6 *per annum*. After the figures, the Act was partially in force for three years, and the disease, still fluctuating, fell upon the whole from 75 to 63 per 1,000, or a total of 12 in three years, equal to an average of 4 *per annum* instead of 6.6. After the figure 63, the Act was in full operation for five years, and the disease, still largely fluctuating, fell upon the whole from 63 to 44.6, or a total of 18.4 in five years, equal to an average of 3.7 *per annum* in five years under the full operation of the Act, instead of 6.6 *per annum* before the Act was passed. I am unable to see in this result any proof of the sanitary efficacy of the Act in reducing disease.

The diagram relating to gonorrhœa shows that this disease fell before the Act from 161 to 103 per 1,000 in five years, a total of 58, equal to an average of nearly 12 *per annum*. After the figure 103, the Act was partially in force until the figure 111, after which it was completely in force for the rest of the table; and the disease fell in these eight years of more or less complete operation of the Act from 103 to 69 per 1,000, or a total of 34 in eight years, equal to an average fall of 4¼ *per annum* since the Act, instead of nearly 12 *per annum* before the Act. In this result also I fail to see any proof of the sanitary efficacy of the Act; and it is to be remembered that this case of the Royal Engineers at Chatham has been specially selected by Dr. Parkes as a most conclusive proof of the beneficial operation of the Acts; for he says with reference to it, in his letter in the JOURNAL of January 23rd, "Does anything remain except the operation of the Acts to account for the decline of these diseases?" and again "I would now ask Dr. Nevins to look at all the army statistics, and say what more is wanted to prove to him that these Acts have conferred a most signal benefit on the army."—Yours faithfully,

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* 1874 is omitted from the diagram, because the new Army Regulations came into operation the middle of 1873, and have rendered all comparison since 1873 of no value.

J. Birkbeck Nevins, M.D.Lond.

3, Abercromby Square, Liverpool, March 12th, 1875.

P.S.—In my reply to Mr. Lawson in last Saturday's Journal, there is a misprint, which I must ask you to correct. It appears in the Journal as "renders the conclusions drawn in the *Parkes* papers". It ought to be "in the *Parl.* Papers", a contraction for Parliamentary Papers.

Sir,—Had Dr. Nevins taken the trouble to read my letter a little more carefully, he would have avoided the error he has committed by assuming that the 50th regiment was *seven* months at Aldershot, whereas in reality it was only *one*, viz., from 3rd July 4th August, on which date it embarked at Tilbury for Ireland. Consequently, both his argument and figures fall to the ground as worthless. This fact ought to make him a little more cautious in his remarks on a "slight misprint", when he makes such a glaring mistake himself, and actually makes it the basis of his whole argument in reply to my letter.

The conversion of Dr. Nevins must have been an easy process, when such facts as the one he mentions have had the effect of making him change his belief. Had he read carefully the remarks of the staff-surgeon of the *Excellent*, on the very table from which he takes his figures, he would have found the answer to his question. He says, "In respect to primary syphilis an improvement has taken place as compared with former years. There has been a considerable reduction in the number of cases, and it has been observed that, in those having the most unfavourable aspect, the disease was contracted at places not subject to the operation of the contagious Diseases Act." Again, in 1868-69, "the amount of primary disease was very moderate, considering the large complement, the almost unlimited leave, and the constant influx of men from foreign stations". Again, he writes, "considering that Portsmouth remains open to the influx of disease from all parts of the kingdom, the measure of success so far attained is as large as, if not larger, than might have been legitimately anticipated".

Surely Dr. Nevins does not imagine that the cases of the 50th regiment, and the crew of the *Excellent* are similar. Fluctuations in the number of admissions for disease frequently take place from various causes. In the instance given, the influx of diseased women from non-protected districts at certain seasons, and the unlimited leave granted, would to my mind be more than ample to account for the difference he points out. As a case in point, it is well known at Chatham, that, during the hop-picking season, the admissions are treble those of any other portion of the year. I have found it so myself when stationed here.

The opponents of the Acts complain of the small number of men, a picked regiment, and limited periods. I fear neither large nor small numbers will please them. Even the returns drawn up by Surgeon-General Balfour, and published in the Army Medical Report for 1872 page 10), will not satisfy them. They do not go back far enough. Eight years is too limited a period to form a correct judgment as to he favourable influence of the Acts or otherwise. The fact is, the opponents of the Acts are driven to their wits' end for arguments to upport their falling cause, and like drowning men they grasp at any traw that may float within their reach.

I am, Sir, yours faithfully,

N. Ffolliott,

Dublin, 22nd March, 1875. Surgeon-Major 50th regiment.

# MEDICO-PARLIAMENTARY.

## *HOUSE OF COMMONS.—Thursday, March 18th.*

*Arrest of Miss Wood.*—Mr. Cross, in answer to Mr. Dillwyn, stated at his attention had been called to the arrest of Miss Wood as a natic, to her subsequent release, and her renewed confinement. The ct was, that the first certificate granted was defective. The medical en who drew up the certificate were referred to, and sent in the docuent again, still in a defective state. On this ground the unfortunate ly was released. A third certificate was issued by certain other edical men, who had examined the lady and found her insane, and was therefore again arrested.

*Artisans' Dwellings Bill.*—On the order for going into committee on is Bill, Mr. Cawley criticised the measure at some length, contend that it failed to carry out the recital in the preamble with regard to its expediency; that it ignored the powers now existing, and which in many respects were more efficient than the provisions of the Bill; and that it opened the door to the possibility of local governing bodies competing with the owners of house property. He moved, therefore, that the Bill be referred to a select committee.—The motion was seconded by Sir T. Bazley; and Mr. Fawcett, who pronounced the Bill a halting, confused, costly, and complicated piece of legislation, also said that if the motion were pressed to a division he should vote for it. But in his opinion, reference to a select committee was not the best course to adopt. He suggested, therefore, that the Bill should be committed *pro formâ*, and that the Home Secretary should, in the recess, consider which of the numerous amendments on the paper he would accept, and put the measure in a more intelligible form.—Sir S. Waterlow, Mr. Gregory, and Mr. Gibson were anxious to go into committee at once, Mr. Gibson declaring his belief that the Bill would turn out to be an effective and prudent measure, and expressing a desire to extend it to Ireland. Mr. Secretary Cross answered the objections of Mr. Cawley and Mr. Fawcett, and added that, so far as the Government were concerned, they were determined that "rookeries" in large towns should be abolished, and the Bill was, in his judgment, the shortest and least expensive method of accomplishing that object.—Mr. Cawley then withdrew his motion, and the House proceeded in committee to consider the clauses.—On the second clause, limiting the Bill to sanitary areas of not less than 25,000 inhabitants, Mr. Cowen moved, as an amendment, the omission of the restricting words; but was defeated on a division by 99 to 36. A proposal of Mr. Muntz to include within the operation of the Bill sanitary districts of 10,000, led to much discussion, and was also negatived by 124 to 102.—Mr. Cross moved an amendment, extending the Bill to urban sanitary districts in Ireland with a population of 25,000 and upwards.—He was opposed by Mr. Ronayne and other Irish members, who wished to apply the measure to districts of 10,000 inhabitants; but the amendment was carried by 138 to 117, or a majority of 21.—Mr. Fawcett proposed to extend the authority of the Metropolitan Board of Works over the City of London for the purposes of the Act, in place of allowing the City a separate jurisdiction in the Commission of Sewers.—Mr. Cross dissented from the proposal, and said he believed that the City authorities would set an example to the other cities and towns of the kingdom, in showing how the bill could be worked.—Another division was taken, which resulted in the rejection of Mr. Fawcett's amendment by 222 to 84.—On the motion of Mr. Cross, the Chairman reported progress.

## *Friday, March 19th.*

*Artisans' Dwellings Bill.*—The House resumed the consideration, in committee, of the Artisans' Dwellings Bill at clause 3. Numerous amendments were discussed, but no division took place until Mr. Fawcett moved to amend the 5th clause—"Requisites of improvement scheme of local authority"—by enacting that provision should be made for the accommodation not only of the working classes, but of all persons dispossessed of their homes under the Bill. This was negatived by 191 to 93. On reaching the 7th clause—"Duty of local authority to carry the scheme when confirmed into execution"—the Chairman was directed to report progress.

## *Monday, March 22nd.*

*Ship-Surgeons.*—A return was ordered, on the motion of Captain Bedford Pim, "of the names, ages, and nationalities of persons who have served in the British merchant service during the last two years as surgeons, whose names do not appear in the *Medical Register*".

*Medical Act Amendment Bill.*—An Act to amend the Medical Act was presented and read the first time; to be read a second time upon Thursday, April 8th.

*Public Health Act*, 1872.—On the motion of Mr. O'Leary, a return was ordered of the sums allowed out of the imperial Exchequer, for the years 1873 and 1874, to each rural sanitary authority in England, towards the salaries to medical officers and inspectors for performance of their sanitary duties under the Public Health Act (England), 1872; distinguishing, in the case of each authority, between the sum allowed towards the salary of inspector and that allowed towards the salary of the medical officer.

*Medical Act Amendment (Foreign Universities) Bill.*—A Bill "to amend 'The Medical Act, 1858,' so far as relates to the registration of women who have taken the degree of doctor of medicine in a foreign university", was brought in and read the first time; to be read a second time upon Tuesday, 13th April.

## *Tuesday, March 23rd.*

*Infant Life Protection Act.*—Mr. Charley moved for a return from the local authorities, showing the number of houses in each of the several districts specified in the first column of the same schedule, registered under the second section of the said Act; also setting out the number of infants registered in each year in each such house.

# PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

CHAILEY RURAL SANITARY DISTRICT.—According to the report just issued by Mr. R. Gravely, Medical Officer of Health, it appears that, although no very decided sanitary action has been taken during the past year, and though the various subjects, which are deemed to be of an extensive and important character, have been, and are still, "under consideration", yet progress has been made in many essential details, and the medical officer himself has exercised an useful surveillance over his district, especially with regard to the adoption of means for preventing the spread of infectious diseases. The description given as to the condition of the dwelling-accommodation of the poorer classes shows how much remedial measures are required to ensure health and decency amongst this portion of the population, and how little has apparently as yet been done in this direction.

During the past year, this sanitary district is reported as having been free from any serious epidemic; but, in common with many other parts of the country, the amount of diphtheria has been exceptionally large. Owing to the obscurity which still hangs about this disease, both with regard to its origin and, in many respects, with regard to its method of spread, no greater service could well be done to the science of epidemiology than that medical officers of health should carefully note and record all the circumstances associated with the outbreaks which come under their notice.

## THE DUTY OF MEDICAL OFFICERS OF HEALTH.

SIR,—As the JOURNAL is considered an authority on sanitary matters, can you inform me if it be any part of the duty of a medical officer of health to revise the certificates of death given by the medical practitioners in his district? Two cases have occurred within the last three months, in which our medical officer of health has reported to the Local Board that the certificates given by the medical attendants were incorrect, though he personally had not seen the cases, and could only form an opinion from hearsay. Is he justified in doing so? Further, is it etiquette for a medical officer of health to visit the patients of other practitioners without referring to them? I should like to know your opinion, as I acted very differently when I held the post, some few months since, of

MEDICAL OFFICER OF HEALTH.

March 23rd, 1875.

⁂ Certainly not, in either case.—ED.

THE Board of Guardians of the South Shields Union have increased the salary of Mr. George F. Henry, Medical Officer for the Westoe District, from £40 to £60 *per annum*.

# MILITARY AND NAVAL MEDICAL SERVICES.

## THE ARMY MEDICAL DEPARTMENT.

SIR,—Your remarks in last week's issue, on "Ministerial Explanations", regarding the existing vacancies in the Army Medical Department, would have been still more forcible had they included the consideration that it is not existing vacancies only that must be considered, but *prospective* (Mr. Hardy's word) vacancies. Does Mr. Hardy mean to say that there are likely to be but *eight* vacancies in the Army Medical Department during the next six months? Whether there will be more or not, there will be only eight men, at all events.—Yours truly,

VIGILANCE.

## NAVAL MEDICAL APPOINTMENTS.

BENNETT, Staff-Surgeon William R., M.D., to the *Duke of Wellington*, additional,
COPPINGER, Surgeon R. W., io the *Duke of Wellington*, for the Arctic Expedition.
for temporary service at Haslar Hospital.
DYAS, Fleet-Surgeon J. E., to the *Warrior*.
McIVER, Surgeon D., to the *Achilles*.
MELROSE, Surgeon J., to the *Aria*, as Supernumerary.
MOIR, Staff-Surgeon D., to the *Favourite*.
MONTEITH, Fleet-Surgeon J. L., to the *Achilles*.
MOSS, Surgeon L., to the *Duke of Wellington*, for the Arctic Expedition.
O'CALLAGHAN, Surgeon J., to the *Cambridge*.
SWEETMAN, Surgeon J. C., to the *Warrior*.
SUTHERLAND, Staff-Surgeon G. W., to the *Duncan*, additional, for temporary service at Yarmouth Hospital.

# MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, March 18th, 1875.

Evans, Thomas, Pwllheli, North Wales.
Hallowes, Miller Coleman, Islington.
Houlbrook, Edward, Caius College, Cambridge.
Morris, George, Manchester.
Paxon, Herbert Elliott, Dorking.
Pettigrew, Augustus Joseph Walford, Hounslow.

The following gentlemen also on the same day passed their primary professional examination.

Brett, James, Birmingham.
Parker, Alfred Charles, Guy's Hospital.
Prichard, Arthur William, Bristol.
Smith, William Henry, St. Mary's Hospital.
Snell, Edmund George Carruthers, London.

## MEDICAL VACANCIES.

THE following vacancies are announced:—

BECKETT HOSPITAL AND DISPENSARY, Barnsley — House-Surgeon. Salary, £140 per annum, with furnished rooms, gas, and coals.
BRADFORD INFIRMARY AND DISPENSARY—Physician. Applications to be sent on or before June 12th.
BRADFIELD UNION—Medical Officer for the Fifth District. Salary, £53 1s. 8d., and fees. Applications on or before April 6th.—Resident Medical Officer. Applications to be made on or before April 2nd.
BRIXTON, STREATHAM, AND HERNE HILL DISPENSARY—Resident House-Surgeon. Salary, £150 per annum, with furnished apartments, attendance, coals, and gas. Applications on or before April 5th.
DOVER UNION—Medical Officer for the St. Mary's District and the Workhouse. Salary, £180 per annum.
CALNE UNION—Medical Officer. Salary, £200 per annum.—Medical Officer for the Rural and Urban Sanitary District. Salary, £50 per annum. Applications on or before the 30th instant.
CENTRAL LONDON OPHTHALMIC HOSPITAL—Assistant Surgeon. Applications on or before April 3rd.
FARRINGDON GENERAL DISPENSARY AND LYING-IN CHARITY—Two Physicians. Applications on or before the 27th inst.
FETTERCAIRN, Parish of—Medical Officer and Public Vaccinator. Apply to Colonel M'Invoy, Chairman of the Board, The Burn, Brechin, not later than the 27th instant.
HALIFAX UNION—Medical Officer for the Southowram District. Salary, £50.
HENSTEAD UNION—Medical Officer for the Second District.
HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST—Resident Clinical Assistant. Applications on or before April 5th.
LIVERPOOL ROYAL INFIRMARY — Resident Medical Officer. Salary, £100 per annum, with board, lodging, and washing. Applications on or before April 10th.
MANSFIELD UNION— Medical Officer for the Fifth District. Salary, £32 10s.
MILFORD UNION, co. Donegal—Medical Officer for the Ramelton Dispensary. District. Salary, £100 per annum, and fees.
POOLE UNION—Medical Officer for No. 2 District. Salary, £60 per annum,
QUEEN ADELAIDE'S DISPENSARY, Bethnal Green — House-Surgeon. Salary, £100 per annum, with furnished apartments, coals, and light. Applications on or before April 1st.
ROYAL INFIRMARY FOR WOMEN and CHILDREN, Waterloo Bridge Road—Physician.
ROYAL SOUTH LONDON DISPENSARY, St. George's Cross, Lambeth Road—Honorary District Surgeon. Applications on or before the 31st inst.
SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY—Assistant House-Surgeon. Salary, £65 per annum, with board, lodging, and washing.
SOUTH SHIELDS UNION—Medical Officer for the Westoe District. Salary, £40 per annum.
SPILSBY UNION—Medical Officer for the Spilsby East District. Salary, £40.
ST. JOHN'S WOOD AND PORTLAND TOWN PROVIDENT DISPENSARY—Surgeon. Applications on or before the 31st instant.
STRATTON UNION—Medical Officer for No. 3 District. Salary, £70 per annum.
TORBAY INFIRMARY—House-Surgeon. Salary, £100 per annum, with board and lodging.
WESTMINSTER HOSPITAL—House-Physician. Applications on or before April 5th.
WEST NORFOLK AND LYNN HOSPITAL — Resident Medical Officer. Salary, £100 per annum, with board, lodging, and washing. Applications on or before the 30th instant.
WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL—House-Surgeon. Salary, £100 per annum, with board, washing, and furnished apartments. Applications on or before May 3rd.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication*

### DEATHS.

ADAMS.—Suddenly, on March 19th, at Bungay, Suffolk, Eliza, wife of Edward B. Adams, Surgeon, and third daughter of the late Thomas Fuller, Esq., of Aston, Berks.
*DAVIDSON, Samuel, M.D., at 142, King Street, Aberdeen, on March 22nd, aged 33.

NO application having been made for the appointment of medica officer for No. 3 District of the Newmarket Union, the Guardians hav resolved to add it to No. 1 District, and increase the salary of th medical officer of the latter from £40 to £85 *per annum*.

## OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY ......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

WEDNESDAY..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.

FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

## NOTICES TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

DR. JOSEPH SEATON'S letter, in support of the appeal in behalf of the family of the late Mr. Merryweather, shall appear next week.

### COLOUR OF THE URINE IN AMYLOID DISEASE OF THE KIDNEY.

NIEMEYER, in his *Handbook*, asserts that his observations of the specific gravity and colour of the urine in amyloid degeneration of the kidney agree with the statement made by Traube, that it is of high density and dark colour.

I have collated the works of most of the English authors on renal diseases, and find that, with the exception of Beale, they all ascribe to the urine in waxy kidney characters the very reverse of those given by the above-mentioned German author, describing it as pale, watery, and of low specific gravity—1006-1015. Beale (*Kidney Diseases, Urinary Deposits, etc.*) however, states that the urine in this disease is "usually pale, often of considerable quantity, and sometimes of *high density.*" And I have lately seen a case in which the urine remained for many weeks of a moderately high specific gravity (1020-1025. copious in quantity, and of the peculiar yellowish-brown colour described by Niemeyer.

I shall be glad if any of your readers will give an explanation of this marked difference in description, the discrepancy evidently not arising from observations having been made, on the one hand, in cases of simple waxy degeneration, and, on the other, in those complicated with intercurrent tubal nephritis, as the urine is invariably described as increased in amount. Yours, etc.,

Liverpool, March 23rd, 1875. J. A. HARRIS, M.D.

JUSTITIA.—It would, we think, be invidious to publish "Justitia's" letter concerning the advertisement in question. The subject is better suited for discussion in a dental than in a medical paper.

### AN HYDROPATHIC REPORT.

THE report of the Southport Hydropathic Hospital is, we are sorry to find, devoid of scientific value. The classification of the diseases is so vague, and the manner in which their character and progress are denoted is so vague, as to make the document worthless for any medical or scientific purpose. The so called "medical report" is utterly destitute of data for any reasonable conclusions; 79 cases are classed together as "dyspepsia; duration—months and years"; 17 as "liver-complaints," duration, "years"; 13 as "brain-congestion"; 3 as "skin-diseases". Of course such a classification and method of reporting is unmeaning, and nothing can be made of the report. This is a pity, for discerning data from a public hydropathic establishment would be of interest, and possibly of value.

H. F. S.—The Brassica Eruca, or the Rocket Plant, is stated by Lobel to have been carefully cultivated in the gardens of monasteries and nunneries, to preserve the chastity of the inmates. But the ancients considered it a most powerful aphrodisiac, and consecrated it to Venus; hence Martial and Ovid:

"Et venerem revocans eruca morantem;"
And
"Nec minus erucas jubeo vitare salaces."

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

### A CASE OF CONSCIENCE.

MR. HUGH REES of Llanberis has found himself obliged to resign a lucrative appointment held by him as surgeon to the Dinorwin Quarry, under circumstances of peculiar hardship. It appears that a trades union has been formed among the quarrymen, and the committee having demanded that the club should be placed under their control. as Mr. Rees's salary of £500 per annum was paid out of the funds, their demand was complied with. They immediately proceeded to introduce some important changes in the club rules, all of which were unfavourable to the surgeon in charge. These difficulties, however, might have been surmounted, but to these alterations were superadded the condition that a local bone-setter should visit the hospital once a week, or oftener if required, and should attend to the surgical treatment of any of Mr. Rees's patients who wished for his services; whilst the regular practitioner should attend to their general health. To this arrangement Mr. Rees naturally finds himself wholly unable to accede, and the committee are equally at a loss to understand why their surgeon should resign on a point which is, of course, in their eyes, utterly without importance. They are the more confirmed in this view, as applications for the post have already been made by some local practitioners who, less mindful of the dignity of their profession than Mr. Rees, are, he states, content to accept the indignity of acting in concert with an unqualified quack.

It would be much to be regretted the struggle for subsistence should lead members of an honourable calling thus to derogate from well-defined standards of professional conduct, and to lower the dignity of the profession, and depart from the principles of professional comity.

L. S. P.—1. The University of Paris has the "Faculté des Lettres" and "Faculté des Sciences" as departments. 2. The M.D. degree of Paris can only be obtained by a student after passing first as a Bachelor of Arts, subsequently five annual examinations at the close of each year's study in the several subjects of study, and four final examinations for the Doctorate. 3. An Englishman cannot practise, nor can any foreigner, without permission obtained through the ambassador, or passing an *ad eundem* examination.

### A MEDICAL DISCOVERER.

WE have received Dr. Churchill's new big book on *Consumption, and the Principles of Stœchiological Medicine* (London: Longmans). We shall, however, simply decline to review it, contenting ourselves, and no doubt our readers, with the following quotation, p. 400:—"Just as seventeen years ago I claimed to have discovered a specific remedy for the tubercular diathesis, so now I deliberately assert that I have discovered *a specific remedy for all inflammatory conditions of the respiratory organs* . . . ."; p. 406—"I have not stated, nor do I intend to state what these stœchiological inhalants are." It is not our business to discuss the alleged merits of secret remedies.

WILL the writer of a letter signed "M.D. Würzburg, M.R.C.S.," that appeared in our issue of last week, favour us with his address, which has been mislaid?

### A LADY-DENTIST.

THE following interesting account of a lady-dentist at Berlin appears in *Women and Work.* "It appears that the lady in question (whose name I unfortunately forget) was born in Schleswig, and married a dentist, who settled in Berlin. This man, after leading her for years a wretched life, died at last of intemperance, and left her without means of subsistence. Having often watched her husband at his profession, she fancied that she possessed sufficient nerve and dexterity to practise it too, and resolved to become a dentist herself. But here was the difficulty: the law forbade any one to practise dentistry without a certificate, which could be gained only by examination, and there was no examination for women. She was sadly puzzled; but, being informed (erroneously, as it proved) she should obtain a certificate by attending lectures and dissecting practice in America, after repeated applications to the professional authorities of Berlin, she was told by them that an American certificate would be accepted. She at once resolved to go to America; but, on arriving at Philadelphia, where her informant had given her to understand she could study without difficulty, on applying at the College of Dentistry in that place, she learned, to her surprise and disappointment, that no woman had ever applied before, and that no exception could be made in her favour. Her case, however, created much interest among the authorities, and was formally discussed there, and the result was, that the desired permission was granted her: one vote decided the question. She now set joyfully to work, attended all the required lectures with seventy young men, and worked with them in the laboratory. One of the professors kindly gave her private instructions, and she went through a private course of dissection. She succeeded in the examination, and began to practise in Philadelphia with such success that she was strongly recommended by her friends to remain there. She wished, however, to return to Berlin; and, accordingly, armed with her certificate, did return. She began the practice of dentistry in that city, confining her practice to women and children. She met at first with much opposition from her fellow-practitioners; but ultimately made head against it, especially after she had been introduced to the Crown Princess, and had been appointed dentist to Her Royal Highness's children. Engagements among the highest families in Berlin now flocked in upon her, and at the present moment she stands in the first rank of her profession. She is said to have great strength in her little hand, a flow of health and spirits, and works without weariness ten hours a day. In the evening, her saloon is the resort of the most intelligent and fashionable society in Berlin."

### ENTOZOA IN GAME-BIRDS.

SIR,—Can any of your readers inform me whether it is customary to find entozoa in our smaller game-birds? Some days ago, while eating golden plover, I was surprized to find what appeared to me a small lumbricus in the trail; it seemed to move while watching it on the side of my plate. I am interested to know if others have made the same observation; if so, caution must be exercised in dealing with a *bonne bouche* in future.—I am, etc., J. G. CARRUTHERS.

*** The plovers, in common with all other water birds. are largely infested with entozoa. The golden plover harbours a variety of different intestinal worms. The species referred to by our correspondent is probably *ascaris heteroura.* It may be swallowed by the human epicure with impunity.

A MEMBER.—Mr. F. Le Gros Clark, F.R.S., President of the College, who, delivered the Hunterian oration, was admitted a member of the College, February 15th, 1833. He became an Honorary Fellow, December 11th, 1843; a member of the Council in 1864; and of the Court of Examiners in 1870.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

### MEDICAL TITLES AND DEGREES.

SIR,—Having read with some interest the discussion on this subject in your paper, I think you will not be averse to learn the opinion of one of the general public, on the assumption of the doctorate by medical practitioners. One who either claims or tacitly allows the title of Dr., seems to me to imply that he has had an University education, or at least has passed an examination beyond the ordinary professional ones. If this be not the case, his conduct is manifestly unfair to those who have graduated at an extra expenditure of time, work, and money. It is begging the question to say that an L.R.C.P. is a physician. He may practise as one, no doubt; but that does not prove him an university graduate. An M.D. may be a physician or not; this, as a non-professional, I will not presume to decide; but he certainly has the highest degree in his faculty, and a right to be called "Dr."

Another abuse you have not noticed is this: Universities have various reputations, so we find men writing M.D., L.R.C.P.Lond., etc. On turning to the *Medical Directory*, we find that the degree was taken at Erlangen, Giessen, or Edinburgh or Glasgow, which may be good degrees or not; but evidently the holders wish the public to think they have passed the stringent course required by the Metropolitan University. A case occurred within my knowledge where a gentleman took the Erlangen degree on his wedding trip—the regulations as to residence cannot have been very serious.

A word as to the assumption of the title of Dr. by M.B.'s. This looks like a shabby attempt to seem on a par with those who have passed the extra examination usually and paid the fees always required for the M.D. If an M.B. is Dr., we may ask, as the cheap shops do, "Why go further?" In other professions, men are more modest. When an LL.B., I did not assume the title of Dr., or expect to be so called; nor have I ever heard of any one else who did. The same applies to Bachelors of Divinity. And, indeed, it seems anomalous for young fellows of, say, three or four-and-twenty, to come out apparently as Drs., when in Law and Divinity a man does not ordinarily obtain the doctorate until, in some cases, ten years after matriculation. I pass by the fact that every medical man is colloquially a doctor; what I complain of is, his styling himself so. Some medical papers, too, seem to affix the title to all their subscribers in their printed addresses, no matter what their qualification, and I cannot help thinking this tends to foster the delusion.—I am, dear Sir, yours respectfully,

M.A., LL.D. (both Lond.)

SIR,—In the correspondence in the JOURNAL under the heading of "Medical Degrees and Titles". the original question of what medical qualification confers the right to the title of doctor has been latterly mixed up with two others, which ought to be kept quite distinct, viz., the relative merits of the various examinations, and the supposed hardship, that practitioners of some years' standing have not greater facilities afforded them for obtaining the degree of M.D.

Now, while passing by the two latter questions as having no bearing whatever upon the subject under discussion, I will, with your permission, address a few remarks to the question of who has a right to the title of doctor. And first, I think I may take it for granted, that in order to have a right to the title a man must be a doctor, and then, that if a doctor, he must be doctor of something. Secondly, to be a doctor he must have had the degree of. doctor conferred upon him; but, in this country at least, degrees can be conferred by universities only. Now if the above statements are correct, is it not simply childish for L.R.C.P.s to lay claim to the coveted prefix? I myself know many L.R.C.P.s, both of London and Edinburgh, but although many of them have "Dr." emblazoned upon their houses, or printed upon their cards, I do not know one who has the hardihood to assert in conversation that he has a right to the title.

But, sir, it seems to me that this question of medical titles has a greater importance attached to it than that derived from the mere question of right to a particular title; for if those practitioners who have no legal right to the title lead the public to suppose that they really are doctors, by themselves assuming that title, are they not practising under false pretences, and can such a proceeding be looked upon as either professional or honourable? I really think that the profession should take action in this matter as the evil is rapidly increasing; for while a few years since it was the exception for a L.R.C.P. to call himself Dr., the exception is now the other way. I think, indeed, that it is a subject well worthy the attention of the British Medical Association, or of the heads of the profession. For myself, I cannot understand how any gentleman of good feeling can assume a title to which he cannot lay claim. In what respect, except that of degree, does he differ from the unqualified quack who also represents himself to the public as something that he is not? Ours is, I regret to say, the only profession in which such a thing occurs. Did a clergyman ever call himself doctor without possessing the degree of D.D.? or a barrister without that of LL.D.? It has been argued that the fact that the public generally call a medical man "Dr.", is a justification for the assumption of the title, but if that be so, then M.R.C.S. and L.S.A. ought also to be called "Dr." The real question is, not what the public call a man, but whether he calls himself by a title he has no right to. This I consider to be derogatory to our profession, and ought, therefore, to be marked with united disapprobation; and I think that this object might be effectually accomplished, if either a general or total organisation were formed of medical men who would agree to refuse to meet any practitioner who used a title wrongfully.

I am, Sir, yours faithfully, M. D. HACKNEY.

P.S.—Of course M.R.C.P.s or M.B.s calling themselves "Dr.", occupy precisely the same position as L.R.C.P.s, so far as their right to that title is concerned. I would myself, however, always address an M.B. as doctor, in the same way that naval commanders get the courtesy title of captains, but they do not on that account call themselves captains.

SIR,—I have read with much pleasure the interesting correspondence carried on in the JOURNAL under the heading, "Medical Titles, etc.", but I cannot perceive that any appreciable progress has been, as yet, made towards a solution of the crucial points in dispute, which, I take it, comprehends the following questions:—1. Have L.R.C.P.s the right to call themselves "doctors"? 2. If not, then what means have they of imparting to the public the knowledge of their possession of that title? As to the first point, opinion seems to be very much divided amongst your correspondents; but I believe, that if each individual member of our Association were asked to record his vote on the point, the sense of right and justice would result in a majority being of opinion that the legal and moral right to the prefix "Dr." belonged to the "Doctor of Medicine".

With regard to the second point, I presume the great desire amongst L.R.C.P.s is that the public should be aware of the superiority of their professional status to that of those miserable mortals who have the misfortune to be dubbed simply M.R.C.S. and L.S.A. I grant them that they have an undoubted right to that superior position; but, I scarcely think it just to accomplish that object by calling themselves "doctors", and thus arbitrarily placing themselves on an equality (at least in the public mind), with that most unfairly treated individual, the M.D. Assuming the title of "doctor" to be legally denied them, are there still no means of soothing their sorrows, or of satisfying their rightful ambition? I think there are. I take it, that the right of an L.R.C.P. to the title of "physician" has not been disputed; and if that be really the case, let them take courage, for have we not, then, a solution of the difficulty?

Why should not all L.R,C.P.s discard the uncertain for the certain, and at once set about having door-plates and cards engraved with the magic prefix, "physician": Thus, "Physician Jones", or "Mr. Physician Jones", on one's door-plate or card, would be conclusive and imposing evidence to the public mind (which dearly likes anything new), of his superior status to that of his poor relation, the M.R.C.S. and L.S.A. next door, whom we might term "Surgeon Brown". and might even jeopardise, by its novelty, the position of the veritable Dr., the M.D. himself.

That the above suggestion may lead to a satisfactory solution of the difficulty hitherto experienced by the unfortunate L.R.C.P. in setting himself right with the public, without encroaching on the rights of the M.D. to the sole assumption of the title "Dr.", is the fervent wish of,—Sir, yours most truly,

A WELSH ASSOCIATE.

WE are indebted to correspondents for the following periodicals, containing news reports, and other matters of medical interest:—The Cork Constitution; The Glasgow Herald; Saunders' News Letter; The Argylshire Herald; The Birmingham Morning News; The Birmingham Daily Post; The Hampshire Telegraph; The Newton Directory; The Sheffield Daily Telegraph; The Berkshire Chronicle: The Hackney Express; The Bath Argus; The Portsmouth Times; The Liverpool Mercury; The Alcester Chronicle; The Hereford Times; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. Burdon Sanderson, London; Mr. Fairlie Clarke, London; Dr. R. S. Williamson, Punjaub; Dr. Lutaud, London; M. Gamcet, Paris; Dr. De Villiers, London; Dr. R. J. Lee, London, Dr. A. L. Galabin, London; Dr. W. H. Corfield, London; Mr. T. A. Wykes, Leicester; Mr. Joseph Taylor, Buxton; Dr. W. D. Stone, London; Dr. John Haddon, Eccles; Dr. Evans, Reading; Dr. F. H. Haynes, Leamington; Dr. J. Marion Sims, New York; Dr. Gaillard, Louisville; Mr. A. C. De Renzy, Punjaub; Mr. E. Cooper, Norwich; Dr. J. Crichton Browne, Wakefield; Dr. Edis, London; Dr. Steele, Liverpool; Dr. W. C. Grigg, London; Dr. Franklyn Parsons, Sclby; Mr. R. Hatherly, Nottingham; Dr. S. Ringer, London; Dr. J. Thorburn, Manchester; Dr. Samuel Prall, West Malling; Dr. C. F. Oldham, Punjaub; Mr. H. Jennings, Newport; Mr. W. H. Michael, London; Mr. J. G. Braden, Lewes; Mr. Hugh Rees, Llanberis; Dr. C. K. Fleury, Croydon; Mr. E. B. Adams, Bungay; Dr. G. H. Philipson, Newcastle-on-Tyne; Mr. E. Cooper, Norwood; Mr. D. J. Hamilton, Vicnna; Mr. E. Noble Smith, Paddockhurst; Messrs. Edwards, Allen, and Kitching, London; Dr. Hassell, London; Dr. H. J. Alford, Taunton; Mr. F. W. Lowndes, Liverpool; Mr. J. C. Sergeant, London; Mr. O. Somershield, London; Dr. T. Dudfield, London; Dr. K. N. Macdonald, Ealing; Medicus; Mr. J. A. Angus, Newcastle-on-Tyne; Mr. W. Eddowes, Shrewsbury; Surgeon-Major Ffolliott, Dublin; The Registrar of the Royal College of Physicians, London; Mr. J. H. Plummer, Southport; Mr. P. H. Bird, Fylde; Mr. R. Williams, London; Mr. W. Marriott, London; Dr. Sturges, London; Dr. Skinner, Liverpool; Dr. J. J. Mackenzie, Rugby; Our Dublin Correspondent; Dr. G. F. Blandford, London; Dr, Birkbeck Nevins, Liverpool; Dr. J. A. Harris, Liverpool; Dr. R. R. Cheyne, London; Dr. Strong, Croydon; Mr. Balmanno Squire, London; Dr. T. Barlow, London; Mr. H. C. P. Masser, Foleshill; Mr. W. Hearne, Cinderford; Dr. Woodhouse, Fulham; Dr. Gasquet, Burgess Hill; Dr. R. E. Burges, Newton Abbott; Dr. Parsons, Dover; Dr. Adey, St. Leonard's-on-Sea; Mr. W. Bernard, Nasborough; Dr. J. M. Callan, Dundalk; Dr. E. R. Townsend, Cork; Mr. E. G. Carey, Edinburgh; Dr. W. Stokes, Dublin; Surgeon T. Maumsell, R.A., Woolwich; Dr. Bruce, Edinburgh; Dr. Sawyer, Birmingham; Dr. W. B. Hunter, Jedburgh; Dr. J. Coats, Glasgow; Dr. Gilchrist, Dumfries; Mr. J. Bruce, Castledykes; Dr. Macrorie, Stroud; Dr. W. A. Davis, Newry; Mr. F. R. P. Darke, Salisbury; Dr. A. L. Kelly, Glasgow; Mr. J. S. Nairn, Glasgow; Mr. R. B. Cooke, Scarborough; Mr. R. Wolseley, Warley; Dr. T. C. S. Corry, Belfast; Mr. W. Eddowes, Pontesbury; Dr. S. T. Chadwick, Southport; Dr. J. Dunlop, Edinburgh: Mr. Woodman, Exeter; Dr. A. Mullan, Ballymena; Dr. E. S. Browne, Londonderry; Mr. A. Henderson, Partick; Dr. A. Lawrence, Chester; Mr. Haward, Chester; Mr. Kenny, Holme; Mr. J. S. Wesley, Wetherby; Surgeon-Major Wood, Solihull; Dr. Ward Cousins, Southsea; Dr. R. Shettle, Reading; Mr. F. Lewis, Henfield; Dr. Eager, London; Mr. T. Dickson, Buxton; Mr. Lowe, Merthyr Tydfil; Mr. Dolman, Derby; Dr. D. James, Dunbar; Mr. J. Murphy, Sunderland; Mr. Stubbs, Liverpool; Mr. Lyons, New Romney; Mr. R. Spencer, Chatham; Dr. D. Gordon, Edinburgh; Dr. Styrap, Shrewsbury; Dr. Smart, Haslar; Dr. Batten, Gloucester; Mr. Jennctt, Birkenhead; etc.

## BOOKS, ETC., RECEIVED.

Sulla Coscienza ed Organizzazione: discorso del Dott. Enrico Maudsley. Tradott dal Dott. Domenico Collina. Jesi: 1874.

The Cottage System of Management of Lunatics. By J. Batty Tuke, M.D. G. I Bacon, Lewes.

# LECTURES
ON
# THE OCCURRENCE OF ORGANIC FORMS IN CONNECTION WITH CONTAGIOUS AND INFECTIVE DISEASES.

*Delivered at Owens College, Manchester.*

BY
J. BURDON SANDERSON, M.D., V.P.R.S.,
Jodrell Professor of Physiology in University College, etc.

## LECTURE III.—*(Continued.)*

THERE are two contagious diseases besides small-pox, in respect of which there is reason to suppose that specific organic forms exist either in the blood or in the affected tissues: namely, relapsing fever and splenic fever. I propose to take splenic fever first.*

Splenic fever is a malignant highly contagious disease of cattle, distinguished by the extreme rapidity of its course and fatal termination. It is interesting to us on account of the fact that it is characterised by the existence in the blood of organisms which, from the investigations of trustworthy observers, seem, though like common bacteria in form, to have such marked peculiarities of their own, that they may be regarded as specific. These bodies were discovered in 1855, or perhaps earlier; but their significance is still matter of dispute, there being great difference of opinion (even among those who admit that they are characteristic of the disease) as to the part they play in the morbid process.

The disease may be communicated by any means which involves the transference of a portion of the blood of a diseased animal to the living tissue of an animal previously healthy. It is not known that it can be propagated by any other way; for animals kept in the closest proximity to diseased ones, and placed under the most favourable conditions for infection through the air, are not infected.

The most striking feature of the disease is its extremely rapid progress and its short duration: in the so-called apoplectic cases, a few hours; in the more ordinary ones, a day or two. A sketch may be given in a few words of the disease as it presents itself in acute cases in cattle. An animal, which perhaps for the previous day has declined food and shown signs of general disturbance, begins to shudder and to have twitches of the muscles of the back, and soon afterwards becomes weak and listless. In the meantime, the respiration becomes frequent and often difficult, and the temperature rises to three or four degrees above the normal; but soon convulsions, affecting chiefly the muscles of the back and loins, usher in the fatal collapse, of which the progress is marked by complete loss of power of moving the trunk or extremities, diminution of temperature, mucous and sanguinolent alvine evacuations, similar discharges from the mouth and nares, and death. In the horse, the disease presents similar characters, but is much less acute. The local affection is more frequently recognised during life, so that the case is often recorded as one of "acute splenic tumour".

Of the phenomena revealed by dissection, those which relate to the blood, to the circulatory and lymphatic systems, and to the spleen, are by far the most important. In the blood, the colourless corpuscles are increased, especially in the horse. In the mucous membranes, general infiltration is one of the most marked results of the disease. In cattle it is excessive, and affects the whole course of the intestine, the cavity of which is found to be full of sanguinolent transudation. In the horse it localises itself in the stomach and duodenum, and presents itself in the form of circumscribed inflammatory tumours or thickenings of the mucous membrane. As, in these tumours, the inflamed tissue dies in the middle and sloughs out, leaving an ulcer, they are called carbuncles. The ulcers are called "typhous ulcers", and the whole disease in the horse is often designated "typhus".

The discovery that in the blood of animals affected with splenic fever rod-like bodies are found in the liquor sanguinis was first, I believe, made by Pollender, who, in the year 1855, described them as "fine, apparently solid, straight unbranched objects". He stated that they possessed no proper motion, differing in this respect from ordinary bacteria, leaving the question of their nature, as well as that of their relation to the contagion of the disease, open. A year or two after the publication of Pollender's paper, Brauell published the first of his very extensive series of researches on the contagion of splenic fever, in which he not only confirmed Pollender's discovery, but, by experiments in which he communicated the disease to animals under a great variety of conditions, acquired for pathologists the greater part of the accurate knowledge they now possess on the subject. He contented himself, however, with demonstrating that the organisms found in the blood in splenic fever were characteristic of the disease, without maintaining that they were, or that they were not, the *causes* of its virulence; and, indeed, was disposed to attribute more importance to them as diagnostics than as agents in the morbid process.

Three years later, the bodies in question were rediscovered by Delafond and Davaine, who, in claiming a priority which did not belong to them, no doubt did so in ignorance of the good work that had already been done in Germany. The existence of the rods as a characteristic of the circulating blood in animals affected with splenic fever, is a fact now admitted by all pathologists who are conversant with the disease. It is, however, remarkable (and at first sight difficult to understand) that many observers have expressed doubts as to their being organised living beings. Thus, Leisering at first took them for fragments of fibrin or for bits of tissue; others thought that they were blood-crystals. The statement made by Professor Bruckmüller of Vienna, and repeated by others, that Virchow at one time regarded the bacteria of splenic fever as blood-crystals, appears to be an erroneous one, founded on a misquotation of an oral communication.

The rods have been most carefully studied by Bollinger in his recent *Researches in Comparative Pathology*. Each rod is about as long as the width of a blood-corpuscle. Along with the rods spheroids can always be found, which are no doubt forms of the same organism—parts of the same continuous development. As regards their structure, examination with high powers shows that each rod is made up of spheroids, each spheroid consisting, like an ordinary micrococcus, of a central darker part with a more transparent envelope. The most remarkable fact relating to them is, that they disintegrate rapidly from the moment that the blood becomes putrescent. As they disappear, the actively moving rods and spheroids, which indicate the commencement of the septic process, take their place, but there is no continuity of development between the two kinds of organisms.

The principal source of doubt as regards the part played by the rods in the contagious process of splenic fever has been the observation first made by Brauell, that, in the early stage of the disease, no rods are found in the blood; and that nevertheless such blood possesses the contagious property. This question has been lately investigated very fully by Professor Bollinger, on the basis of experiments made expressly for the purpose. From the results of these experiments, it seems certain, (1) that blood without *rods* may yet be contagious; (2) that animals infected by it contain the rods in their blood in as great numbers as others. Are the rods, therefore, intimately associated with the contagious material—the contagium? or is their appearance a merely collateral phenomenon—a symptom of the disease?

It has been sought to answer this question in two ways: on the one hand, by separating the rods from the liquid, and determining their pathological properties by experiment; and on the other, by testing the activity of the liquid after the rods have been removed from it by some process of filtration. The first of these methods—that employed, or rather attempted, by Davaine and the French experimenters—has led to no result; and it is difficult to see how it could yield any; first, because complete separation of such organisms from the medium in which they are contained is impossible; and secondly, because, in the very act of filtration, the organisms themselves would probably undergo such changes as would entirely alter their properties. If, as is probable, the activity of the rods is dependent on their vital functions, there is no reason to anticipate that they would continue to manifest that activity when "out of their element"; still less that it would show itself in any descendants or progeny obtained from them by the method of cultivation. The other method has been used by Klebs and Tiegel. These observers have found that, just as it is possible to separate the bacteria contained in ordinary septic products from the liquid in which they are suspended by filtering them under pressure through a stratum of porous porcelain, the same method can also be successfully applied to blood containing the rods of splenic fever. The result of the experiments, which, it must be admitted, were not so frequently repeated as could have been wished, was, that the filtrate of blood (or rather the liquid of the spleen of a diseased animal), of the virulence of which experimental proof had previously been obtained, was found to be incapable of communicating the disease. Clearly, there is no proof in this fact that the contagium of splenic fever is exclusively contained in the rods; but there is proof in it that the agent is, as we believe all other contagia are, a body which is incapable of solution or diffusion, and which attaches itself to concrete particles.

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* The facts stated in this part of the lecture will be found in greater detail in the introductory paper already referred to contained in the Reports of the Medical Officer of the Privy Council on Scientific Investigations (New Series, No. III).

An additional and to my mind more satisfactory proof of this lies in the remarkable observation made by Brauell, that, when pregnant animals are affected with splenic fever, the blood of the embryo is not contagious. Brauell found in repeated trials that, in such animals, blood from the fœtal circulation could be inoculated without result. Here the placental apparatus serves not merely as a filter, but as a diffusion-cell, keeping back not merely solid particles, but everything which is not capable of passing through animal membranes. This fact—of the immunity of the fœtus—must be taken in connection with the incommunicability of the disease excepting by actual transference of blood.

The contagium of splenic fever is wonderfully persistent. With reference to this point, there is an apparent antagonism of facts, which, however, on examination, turns out to be a perfect agreement. Brauell found that blood, after removal from the body, loses its activity in a few days. On the other hand, we are certain that the contagium must have a state of existence in which it is in the highest degree permanent and indestructible. Thus Bollinger gives an account of what may be called a stable-enzootic of splenic fever, in which ten cases occurred in one stable during a period of three years, no other cases occurring in the neighbourhood. The contagium must have remained latent during the whole period.

What does this mean? Here is a disease only transmissible by inoculation, and of very short duration. Why does it not perish out of existence? Clearly it would do so, had it not some as yet unknown means of perpetuating itself. How it does so, it would be too bold to conjecture. The rods can hardly be supposed to be the means of perpetuation; for, like the contagious property which they perhaps represent, they are very fugitive, and, in particular, like it and along with it, they disappear at the moment that putrefaction commences. It is, therefore, not possible to refer to them as contrivances suited for the storage of contagium, or for its conveyance to a distance, for either of which purposes they are obviously unfit. This very consideration, however, can, I think, be made to appear rather as an aid to our understanding of the relation between organisation, or rather living organic forms, and contagion, than as a difficulty or objection. For, if we turn from the specific form to what we know about the development and life-history of common bacteria, and, indeed, of the beings belonging to the same group in general, we find the same thing. Just as in the case of the specific contagium, we are compelled to recognise two states of existence, one enduring and latent, the other active, but fugitive; so among these organisms we find one condition in which the growth and multiplication of individuals is very active, but individual life is extremely short; another in which the vital activities of the organism are stored up for the future, the individual being for this very end endowed with the power of resisting external disintegrating agencies, and thereby of enduring for an indefinite period. Thus, without any effort, we find, in all probability, in the life-history and development of the organisms, the counterparts of all the phases of the process of contagion.

During the last few years, the pathology of splenic fever has acquired an even wider interest than it had before, from the publication of a series of cases of a rapidly fatal disease affecting the human subject which presents the characters of splenic fever, and turns out, on investigation, to be identical with it. The first of these cases was published by Professor Buhl at Munich in 1868. It was that of a man aged 32, who died after a short illness, of which collapse and vomiting were the chief symptoms. After death, the stomach and duodenum were found to be the seat of circumscribed foci of submucous infiltration, presenting characters similar to the so-called "carbuncles" of the intestine seen in the horse. The rods of splenic fever presented themselves in the blood, and the other lesions corresponding to those of the disease in question were found.

The affection was termed by Buhl "*Mycosis intestinalis*". Shortly afterwards, two other cases were recorded by Professor Waldeyer, now of Strasburg. In one of them, that of a slaughterer, whose occupation pointed to the sources of infection, the nature of the disease was suspected during life. After death, the suspicion was confirmed by the complete correspondence of the lesions with those of splenic fever in the horse. As in Buhl's case, the microscopical investigation showed that masses of zooglœa existed in the affected tissues, and that rod-like microphytes were to be found in the circulating blood, particularly in that of the portal vein. Other rapidly fatal cases have since been removed, all of which exhibited pathological appearances of the same kind, the most constant being the enlargement of the spleen and the circumscribed hæmorrhagic infiltrations of the intestines, resulting in more or less extensive sloughing of the mucous membrane, and associated with serous exudations, infiltration of the subserous tissue, and hyperæmic enlargement of the lymphatic glands in relation with the infiltrated parts.

Whatever doubt remained as to the identity of mycosis intestinalis with splenic fever, was removed by the appearance of a communication by Dr. Münch of Moscow, who was able to state, from the results of his own dissections in the "Workman's Hospital" at that place, that in all the cases in which he had occasion to examine the bodies of men who had died of disease contracted by infection from animals, the intestinal lesions and the condition of the other internal viscera corresponded closely with those described by Buhl and Waldeyer. In these, as in many other cases recorded by the best observers, the primary pustule (*pustula maligna*) at the seat of inoculation, often supposed to be the one pathognomonic lesion of splenic fever in man, was by no means a constant feature. Out of twenty-eight cases recorded by Münch (1867-71), seventeen exhibited a primary pustule, which in all but two was carbunculous; but, in the other eleven cases, there was nothing whatever to be found on the skin.

As regards the morphological relations of the organisms found in mycosis intestinalis with those of splenic fever, further investigation is required. So far as the former have been described, they agree completely with the others, as may be readily seen by comparing the drawings of Wagner, taken from a case of mycosis, with Cohn's or Bollinger's representations of the rods of splenic fever.

The identity of the two forms being admitted, Buhl's and Waldeyer's anatomical investigations afford a key, which was before entirely wanting, to the understanding of the so-called "localisations" of splenic fever in cattle. This key consists in the demonstration that the formation of foci of infiltration, of which we read so constantly and repeatedly in the descriptions of the veterinary pathologists, is a process of which it is the characteristic that the tissues of the infiltrated part became infested by myriads of microphytes of a particular kind, so that the presence of these bodies is as much a part of the process as the emigration of the colourless corpuscles from the blood-vessels is a part of ordinary suppuration. Further than this it is not possible to go, until the initial stages have been investigated in the lower animals.

I now pass to a disease which in two or three respects resembles splenic fever, while it differs from it in a great many more. As regards its mode of diffusion, there is this striking resemblance, that, although relapsing fever does not require inoculation in order to communicate itself from the sick to the healthy, the area within which its contagium can act is very limited. If a patient be introduced into a ward, the patient in the next bed may be attacked, but the disease does not spread. In the recent epidemic at Breslau, to which I am about to refer, there were many instances in which the disease found its way into rooms inhabited by several families, and it was then observed that the members of one family (in other words, those who lay on the same heap of straw) were attacked one after another, while the other occupants of the room remained exempt.

Another striking point of resemblance lies in this, that they are both pre-eminently blood-diseases. In the case of splenic fever, we have direct evidence of this in the fact that the disease is conveyed by transfusion of blood. Whether this is also true as regards relapsing fever has, of course, not been ascertained; but we have, as indications of the blood-affection, first, the fact that the spleen, of which the function is intimately connected with the blood, is enlarged in a similar way in both diseases; and, secondly, the fact which at the present moment specially interests us—the recent discovery that, in the blood of persons suffering from relapsing fever, organisms exist, which, from their remarkable form, are called *spirilla*.

During the prevalence of relapsing fever in Berlin in 1872, Dr. Obermeier, who had, in the previous epidemic of 1868, been engaged in microscopical investigation of the blood, announced the discovery of the spirilla in a communication made to the Berlin Medical Society. This communication was based on twelve cases, in all of which the organisms were observed. On March 26th, Dr. Obermeier published a second series of observations; twenty new cases had been investigated, in nine of which the blood had been examined daily. The results of these examinations showed, that the presence of the organisms in the blood was associated with the morbid process so closely, that as soon as the pyrexia disappeared they disappeared with it, reappearing when the patient again fevered in the relapse.

Soon after the death of Dr. Obermeier, a third series of observations was communicated by Dr. Engel to the *Berlin Medical Weekly Journal*, founded on the examination of the blood in eighteen cases in the Charité Hospital at Berlin, under the care of Professor Frerichs. They confirmed in every particular the statements of Obermeier, deriving additional value from the exact observations they contained as to the time which intervenes between the onset of pyrexia and the first appearance of the organisms.

During the same year, the epidemic prevalence of relapsing fever at Breslau afforded additional opportunities for investigating the subject. The first results of these inquiries were communicated by Dr. Weigert to the Silesian Scientific Society on September 12th, 1873. The clinical relations of the subject have since been worked out by Dr. M. Litten in a report on the epidemic founded on observations in the General Hospital in Breslau.

In this report, Dr. Litten has given by far the most complete account of the spirilla that has yet been published. He confirms the statement of Obermeier that they are found only in the blood of persons affected with the disease. In more than one hundred cases they were never missed. They occurred only during the paroxysms, and invariably disappeared before the fall of temperature—never remaining during the period of apyrexia. Their number, however, varied considerably; they were sometimes so numerous as to crowd every field, at others they were difficult to find. Dr. Litten describes their motions as partly consisting in undulations which progress along the course of each fibril, and partly in oscillatory movements, *i.e.* alternate flexions and extensions, springing from some point in the course of the fibril.

Dr. Litten made some very interesting observations on the relation of these remarkable bodies to temperature. He observed that on raising the temperature of the stage of the microscope gradually to 60 deg. C., no effect was produced. As soon as this point was passed, the movements became languid. By the time that 65 deg. was reached, they had entirely ceased. No effect was observed on cooling the preparation to the temperature of freezing. When it was kept for some time on ice, the movements finally disappeared.

Here I stop. I have brought before you, to the best of my ability, the leading facts relating to the only four cases known to me in which the connection between organic forms and specific diseases has, as yet, been satisfactorily made out: those of cow-pox, sheep-pox, splenic fever, and relapsing fever. These four diseases, although they are so different, are associated by the fact that each of them presents very well marked nosological specificity—in other words, they are all of them characteristically contagious diseases. Small-pox we must not yet include, excepting on the ground of identity with cow-pox; but we may hope that the researches of Dr. Weigert, as soon as they appear, will afford us material for conclusions on this subject. In the meantime, let us carefully guard against undue precipitation, in the process of combining the few facts we are already in possession of into a system. The desire to discover the practical bearing of his results on the all important questions of prevention and treatment is a constant and ever recurring temptation to the scientific pathologist, seducing him from his path of patient and silent investigation into speculations about the origin and nature of disease which, even though they may sometimes lead to useful practical applications, have no permanent value.*

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* Since this lecture was delivered, the first part of Dr. Weigert's Researches have been published at Breslau, with the title *Anatomische Beiträge zur Lehre von den Pocken.*

## TREATMENT OF CLUB-FOOT.

I WISH to call attention to a particular passage in Dr. George Buckland's paper on Club-foot, which deals with the "Non-cutting treatment." He says "A muscle of its (tibialis anticus) length, even when very rigid, can be stretched to a considerable degree: *if there are any cases* of club-foot cured 'without cutting tendons', as some surgeons would have us believe, they must be trifling examples of the deformity, and the defect must depend wholly upon the long muscles of the leg, which is very rarely the case."

Mr. Barwell's method, in its entirety (shampooing, etc., mentioned by Dr. Buchanan, as well as mechanical means) has been adopted here during the past six months, by the advice of Mr. Wright, our senior surgeon, by whose kind permission and assistance, together with that of the staff generally, I have been enabled to collect a series of cases, the results of which I hope to publish at some future time. So far the treatment has thoroughly borne out all that has been stated by Mr. Barwell when advising its use. That there are cases of talipes, and the majority of such, which can be treated successfully by this method, our limited experience leaves no doubt. Dr. Buchanan lays great stress upon the early adoption of means for the cure of these deformities, and Mr. Barwell equally so; the success or non-success of treatment, in either case, depending mainly upon this; but, in the latter, it is also influenced by the amount of patience and perseverance possessed by the surgeon in whose hands the case may be.

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# THE CROONIAN LECTURES
## ON ADDISON'S DISEASE.

*Delivered at the Royal College of Physicians, London.*

By E. HEADLAM GREENHOW, M.D., F.R.C.P., F.R.S.,
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### LECTURE III.

THE lesion in the suprarenal capsules in Addison's disease is produced, as I have shown, by an inflammatory exudation of low type with which these organs become infiltrated. This exudation becomes converted into a firm fibrous material, which first encroaches upon and destroys the normal tissue of the capsules, and subsequently itself, together with the destroyed elements of the organs, undergoes degeneration into purulent, cheesy, or cretaceous material. At first it would, not unnaturally, be supposed that this complete destruction of the normal structure of the capsules must be the immediate cause of the symptoms in Addison's disease; or, in other words, that these symptoms must result from the abolition of the proper function of those organs. This was evidently the opinion entertained by Addison when he published his book; for he expressed his belief that the urgency of the symptoms was determined by the actual amount or degree of morbid change going on in the capsules, and that, whilst universal disease of both capsules would probably be found to be uniformly fatal, cases in which the morbid change was limited to one capsule only might be found to be attended with proportionately slighter results. Since Addison's time, however, it has become generally recognised, by all those acquainted with the subject, that the symptoms associated with the suprarenal lesion cannot proceed from mere destruction of the tissues of the organs, and consequent abolition of their function. Many physiological experiments have been made upon animals, by Dr. Brown-Séquard, Dr. George Harley and others, with the view of deciding this point; but, looking to the differences in their results, and to the doubt how far these may have been due to accessory differences in the operative processes, I am disposed to attach much more weight to the clinical and pathological facts which seem to me to determine the question.

In my last lecture I showed, on the one hand, that when the normal structure of the suprarenal capsules is altogether supplanted by cancer, or has undergone complete fatty degeneration, none of the peculiar symptoms of Addison's disease are produced, notwithstanding the total destruction of the organs for all functional purposes; and, on the other hand, it is quite certain that, in many cases of Addison's disease, the conversion of the suprarenal capsules into a mass of fibroid tissue, and even the degeneration of this latter into cheesy material, must have been almost, if not altogether, complete before the development of any of the characteristic symptoms of the disease. In the case of the little girl, E. W., for example, the profound alteration in the capsules, more especially in the right one, which consisted chiefly of cheesy masses with some gritty matter bound together by translucent tissue, could not possibly have taken place to any extent during the brief period of her illness; and, in other cases in which the illness has been equally short, the capsules have been found in a still more advanced state of degeneration. Messrs. Rossignol and Little report a case of a servant girl, aged 15, whose illness had been noticed only four weeks before her death, and yet both suprarenal capsules were in a great part made up of material of a yellowish colour, like hard cheese, with here and there a little gritty matter; and presented no trace of normal structure. The paroxysmal mode of progress, characteristic of the usual chronic course of the disease, is also adverse to the probability of the symptoms being due to abolition of the function of the capsules, for, in that case, the frequent rallyings after severe paroxysms could scarcely take place, when the nature of the local lesion must render any renewal of function impossible. Again, in the case of other symmetrical organs, such as the lungs or kidneys, it usually happens that, if only one of the two organs is rendered functionally useless by disease, the other acquires an increased functional activity, termed compensatory; and, if life be not preserved, it is, at at any rate, prolonged much beyond the average duration of life in cases in which both organs are diseased. In Addison's disease, on the contrary, in some of the very few cases in which one capsule only has been found to be diseased, the symptoms have, nevertheless, run a course in all respects resembling the usual course of disease when both capsules are involved. Thus, in the case of a girl, aged 11, reported by Guttman in 1870, who was under observation during five months, the left suprarenal capsule only was found diseased, the right one being perfectly intact; but, nevertheless, the constitutional symptoms had been quite characteristic, and the discoloration of the skin very fully developed. A more striking case of the same class, which had been under medical observation for two years, was published by Dr. Murchison in the *Pathological Transactions* for 1866. In the year 1864, the patient, a man, aged 27, was in the Edinburgh Royal Infirmary where his case was diagnosed by Dr. Duckworth and Dr. Pye-Smith as a typical case of Addison's disease. He survived until April 1866, having been occasionally at work during the periods of remission of his symptoms. At the necropsy, only one of the suprarenal capsules was found diseased, the diseased organ exhibiting all the characteristic appearances of the capsules in Addison's disease, while the other was quite healthy.

Whatever, therefore, may be the hitherto undiscovered function of the capsules, these facts would seem to justify the conclusion that the abolition of that function, by whatever lesion it may be produced, cannot be the cause of Addison's disease. That disease being, nevertheless, invariably associated with one particular organic lesion of the suprarenal capsules, we must seek for some other means by which this lesion can give rise to the characteristic symptoms which indicate its presence. Manifestly, also, the condition to which we refer the production of these symptoms must be one which is found in connection with this one particular lesion of the capsules, and which is not associated with any of the other lesions of those organs which equally destroy their structure, but, as we have seen, do not produce the symptoms of Addison's disease.

This condition I believe to be, the extension of the chronic inflammatory process from the diseased capsules to surrounding parts, which I described, in my first lecture, as one of the characteristic features of the morbid anatomy of the disease. This extension of the inflammatory lesion of the capsules produces, as I have said, dense overgrowths of connective tissue, which form adhesions between the capsules and neighbouring organs, and which, if merely by their pressure, cannot fail to affect, in a serious degree, not only those nerves which pass in and out of the capsules, but all those which are in intimate relation with them.

Now, it is certain that the suprarenal capsules, which lie close to the solar plexus and the semilunar ganglia, receive a much larger supply of nerves, in proportion to their size, than any other organ in the body. Kölliker says that he has counted thirty-three nerve-trunks in the right suprarenal capsule; and Lobstein, half a century ago, in describing a case of tubercle of the capsules, stated that he found eight nerve-branches going from the right semilunar ganglion to the right capsule, and thirteen from the left semilunar ganglion to the left capsule. Some physiologists, indeed, believe the suprarenal capsules themselves to be ganglionic nerve-centres. Kölliker considered the cortical and medullary portions of the organs to be physiologically distinct; the cortical portions he regarded as blood-vascular glands, and the medullary portion as appertaining to the nervous system. Bergmann held very much the same opinions. More recently, Leydig has stated that the cells in the mesh-work of the medulla of the suprarenal capsules are of irregular form, and exhibit processes like the multipolar ganglion-cells of the brain and spinal cord, and further that a number of nerve-trunks which pass through the cortical portion of the capsules are lost in the medulla and do not pass out again; facts which, in his view, compel the belief that the nerve-fibres arise in these ganglion-cells, and that the medullary portion of the suprarenal capsules is essentially a ganglionic nerve-centre. Although I do not profess myself competent to pronounce an opinion on these physiological views, I think it may safely be concluded, from the observations I have quoted, that the suprarenal capsules have peculiarly numerous and intimate relations with the semilunar ganglia and the solar plexus. Dr. Habershon, to whose researches I have referred, traced also a direct communication between the suprarenal capsules and the pneumogastric nerve, and Bergmann found a direct communication between these organs and both the pneumogastric and phrenic nerves. The suprarenal capsules, therefore, are not only intimately connected with the chief centre of the ganglionic nervous system situated in the abdomen, but also indirectly through that centre, and more directly through the pneumogastric and phrenic nerves, with the cerebro-spinal nervous system.

It will readily be conceived that the pressure of a mass of hard connective tissue within and around the capsules, closely investing the nerves passing into those organs, and sometimes involving the semilunar ganglia and the solar plexus, must seriously interfere with the functions of the nerve-branches imbedded in the contracting growth. But the injury to the nerves is by no means always limited to those branches bound up in the inflammatory new growth, for in many cases, as I showed in my first lecture, the nerves at some distance from the inflammatory tissue have been found enlarged by reason of the increased thickness of their neurilemma, which could only proceed from a further extension of the inflammatory process along their course. In several cases, it is stated that the only change discoverable in the nerves was this increased growth of hard connective tissue in their outer sheaths; but in other cases inflammatory growths have also been distinctly seen in the connective tissue sheaths of the individual nerve-fibres. Thus, Hertz saw, in a case to which I referred in my last lecture, numerous oval or spindle-shaped cells, imbedded in the connective tissue between the nerve-fibres of the solar plexus and the semilunar ganglia. This undue thickening of the nerve-sheaths must necessarily tend to produce irritation, and ultimately atrophy, of the compressed medullary portions of the nerves, and these conditions have, in fact, been verified in many cases of late years.

The first notice of a morbid condition of the nerves in Addison's disease is by Addison himself, who recorded in his monograph that Mr. Quekett had found, on microscopic examination of a portion of the semilunar ganglia and solar plexus in one of his cases, that they had undergone some form of fatty degeneration. But researches into the condition of the nerves at necropsies were then much rarer than they are now, and the fullest and most accurate descriptions that I have been able to find are in recent, and mostly in foreign, cases. Hertz found in his case both the semilunar ganglia reddened on the surface, and also on section. Professor Tigri found in Burresi's case the whole sympathetic nervous system reddened and swollen, the semilunar ganglia enlarged; and, under the microscope, both the ganglia and nerve-fibres showed remains of old and recent hæmorrhages consisting of yellow granular corpuscles and of small roundish irregular bright red molecules, together with some still normal red blood-corpuscles. The cells of the enlarged semilunar ganglia, but especially of the left one, were opaque and granular, and showed no trace of nucleus, and it should be mentioned in connection with this fact that the left suprarenal capsule was double the size of the right one. Rindfleisch, again, in Kuhlmann's case, found the fibres of the two nerve-trunks imbedded in the inflammatory adhesions of the capsules to the neighbouring organs in a state of partial fatty degeneration. Van Andel states that in his case the microscope revealed atrophy of the sympathetic and of the solar plexus, with almost total disappearance of the medullary cells and pigmentation of the ganglionic cells. Boogaard found in a case of Schmidt's, which he examined, the sympathetic nerve atrophied; and Bartsch found, in a case in which the pathological conditions were very characteristic, the semilunar ganglia of a greyish red colour and the ganglionic cells almost all filled with fat, and very few of them showing any nucleus.

These numerous observations by competent pathologists leave no doubt that the antecedent probability of injury to the nerves in intimate relation with the suprarenal capsules, from the chronic inflammatory process going on around them, is borne out by the facts.

We now come to the question, how far the various symptoms of Addison's disease can be shown to be due to these morbid changes in the abdominal portion of the sympathetic and nervous system. Addison himself conjectured latterly that the intimate connection of the suprarenal organs with the nervous system had a large share in the production of the symptoms; and Drs. Wilks, Habershon, and others adopted this view, and attributed them to the implication chiefly of the sympathetic nerve. But the belief in this mode of production of the symptoms was at that time merely theoretical, and, as such, I attached but little importance to it. Of late years, however, the observations which I have detailed have convinced me that the nerves in close relation with the suprarenal capsules are undoubtedly affected in every case, to a greater or less extent, by the chronic inflammatory process of Addison's disease; and from various analogies I think it must be inferred that at least many of the more important features and prominent symptoms of the disease are produced by the morbid changes in the affected nerves.

These changes are of two kinds; and we may presume that the irritation, producing the reddening and swelling observed in Hertz's and Burresi's cases, is the primary effect of the extension of the inflammatory process to the nerves; whilst the total impairment of their functions, which must result from the atrophy or fatty degeneration described by Rindfleisch and others, will not take place until a later period. It is obvious that irritation of the nerves, although arising from a permanent cause, would be likely to vary in degree from time to time, to subside more or less completely under favourable circumstances, and to be easily aggravated anew by comparatively trivial causes. Neither is it to be lost sight of, that fresh extensions of the inflammatory process may at any time take place irrespective of outward circumstances. Again, according to variations in the acuteness of the inflammatory process in the capsules, the extension of inflammation to the nerves may take place much later and with much less intensity in some cases than in others.

If such be the internal conditions, it becomes no longer surprising that the constitutional symptoms of the disease should vary somewhat in character in different cases, and in the same case at different stages; nor that the course of disease should be subject to alternations of exacerbation and remission, and the paroxysms of depression come on with or without apparent cause; nor even that in some cases the symptoms should remain latent for longer or shorter periods of time, and appear to be only developed at last by some outward depressing cause. Moreover, the individual constitutional symptoms of the disease seem in great part explicable, either by the direct effects of the nerve-lesions upon certain organs, or by their reflex effects through the cerebro-spinal nervous system. The invariable listlessness and indisposition to exertion, the extreme feebleness without corresponding emaciation of the muscles, the shallow respiration, breathlessness on exertion, and small thready compressible pulse, all point to some serious interference with the functions of the nervous system; whilst the profound asthenia which supervenes before death from Addison's disease exhibits a great analogy to the collapse which follows a fatal shock to the nervous system from some severe injury. The sighing, yawning, and hiccough, so frequent during the paroxysms of depression, are direct nervous symptoms; and the affections of sight and hearing, the numbness, anæsthesia and tremors, the convulsive twitchings, and epileptiform and other seizures, may all be explained by reflex nervous irritation through the cerebro-spinal system. With respect to the gastric symptoms, although I am indisposed to draw conclusions from facts of which I have had no personal experience, certain physiological experiments do appear to throw light upon their production through the medium of the nervous system. Pincus states, in Funke's *Physiology*, that extirpation of the solar plexus and semilunar ganglia in animals is followed by hyperæmia of the stomach and upper part of the intestinal canal, with ecchymoses and ulcerations; whilst similar results do not follow the same operations in the abdomen, if injury to the nerves be avoided. The catarrh and other affections of the mucous membrane of the stomach, and the enlargement of the solitary glands of the small intestine, so constant in Addison's disease, would thus be shown to be due to a direct interference with the functions of the abdominal nervous centres by extension of the inflammatory process. Jaschkowitz has also found enlargement of the spleen follow the cutting through of the sympathetic—a result which would tend to explain the not unfrequent occurrence of this pathological change in cases of Addison's disease.

Although many writers have concurred in attributing the constitutional symptoms of Addison's disease to some lesion of the nervous system, they differ widely in their ideas as to the relation between the supposed nerve-lesion and the disease in the suprarenal capsules, and also as to the means by which the symptoms are produced. Risel, who, like myself, attributes the symptoms to lesions of the nerves produced by the disease in the capsules, considers that they are the direct results of excess of blood throughout the abdominal cavity—due to loss of tone from nerve-irritation—and to a corresponding deficiency of blood in other parts of the body; neither of which conditions have existed in the cases which I have examined. Amongst other recent views are those of Schmidt, Burresi, and Kuhlmann, who have concluded, from the important changes in the nerves found in their cases, that the essence or primary cause of the disease is a morbid affection of the sympathetic or atrophic system of nerves, and that the suprarenal disease is only a secondary phenomenon or accidental complication. Bartsch considers it doubtful whether the suprarenal capsules or semilunar ganglia will be found to contain the centre of the trophic nerves, which he regards as being the true seat of the disease. Rossbach, as I have said, deduces, from a case related in my last lecture, a new theory as to the nervous origin of the symptoms of Addison's disease. He attributes the symptoms altogether to functional disturbance of the cerebro-spinal system, produced by long continued grief and trouble, and bearing a close analogy to the nervous ailments which produce hysteria. He includes the two diseases, hysteria and Addison's disease, under the same head of general neuroses, with unknown anatomical causes; and concludes that, as hysteria often exists without uterine disease, so the lesion of the suprarenal capsules bears no constant relation to Addison's disease. Had the premises only been correct, it would be difficult to controvert his arguments; but he had to do, as we have seen, not with a case of Addison's disease at all, but with a case of hysterical mania, aggravated, no doubt, by the irritation of the scleroderma, and complicated with degenerative disease. Consequently, his arguments, which are convincing enough as to the origin of the symptoms in the case really before him, have no bearing whatever upon the question of the origin of the disease with which he supposed himself to be dealing.

Owing to the undue prominence which has always been given to the bronzing of skin as a symptom of Addison's disease, the character and causes of this abnormal pigmentation have been far more fully and widely discussed than those of the constitutional symptoms. Virchow, in his work on *Tumours*, expresses his belief that it is probably due to nerve-disease, not dependent, however, on the nature of the morbid process in the suprarenal capsules. Bühl regarded the pigment deposited as the result of a blood-change, characterised by deficiency of fibrine, excess of white corpuscles, and unusually dark colour of the blood. I should remark, by the way, that the four cases on which Bühl founded this opinion were all complicated with general disease of the lymphatic glands, or extensive tuberculosis, and with enlargement of the spleen, in one case to four times the natural size; and, though in some of these cases the capsules seem to have presented the appearances of Addison's disease, in one at least they did not. The other conditions are such as are well known to be associated with leukæmia and melanæmia. Martineau holds that the bronzing of skin, though most frequently associated with disease in the suprarenal capsules, is really independent of its existence, because, in his opinion, it is equally common in tuberculous, cancerous, and miasmatic cachexias. Jaccoud, in his able article on bronzed skin disease in the new French *Dictionary of Medicine*, attributes the pigmentation in Addison's disease to irritation of the vaso-motor sympathetic nerves; but he considers the length of time requisite for the hypersecretion of pigment by these means to be the obvious explanation of the earlier development of the constitutional symptoms. Risel is of opinion that, although vaso-motor influences may contribute to the pigmentation of the skin, it cannot be sufficiently accounted for without the supposition of some blood-change, due to the changes in the spleen and lymphatic glands, as well as to diminished nutrition from the catarrh of stomach.

So far, however, as I have been able to ascertain, the composition of the blood does not undergo any important alteration in uncomplicated cases of Addison's disease. In all my later cases, the blood has been examined microscopically with virtually negative results. In one case, that of a woman who was anæmic, and had never been robust since an attack of scarlatina and dropsy seven years before, the white corpuscles were slightly in excess; but, in all other respects, the blood appeared normal; the red corpuscles being abundant, and forming rouleaux in the usual manner. In another of my patients, who had been in the hospital before, and was readmitted on account of extreme prostration following loss of blood from a slight wound on the head, the blood, when first examined, was not exactly normal. There was a deficiency of red corpuscles, and they did not form into rouleaux, but were scattered singly over the field. There was a large number of highly refractive nuclei, of a red colour, measuring $\frac{1}{4500}$th of an inch in diameter, mostly lying isolated, but here and there aggregated in groups. There was no marked excess of white corpuscles. At the end of three weeks, however, when the patient had recovered her strength, the abnormal conditions of the blood had disappeared; and their temporary existence could not well be a specific result of Addison's disease, as the same appearances were verified, though in a less marked degree, in the blood of two other patients who were in the hospital at the same time, one of whom was suffering from constitutional syphilis, and the other simply from debility and anæmia. Since the delivery of my last lecture, the courtesy of Dr. Bristowe has given me another opportunity of examining the condition of the blood in a well-marked case of Addison's disease. The patient, a woman aged 48, who is at present under his care in St. Thomas's Hospital, is suffering from extreme debility and nausea, her circulation is so feeble that it was most difficult to obtain a tracing of the pulse, and she is as dark as a mulatto. Nevertheless, her blood was found, on microscopical examination, to be rich in red corpuscles, which arranged themselves freely in rouleaux, and it did not contain any marked excess of white corpuscles. There were a few of the small highly refractive bodies, described in my case, scattered singly over the field.

Dr. Thudichum, who examined chemically, for sixty-five consecutive days, the urine of a patient who died in the Middlesex Hospital under the care of Dr. Burdon Sanderson, found a great deficiency in the uric acid of the colouring matter, and he concludes that the deposit in the skin is the varying balance of a current account which may increase or decrease. Apparently, he means to infer that the abnormal deposit of pigment is an alternative result of these deficiencies in the composition of the urine, and varies in intensity according to their variations. Mr. West, in a paper read before the Royal Medical and Chirurgical Society, states the exact amount of the deficiency in the proportion of urea excreted in a case of Addison's disease; and his analyses, though few in number, agree with the results obtained by Rosenstein from analyses of urine in some cases of Addison's disease in Bamberger's wards, in which he always found the urea deficient and the indican in excess.

It appears to me that no inferences can be drawn from the results of these researches with respect to the production of the bronzing of skin. I believe the deficiencies, both of uric acid and urea in the urine, to be due to the diminished functional activity, and consequent diminished waste of tissue, characteristic of Addison's disease. The excess of indican is perhaps more directly owing to altered nervous influence, for I have repeatedly found it in the urine of patients after the collapse stage of cholera, or suffering from certain diseases of the spinal cord.

My own opinion is, that the change of colour in Addison's disease is undoubtedly produced, like the constitutional symptoms, through the medium of the nervous system. The paling of the discoloration, coincidently with remissions of the constitutional symptoms, and its deepening and extension with every fresh exacerbation of the illness, appear to me to afford strong clinical evidence that these two features of the disease are referable to a common cause. Moreover, the interesting cases detailed by Meissner and others, of general and permanent darkening of skin produced by agony of mind, sudden alarms, and other violent emotions, leave no doubt of the fact that nervous influences are capable of producing abnormal pigmentation. This fact seems to me to furnish another strong presumption that the discoloration of the skin in Addison's disease is due to a morbid action of the affected nerves. There is, however, no evidence to connect it directly with any of the nerves actually involved in the inflammatory process; and I am inclined to attribute it rather to reflex irritation through the cerebro-spinal nervous system.

Although the correctness of these inferences is not susceptible of proof, without much clearer knowledge than we yet possess of the part actually played by the nerves in the physiological processes disturbed by the disease, I venture to think that the views I entertain derive considerable support from the clinical and pathological facts upon which they are based.

[*To be continued.*]

# THE GOULSTONIAN LECTURES
## ON PUERPERAL FEVER.

*Delivered at the Royal College of Physicians, London.*

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### LECTURE III.—(*Concluded.*)

It is time now to consider the application of our general conclusions to the subject of the treatment of the febrile puerperal processes, local and constitutional. The first point to which we naturally turn our attention is the determination of the conditions under which decomposition proceeds most actively, and what chemical or other agents may be employed with most certainty to arrest it. In his arrangement of what Cullen termed indication of cure, the details of treatment are divided into three classes. We have directions in the first "to moderate the violence of reaction"; in the second, "to remove the cause or obviate the effects of debility"; and, in the third, "to obviate or correct the tendency of the fluids to putrefaction". The principles which were observed in the enumeration of remedies contained in classes one and two were consistent with the views which regulated Cullen's practice in all febrile diseases, whether contagious or not. The directions contained in the third class are more in accordance with the views we now entertain of the origin of puerperal fever.

We are "to obviate or correct the tendency of the fluids to putrefaction by—I. Avoiding the application of putrid or putrescent matter by (*a*) removing the patient from places filled with corrupted air; (*b*) correcting the air, from which he cannot be removed; (*c*) avoiding the accumulation of the patient's own effluvia by a constant ventilation, and frequently changing the bed-clothes and body-linen; (*d*) removing carefully and speedily all excremental matters; (*e*) avoiding animal food, or correcting it. II. Evacuating the putrid or putrescent matter already present in the body by (*a*) evacuating frequently the intestines; (*b*) supporting the excretions of perspiration and urine by (1) diluents; (2) neutral salts, antiseptics; (3) fixed air. III. Correcting the [putrid or putrescent matter remaining in the body by diluents. IV. By resisting further putrefaction, or obviating its effects, by supporting the tone of the vessels by tonic remedies.

It does not really appear to be possible to add much to these details. We may, however, in one respect consider that we are in a much better condition to deal with puerperal fever than Cullen was, for the reason, that we have the means of putting into force his indications more thoroughly than he could. In consequence of the experiments which have been made to determine the conditions under which decomposition and the development of bacteria proceed, we are now supplied with agents which we may use to good purpose in the practical treatment of all cases in which we have reasons for thinking that there is a localised focus of infection.

These experiments are sufficiently interesting to deserve careful attention; for it seems reasonable to attach much greater importance to the arrest of the local development of bacteria than to attempt to combat their influence upon the system. There are two methods of analysis which suggest themselves for the determination of the value of any particular substance as a disinfectant. We may take a solution of a fluid containing any organic matter known to decompose under certain conditions; and, before that process has commenced, we may mix with the solution some of the substance or fluid whose properties we desire to know. By comparing the condition of the organic solution thus treated with some that has been allowed to develope bacteria freely, we may ascertain the disinfecting properties of the substance in question. The other method is the addition of solution of the disinfectant to solution containing active bacteria. By microscopical examination, we can readily ascertain from the diminished activity, or the sudden cessation of all movement in the bacteria, the influence of the substance we have employed. These are, generally speaking, the simple methods which have been adopted as the best means for affording an answer to the practical question of the value of disinfectants. Now the same test is applied in both cases; that is to say, we employ the microscope to examine what evidence there is of decomposition, or the existence of bacteria in fluids treated by the first method, as we do to ascertain the direct effects observed in the second method.

In his recent work on *Coccobacteria Septica*, Professor Billroth seems to have preferred the first plan. For instance, he takes solutions of the carbonates and sulphates of alkaline and mineral bases of definite strength, and adds them to the organic fluid, keeping side by side with the mixture, under exactly the same atmospheric conditions, and in these experiments, at the temperature of the human body, some of the unmixed organic fluid. Then, at intervals of a few hours, a few drops of each fluid are removed, and the bacteria forms which are present are registered. Thus time, to some extent, is admitted into the analysis, so long at least as there is any reason to expect the further development of bacteria in the fluid under examination.

Billroth states his general conclusions regarding certain substances as follows: "The abundant addition of carbonate of potash, sulphate of potash, sulphate of iron and copper, boracic acid, and borate of soda; chromate of potash, aqua plumbi, carbolic acid, lactic acid, and butyric acid, hardly allowed the coccobacteria vegetation to take place. . . . Hypermanganate of potash (ten grains to a fluid ounce of water) had no influence." The term "hardly" is meant to imply that, if bacteria were developed, they were only the most minute and the lowest forms, and that, beyond this stage in the process of decomposition, there was no progress. The solutions of the alkalies used by Billroth were of the strength of a teaspoonful of the salt to an ounce of water—a combination which would not be convenient as a disinfectant applied locally.

The remark, that the hypermanganate of potash had no effect, has been often made before, and only proves that the chemical theory of disinfection must not be relied upon in the estimation of the value of disinfectants. There is so little difficulty in making a considerable number of examinations in a short time by the second method, that we may easily satisfy ourselves of the various effects of different substances, but in various degrees of dilution. For example, we all know that carbolic acid has active properties, both in preventing decomposition and in destroying organic life. But, when the clinical question has to be decided, What degree of dilution may we reach without depriving the carbolic acid solution of its properties, we are obliged to resort to observation of the direct effects of solutions of different strengths on living bacteria. I have found that a convenient plan of making such observations is to place on the same slide a drop of bacteria fluid at a distance of about an inch from a drop, let us say, of carbolic acid solution; to cover them separately with films, and, while keeping the movements of the bacteria under inspection, to bring the two films into contact. The fluids beneath soon mix with one another, but sufficiently gradually to allow one to observe the effect on the animalcules. Thus, by taking solutions of carbolic acid of graduated strength of one in 40, one in 60, and so on, up to one in 120, we can determine which is the best to employ in clinical treatment. We thus ascertain that the last of these has a distinct but not powerful toxical effect upon living bacteria; but that, beyond this point of dilution, bacteria exhibit no decided disturbance. For practical purposes, we should be inclined to use the dilution of one in eighty, as we find that it is quite powerful enough to destroy activity, and is not liable to produce irritation when applied to sensitive tissues. Similarly, we ascertain that, for the liquor sodæ chlorinatæ of the *British Pharmacopœia*, a valuable disinfectant, the dilution of the fluid with two of water furnishes us with a reliable disinfectant.

It did not appear to me to be desirable to enter at any length into the various questions which are associated with the subject of disinfection beyond determining practically the most convenient material for the purpose. At one time, it did not occur to me to make any great difference between the solutions which we accept generally as useful disinfectants; but, when attention is directed in that serious and painful disease, carcinoma uteri, to the existence of bacteria as the probable cause of unexpectedly early death, it becomes apparent that we may prevent infection, if we cannot arrest the progress of cancerous disease, by attention to details. I might have added a few remarks on one or two other substances which have appeared to be advantageously employed in combination with carbolic acid, and especially the solutions of opium. Apart from the sedative effect of the drug, it would appear that it has a special disinfecting property, not very powerful, but decidedly exhibited in such a mixture as one part of liquor opii to three of water. There is no very definite time for the formation of bacteria, as can be easily understood, in cases of septic infection: I mean to say that, in some cases, decomposition seems to proceed more rapidly than in others. From general observation in those cases of carcinoma uteri which are characterised by the most severe symptoms, the effects of infection may be observed to take place in between six and twelve hours, and those in constant attendance on such cases consider that a space of four hours is quite sufficient to allow of the generation of multitudes of bacteria. The same may be said of cases of retained placenta or decomposing uterine fibroids.

The more we attend to the satisfactory results of the practical application of the theory of infection to the treatment of symptoms, the less important does the special influence of antiseptic constitutional remedies appear to be. There are some who conceive that opium is a valuable agent in the constitutional treatment of the puerperal fever. It is not to be denied that its sedative properties may be employed to great advantage for some symptoms; but, regarded as a constitutional antiseptic, experience does not prove that it enjoys any special virtue. It may be observed that, if the introduction into the system of substances like carbolic acid be attempted on the theory that the fluids of the body may be so far impregnated with the disinfectant as to prevent the action of bacteria, it is necessary to show that such a quantity as could at a minimum reasonably effect such a purpose must be capable of being absorbed, or can be administered without injury.

On the subject of the treatment of local inflammatory symptoms, it is unnecessary to make any particular remarks. There are one or two questions of importance which I have avoided, for the reason that they are not directly involved in the question of the specific nature of the disease. One of these is the connection which we have reasons for believing exists between puerperal fever and erysipelas, and other diseases which appear to have a similar origin with it, if they be not identically the same. Many instances are on record, and many more are preserved in the recollections of experienced practitioners, of the fact, that puerperal fever, phlebitis, and erysipelas are producible from one another presumably through the medium of the atmosphere. It has been my object to ascertain whether there were any *à priori* objections to such opinions rather than to dispute the facts, or oppose them by counter-evidence. But theoretical considerations fully support the results of experience, that erysipelas and puerperal fever, and all the forms of cellulitis, may be produced from one another; and that their origin is the same. The practical study of these maladies, in their connection with one another, seems to offer the promise of explaining much that we previously failed to understand.

There is another point on which I speak with some hesitation, for the reason that I am not in a position to present conclusive evidence upon it. It refers to the question of the treatment of that complication of puerperal inflammation known as thrombosis, as well as one of the accidents of thrombosis, namely, coagulation of blood in the pulmonary artery and the right cardiac cavities, which is accompanied by a rapid fall of temperature occurring simultaneously with the distressing symptoms of this accident. This symptom has been recorded by different observers, and, as the explanation of it would not seem to be a difficult problem for the physiologist, I shall confine my remarks to the treatment of those cases in which it may or has occurred, and to the best method of relieving the pulmonary and cardiac symptoms. The theory that thrombosis depends on spontaneous coagulation I have given reasons for believing to be pathologically incorrect, at least when we find such pathological conditions in the tissues external to the veins as to account, on mechanical principles, for the coagulation. It appears that the pulmonary and cardiac symptoms referred to are to be explained by the detachment of a portion of the coagulum in a distant vein, and its arrest in the pulmonary artery; that from this point the process of coagulation extends in the direction of the right ventricle, and gives rise gradually to the formation of the large coagulum which we find in the right cavities.

From clinical experience, we are led to conclude that, while the process of coagulation is limited to the veins of the lower extremities, and has not extended above Poupart's ligament, the possibility of a portion of coagulum being detached is very small, for the reason, as we have already seen, that by the course of inflammatory changes the current of blood from lateral vessels is prevented from impinging upon the coagulum. But, where the branches of the intrapelvic vessels join those from the extremities, there is a great probability of a portion of the coagulum being removed; and, on referring to such cases, it is found that the accident has happened when the patient has so far recovered from acute symptoms as to allow of a certain amount of movement. This suggests, of course, the necessity of great care during the period of convalescence.

The effects of thrombosis of the pulmonary artery are of such a serious nature as to make it desirable to ascertain what is the best mode of treating its occurrence. We have remarked that it is difficult to make observations intended to test the credibility of the opinions of others; and, when such a theory as that which leads to the administration of large doses of alkalies, with the object of arresting coagulation on chemical principles, was offered to us some time since, with some interest, I watched, under personal direction, the effects of this treatment, as well as the practice of others—a method of substitution which is highly conducive to impartial conclusions. These were not in favour of the theoretical grounds or practical benefits of the mode of treatment in question. Speaking from personal experience, I have no hesitation in saying that it is better to regard the occurrence of coagulation in the pulmonary vessels, and its extension to the heart, on simple mechanical principles. In proof of the correctness of this view, I considered it was justifiable, in a case of this kind, where coagulation had taken place in both lower extremities as high as Poupart's ligament, and, on one side, had entered the pelvis, to use rather active measures to relieve the cardiac symptoms. They had occurred quite suddenly during the period of convalescence, and were characterised by the tumultuous action of the heart, distress in respiration, and diminution of temperature (in this instance, from 100 deg. Fahr. to 96.5 deg. Fahr.), which are diagnostic of pulmonary embolism.

The relief which followed rather copious bleeding by the application of leeches was very considerable, both when the symptoms occurred for the first time as well as on a second occasion, when they recurred in a less severe degree a few days later. The patient ultimately recovered. We cannot, of course, decide much from one case; but it may be generally remarked that, as a local remedy for the relief of the pain which accompanies active inflammatory processes in the cellular tissue of the limbs or of the abdomen and pelvis, there is none so certain as local bleeding. We are discussing principles, however, and not details of little interest for those who regulate their practice by the scientific theories of medicine.

I have reviewed in a very general and, I am conscious, in an imperfect manner this subject of puerperal fever; I have endeavoured rather to establish some solid basis for the practical treatment of the disease than to investigate those difficult questions which are now engaging the attention of scientific observers. It may be said that, after all, we have not made any great progress since the time of Cullen, nay, since the Hippocratic period, for the theory we have been arguing for is not essentially different from the "putridity" of the one or the σῆψις of the other.

The idea of atoms is old enough, and many, there is no doubt, may feel inclined to distrust attempts like Heiberg's to reduce all the phenomena of puerperal fever to the existence of micrococci in the various organs of the body. Those who distinguish facts from ideas will, it is probable, continue their labours, or give their encouragement to all investigations bearing upon such an important subject, feeling confident that our profession and society will some day be benefited by them.

As Professor Heiberg remarks, we are only just commencing [to obtain some knowledge of a class of living organisms which threaten to disturb the principles of medical science, and appear to endow with practical existence the ideas of the natural philosophers of bygone ages. In tracing the history of the doctrine of the nature of puerperal fever, there was, up to a certain point, no great difficulty; but now, instead of being able to regard it as a special form of disease, we must allow that it is only one of a large class. We can understand the idea involved in the explanation of its symptoms resulting from a "diphtheritic process" excited by the presence of certain forms of bacteria. We can see the importance of physiological experiments like those of Panum, which had for their object the determination of the pathological effects of emboli of different substances upon the tissues they happened to be arrested in. The local changes which followed the introduction of a globule of mercury, corpuscles of healthy pus, or decomposing fluids, were found to differ to such a degree, that we must admit the value of Panum's conclusions, that the constitutional symptoms which occur in the last instance can only be explained on the supposition of a putrid intoxication, as he terms it, of the blood.

We begin to wish to know more of the minute organisms which seem to be the chief cause of the symptoms. We find our attention being attracted to the interesting question of their generation, their various forms, and their specific characters; and we feel disposed to examine the early researches of Ehrenberg, and the later attempts of Hallier, Cohn, Lister, Billroth, and others, to reduce them into some order of classification. Such a study is, however, the work of a lifetime. As pathologists, considering the important connection between the presence of bacteria, without special regard to their species, we desire to know why an embolus of pus or fibrin may excite slight, if any, pathological changes, unless it contains micrococci, or gives rise to them by decomposition; and then we find ourselves engaged in the difficult problem of the earliest changes produced in the process of inflammation.

We begin to perceive that we are crossing the line that separates the practical from the scientific, if such a line can be said to exist; for I venture to express the opinion that you will agree with me in thinking true practical knowledge is the result of scientific conception, and that all knowledge which is not practical in no way deserves the title of scientific. I have had at command, in the preparation of these lectures, numerous works of reference, as well as opportunity of testing the truth of the theory under discussion. The difficulty has been to judge of the merits of those works rather than to analyse their contents. To sift them thoroughly, and to do them justice, and this, too, with patience and good feeling, I need hardly assure you, was a task which might have occupied a very long period of investigation.

# ON THE ACTIONS OF PICROTOXINE, AND THE ANTAGONISM BETWEEN PICROTOXINE AND CHLORAL HYDRATE.

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(*Continued from page* 411.)

In reviewing these experiments, which have been briefly described, the first reflection that occurs is, that picrotoxine is an energetic poison, and that the symptoms which it produces, at least at one stage of its action, in many respects resemble those of epilepsy. It causes sudden excessive and paroxysmal discharges of nerve-centres, in which movements are co-ordinated. It induces spasms, which at first involve one group of muscles, and ultimately affect nearly all the muscles of the body, with biting of the tongue, foaming at the mouth, and loss of consciousness. It induces changes in the pulse, respiration, and temperature, similar to those which accompany epilepsy; and, when there is a cessation of the spasms, it entails some degree of paralysis or loss of muscular power analogous to epileptic hemiplegia. It leaves *post mortem* appearances in the nervous centres, which at once recall those which are seen after death in the *convulsions* of epilepsy. But, if some of the effects of picrotoxine recall the phenomena of epilepsy, there are others which recall those of tetanus. The continuous, although remittent, discharges, the drawing back of the head, and the arching of the body, are all essentially tetanic in character.

But surely these similarities in the effects of picrotoxine-poisoning to the symptoms of disease ought to enable us to ascertain upon which nerve-centres the poison of picrotoxine more particularly expends itself. It may be that it finally affects the whole nervous system, but it is obvious that it does not do so in the first instances, but invariably makes its earliest attacks upon certain definite points, and pursues its encroachments by certain definite routes. First of all, when the poison begins to enter the blood, there is a slight degree of stupidity, lethargy, or drowsiness, corresponding with the preliminary coma observed by Dr. Roeber in frogs, connected obviously with some alteration or defect in consciousness, and therefore traceable to the cerebrum. Secondly, there is some restlessness, with unsteadiness in gait or slight impairment of power in the hind limbs, which may be ascribed to the sense of uneasiness which accompanies a state of high tension of cerebral centres, or to vertigo, or a slight nervous discharge, and to enfeeblement of the spinal cord, due to the commencing action of the poison upon it. Thirdly, there are the distinct convulsive paroxysms, which afford the true clue to the course of action which the poison pursues, and point unmistakably to one part of the hemispheres as the centre upon which it first operates. For I can perceive no justification for the theory of Roeber, that these clonic spasms are attributable to stimulation of the medulla oblongata. It is beside the question to argue that they are so because they may be produced after all the centres above the medulla oblongata have been removed. We now know that the impressions and movements which are represented in a lower centre are re-represented in a higher one, and that the co-ordinations of the pons Varolii and medulla oblongata are more highly reco-ordinated in the cerebrum. Because the thumb and index-finger may be moved by galvanic stimulation of the median nerve, we do not argue that the movements of these parts are not ordinarily originated and controlled by volition; and so because clonic spasms may occur in rabbits by irritation of the medulla oblongata after all parts above that centre have been cut off from it, we cannot argue that such clonic spasms may not proceed from the cerebrum when it remains intact. True it is that, the lower we descend in the scale of animal life, the more have the pons and medulla to do with movement; the more do they in that direction supplant the cerebrum. But, in the case of rabbits, we have sure proof that clonic spasms, exactly like those brought on by picrotoxine, may be induced by stimulation of the cerebrum itself. Ferrier's experiments have put this beyond doubt, and have shown that convulsive seizures indistinguishable from those caused at first by picrotoxine may be caused by electric stimulation of the hemispheres; but not only so, but his experiments have afforded us a rational explanation of the march or order of advance of the motor symptoms in picrotoxine-poisoning, by connecting them with certain regions of the hemispheres. The discharge upon which these motor symptoms depend gradually increases in strength, and, as it does so in accordance with a well known law, it spreads more extensively. At first, only a few muscles, those of the head, are affected by spasm; ultimately nearly all the muscles of the body are so affected. The discharge travels laterally and longitudinally, and, in its former mode of propagation, the influence of an arterial region is, I think, plainly discernible. The spasmodic movements which are earliest noticed—twitchings of the ears and shakings of the head, dependent on the muscles of the neck—may be traced by the light of Ferrier's discoveries to a region in the lower part of the frontal lobes of the cerebrum, close to the main trunk of the middle cerebral artery, which there gives off many important branches, and affords a rich blood-supply to the corpus striatum. The spasmodic movements which are next developed in order of time—those of the eyebrows, eyelids, mouth, and fore-paws—may be localised in an area surrounding the region to which the former movements were traced, and corresponding with the distribution of the middle cerebral artery; while the movements which are still later in appearing—those of the hind legs and tail—may be referred to a more remote point close to the median fissure, and corresponding with the outermost ramifications of the same artery. It seems that a particular point may be fixed upon, in the frontal lobe, and close to the middle cerebral artery, in which the discharge originates, and from which the condition causing the discharge spreads forwards, upwards, and backwards over the hemispheres.

But, of course, violent discharges like those caused by picrotoxine have another and longitudinal mode of propagation. They would explode the centres which lie below them, even if these were themselves unsusceptible to the action of the poison; but the probability is, that these centres are themselves stimulated by the poison circulating in the blood, although more tardily than the cerebrum. At any rate, the corpora quadrigemina cerebellum, pons Varolii, and medulla oblongata are speedily drawn into the vortex of morbid perturbation. The occurrence of opisthotonos probably marks the time when the corpora quadrigemina begin to participate in the *émeute*. When nystagmus commences, the cerebellum is implicated; and, when a sudden exacerbation in the convulsive movements takes place, it may be inferred that the pons and medulla are also engaged in the terrific discharges which ensue.

The modifications of consciousness which are associated with the action of picrotoxine are instructive as to its mode of attack. After the early lethargy or drowsiness which has been already alluded to, there is a stage of liveliness, and it is in this stage that the first or partial fits arise. In these partial fits, affecting a few muscles, and due to discharge of but a small cerebral area, consciousness is not interrupted. The animal may be seen making efforts to oppose or counterbalance the clonic spasms, and the instant they are over it is as lively as ever. But, as the fits become more general and severe, owing to a more serious discharge of a larger cerebral mass, stupor sets in, and this advances into coma or loss of consciousness, which certainly betokens that the highest nerve-centre, the cerebrum itself, has been exhausted or destroyed by the poison. That the spinal cord does not share in that instability of nerve-tissue which is set up by picrotoxine, and is manifested by excessive discharge of energy, is, I think, shown by the fact that, throughout the whole action of the poison, there is no hyperæsthesia, but a decided blunting of sensibility in those parts from which afferent impressions have to be conducted through the cord. Pinching, pricking, or irritating the feet or tail, which in strychnia-poisoning would certainly induce spasms in animals under the influence of picrotoxine, occasion no disturbance. As will be seen hereafter, where picrotoxine is given with chloral, the hyperæsthesia which the latter induces is materially diminished. It is remarkable, however, and very significant of the mode of action of picrotoxine, that, while sensory impressions do not bring on a recurrence of the spasms, voluntary movements which imply a condition of cerebral activity, inevitably do so. When an animal that is under the influence of picrotoxine, and has suffered attacks of clonic spasms, attempts, during an interval of quiescence, to walk about, another attack is immediately inaugurated; and, when an animal actually suffering from slight clonic spasms, without loss of consciousness, makes any spontaneous movements, the spasms are at once exaggerated. There are besides, perhaps, certain areas or epileptigenous zones, the sensory impressions or muscular sensations from which have the power of starting clonic spasms. In a guinea-pig that had gone through three fits, convulsions could not be reinduced by loud noises, by blowing upon the face, nor by pinching of the paws, but were at once brought on by squeezing between the finger and thumb the skin and muscles of the cheek.

If further corroboration of the view, that picrotoxine acts upon the cerebrum, were wanted, it might be found in the fact, that the convulsions which it evokes are so severe and so long-sustained. Such an immense volume of movement implies the evolution of an enormous quantity of molecular force in the nerve-centre in which it originates, which must, therefore, be a nerve-centre of a highly elaborate structure, richly endowed with grey matter or explosive material. But there is no nerve-centre except the cerebrum which adequately conforms to this condition, and it may legitimately be inferred, therefore, that it is the cerebrum that has to do with the production of the voluminous convulsions in question.

The mode in which picrotoxine acts upon the cerebrum can only be a subject of speculation. The alteration in function which it occasions is evidently, in the first instance, in the nature of excess. A state of instability of nerve-tissue is set up, an undue proportion of force is stored up and expended. This is, in all probability, due to some change in the composition of the vesicular matter. One of its ingredients may be replaced by some chemical congener, the result being a more explosive compound; or its nutrition may be abnormally hastened, owing to intense hyperæmia. Whatever the nature of the alteration in the vesicular matter, occasioning its excessive explosiveness, may be, there seems no room to doubt that picrotoxine has a special elective affinity for the vesicular neurine of the cerebrum. But, beyond this, it is not necessary to suppose that the elective affinities of that agent are stronger for the nerve-cells and fibrils of one district of the cerebrum than for those of another. The succession of the symptoms arising out of irritation of the cerebrum may be accounted for without resorting to any such assumption. The picrotoxine, when injected under the skin, is taken up gradually, and will then be carried indiscriminately throughout the body. At first, only a small quantity, in a combined or uncombined state, will reach the cerebrum, and of that small quantity a large proportion will be conveyed by the main artery of the brain, the middle cerebral. The proportion thus conveyed will be seized upon by the most proximate parts, which have strong elective affinities for the picrotoxine, and which draw their blood freely from the expansions of the middle cerebral; and only when, with the progress of absorption, the proportion of picrotoxine in the blood is increased, will other circles of cerebral matter obtain a supply of the poison. Then a certain time must always elapse between the application of any discharge-producing agent to vesicular matter, and the consequent discharge. When the surface of the hemispheres in rabbits is stimulated by electricity, twenty seconds frequently intervene between the withdrawal of the electrodes and the initiation of the resultant fit. And the length of time that elapses between stimulation of nerve-matter and discharge is always in the inverse ratio of the functional activity of the part stimulated. If the functional activity be high, the time is short; if it be low, the time is long. Now, the most functional active parts of the cerebrum are those in which the most voluntary movements are localised, and therefore, in the rabbit, the most functionally active part must be that in which the movements of the ears and mouth are localised; but that part is in immediate proximity to the middle cerebral artery, and is indeed that which would first receive the poison; so that that part will inevitably begin to discharge itself earlier than any other centre, both because it had priority in the reception of the poison and because it is, by virtue of its superior functional activity, more quickly susceptible to its influence. Next to that part, these centres lying immediately around it, and controlling the second most highly differentiated group of movements, those of the eyelids, shoulders, and fore-paws, would succumb to the action of the poison, which would reach them a little later than the mouth and ear-centres, and would require a little longer time to bring them to high tension and discharge. Beyond these centres, another group more remote and less highly differentiated would be a stage later in being brought into play. Upon all centres the poison would act with a celerity and energy proportioned to the amount of cineritious substance which they contain; for the cineritious substance is far more vascular than the medullary, and is more naked and exposed, being shielded by no isolating sheaths, and is hence first acted on by any agent in the blood which is capable of changing the molecular state of nerve-matter.

The secondary action of picrotoxine upon the cerebrum after the stage of molecular disturbance and excitement is over, places it in a state of disability and paralysis. There are defect of consciousness or more or less coma, and loss of power over the muscles. Function is in abeyance. If the dose of the poison have been very large and uncounteracted, the nerve-tissue may be destroyed; the nerve-vesicles may have been irreparably damaged; the nerve-fibrils made impermeable; or a clot may have pressed upon or broken up the brain-substance. But, when only smaller doses have been received, the nerve-tissue is not permanently injured; it has only been exhausted by the strong discharge, and, after a period of repose, it resumes its functions. The exhaustion, however, or rather its manifestation, may be much enhanced by the encephalic congestion, which invariably results from picrotoxine poisoning.

In the action of picrotoxine upon the pupils in rabbits, there is nothing very distinctive. Until convulsions set in, the pupils retain their average dimensions; then, however, they commonly become somewhat dilated, contracting again during the period of clonic spasm. The state of the fundus of the eye during picrotoxine-poisoning was investigated in 1872, by my former colleague Dr. Aldridge, and was found to consist in hyperæmia.

One very constant effect of picrotoxine is to stimulate the peristaltic action of the alimentary canal. Under its influence, the bowels are almost always evacuated in the freest manner, and sometimes repeatedly, the motion being generally moist and pulpy. This change in the character of the motions, I am inclined to attribute to defective absorption, owing to the increased haste with which its contents are passed down the intestine, rather than to any augmentation in the intestinal secretions. For, although picrotoxine has been described as a gastro-intestinal irritant, I have never been able, when it is administered hypodermically, to find any reddening of the mucous membrane of the stomach or bowels, or to perceive any indications of an irritative action upon those parts. I have never seen it cause vomiting when given hypodermically, and I cannot help thinking that some observers, when watching its effects, have mistaken emprosthotonos for retching. The bladder is generally emptied more than once during the action of picrotoxine, and the flow of urine is sometimes apparently increased in amount. The flow of saliva is always greatly augmented, and the salivary glands are obviously subjected to stimulation, which is not ascribable to the violent action of the muscles in their vicinity, as the increased secretion often precedes the involvement of these muscles in the convulsive action. The modifications of respiration and cardiac action, induced by picrotoxine, can only be stated in general terms, as, during violent convulsions it is impossible to count pulsation or respiratory movements without the use of restraint, which would vitiate the results. It is certain, however, that the movements of the thorax and heart are at first greatly accelerated by picrotoxine, and continue to be very rapid until the spasms set in, when the respiratory movements are often irregular, and the heart's impulses are exceedingly feeble. When coma supervenes, the respirations become slower, and the cardiac contractions weaker and more unfrequent. After death, the lungs are not engorged nor even congested, but the right side of the heart is always distended with blood, and the left side is only partly contracted and contains blood also.

The action of picrotoxine upon the temperature of the body is very uniform and constant. Immediately after its administration, there is a slight rise, attributable to the agitation attending the exhibition of the drug, and subsequently there is a steady fall, amounting sometimes to as much as seven or eight degrees of Fahrenheit's scale, but usually more moderate, and not at all comparable with the fall which is caused by many other agents. In some instances, trifling fluctuations in temperature occur, a slight rise attending each fit, and a heavy fall marking each interparoxysmal period. As a rule, however, the fall is a steady one, and becomes slower in proportion as it recedes from the normal standard. No close relation exists between the dose of picrotoxine and the reduction of temperature, as that is sometimes as great after a small and non-fatal, as after a large and fatal, dose.

The observations made on the actions of picrotoxine may be summed up in the following conclusions.

1. It is an energetic poison, and acts chiefly upon the encephalic centres.
2. It causes first, sudden excessive and paroxysmal discharges of certain gradually widening areas of the cerebrum; secondly, continuous but remittent discharges of the corpora quadrigemina, cerebellum, pons Varolii and medulla oblongata; and, thirdly, exhaustion of all the centres discharged, coma, and death.
3. It diminishes the activity of the reflex centres, and general sensibility, by paralysing the posterior columns of the cord and the peripheral sensory nerve.
4. It first quickens, and finally retards, the movements of respiration, and the cardiac contractions.
5. It produces a decided lowering of the temperature of the body.
6. It increases the secretion of the salivary glands, and the peristaltic movements of the intestines.
7. It causes great venous congestion of the encephalon, and occasionally extravasations of blood upon its surface.

*(To be continued.)*

## ON ARTERIO-CAPILLARY FIBROSIS.[*]

### By RINGROSE ATKINS, M.A., M.D.,

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DURING the short time I hope to occupy your attention this evening, I purpose considering the subject of Arterio-Capillary Fibrosis, as it occurred to me that a brief examination of this—if I may use the term for the time being—popular subject, illustrated with such specimens which I, from the limited sources at my command, could bring forward, might not prove uninteresting to those who, from the various engagements of active professional work, may not have leisure to inquire into the subject for themselves, withdrawn as it is from the beaten path of medical literature.

The first notice of this novel doctrine regarding the changes in the vascular system which are found to accompany chronic Bright's disease appeared in a paper by Sir William Gull and Dr. Sutton, read before the Royal Medical and Chirurgical Society, and published in the fifty-fifth volume of the *Transactions* of that Society. In this paper, the authors allege that the renal lesion in chronic Bright's disease, with contracted kidney, is only a part and parcel of a general morbid change throughout the vascular system, characterised by the deposit of a finely fibrous or granular material, to which they have given the name of hyalin fibroid, outside the muscular layer of the small arterioles and capillaries, and in some cases by a thickening of the inner coat also, accompanied generally by hypertrophy of the heart, and in many cases by a "fibrosis" of other organs of the body also. As the renal lesion is, from the effects it produces, be they primary or secondary, the most important element in the affection, I think it may be interesting, in the first place, to briefly examine the morbid histology of that organ when affected with the disease under consideration. In order to facilitate this, we may conveniently consider the morbid changes under three heads, as occurring—1. In the tubes; 2. In the intertubular tissue; 3. In the vessels. The changes occurring in the tubes are of two kinds; namely, those taking place (1) in the epithelium, and (2) in the basement-membrane. The changes in the epithelium are essentially of a degenerative nature; in the earliest stages of the disease, the cells appear to be shrivelling up, becoming granular, and losing their regularity of outline; and, as the morbid process progresses, they become transformed into masses of granules, filling up the tubes, and being cast out in the urine in the form of the well known "granular casts", leaving the tubes bare and desquamated. These different degrees of degeneration are well seen in this drawing taken from the specimen under No. 1 microscope (Fig. 1), which also exemplifies the other changes taking place in the organ, and which was taken from a typical case of this disease. The basement-membrane is found to be thickened and rendered coarsely fibrous, the desquamated tubes appearing as rings of various shapes and sizes in transverse section. Passing now to the intertubular tissue, we find it to be enormously increased in many parts of the organ, surrounding and separating the tubules, and rendering their outline irregular and distorted, appearing in some parts granular, like ground glass, and in others coarsely fibrous and wavy. This substance also exists in great density around the Malpighian bodies, and attains its maximum about the arterioles, to which we next come. The walls of these, which are of primary importance regarding the present subject, are found much thickened, the lumen often contracted, and their course tortuous and twisted. This specimen shows a transverse section of one of these vessels, its walls thickened and surrounded with the fibroid material above mentioned, which is also seen between the tubules in the drawing of the transverse section of the kidney.

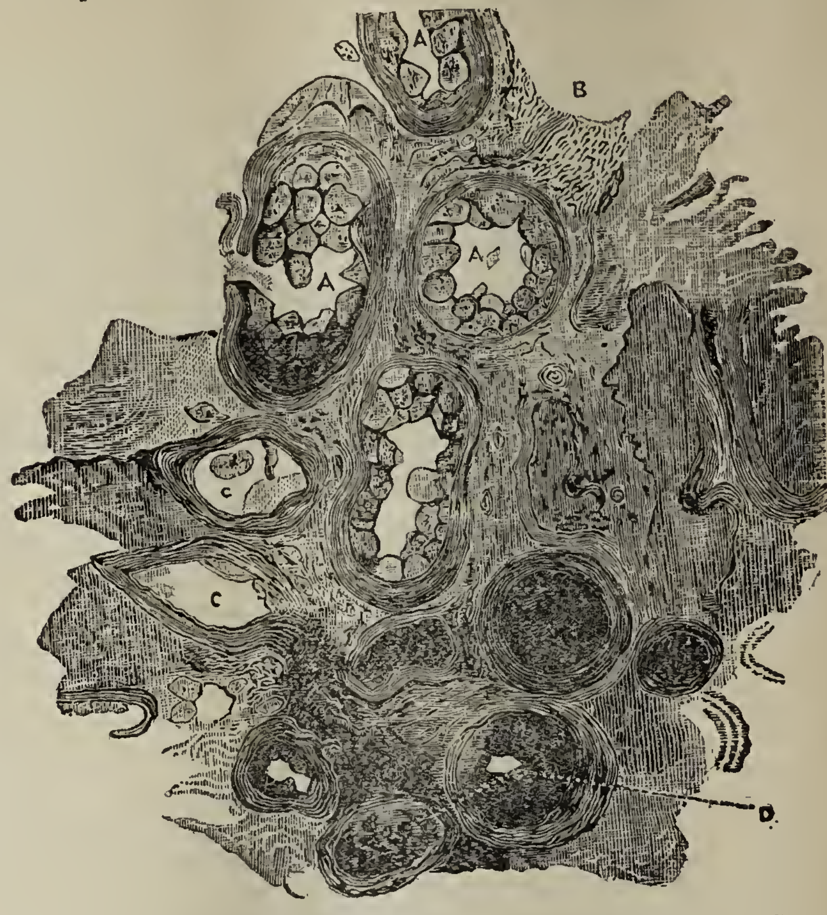

Fig. 1.—Transverse Section of Kidney. (Granular contracted) — in Glycerine — × 400.

A. Renal Tubules filled with "degenerated epithelium". B. Fibroid material surrounding Tubules. C. Renal Tubules (desquamated). D. Renal Tubules filled with granular *débris*.

Having thus glanced at the anatomical condition of the kidney, I will next, leaving until the sequel the pathological explanation of these phenomena, proceed to consider the changes occurring in the arterioles throughout the system generally, first detailing the observations of Sir William Gull and Dr. Sutton, and then examining, on experimental and pathological grounds, the correctness and tenability of their views. Sir William Gull and Dr. Sutton, at the commencement of the observations from which they finally evolved their theory of the so-called arterio-capillary fibrosis, considering the pia mater as the most suitable, both from its transparency and facility for microscopical examination, chose that membrane for the subject of their researches. Portions of the membrane taken from the bodies of those who had been the subjects of chronic Bright's disease, with contracted kidney, having first been tinted with carmine and mounted in glycerine and camphor-water, were then examined with powers ranging up to 750 diameters, and the following appearances were observed. In the larger vessels, where the three coats are distinct, the inner one was found in some cases to be thickened to a marked degree, and to have a fine fibrous or molecular appearance. The muscular coat was also found variously altered, the nuclei not absorbing carmine as readily as in healthy vessels. In some of the vessels, this coat was found to be relatively increased, while in others it was decreased, the nuclei being irregular in shape, and often reduced to globular bodies, like fat-granules; and nowhere, it is stated, can the evidences of muscular hypertrophy described by Dr. Geo. Johnson be found. Outside the muscular coat, and immediately in contact with it, was a more or less "hyalin" formation, closely resembling the finely fibrous structure found in the kidney. This formation outside the muscular coat varied according to the size of the vessel examined, being in the larger arterioles more fibrous-looking, while in the smaller ones and in the capillaries the granular or hyalin appearance predominated. In this hyalin fibroid substance, ill-defined nuclei or corpuscles are found irregularly disposed, and wanting the regular arrangement of normal elements.

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[*] Read before the South of Ireland Branch.

The following is a summary of these microscopical observations.

1. In chronic Bright's disease, with contracted kidneys, the arterioles throughout the body are variously altered.
2. This change is due to hyalin fibroid formation in the walls of the minute arteries, and a hyalin granular change in the corresponding capillaries.
3. This change occurs chiefly outside the muscular layer, but also in the tunica intima of some arterioles.
4. The degree in which the affected vessels are altered, and the extent to which the morbid change is diffused over the vascular system, varies much in different cases.
5. The muscular layer of the affected vessels is atrophied in a variable degree.

In order to examine how far this morbid change existed alone, the pia maters of a number of persons who had died of various diseases were examined, and in some the same appearances were observed, while in others no change had occurred; further, the hyalin fibroid change was not found in the bodies of those who were killed accidentally, or who had died of phthisis, and other diseases not allied to the cachexia of the so-called chronic Bright's disease, with contracted kidneys.

Having thus detailed the conclusions arrived at by Gull and Sutton, based for the most part on microscopical investigation, I will next proceed to examine on the same ground the correctness of these views. In an able paper written in answer to that of Gull and Sutton, Dr. George Johnson alleges that the hyalin fibroid material above described is entirely artificial, and produced by the distension of the outer elastic coat of the artery by the glycerine and camphor-water in which all the specimens were mounted previous to being examined. With the view of testing this for myself, I instituted the following series of experiments and observations. Having procured specimens of pia mater from subjects who had not died of chronic Bright's disease, I examined several portions in the fresh state, immediately on removal from the body, without any tinting, and immersed merely in water. I found the walls of the arterioles to be of normal thickness, and not affected with any hyaloid change. I then placed the same specimens, one portion in glycerine alone, another portion in glycerine and camphor-water, and a third portion in the last mentioned fluid acidified with acetic acid. I had also other specimens tinted with carmine mounted in the same fluids. After remaining for some time thus prepared, I again examined them, with the following results. Of the portions placed in pure glycerine, the first examined showed no change; the walls were not visibly affected, either as to structure or size. This preparation is here delineated, magnified 400 diameters, and you will be able to examine it for yourselves under the microscope by and bye. The next preparation, also in pure glycerine, which had been taken from a different subject, and also tinted with carmine, showed, on examination, very different appearances; the muscular nuclei were, if anything, more distinct than when examined in water, and outside, and in direct contact with this layer, was a fine hyalin formation, very slightly wavy, hardly at all coloured by the carmine fluid, extremely transparent, and evidently due to the distending action of the glycerine on the outer elastic coat of the vessel. The appearance presented almost exactly corresponded with the description and drawings given by Gull and Sutton, only being of less extent; the specimens which had not been stained gave precisely the same results. This preparation, which you can also examine, is figured in this drawing, magnified 300 diameters, which is quite a sufficient degree of enlargement. No drawing, however, can accurately pourtray the delicately fine appearance presented by the preparation itself.

Having thus proved that glycerine alone is able, though perhaps not in every case, to give rise to the hyalin formation, I next proceeded to the examination of the specimens mounted in equal parts of glycerine and camphor-water; in all, both tinted and natural, the hyalin appearance was present, and to a greater extent than in the last series, the marked points of difference being in the greater thickness of the distended outer coat, and in the diminished distinctness of the muscular nuclei, which appeared as if fewer in number and more separated. In neither series was there any appearance of distension or thickening of the tunica intima. This drawing, taken from a preparation mounted in this way, shows these appearances, the apparent thickening of the outer coat, and the indistinctness of the muscular layer. Having thus disposed of these two series, I then proceeded to the third; namely, those put up in glycerine and camphor-water acidified with acetic acid, and here the appearances in question had attained their maximum. The entire thickness of the wall of the vessel, especially the smaller ones, appeared greatly increased, and almost perfectly transparent and hyalin; the muscular nuclei were also rendered clear, and appeared as outlines of various forms scattered through the thickened walls of the vessels. In the larger arterioles, the transverse markings were rendered sharper, more distinct, and highly refractive. I have in this drawing (Fig. 2) shown the changes produced by these reagents, the figure representing a rather large arteriole, in which the transverse markings are abnormally distinct. These appearances are certainly due to the ready absorption of, and consequent distension by, the glycerine and camphor-water, added to which is the clarifying action of the acetic acid on the muscular elements present. As a confirmative proof of this, I neutralised the acid with ammonia, and, on a second attempt, succeeded in producing a shrinking and contraction of the distended elastic coat.

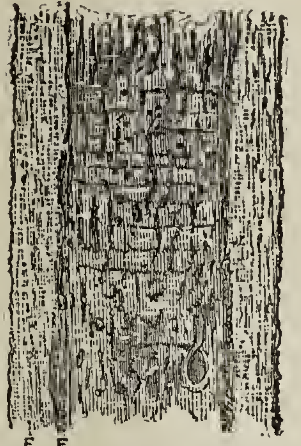
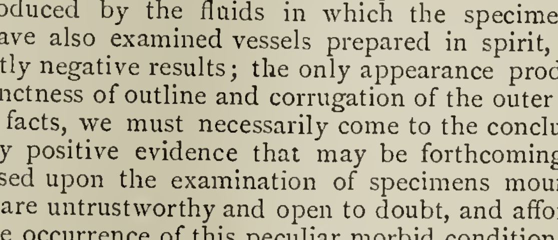


Fig. 2.—Arteriole of Pia Mater (in Glycerine and Camphor Water) × 400.
E. "Hyalin Fibroid": formation artificial. F. Muscular Layer—very indistinct.

The drawing I now hold in my hand faithfully represents the appearances produced in the natural unstained membrane by the action of the acidified glycerine and camphor-water solution, and its neutralisation by ammonia. On this side are the vessels in their normal state, examined in water immediately after being removed from the body; and on the opposite side are the same vessels acted upon by the reagents, showing to my mind in the clearest manner that, whether the so-called "hyalin-fibroid" formation exists as a true morbid product or not, it can be artificially produced by the fluids in which the specimens are immersed. I have also examined vessels prepared in spirit, but, I may say, with mostly negative results; the only appearance produced being a greater distinctness of outline and corrugation of the outer coat.

From these facts, we must necessarily come to the conclusion, apart even from any positive evidence that may be forthcoming, that any deductions based upon the examination of specimens mounted in any of these ways are untrustworthy and open to doubt, and afford negative evidence of the occurrence of this peculiar morbid condition.

Turning now to the examination of the vessels in cases of chronic Bright's disease with contracted kidney, we have here some instructive examples. This drawing (Fig. 3), taken from a transverse section of an arteriole of the skin from a subject with granular kidneys, shows first the muscular coat greatly thickened and deeply stained. Outside this is a



Arteriole of Skin (outer coat distended, muscular layer hypertrophied) in Glycerine × 100.
H. Outer Coat. I. Muscular Layer.

fibroid and somewhat transparent membrane, less deeply coloured, and equal in thickness to the layer within it. This preparation being mounted in glycerine for some time, I naturally infer from the experience gained by the above experiments that this external membrane is nothing more than the distended elastic outer coat of the vessel. That the inner thickened portion can be nothing else than the muscular layer hypertrophied, is evident both from its anatomical *locus* immediately within the elastic outer coat, which is here rendered so evident, and also from the radiating appearance peculiar to the muscular coat, which is present in some parts. In order to ascertain correctly the actual degree of hypertrophy present, I made comparative micrometric measurements, and found that the muscular wall of the diseased vessel was almost twice as thick as that of a healthy cutaneous arteriole of the same size and character.

Now, returning to the arterioles of the kidney, we find the same results to obtain even to a greater extent than in the skin; the canal of the vessel being very much reduced in calibre, owing to encroachment on it by the hypertrophied walls. The outer coat is not here seen, owing to its almost entire absence from the walls of the vessels of this organ.

We thus see that a true morbid thickening of the walls of the vessels does exist in this disease; and its presence may be demonstrated, along with the hyalin formation produced by the action of the glycerine mounting fluid. Whether a real thickening of the outer coat or morbid deposit in it does exist in chronic Bright's disease with contracted kidney, in company with the muscular hypertrophy, is still to my mind *sub judice;* and it is only by endeavouring to examine carefully specimens of vessels taken from persons who had laboured under the disease in question, in fluids which will not act as above on the tissues under observation, that we can ever hope to arrive at the truth.

Leaving now the experimental side of the question, let us turn and examine briefly the pathological grounds for a belief or disbelief in the occurrence of "arterio-capillary fibrosis" as a morbid state *per se.* When speaking of the morbid histology of contracted kidney, I deferred the pathological explanation of the appearances there described to a later period; and I will now proceed, with your permission, to shortly discuss this, upon which the whole question, looked upon from a pathological point of view, hinges.

Upon this point, there are at present three rival theories, each maintained by men of equal repute, and on arguments which appear in each case almost convincing. Gull and Sutton, and their followers in this controversy, hold that the renal affection is only part and parcel of this general morbid change which they allege to have discovered, and explain its almost constant occurrence in the kidney by stating that it commonly commences there, but not necessarily so, as it may begin primarily in other organs. Dr. Dickinson and his party, while agreeing with Gull and Sutton as to the occurrence of this fibrous material in the organ, differ from them in maintaining that the change is here primary, and due to an "intertubular deposit"—being, in fact, a true cirrhosis of the kidney. In opposition to these views, Dr. George Johnson and a large number of pathologists deny that the appearances, which they both similarly describe, are due to this intertubular deposit, be it primary or secondary; and assert that the changes produced are the result of a wasting and shrinking of the tubules from primary intratubular changes. From the facts which I have already adduced, the theory of Gull and Sutton cannot be at present accepted, as, if their views of a primary arterio-capillary fibrosis are fallacious, it naturally follows that a diseased condition which is part and parcel of that change cannot be maintained. With regard to the relative merits of the other theories, many cogent arguments are brought forward on either side; but, as I fear I have already overstepped my time, I cannot now discuss these as I should wish. Suffice it to say that the theory of a primary intratubular change appears to have the greatest weight of evidence.

Turning once more to the arterial changes, let us shortly examine, on pathological grounds, the correctness of the theory of a primary arterio-capillary fibrosis. As I have already shown, it is on experimental grounds untrustworthy; so also on pathological ones it is fallacious and doubtful. Supposing even that the appearances present in the pia mater examined were morbid, and not probably artificial, does it not appear that such results, as betokening a general morbid condition, are unreliable in the extreme, as the pia mater, from its peculiar office of affording a nidus or matrix for the support of the enormous number of vessels ramifying upon it, must often be the seat of local changes occurring in these vessels, the result of chronic congestions, such as may occur in emphysema, heart and brain disease, and notably in that form of renal lesion in question; such diseases being present in many of the cases examined by Gull and Sutton, and placed amongst the list on which they ground their doctrine? As an illustration of this, I have here a drawing of a vessel of the pia mater from a subject who had been for many years insane, and whose brain showed the appearances of former congestions. Again, in certain cases, where thickened arterioles were coexistent with hypertrophy of the heart without any affection of the kidneys, brought forward by Gull and Sutton as proof of the independent existence of this morbid change apart from renal disease, the cardiac hypertrophy was due to other and extraneous causes, such as degenerative changes in the larger arteries and chronic disease of the lungs. And, finally, the authors in one part, having stated that atrophy of the surrounding tissues is an accompaniment of the hyalin fibroid condition, yet describe cardiac hypertrophy as one of its most prominent conditions. From these and other facts, it is evident we must look further for some better theory to explain the undoubted thickening which occurs in many cases of chronic Bright's disease in its advanced stages; and this, I think, will be found in that of "muscular hypertrophy", an example of which, and the histological appearances present, I have already described. And it now remains to offer the pathological explanations which have been given by its original discoverer, Dr. Johnson, and others who have followed him. His explanation is as follows. "In proportion to the destruction of the renal gland-cells, and the consequent diminution of the secretory power of the kidney, there is less demand for blood to be acted upon by the gland; the small arteries, by virtue of their muscular coats, consequently contract upon their contents, so as to maintain the balance between the blood-supply and the diminished secretory action of the kidney. This continued over-action of the small arteries in antagonism to the heart results in hypertrophy of their muscular walls: as it is now well known that the minute arteries through the body have the physiological power, by the contraction of their muscular coats, of diminishing and retarding the blood-stream, and adapting to the different organs the amount of blood required by them at different periods, the heart itself finally, by its resistance to this retarding force, becoming in turn hypertrophied." If this explanation be correct, it follows that the renal condition in this disease is primary, the arterial secondary, and the hypertrophy of the heart tertiary. Traube and Ludwig, while agreeing in the main with Johnson in this explanation of the muscular hypertrophy, differ from him in considering that, besides a true hypertrophy, there also occurs a degeneration of the coats. This he explains by the fact that the heart and minute arteries, acting against each other, lead to a distension of the elastic vessels between them, and so to atheroma. I may add that Bamberger and others dispute this explanation of Johnson, asserting that the hypertrophy developes in a stage of the disease when no obstruction of any importance to the circulation of the kidney exists. A more extensive collation of facts will be necessary to decide this disputed point; but at any rate, whatever be the explanation, there can be no doubt of the existence of hypertrophic thickening of the minute vessels throughout the body, but whether accompanied by other changes has not, in my opinion, yet been determined.

In conclusion, I have to thank you for the kind attention with which you have listened to this, what, I fear, to some must have appeared a long and tedious paper. The nature of the subject, however, from the various and opposite views brought to bear on it, must be my apology. It is in itself a subject of narrow limit—in fact, a microscopic atom of our science, which requires a high power, as it were, for the unravelling of its mysteries; and it is only by patient investigation and laborious study that a true understanding of its complex nature and intricate working can ever be arrived at; and it is with an earnest hope that, as opportunities for such study present themselves, they may not be lost sight of, but carefully examined and worked out, that I have brought the subject before you.

## NATIVE OIL OF MALE FERN.

Having failed lately in several cases in expelling the whole of the tænia solium by the ordinary foreign oil of male fern, I was induced by Messrs. Wyley and Co. of Coventry to give their native oil a trial. I have used it now in seven cases, in six of which it has proved entirely satisfactory; the seventh case being that of a young child, in which it was not retained many minutes. I administer it in the following manner. Two days previously, I give a brisk aperient, and order a strictly fluid diet. On the evening of the second day, I direct about two ounces of new milk to be brought in a wide mouthed bottle, to which I add for an adult male two drachms and a half of oil of male fern, agitating the oil and milk, which readily mix, and direct the dose to be taken early in the morning fasting, and to be followed by a dose of castor-oil in three hours. In all six cases, the worm has been expelled whole in from four to six hours. Three of the cases had been treated in the same manner previously by the foreign oil, kamala, and other anthelmintics, but with no more effect than to bring away a few feet *minus* the head.

Herbert C. P. Masser.

## OBSTETRIC MEMORANDA.

### AFFECTION OF THE RIGHT ARM COMING ON DURING PREGNANCY.

THE following brief notes of a nerve-affection dependent on pregnancy may be interesting to the readers of our JOURNAL, as I believe it is in some respects unique. Mrs. C., on May 22nd, was confined with her third child. The labour was natural, save that what appeared the ordinary bag of membranes presented unbroken at the external outlet. This, however, came away perfectly free, and was evidently the product of a false conception. The child was afterwards born with the usual head presentation. She then stated that when she was about four months advanced in pregnancy, she awoke one night with a severe pain in the back of the right hand, and front of fore-arm and arm as far as the shoulder; the limb was not tender to the touch. At the same time there was great swelling of the veins along the painful track, which disappeared, as the pain disappeared, and was succeeded by numbness in the parts affected. This pain came on at intervals during three months, being most severe at night. It was always accompanied by a swelling of the veins, and always left a numbness behind, with stiffness of the fingers on closing the hand. It then suddenly and entirely disappeared, but the numbness remained constant up to the date of confinement. Since then, the numbness gradually disappeared. In all other respects her health was good throughout her pregnancy, and she had no pain or swelling of either lower limb. She had never previously had a similar attack. The sudden onset, and equally sudden disappearance, of the pain, its severity and spasmodic character, the accompanying venous congestion, and the subsequent numbness, all point to a neuralgic origin; and, looking to the connection between the roots of the phrenic and brachial flexus on the one hand, and the communication that exists between the great abdominal ganglia of the sympathetic and the spinal system of nerves on the other, there is no difficulty in accounting for all the symptoms by the theory of uterine pressure and irritation. But the interest of the case clinically lies in the fact, that the affection was entirely limited to one of the upper limbs, the general health remaining good in all other respects.

JOHN CROSS, M.B.Camb., 2, Spital Square.

## SURGICAL MEMORANDA.

### SPINA BIFIDA.

IN the BRITISH MEDICAL JOURNAL of March 20th, Dr. Morton, referring to Mr. J. E. Burton's case of spina bifida, reported in the JOURNAL of the 13th March, says: "It belongs to a class of cases all but absolutely hopeless, in which the lower limbs and lower part of the trunk of the body are paralysed, and the infants usually die in a few days. Instances of longer survival are rare indeed, and I am not aware that there are any on record in which the paralysis was so very extensive as in Mr. Burton's case." I have at the present time under my care a case precisely similar to the one described by Mr. Burton, and the child is now eleven weeks old. It was born on December 7th, 1874, and was a healthy looking and well made female child, down to the seat of the cleft in the spine. Over the two upper lumbar vertebræ was a fluctuating tumour about six inches in circumference, having a well marked pedicle. The tumour had two small superficial ulcerations, from which a thin ichorous discharge exuded, the remainder of its surface was covered by a somewhat dense opaque looking integument. There was talipes varus of both feet, the plantar surfaces being accurately opposed to one another, and quite flat and smooth, as if they had been kept in perfect apposition during the period of gestation. Both legs were flexed upon the abdomen, and had an arched appearance with the concavity towards the abdomen. There was no appearance of the natural fold of the buttocks or of the popliteal space. The whole length of the legs from the tuberosities of the ischia to the heels of the feet presented a smooth unbroken convex surface. There was paralysis of the sphincter ani. This state of things continues. I did not consider the case at all fitted for operative interference, and in this view my partner Mr. Marsack concurred. At the present time, the tumour and the lower limbs are much in the condition I have here described. There has been no increase in the size of the tumour, rather a diminution. The child for the first month appeared to thrive; since then, it has gradually wasted, until now it is quite a skeleton. There have been no convulsions, but it has suffered severely from eczema of the head, face, and trunk. The surface of the tumour has continued to give forth a thin and sometimes offensive discharge. This case appears to be in all respects similar to Mr. Burton's, except that my patient has no rotation outwards of the legs. I could not see any object in attempting to cure the spina bifida, as there appeared to be no prospect of relieving the distorted and paralysed lower limbs; and I felt, as did also the parents, that the sooner the poor little deformed creature quitted this world the better. Probably the injection of iodine, as in Mr. Burton's case, would have expedited matters, but possibly it might have prolonged the child's life, which was not an issue to be desired.

FREDERICK MANSER, Tunbridge Wells.

# REPORTS
OF
# MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

## ALL SAINTS INSTITUTION, GOWER STREET.

### CASES OF OVARIOTOMY.

(Under the care of Dr. GRAILY HEWITT.)

IN the BRITISH MEDICAL JOURNAL for June 28th, 1873, page 729, were reported cases of ovarian disease treated by Dr. Graily Hewitt at the All Saints' Institution up to that date, including seven cases in which ovariotomy was performed. The following is an account of the operations of ovariotomy Dr. Graily Hewitt has performed in this institution from the above date to the end of 1874. The new cases are seven in number.

CASE VIII. *Enormous Multilocular Cystic Tumour of Ovary: Previous Tappings: Ovariotomy: Death* (Reported by Mr. J. R. CROCKER).—The patient, M. A. G., aged 53, had been under the care of Dr. Mercer Adam of Boston. She had had ten children. The abdomen began to enlarge two years ago. A tumour was found to be present nearly a year ago. A first tapping was performed in March 1873, and four pints of a thickish fluid were removed. A second tapping was made in June 1873, when about double this amount was removed. On admission on August 6th, 1873, the abdomen was very large, measuring fifty-one inches in circumference, filled by a tumour, which gave well marked fluctuation in all directions. There was œdema of both feet; locomotion was almost impossible. The urine contained no albumen. She had emaciated lately.

Ovariotomy was performed on August 9th, 1873, in presence of Professor Lazarewitch, Dr. Slavjanski, Dr. Mercer Adam, and others; Mr. Manning and Mr. J. R. Crocker assisting. Ether was given by Mr. Rigden. The tumour was found to be composed of one very large cyst and about a dozen smaller ones, with many others still smaller. The contents of the cyst varied in character; one part of the tumour was semi-solid, and of the alveolar character. Anteriorly, the cyst-wall was very thin, and almost universally, though slightly, adherent; and above, it was covered for some distance by omentum. The adhesions were for the most part easily broken down, but some of them were separated by the actual cautery. The first incision was short; but it was necessary to carry it above the umbilicus to reach the adhesions. The secondary cysts were broken down by the hand, and the tumour finally turned out. A small cyst obscured the pedicle, and surrounded it. The pedicle was very short, and was torn a little in obtaining access to it. The first ligature consequently slipped a little, and bleeding occurred; but it was shortly secured by tying low down in two portions. A portion of the omentum was removed by the actual cautery; but bleeding vessels in it had still to be secured by ligature. The peritoneal cavity was cleaned out as effectually as possible by sponges. The operation, though tedious, was borne well. For the next five days, the patient did pretty well, the temperature being generally under 101 deg., and the pulse 98 to 100, and she had begun to take food by the mouth. The wound appeared to be healed, except at one point, where a little pus exuded. The deep sutures were removed on the sixth day. On the following day, the temperature rose to 103 deg., the pulse 140; and there was restlessness, also pain above the right groin. A vaginal examination was made, but no indication of the presence of collection of fluid in Douglas's pouch was found to exist. The unfavourable symptoms persisted, and death took place on August 18th, nine days after the operation.

The *post mortem* examination showed that the wound was almost completely united, except just below internally. At this point, there was peritonitis extending to the right iliac fossa, along a coil of intestine which was partly adherent to the wall. The inflammation extended to Douglas's pouch, in which was about an ounce and a half of thick puriform fluid with flakes of lymph. The ligature on the pedicle on the left side was not encysted; the parts near it were not unhealthy. The general peritoneum was softer and more opaque than natural, and the other organs fairly healthy. Probably it would have been better in this case to have allowed the deep sutures to remain longer. And the case was one in which, as matters turned out, the drainage of Douglas's pouch at the time of the operation, on Dr. Marion Sims's plan, would have been attended with advantage.

CASE IX. *Ovarian Cystic Tumour, chiefly composed of one Cyst: Ovariotomy: Recovery* (Reported by Mr. W. MURRELL).—The patient, E. R., aged 34, was single. She had been a patient of Mr. E. E. Sass. The abdomen had been enlarged for two years. On admission, October 14th, 1873, there was found to be a rounded elastic fluctuating tumour, extending two inches above the umbilicus, on the surface of which were some nodules, one of which was half the size of a pigeon's egg. The vaginal examination showed the uterus to be retroverted, and the abdominal tumour was felt in front of it. The general condition of the patient was feeble. The diagnosis was apparently clear. The patient was suitably prepared for the operation by rest and feeding.

On December 14th, 1873, ovariotomy was performed in presence of Dr. Ensor, Dr. M. Jones, and others; Mr. Rigden giving chloroform, and Dr. John Williams, Mr. Murrell, and Mr. Barlow assisting. A short incision (three inches and a half) only was required. The cyst was found free from adhesions anteriorly, but the omentum was firmly adherent behind. The tumour was composed of one large cyst, with dirty cream-coloured fluid, and a few small secondary cysts; the latter were felt before the operation, anteriorly. The adhesions to the omentum bled freely on being torn through, and four small ligatures were required to check the hæmorrhage. The pedicle, rather broad, was transfixed, tied in two divisions, and secured externally, its length admitting of this method of treatment, to Dr. Graily Hewitt's gutta-percha frame-clamp. The ends of the omental ligatures were also brought to the edge of the wound. Two silk sutures were applied deeply, others superficially. The patient fainted twice during the operation. The progress of the case after operation was satisfactory. The temperature on the third day once reached 101 deg.; afterwards, it was normal, until the seventh day, when slight bronchitis occurred, and it rose to 101.4 deg., and on the eighth day to 102.2 deg. Subsequently, it became normal. The clamp came away on the thirteenth day. The deep sutures were removed on the ninth day. Recovery was complete.

CASE X. *Multilocular Cystic Tumour of Ovary: Preliminary Operation of Tapping: Ovariotomy a Fortnight later: Recovery* (Reported by Mr. MARKHAM SKERRITT).—S. H., aged 54, had had two miscarriages, but no living child. She had general good health till last year. For about twelve months past, she had been weaker and thinner, and the abdomen had increased in size. Latterly, there had been prolapus of the uterus, and œdema of both legs. She had been under the care of Dr. John Williams. On May 21st, 1874, her condition was as follows. She was emaciated; there was considerable œdema of legs. She had an ulcer above the outer malleolus of the left leg, and varicose condition of the veins of the legs. The abdomen was greatly distended; it measured thirty-nine inches in circumference. Fluctuation was very evident; the flanks were clear on percussion; the resistance of the tumour was great, apparently from extreme tension; at the lower part of the abdomen, there was a more solid feel. The uterus was prolapsed. The patient was unable to lie down; sleep was difficult. It was considered advisable to perform tapping as a preliminary. This was done on June 6th, 1874, and fifteen pints of a greenish yellow fluid were removed, viscid in consistence, and puriform towards the last. It was neutral, of specific gravity 1025, almost solid on boiling; it contained a multitude of small rounded nucleated cells, with a few oval large cells with single nucleus, like epithelial cells; also *débris*. After the removal of the fluid, a solid mass could be felt below. The tapping gave great relief.

On June 20th, 1874, ovariotomy was performed in the presence of Dr. Snegnireff of Moscow, Dr. Miller and Dr. Reeve of the United States, Dr. Mogk and Dr. Baum of Holland, and others. Dr. John Williams assisted, also Mr. Markham Skerritt and Mr. Gould. Mr. Meredith gave chloroform. The abdomen had rapidly filled again since the tapping. An incision five inches and a half long was made. The tumour was found to be almost universally adherent by slight adhesions. There were about six ounces of fluid in the peritoneal cavity. The tumour was found to be made up of several principal cysts, each nearly of the size of a fist, and many smaller. The cyst which had been tapped had only refilled a little. The tumour now removed was about the size of an adult head, and it completely and tightly filled the pelvis. It was necessary to incise it and break it up, in order to remove it. The pedicle was on the left side, very short and very vascular. It was tied firmly, and dropped. The lower edge of the wound was purposely left open, and a piece of lint inserted. On completion of the operation, the pulse was weak, otherwise her condition was good.

Her progress was very satisfactory. The temperature never exceeded 99.2 deg., until the fifteenth day, when it rose once to 100 deg., in consequence apparently of excitement on seeing her husband for the first time. There was a little tendency to retching for the first two days. A slight escape of sanious fluid from the wound took place a few hours after the operation. She had a little diarrhœa on the eighth day. The deep sutures were all removed by the twelfth day. The wound was a little slow in healing. On July 19th, she was discharged, cured.

# SELECTIONS FROM JOURNALS.

## SURGERY.

CHLOROFORM NARCOSIS RESUSCITATED BY NÉLATON'S METHOD.—The following case is recorded by Dr. M. H. Jordan of Birmingham, Alabama. Miss —, aged 18, stout, of full habit, and seeming to be in perfect health, applied to Dr. Eubank, a dentist of that place, to extract a tooth. Chloroform, after some solicitation, was given by means of a napkin made cone-shaped and held over the mouth and nose. After four or five inhalations, some spasmodic movements of the face being observed, the napkin was removed, and the patient directed to open her mouth, which she did, when the tooth was extracted without pain. No indications of a return of consciousness were observed, and the pulse became excessively small and feeble, and, along with the breathing, soon ceased to be perceptible. The patient was quickly placed prone on a bed, and Dr. I. W. Sears and Dr. Jordan were sent for. Dr. Sears, finding the jaws tightly closed, forcibly opened them with the handle of a spoon, and pulled the tongue, which had fallen back upon the fauces, well forward. The young lady was apparently dead; there was complete relaxation of the entire muscular system; the lips, face, and hands were livid; breathing and pulsation had ceased. Having in mind the experience of Dr. Marion Sims in a case described before the British Medical Association, the medical men immediately inverted the patient's body, the head hanging down, while the feet were raised high in the air by Dr. Eubank, both legs resting over his right shoulder; Dr. Nabors supported the thorax; Dr. Sears kept the jaws open and managed the tongue; while Dr. Jordan made efforts at artificial respiration by alternately pressing on the thorax and abdomen. After waiting for about five minutes for some indications of returning vitality, they observed one feeble attempt at respiration, followed after a long and painful interval by another; the attempts gradually became fuller and more frequent, accompanied by a return of the pulse, until they concluded that it was safe to place her back in bed. As soon, however, as she was put in the horizontal position, the breathing again ceased and the pulse disappeared. She was again placed as before, and efforts at artificial respiration were briskly kept up. After a prolonged interval, a feeble spasmodic gasp was heard, and was followed after another protracted interval by a second, then a third, etc., until the breathing finally became natural and the pulse returned. The lady was laid on the bed a second time, but soon there followed a spasmodic twitching of the muscles over the entire body, with a decided inclination to fall into a heavy sleep. It being difficult to keep her awake by mild means, stimulating applications were made along the entire spine, and her feet were put into almost scalding water, which roused her sufficiently to make further treatment unnecessary. At the end of four hours, she was able to drive to her home.

## THERAPEUTICS.

ACTION OF IODIDE OF POTASSIUM IN THE HUMAN ORGANISM.—Professor Binz of Bonn believes that iodide of potassium undergoes the following changes when taken internally. In a healthy stomach, a part is changed by the hydrochloric acid into hydriodic acid $(KI + HCl = KCl + HI)$; another portion is acted on by the chloride of sodium, so that iodide of sodium is formed; and, if the dose be large enough, a part remains unaltered. All the three combinations quickly pass into the circulation. The hydriodic acid here meets with soda, and forms iodide of sodium; but the alkaline combinations of iodine are again acted on in the tissue by carbonic and other acids, and iodine is set free. This free iodide has the property of combining with certain albuminous bodies; and in this, Binz believes, lies the explanation of the therapeutic action of the preparations of iodine.

## BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1875.

SUBSCRIPTIONS to the Association for 1875 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, APRIL 3RD, 1875.

## THE PUBLIC HEALTH BILL, 1875.

THE new Public Health Bill consists of 11 parts, 54 subdivisions, and 333 clauses, besides schedules.

Part I is preliminary; it gives the title and limits the operation of the Act, while it divides it into parts and defines the various terms employed.

Part II is devoted to "Authorities for Execution of Act". It gives the constitution of districts and authorities, and repeals the provisions of the Public Health Act of 1872. Here the second schedule to the Bill is to be interposed, consisting of sixty sections, regulating the election of Local Boards, who are incorporated, as also Improvement Commissioners, by the seventh section. It would, however, appear that the 46th section of the sanitary Act is to be repealed, and that rural sanitary authorities are no longer to be a corporation. Why, it is difficult to understand; as in many important particulars they have all the powers and obligations attaching to an urban authority, with the same necessity for a common seal and power to hold lands. The date of election is fixed for April 15th in each year, except where a local board for a district is elected for the first time, and then the first election is to be held on the day specified in the order constituting the district. An urban authority is to be the local authority for exercising the powers of the Bakehouse Regulation Act, the Artisans' and Labourers' Dwellings Act, the Baths and Wash-houses Act, and the Labouring Classes Lodging-Houses Acts. A rural authority is only burdened with the first of these Acts. If this Bill were simply to consolidate, without altering, the present laws, there would be nothing to say; but, as it professes and actually attempts to amend, we repeat our protest against the continuance of unsuitable bodies to carry out the law, *e.g.*, boards of guardians, and against unnecessary distinctions between the powers and duties of the two classes of authorities, which distinctions, we hold, should be entirely abolished.

Part III deals with sanitary provisions; and its first subdivision relates to sewerage and drainage. Here we find a great improvement, vesting the management of all existing and future sewers in the local authority, thus making a change for which we have long called. When we first read the Bill, we were misled by the head-note, which says, "Sewers vested in Urban Authority"; but, by the section, urban and sanitary authorities are treated equally.

By the 16th section, which is a reprint of the 45th section of the Public Health Act of 1848, powers are conferred for making sewers. No notice is taken of the difficulty pointed out by Mr. Baron Bramwell, in the case of Cator *v.* Lewisham Board of Works (34 L. J., Q. B. 82), of the omission of power to cross lands. The words are repeated, giving power to carry sewers "into, through, or under any lands"; the word "across" should be added, as in the case of a street. By Clause 22, power is given to owners and occupiers to communicate their drains with sewers. Is this intended to give power to manufactories or unwholesome trade premises to drain into sewers? Is it an obligation on a sewer-authority to provide sewers and drains adequate to take all refuse from malt-houses, etc.? These most important subjects are left undetermined by the Bill. The next subdivision, disposal of sewage, leaves the law unchanged, and will disappoint many local authorities, who expect that, in some unexplained way, all difficulties as to the disposal of sewage are to be removed by Government. It is clear that no absolute provision can be made which shall be applicable in all cases; and each individual district must continue as heretofore to determine for itself the mode best suited to its own wants and position, whether chemical deposition, irrigation of land, or intermittent downward filtration. But, as to sewage-works without the district, there is grave cause for complaint that the provisions of the Local Government Act of 1861 are again to be re-enacted. By the 5th section of that Act, it is required that, in all cases, before commencing any work for sewage purposes without their district, three months' notice shall be given by a local authority; and all persons who think themselves in any way affected are to be at liberty to object to, and may stop, the works. This is, in every case, unqualified, and has led to great difficulties in the past, which are to be continued in the future. A local board may obtain a provisional order, and this may be confirmed by Parliament; yet, after going through this long, costly, and anxious process, another inquiry is to be held, which may be prolonged for months; and, after all this, a power is lodged in the Local Government Board to disallow the work. Surely the one crying necessary for obtaining a provisional order ought to be adequate to protect all interests supposed to be injuriously affected; and, as no money can be borrowed for permanent works without inquiry by the Local Government Board, this inquiry ought to be sufficient for all purposes. As the law now stands, instead of helping on a local board in its endeavour to promote sanitary improvement, every possible difficulty is thrown in its way. A rural district is made up of several parishes, and often of many drainage areas; a rural sanitary authority determines to drain one of these, and for that purpose must make an outfall in another drainage-area of the same rural district. To this, the inhabitants of the proposed area to be used for outfall are fixedly opposed. Is the parish thus to be invaded without or within the district? This, only one of the many difficulties arising from the heterogeneous constitution of rural districts, is left undetermined by the Bill. The 34th section is on the subject of privies and water-closets. It is not to be lawful to erect a new house without sufficient privy-accommodation, or to rebuild any house pulled down to or below the ground-floor. Here is a perpetuation of an absurdity. Ought not every house to be provided with a sufficient privy, earth-closet, or water-closet? The next section (both being copied from the 51st section of the Public Health Act of 1848) provides accordingly. Why is it necessary that there should be the written application of any person to a local authority before the surveyor can examine into a nuisance? Surely, if he discover it himself, it ought to be sufficient without the intervention of any other person. Would it not also be well to make the local board the persons to determine whether it is a case of emergency? The section is left in this respect as indeterminate as the 54th section of the Public Health Act of 1848. To revert to the 20th section, why does not the Bill, instead of leaving the matter permissive, require every authority to keep a map of the system of sewerage existing in its district, to be kept up to the date of the works as they are erected, and also a plan to be sent to the local authority whenever any alteration is made in the drains of any premises? In case of outbreak of disease in a district, these plans would be invaluable, in order to discover and trace out its cause and transmission. Scavenging and cleansing streets and houses is provided for by Clauses 41 to 45; and cleansing offensive ditches and collections of matter by Clauses 46 to 49, which leave the law unchanged.

The next division, that of water-supply, is a very important one, and materially changes the position of sanitary authorities in this respect. Up to the present time, a sanitary authority had no power to construct water-works or to enter into competition with an existing water-works company in a district, so long as such company was able and willing to supply water; and a water-works company was defined as any corporation, person, or company of persons supplying, or who may hereafter supply, water for their own profit. This definition of a water company is continued in the present Bill; but, except as will be hereafter mentioned, the existence of such companies is ignored in the 51st section unless incorporated by Act of Parliament or provisional order; but by the 58th section any water company may sell their undertaking to a local authority. The working of these sections will, therefore, be to place all water companies without parliamentary authority or provisional order, and established under deed of settlement or under the Joint Stock Companies Acts, entirely at the mercy of the local authorities within whose districts they supply water. They have no power to take up roads to lay their pipes; may at any time be indicted for a nuisance on opening pavements to lay service-pipes; and now public funds may be used in competition with their private enterprise, unless, under duress, they choose to sell their undertaking to the local authority "on such terms as may be agreed on".

Another and the most important matter is the incorporation of the Water-works Clauses Acts. Up to this time, while the duty was cast on the local authority to supply water, only as to 2d. per week was there any provision as to recoupment to the local authority, except when a water-works company is established within the district, when the charges of the water company could be enforced by the local authority. Now, by the Bill, all powers which would attach to a trading community are to be exercised by the local authority supplying water; and power is also given to any authority to supply water to an adjoining authority; but Section 56 is not sufficiently clear as to the mode to be adopted, and does not define the limits within which a local authority can claim to enforce such supply. There is one serious omission; the 57th section reverts to the old 2d. per week, and further provides that, if more is to be charged for supply to any house, then the Local Government Board is to determine, "under all the circumstances of the case", what is to be charged. Are we right in supposing that the meaning of this clause is—That the Local Government Board in London are to determine the "reasonable" charge for water to every house supplied by a local authority? If this be not the meaning, we fail to see any other. Why not at once enact that the local authority may charge not exceeding £5 per cent. *per annum* on the estimated rental, or such other sum as the local authority may determine. The 62nd, 63rd, and 64th sections refer to protection of water; the first re-enacts clauses in the Nuisances Removal Act, 1855, and the Public Health Act, 1848, as to fouling water by gas-manufactories, with one important alteration, that the penalties may be sued for by the local authority in default of proceedings by the person whose water is fouled. The provision of the Sewage Utilisation Act of 1865 for protecting water within the district of a local authority is proposed to be re-enacted. But we have now sufficient knowledge to embody in a clause the admirable provisions laid down by Dr. Letheby for the guidance of the Thames Commissioners. Such a clause limiting the pollution in water-courses, whether caused by the sewage treated by local authorities or manufacturers, would be the first step towards cleansing our rivers, would be an admirable guide, and would render uncertainty impossible, save most costly litigation, and do away with the necessity for the threatened measure for preventing pollution of rivers. As the matter now stands, all is left in hopeless confusion. It is true, it is said in words that pollution from sewage is to be prevented; but no standard of purity is adopted, and, as already pointed out, no means are indicated by which trade nuisances can be prevented. We must commence sanitary improvement, directed against manufacturers, by a comparatively humble protest if we wish to succeed; and any arbitrary ideal standard of purity is sure to be unsuccessful in practice.

The regulation of cellar-dwellings and lodging-houses occupies twenty sections—re-enactments of previous statutes. A cellar is deemed to be occupied as a dwelling if any person pass the night therein; this should be "habitually" pass the night. The local authority may compel a supply of water to a common lodging-house, where such a supply can be furnished at a "reasonable rate". What is a reasonable rate? and who is to determine its amount? The provisions of the Public Health Act, 1874, are continued to every sanitary authority, with the sanction of the Local Government Board, empowering the authority to make bye-laws in its district for regulating lodging-houses other than common lodging-houses.

Nuisances are dealt with in sections 85 to 104, and power is given, in section 102, to a local authority, to proceed in another district, if necessary, to remedy a nuisance arising in that district, but manifesting itself in the district of the local authority. The proceedings are to be taken in the district in which the nuisance arises. This is a great improvement on the existing state of the law, and has long been urgently called for. The definition of nuisances is not enlarged to cover such cases as that of the Great Western Railway Company and Bishop (41 L. J. M. C. 120) where rain-water dropping through a bridge, causing annoyance to passengers, was held not to be a nuisance within the present definition. In the next subdivision, relating to offensive trades, power is given to a local authority, as in the case of nuisances, to proceed when effluvia are given off in an adjoining district, but felt or occasioning injury within their own district. Are these enactments sufficient to protect against vapour given off in various trades and processes, not strictly effluvia, yet highly injurious, because destructive to vegetation, *e.g.*, from alkali, copper, and other works? The sections which deal with unsound meat, fish, milk, etc., represent the present state of the law as amended by the Public Health Act, 1874.

Infectious Diseases and Hospitals is the title of the next division, which extends over fourteen sections. They provide for disinfecting premises either at the cost of owners or of occupiers, or of the local authority; and provision is made, as in the various sanitary Acts, for means of disinfection, etc. A new clause provides for the recovery of costs of maintenance in hospital of patients who are not paupers. The next ten sections relate to prevention of epidemic diseases and provision of mortuaries, and at present call for no remark.

Part IV commences Local Government provisions, and deals first with highways and streets. As heretofore, rural authorities are not given any control over these, the whole of the enactments being confined to urban authorities. The power to make bye-laws with respect to buildings, etc., is still confined to buildings to be erected, and not already existing; and the only change is that bye-laws may be made with respect to the structure of buildings "for purposes of health", whatever that may mean. For the first time, lighting with gas is made a sanitary purpose; and all gas companies not incorporated by Act of Parliament, or authorised to supply gas under a provisional order under the Gas and Water Facilities Act, 1870, may be opposed by a local authority competing with a private undertaking by the use of funds raised by taxation. In fact, except for purposes of purchase, the existence of all gas companies established by deed or under the Joint Stock Companies' Act, is ignored; and further power is given to a local authority to obtain a provisional order from the Local Government Board, which is to be substituted for the Board of Trade, enabling them to establish gas works and supply gas. Moreover, the Watering and Lighting Act of William IV, where adopted, is to be superseded by this Act within the district of every urban authority.

Public pleasure-grounds, markets, and slaughter-houses, and the provision of a public hall and clock, are the subjects of sections 157 to 164 inclusive, while the clauses 165 and 166 incorporate certain clauses of the Town Police Clause Acts, 1847, with respect to obstructions and nuisances in the streets, fires, places of public resort, hackney carriages, bathing, horses, etc. These in the original act comprise clauses 21 to 69 inclusive, and form a study in themselves.

Part V deals with General Provisions: 1. Contracts; 2. Purchase of Lands by agreement or compulsion under the Lands Clauses Consolidation Acts, to be put in force by provisional order; 3. Arbitration; 4. Regulations as to Bye-laws; 5. Officers and Conduct of Business of Local Authorities. All officers may be appointed at the will of the local authority, and are to be removable at their pleasure. There is no restriction as to the length of the appointment; but there is a gracious power accorded by the 184th section to the medical officer of health, to exercise any of the powers with which an inspector of nuisances is proposed to be invested by the Bill.

Part VI relates to Rating and Borrowing Powers and Audit of Accounts. The rates remain still in the complicated condition in which they were left by the Act of 1872, where exemptions are granted to the extent of three-fourths of the amount of a rate in the case of a district rate; but where a borough rate is levied for the same purposes, no exemption whatever is provided. This will continue to be a fertile source of complaint, especially with railway companies, who strive in every private Bill to extend the area of this exemption, and who not unjustly complain that mere accident rather than principle determines whether the exemption shall apply.

Legal proceedings are dealt with under Part VII, which contains provisions as to prosecution of offences, and recovery of penalties. By the 245th section, all proceedings for penalties must be taken within three months from the time when the matter of the complaint or information arose. Regulations as to notices and appeals finish this part of the Bill.

Part VIII deals with Alteration of Areas and Union of Districts. Under Clause 267, regulations are made for continuing the powers of a superseded authority until the day of the first meeting of the new local board, and power is also given to the Local Government Board by order to provide for the settlement of any differences between districts, etc. Section 278 confers power on the Local Government Board to unite districts for the purpose of appointing one medical officer of health for the united district, and allows them to regulate his appointment and dismissal, and also to arrange the remuneration to be paid to such officer. But this power is limited in boroughs having a separate Court of Quarter Sessions; and, where any authority objects to be included in the united district, the order is to be of no force until confirmed by Parliament. There is also a very important power lodged in the Local Government Board—that of assigning to the medical officers of unions in any constituent district duties which they are to perform in rendering local assistance to the medical officers of health. For these services, the district medical officers are to be paid "such additional remuneration as the local authority may, with the approval of the Local Government Board, determine". The last portion of this part of the Bill refers to port sanitary authorities.

The powers of the Local Government Board are fixed by Part IX, running over Sections 285 to 296. The famous forty-ninth section is strengthened by giving the Board power to apply for a writ of *mandamus*, as in the Public Health Act of last session. We wait with some curiosity to see whether this patched-up section, hitherto so useless and inoperative, will now be of any avail against apathetic and defaulting local authorities.

Part X is made up of miscellaneous and temporary provisions. It enacts, *inter alia*, that when a local Board or improvement district becomes constituted or included in a borough, then all the powers, etc., vested in such bodies, shall be, after the first meeting of the council of such borough, transferred to and exercised by the council of such borough; and it also confers power on a local board to change its name.

The eleventh and last part of the Act consists of saving clauses and repeal of various Acts; and this, with the various schedules laying down rules as to meetings and proceedings, rules for election of local boards, proceedings in case of lapse of local boards, and rules as to resolutions of owners and ratepayers, with various forms and repeal of statutes, complete this important measure.

It is but right to say that a more careful perusal of the details of the Bill has considerably modified our opinions as to its value; and, however open it may be to criticism, it appears to us much more skilfully drawn and more complete than we were at first disposed to believe.

DR. HITZIG of Berlin has been appointed Professor of Psychiatry, and Director of the Lunatic Asylum at Burghölzli near Zürich.

WE are glad to learn that Mr. Husband is going on favourably, but will have to give up work for a time, in order to prevent any after ill effect of the injury.

DR. H. DOBELL has been appointed Consulting Physician to the Hospital for Diseases of the Chest, City Road, after sixteen years' service as Physician.

MR. SPENCER WELLS has been unanimously elected an Honorary Fellow of the University of Charkoff. We are indebted to Professor Lazarewitch for this information.

BY the will of Mr. James Young, late of Bournemouth, the testator leaves, amongst other legacies, the sum of £100 to John Stenhouse, M.D., F.R.S., to show his appreciation of his services to the country by the great discovery of charcoal as an air-filterer.

DR. WM. ARTHUR BRAILEY, M.A.Cantab., Curator, etc., to the Royal London Ophthalmic Hospital, and Fellow of Downing College, Cambridge, has been appointed Lecturer on Comparative Anatomy at St. George's Hospital Medical School.

IT is reported that the Prussian Government has been petitioned to legalise cremation, but has refused, professing itself constitutionally incompetent to grant the permission. A special law passed by the Legislature would be requisite to effect the object.

IT is reported that the Italian Government, following the course it has already adopted on previous occasions, will gratuitously distribute this year five thousand plants of the *Eucalyptus globulus*, for cultivation in the Agro Romano, especially in the spot infected by malaria. The plants will be allotted to all who apply for them, and who give assurances that they are to be used for the purpose stipulated.

### THE WATER-SUPPLY OF LONDON.

A BILL bearing the names of Colonel Beresford, Sir Charles Russell, Mr. Forsyth, and Mr. Ritchie, has for its object the "making more effectual provision for a constant supply of water, and for the protection of life and property against fire in the metropolis". It proposes to transfer the several undertakings of the eight companies now supplying water to the metropolis to a public commission to be constituted by an Order in Council, and entitled the Metropolitan Water Commission, and which shall have power to combine, as far as physical conditions admit, the sources of supply and works of the several companies; to dispose of works, lands, and property becoming superfluous in consequence of such combination; to continue any supply given by a company at the time of the transfer, and to extend from time to time their supply within the parishes supplied; to put the works into a condition for maintenance of constant supply at high pressure; to provide and place hydrants and apparatus for high-pressure supply in case of fire, and for other purposes; and to provide and fix apparatus for cleansing and watering streets, and for other sanitary purposes. The Commission is to have borrowing powers; and the Public Works Commissioners are to be empowered to lend money to the Commission on the security of their income. The shareholders of the existing companies are to receive perpetual annuities in consideration for the transfer of their shares.

### BIRMINGHAM MEDICAL INSTITUTE.

AT the first annual meeting of the members, the whole question of the admission of homœopathic practitioners was reopened and fully discussed. Mr. Alfred Baker, Mr. Clarkson, and Dr. Heslop supported the affirmative; Mr. Pemberton led the opposition. The result was a vote of sixty-four in favour of their admission, to thirty-five against it.

### PUERPERAL FEVER.

THE trial of Elizabeth Marsden for manslaughter, in having conveyed the contagion of puerperal fever to a patient whom she was attending, and who afterwards died in consequence, took place on March 20th, at Manchester. She was found guilty, and sentenced to six months' imprisonment. In this case, the accused had not the plea of ignorance to urge in extenuation of her criminal negligence, as she had been repeatedly warned by a surgeon on the danger she was incurring to others. As three deaths from puerperal fever were traced to the ministration of this nurse, few people will be disposed to think that the sentence has been in excess of the offence.

### TESTIMONIAL TO DR. A. P. STEWART.

It is with much pleasure that we publish in another column a report of a meeting of the Executive Committee of the Stewart Testimonial Fund on Wednesday last. It must be most gratifying to Dr. Stewart, as it is to us, that the mere mention of a proposed recognition of his labours in the interests of our great brotherhood has called forth a most hearty response from the members of the profession, and also from some who, though not members of our calling, have availed themselves of this opportunity of showing their esteem for an honest worker for the common good. It will not surprise those of our readers who know Dr. Stewart, to learn that he will consent to accept for himself only a small memento of the good-will of his brethren out of the amount which has been subscribed. With the greater part of the Testimonial Fund, he desires to found a grant "to encourage researches into the origin, spread, and prevention of epidemic disease, or such cognate subjects as the Committee of Council of the British Medical Association may from time to time, after due deliberation, determine". The idea of such an encouragement to good work does honour to the originator. The subject is happily selected. [It is worthy of note, that Dr. Stewart's scheme is not to reward competitive essays on prescribed subjects, but it is expressly provided that the grant shall be given for "important work done with a view to the continuance of like researches by the same person; and, when the Committee of Council shall think fit, to assist investigations by exceptionally qualified persons of questions likely to lead to important results".] Our knowledge does not at present carry us beyond the threshold of the important questions connected with the causation and prevention of epidemic diseases; and it is not unfitting that Dr. Stewart's name should be attached to a grant to encourage studies in which he himself has worked with success. To him we owe the important addition to our knowledge, that typhus and typhoid fevers are distinct diseases. His paper read before the Paris Medical Society in 1840 proved this, and may be said to have inaugurated a new era in the study of fever in this country. In conclusion, we call attention to the announcement that the list of subscriptions will be closed on April 30th. Any who are desirous of adding their names to the testimonial to Dr. Stewart are requested to communicate, on or before that date, with the Treasurer, Dr. F. Sibson, 59, Brook Street; or the Honorary Secretaries, Dr. J. Ford Anderson, 28, Buckland Crescent, Belsize Park, N.W., and Mr. W. Fairlie Clarke, 12, Mansfield Street, Cavendish Square, W.

### LIVERPOOL HOSPITAL SUNDAY.

At Liverpool, the Hospital Sunday and the Hospital Saturday are happily under one management. The collections were made this year on January 10th, and January 16th, respectively. At the Sunday collection £7,475 16*s.* 11*d.* was obtained; while at the Saturday collection the amount raised was £2,148 19*s.* 0½*d.* The sum of £9,300 was distributed among the different hospitals and dispensaries.

### VACCINATION PROSECUTION.

The *Salisbury and Winchester Journal* contains the report of the conviction of Mr. Adam Wilkinson, medical officer and public vaccinator of the Shaftesbury Union, for not having his child, born March 12, 1874, vaccinated within the time specified by the Act of Parliament. The vaccination officer swore that he had served several notices, and called at the house. The child is a year old. The defendant was fined ten shillings, and ordered to have the child vaccinated within one month.

### THE CENTENARY OF VACCINATION.

Dr. Burggraeve, Emeritus Professor in the University of Ghent, and principal surgeon of the civil hospital of that city, has prepared, in commemoration of the first centenary of the invention of vaccination, a work entitled *Histoire Générale de la Vaccine; ou, Monument à Edward Jenner, à l'occasion du premier centenaire de son invention.* The work will shortly be published in Paris by subscription: it is under the patronage of the King of the Belgians, the Emperors of Russia and Austria, the Kings of Sweden, Holland and Italy, and the Emperor of Brazil. The price of the work to subscribers is twenty-five shillings. The subscription list will be closed on May 30th, after which the price will be thirty-five shillings.

### A NEW ARTICLE OF DIET.

A report has been made by the Acting Political Superintendent at Akalkoit to the Government of Bombay, stating that there exists in those parts a weed called "mulmunda", the seed of which is used for food by the poorer classes in times of scarcity. The seed is ground into flour, of which bread is made. The bread is said to be sweet in taste, and, although not quite so satisfying as could be desired, does very well to keep body and soul together at a pinch. It is also given to camels for forage. The result of an examination of the plant, which is of a leguminous description, by the Acting Chemical Analyser to the Government, shows that the seeds contain nearly as much nitrogenous substances as some of the chief varieties of Indian peas and beans; and hence the nutritive value of the seed should be taken as equivalent to any of the other leguminous grains. The weed is said to grow all over the Deccan and Southern Mahratta country.

### DRUNKENNESS IN GERMANY.

Dr. Shattuck of Boston writes from Vienna:—Two cases which I saw in Fräntzel's service were so interesting to me, that I cannot forbear giving them a few words. A comatose man was brought into the hospital one Sunday afternoon by the police, who had found him in a freight car on a siding of one of the railways. His temperature was taken both in the axilla and in the rectum, at least two thermometers being used, and found to be 24.4 deg. C. (76 deg. Fahr.) Twelve hours later, it had come up to 33 deg. C. (91 deg. Fahr.); and not very long afterwards the man came to his senses, and said that Saturday afternoon he was on a spree, and was *conscious* of having drank *three champagne bottles full of brandy.* He must then have wandered about till he laid himself down in the empty freight-car in which he was found twenty-four hours later. He recovered entirely. The other case was similar. A man was discovered by the police in one of the public gardens, unconscious. His temperature on entrance was 24.2 deg. C. (75.5 deg. Fahr.); and twelve hours later, when I saw him, he was still unconscious, with a temperature of 26.2 deg. C. (79.2 deg. Fahr.) The reaction being so slight, a bad prognosis was made for him; but I left Berlin too soon to hear the result. That he also had had a large dose of alcohol, is highly probable; but the fact could not be definitely ascertained. Fräntzel says that schnapps-drinking increases every year among the lower classes, and that every day-labourer who enters the hospital can be set down as a *potator* without hesitation.

### THE DEVONSHIRE HOSPITAL, BUXTON.

We have received a copy of the Report of the Devonshire Hospital and Buxton Bath Charity for 1874, and there are some features about it which call for notice. The title-page tells us that it was instituted for the relief of poor persons from all parts of Great Britain and Ireland suffering from—and then follows a list of about twenty ailments, concluding with "dyspeptic complaints, uterine obstructions, etc." This is the sort of thing that we are accustomed to in the advertisements of quack pills and potions, but is scarcely suited to the dignity of a first-class hospital. If it cannot be left to the patient's medical adviser to say whether Buxton would benefit him, this information might at least be put in a less conspicuous place. A list is given of the residences of the patients admitted during the year; and it appears that they come from all parts of England, as well as from Scotland and Ireland. We are glad to see that each patient is required to bring a letter of recommendation from some lady or gentleman resident in their neighbourhood, certifying whether he or she is a proper object with respect to circumstances. Knowing, however, as we do, how easily such letters are obtained, it would have been more satisfactory if, among the numerous tables, there had been one showing the social position—the occupations, trades, etc.—of the persons admitted to the benefits of the charity. We are under the impression that hospitals such as this are particularly liable to be abused. As the patients come from long distances, it is more difficult than usual to exercise a check upon them; and yet it is evidently desirable that great caution should be used in this respect, because we are told that the duties of the medical staff become more onerous every year, and because it is said that the institution could never offer them any adequate pecuniary remuneration for their services. Medical men have always shown their willingness to attend gratuitously the really poor of their own neighbourhoods; but, when patients are able to find the means of undertaking long railway journeys, there ought to be clear proof given that they are proper recipients of charity. The report is in all respects highly laudatory of Buxton and its hospital, and will afford most satisfactory reading for the visitors at the hotels and lodging-houses on a rainy day. The account of the meteorology of the district reminds us of the genial climates of the South; while the curative effect of the Buxton waters has been all that the most sanguine practitioners could desire; "more than seven-tenths of the patients are shown to have derived lasting benefit". The report differs from most similar pamphlets by being drawn out to considerable length, and entering into many details, in order to set forth the attractions of Buxton. But the value of the Buxton waters is so well established, and the Devonshire Hospital stands so high, that a briefer and simpler statement of facts would certainly have had more weight with the profession, and probably also with the public.

### SANITARY STATE OF CLIFTON, BARTON-ON-IRWELL.

A REPORT has been made by the medical officer of health on the sanitary state of the township of Clifton, in the Barton-upon-Irwell Rural Sanitary District. The report states that most of the ashpits and privies are in a very bad state. Many of the privies have no doors, and some of the ashpits are only so in name. One of the privies was in such a state that the people using it in wet weather had to carry an umbrella with them to protect them from the rain. The wells from which the people obtain their drinking-water are also in close contiguity to the ashpits and privies, and in many instances fouled in consequence. Speaking of one particular part of the township—viz., Rake Lane—the report says the sewage is permitted to lie about, owing to an absence of drains, and soak into the earth. The report concludes with recommending that a good system of drainage, and a good supply of water, should be provided; that a proper construction of ashpits and privies, and the closing of many of the old cottages, should be insisted upon. The chairman is reported—when this matter was under consideration of the sanitary authority—to have borne testimony to the urgency of these matters being attended to; but, notwithstanding, the further consideration was postponed for a fortnight. It is consoling to learn that there is no fever in this apparently sadly neglected locality.

### BODY-SNATCHING.

A REVIVAL of the old profession of body-snatching is reported to have occurred in Montreal, owing to the high price paid for "subjects". Several attempts, some of them being successful, have been made to disinter bodies from the Roman Catholic cemetery of that town. The accounts given in the Canadian papers remind us of the doings in England less than a hundred years since.

### EDUCATION OF MIDWIVES.

THE following letter from Dr. Aveling recently appeared in the *Times*.

The estimated number of women practising as midwives in England and Wales is between ten and twelve thousand. The estimated number of women in large manufacturing town and villages attended in their confinements by midwives is from 30 to 90 per cent. Scarcely any of these midwives have received either instruction, examination, or license to practise in midwifery. Any ignorant old woman may adopt the calling, and the result of this permission is a large amount of disease and misery, which no coroner is called upon to investigate. Being fully convinced of this fact, the medical profession has lately taken steps towards remedying this deplorable maladministration. Joint committees of the British Medical Association and the Obstetrical Society of London have devoted much time to the subject, and have agreed, as a basis of action, to the following proposals.

"*Definition of a Midwife.*—A respectable woman, able to read, write, and calculate, understanding the management of natural labour and the ordinary care of the mother and child after labour, and capable of recognising any conditions requiring medical aid during the parturient and puerperal states.

"*Instruction of Midwives.*—This might be done by utilising the present lying-in charities and unions. Theoretical instruction might also be given by qualified medical men, and practical instruction at the bedside, and preferably at the patients' homes, since experience has shown that it is neither necessary nor desirable to congregate a large number of lying-in women under the same roof.

"*Examination and Licensing of Midwives.*—This would be best accomplished by a licensing body especially formed for the purpose; and the General Medical Council should be required and empowered by Act of Parliament to appoint this body.

"*Registration of Midwives.*—It is believed that nothing short of compulsory registration of midwives will afford safe attendance during labour to those who are unable to distinguish between a good and a bad midwife. In future, every woman undertaking the duties of a midwife in England and Wales should be required to pass an examination prior to registration as such; and no public appointment should hereafter be given to any midwife who is not so registered. It is also thought desirable that all midwives at present in practice should, on the production of satisfactory evidence of fitness for the calling, be eligible to be placed on the register of midwives.

"*Removal of Midwives' Names from Register.*—Seeing that great injury might accrue to the public from midwives thus registered neglecting or exceeding their duties, it is considered necessary that provision should be made for the erasure from the register of the name of any midwife who has gravely misconducted herself."

These proposals were submitted to the President of the Local Government Board in 1873, and were so far approved by him as to elicit a promise to have a letter to the Privy Council drawn up recommending that some action for the amelioration of the present condition of our midwives should be taken. Owing to the change of Government, all attempts to bring the subject before Parliament have been temporarily abandoned. It is evident, however, that legislative interference cannot long be delayed, for the position of this country with regard to the instruction of midwives and the regulation of their practice is, when compared with the rest of Europe, disgraceful and humiliating. On the plea of public safety, it has always been considered right and necessary that Government should exercise control over all those who have under their charge the lives of the people it is bound to protect. An ignorant captain may not take command of a ship lest she should be wrecked and her crew and passengers drowned. No man may call himself a physician or a surgeon until he has proved himself competent to practise as such; and no one is permitted to open a chemist's shop without having previously shown himself possessed of sufficient knowledge. Why, then, should the midwife, upon whose skill two lives may depend, be exempt from this beneficent rule?

### FEMALE DOCTORS.

ON Monday, March 22nd, the first meeting of the Governors of the London School of Medicine for Women was held on the school premises, 30, Henrietta Street, Brunswick Square; Lord Aberdare in the chair. The Dean gave a short history of the school. He stated that during the winter session the same courses of lectures and demonstrations had been given as in the other medical schools of the metropolis, and that the number of women students attending was twenty. It was resolved that the proposed constitution and laws should be referred to a committee for consideration, and that in the meantime the school business should be conducted by the Provisional Council as heretofore. It was agreed that the next meeting of the governors should be held on

May 3rd, on which day the prizes will be distributed to those pupils who have been successful in the class-examinations.

### THE DANGER OF "A LITTLE KNOWLEDGE".

A STRIKING instance of the danger of taking medicine without proper medical advice has just occurred at Croydon. Mr. Carrick of Croydon, having suffered from gout, made, from a recipe given to him by a friend, the following draught: Three pennyworth of potass, two pennyworth of flowers of sulphur, and two grains of the best gunpowder. Carrick sent a child out to different places for each ingredient; and for the potass the child went to an oil-shop, where, instead of iodide of potass (which was intended), common caustic potash was given. After taking a wineglass of the mixture, Carrick exhibited all the symptoms of irritant poisoning, and was removed to the Croydon General Hospital, where he died, after a fortnight's suffering, from inflammation of the bowels caused by the caustic alkali.

### THE FACTORY ACTS.

A ROYAL Commission has been appointed for the purpose of inquiring into "the working of the Factory and Workshops Acts, with a view to their consolidation and amendment, and especially to consider whether they can be made more consistent and harmonious, and whether any of their provisions may properly be extended to other trades, industries, and occupations not included therein; and whether in the case of trades, industries, and occupations other than those dealt with by the Act of 1874, any further provisions are requisite for the improvement of the health and education of young persons and children".

### THE WEATHER AND THE DEATH-RATE.

IN connection with a paper on the effects of great changes of the weather on the death-rate, by Dr. Arthur Mitchell, an abstract of which was published in the JOURNAL a few weeks ago, we note the following remarkable confirmation of Dr. Mitchell's remarks that the mortality of children is highest in hot weather, in the Melbourne *Argus*. "The mortality in Melbourne during the hot weather of the last week in January was very great. The number of burials in the Melbourne cemetery during the week were 279, of whom 196 were children. Among the adults there were no special causes of death, but the heat told terribly upon all children who were ailing. So soon as the cold weather set in, there was a great decrease in the number of deaths. The weather during that week was the hottest yet recorded in the colony; the thermometer at Melbourne ranging in the shade from 106 deg. to 111 deg., and in the sun from 140 deg. to 148 deg. Fah. Deaths from sunstroke were numerous."

### INFECTIOUS OR CONTAGIOUS DISEASES.

THE Council of the Society of Medical Officers of Health have drawn up and are circulating a set of instructions for preventing the spread of infectious or contagious diseases. The rules have been drawn up with great care, and are not only exhaustive in detail, but have the great merit of brevity. Following the instructions is a list of penalties for negligence under the sanitary laws.

### THE LATE DR. JOHN WATTS.

A MEMORIAL window of stained glass has been placed in St. George's Church, Shrewsbury, in memory of Dr. Watts, who was for many years a resident and churchwarden of the parish. It represents the figure of St. Luke, life-size, on a pedestal, with the following inscription:—"To the glory of God, this window, in memory of John Watts, M.D., who departed this life July 24th, 1874, is placed by the parishioners."

## SCOTLAND.

### PATRONAGE OF THE UNIVERSITY OF EDINBURGH.

AT the last meeting of the Edinburgh University Court, Mr. A. Rutherford Clark was appointed one of the curators of patronage of the University for three years, in succession to Lord Neaves, whose second term of office expired on the 26th February last.

### PROPOSED ARBORETUM.

AT a meeting of the Edinburgh Town Council last week, a question was asked as to what had been done regarding the proposed acquisition of ground near the Botanical Gardens, for the purpose of forming an arboretum. The Lord Provost, in reply, said that at present he was in communication with Sir W. Gibson Craig on the subject; but he was afraid the Council would have to purchase the ground, and that afterwards the Government would take it over and keep it up; he thought the ground ought to be preserved to the city in the manner proposed, and hoped the Council would support him in his endeavour to accomplish so desirable an object.

### HEALTH OF EDINBURGH.

FROM the report of Dr. Littlejohn, the Medical Officer of Health for the city, for the past month, we find that the average mortality of the city has been at the rate of 24 per 1,000, as compared with 21 per 1,000 last year; the deaths in the New Town being at the rate of 22, and in the Old Town of 28 per 1,000. A large proportion of the mortality was due to the inclement weather, 155 out of the total of 426 deaths being attributable to diseases of the chest. There were only three deaths from typhus and typhoid fever, 30 from scarlatina, and 34 from whooping-cough.

### UNIVERSITY OF ABERDEEN: MACKENZIE PRIZES.

THE Senatus of the University of Aberdeen has announced that all matriculated students of the present session may compete for the following prizes, offered by Mr. Mackenzie of Glenmuick:—Two prizes of £70 and £30 respectively for essays on Labour and Capital; £30 and £20 for essays on Ancient and Modern Systems of Colonisation; and £30 and £20 for essays on the Conservation of Energy, especially with reference to the mechanical theory of heat. The essays will be adjudicated on in November next.

### THE RESIN OF ALOES.

AT the fifth meeting of the Edinburgh Pharmaceutical Society, Dr. W. Craig read a communication on the resin of aloes, with special reference to its action and effects. In the course of the paper, he showed that the resin was not a purgative, and therefore could not be the active principle of the drug, the resin being not only weak as a laxative, but altogether a very harmless substance. Aloine, he held, might, by exposure to the air, undergo a considerable chemical change without losing its physiological action as an active aperient: it was probably the active principle of the drug.

### DISCOVERY OF HUMAN REMAINS.

AN interesting discovery of human remains was lately made near Laurencekirk. While some farm-servants were removing gravel from a pit on a neighbouring hill, they found near the surface an oval vessel eleven inches by eight inches, apparently of clay, and containing parts of the skull and other bones of an adult, very much decayed. They are supposed to be those of Sheriff Melvile, who, in the year 1430, was boiled alive near this spot by five savage highland lairds, with whom he had been at enmity.

### VIVISECTION.

ON the motion of Professor Sir William Thomson, at a meeting of the Society for the Prevention of Cruelty to Animals, held in Glasgow recently, it was agreed to petition Parliament in favour of a Bill to enforce proper restriction on the practice of vivisection. Sir William Thomson said there was a tendency to have vivisection repeated unnecessarily. It was far from his intention to join in any movement which would unduly restrict men of science in whatever operations might be necessary for advancing knowledge, but he considered that the repetition of cruel experiments on the lower animals, merely for the purpose of showing students what had been done, was altogether unnecessary. Professor Nichol, who seconded the motion, said that, when it was necessary to resort to that practice, precaution should be taken to reduce the pain to a minimum, and that, when the experiment was over, the animals should be put to death.

## IRELAND.

### ADULTERATION OF FOOD IN DUBLIN.

In Dublin, during the past year, there have been condemned 192, 210 pounds of beef, 10,600 of mutton and veal, with a large quantity of pork, as being unfit for food. During the year, 385 sorts of food were analysed, and 220 were found to be adulterated; whilst, of twenty specimens of water, fourteen were found to be tainted with sewage. The adulterators numbered 147, and the fines inflicted amounted to upwards of £150; one party being imprisoned for three months, three for two months, and one for six weeks. Within the past year, it may be stated, 1,690,000 pounds of unsound food have been confiscated in Dublin, the fines coming to £1,200.

### LEDWICH SCHOOL OF MEDICINE: CHAIR OF CHEMISTRY.

At a meeting of the Board of Proprietors of this Medical School held on March 29th, the appointment of a Lecturer on Chemistry, vacant by the retirement of Dr. Cameron, was filled up. There were three candidates, Dr. Handsel Griffiths (Librarian to the College of Surgeons), Mr. Tichborne, and Mr. Lapper. The first named gentleman was selected, subject to the regulations of the school.

### HEALTH OF IRELAND: QUARTERLY REPORT.

The returns for the last quarter in the past year show that the births registered amounted to 32,429, and the deaths to 22,705, the latter exceeding by 1,147 those registered in the corresponding quarter of the previous year. This increased mortality was mainly due to the prevalence and fatality of scarlet fever, a disease which destroyed not less than 1,427 persons. The steady increase of this disease from the commencement of 1874 is shown by the fact that, during the first quarter, this affection killed 760 persons; in the second quarter, 731; in the third, 976; and in the fourth, 1,427; making a total of 3,894 victims to this plague, as occurring in the year. Diphtheria caused 173 deaths; whooping-cough proved fatal in 376 instances; fever was the cause of 634 deaths; small-pox numbered 148, which large number was owing to the practice of inoculation which exists extensively in several districts, especially in the Kiltamagh district of the Swineford Union, and in the Balla district, Castlebar; in the latter, out of 49 deaths registered, no fewer than 23 resulted from small-pox, the registrar stating that inoculation has been carried out to "a fearful extent" in his district.

## MILK ADULTERATION AND THE ADULTERATION BILL.

At a recent weekly meeting of the Society of Arts, Mr. Wanklyn read a paper on milk adulteration, and the proceedings gave rise to an interesting discussion on the Adulteration Bill, and on analysts and analyses. Mr. P. Le Neve Foster presided.

Mr. Wanklyn said that, in selecting milk for the purpose of illustrating the need for an Adulteration Act, and of exemplifying the working of the Act, he had been influenced by a variety of considerations. In the first place, milk-analysis had been much developed of late years, and was now better shown and more certain in its indications than almost any other branch of the analysis of food. In the second place, the adulteration of milk was very largely practised, and was likely to be much diminished, if not altogether abolished, by the action of the Act. The constancy observable in milk, regarded from one point of view, and variety in richness, afforded examples of different methods of treatment, and rendered the subject of milk a good typical example of what might be done under the Adulteration Act. He went on to explain practically the process of milk-analysis, saying that it was very easy to understand, and described the average composition of cow's milk. He said—

"In 100 centimetres of milk, there are 5.65 *grammes* of 'solids not fat', and 3.16 *grammes* of fat. In order practically to ascertain how much solids exist in a given specimen of milk, a known quantity of milk (measured or weighed out) is exposed to a temperature of 212 deg. Fahr. for a length of time. At this temperature, the water of the milk evaporates, whilst the solid constituents remain unaltered. It is usual to employ about 5 cubic centimetres of milk for this purpose, and to put it in the water-bath for three hours, at the expiration of which period the water is found to have completely evaporated, and the residual solids may be weighed. One of the modern improvements has been the selection of a suitable quantity of milk for the purpose of taking the solid residue. Formerly far too much milk was used, and loss of time and impairment of accuracy were the consequence. When five cubic centimetres are exposed for three hours to a temperature of 282 deg. Fahr. (rigidly maintained for the whole period), the milk-residues may be obtained so constant in weight as not to vary by more than 0.02 *gramme* per 100 cubic centimetres of milk. This is a degree of accuracy which rivals that of the very best processes of chemical analysis. The next step is to expose the solid residue to the solvent action of ether, which dissolves the fat out of it, and leaves the 'solid not fat' behind. The ethereal solution of the fat may be afterwards evaporated at a gentle heat, and the fat which remains after the ether is gone may then be weighed. Thus, we have the weight of the total milk-solid and the weight of the fat yielded by 100 cubic centimetres of milk. If the latter be subtracted from the former, the weight of the 'solids not fat' will be arrived at. Generally speaking, the analysis is complete when this stage is reached; but, if anything further be needed, another portion of the milk may be burnt, and the residue weighed, by which means the quantity of ash or mineral matter in the milk is arrived at. The milk-sugar may also be obtained and weighed by submitting the 'solids not fat' to the solvent action of alcohol and water, which dissolves it, and leaves the caseine and major part of the mineral matter in an insoluble condition."

He proceeded to speak of the various adulterations practised by milkmen in regard to watering, and the lesser adulteration of mixing stale skimmed milk with new milk. In 1871 and the early part of 1872, he examined about 1,000 samples supplied to boys and girls as customers, and 90 per cent. of these showed results proving that the milk was below the normal mark, and was not genuine. The milk of the hospitals was examined with a like result. Of the thirty London workhouses, twenty-nine gave samples for examination; and of these nearly all were largely adulterated—in fact, one was nearly half water, in place of the "genuine, new, unskimmed milk to produce 10 per cent. of cream", as contracted for. The result of this was that the ratepayers were mulcted of a large portion of the £13,130 paid for workhouse milk, and the young and aged poor who had a milk-diet were wronged. He summed up his paper by stating that the general result of his investigations was that, before the year 1872, nine-tenths of the milk sold as new or whole milk was milk which had been either skimmed or watered to a very palpable extent. This state of matters called for legislative action, and accordingly the Adulteration Act was passed.

"On the present occasion, pending the passing the new Adulteration Act, it may not be inappropriate to refer to the provisions of the Bill at present before Parliament. The leading features of the Bill, as likewise of the Act of 1872, are the enactment of heavy penalties for poisoning, and lighter penalties for the mere deterioration of provisions. On examining minutely, there are unmistakable signs that the Bill has been drawn up by persons very imperfectly informed of the nature of the subject matter dealt with by the Bill. How otherwise can we account for the placing of the poisoning of drugs on much the same footing as the poisoning of food? Some of the most valuable drugs are most powerful poisons—and what meaning, for instance, would be attached to the poisoning of morphia? Even the poisoning of food is not correctly dealt with by the Bill, which obviously proceeds on the false assumption that the addition of that which is poisonous *per se* is necessarily to render the article of food poisonous."

Mr. Branson expressed an opinion that prosecutions should not be undertaken on analyses, which he did not appear to estimate very highly. While condemning the present Act, he denounced the new Bill as a half-hearted measure. If the adulterators had paid the draftsman a fee, he could not have endeavoured to do more for them than in the proposals of this Bill.

Mr. Holborn said that Mr. Wanklyn himself had offered to make up fats which other analysts would declare to be pure butter. Analysts differed greatly. Was it not a mistake to give up our "forefathers' system" of judging articles of food, and to take to judging them as matters of pharmacy? He referred to the Liverpool cases of butter and tea, saying that in the tea case the unlucky trader was fined for selling a pure article; and in the butter case four opinions had been given by as many analysts.

Mr. W. L. SCOTT had used the processes described by Mr. Wanklyn. Of 8,000 specimens of London milk which he had examined, 74 per cent. were adulterated. As to standards, he thought a hard and fast line could not be laid down, as cattle differed as to the milk they gave in different districts. He stated, too, that the analyst at Greenwich had found salt in milk, this being put in to raise the specific gravity.

Mr. BARTLETT, referring to Mr. Wanklyn's manual on *Milk Adulteration* in terms of commendation, questioned if the ether used for dissolving the fat did not take up the 10 per cent. of milk-sugar which the 10 per cent. of water taken up would dissolve. As to the "Liverpool butter case" mentioned by Mr. Holborn, he denied that it was a case in point; for when the butter came to him it was in a decomposed state, and he refused to touch it; Dr. Anderson of Glasgow, who attempted to do so, afterwards refused to give a certificate either way. He did not hold a public appointment, and, therefore, he could say something in defence of the public analysts against the attacks made upon them by Mr. Holborn. They only did their duty at the call of the local boards who initiated the prosecutions. In regard to milk adulteration, he said there was a sophistication which made milk worse than the addition of water; and that was its condition when it was stale, and contained a large amount of lactic acid, rendering it particularly unwholesome for children, and not good for anyone. Milk in this condition was adulterated with various alkaline substances to conceal the sourness, and in some cases these substances were put in to prevent acidity from occurring. Carbonate of soda and carbonate of potash had been used; and he had actually been consulted by persons in the milk-trade as to the use of boracic acid, borate of soda, and even of caustic potash. The analysis of ash in milk was an important point. He spoke on the Bill now before Parliament, and condemned it as crude and impracticable.

Mr. FLUX considered that Act had done good, but suggested that proceedings under it should not be taken in a criminal court.

The lecturer replied; and a vote of thanks to him and the Chairman concluded the proceedings.

## TESTIMONIAL TO DR. A. P. STEWART.

A MEETING of the Executive Committee of the Testimonial to Dr. A. P. Stewart was held at Dr. Sibson's, 59, Brook Street, on Wednesday, March 31st, at which the subcommittee, appointed at a previous meeting to confer with Dr. Stewart as to the form the testimonial should take, presented their report. Dr. Stewart consents to allow a small part of the amount subscribed to be expended on a personal gift; but he desires that the bulk of the fund be applied in establishing a grant which shall be in the gift of the Committee of Council of the British Medical Association. It was agreed that this fund should be called the "Stewart Grant"; and the following scheme for its application, suggested by Dr. Stewart, was submitted to the meeting and approved.

1. The object of the Stewart Grant shall be to encourage researches into the origin, spread, and prevention of epidemic disease, or such cognate subjects as the Committee of Council of the British Medical Association may from time to time, after due deliberation, determine.

2. For this end, the funds shall be invested in the name of three trustees, to be appointed by the Committee of Council of the Association.

3. The accumulated interest shall be given biennially or less frequently: Firstly, and as a general rule, in recognition of important work already done by such person or persons as the Committee of Council of the British Medical Association, or a committee appointed by them for such purpose, shall deem most deserving, with a view to the continuance by such person or persons of like researches in the same direction; or, secondly, as an encouragement to such person or persons as the Committee of Council, or a committee by them appointed, shall consider exceptionally qualified to undertake the investigation of such question or questions as shall appear likely to lead to further important results.

It was further decided by the Executive Committee that the subscription list should not be closed till April 30th; and those who are desirous of adding their names may communicate up to that day with the treasurer of the fund, Dr. F. Sibson, F.R.S., 59, Brook Street, W.; or either of the honorary secretaries, Mr. W. Fairlie Clarke, 12, Mansfield Street, W., and Dr. J. Ford Anderson, 28, Buckland Crescent, Belsize Park, N.W.

## DISCUSSION ON PUERPERAL FEVER.

AT the meeting of the Obstetrical Society of London on April 7th, Mr. Spencer Wells will open a discussion on the Relation of Puerperal Fever to the Infective Diseases and Pyæmia. The attention of those who take part in the discussion is directed to the following questions.

1. Is there any form of continued fever, communicated by contagion or infection, and occurring in connection with childbirth, which is as distinctly caused by a special morbid poison, and as definite in its progress and the local lesions associated with it, as typhus or typhoid, scarlet fever, measles, or small-pox?

2. May all forms of puerperal fever be referred to attacks of some infective continued fever—as scarlet fever or measles—occurring in connection with childbirth, on the one hand; or, on the other, to some form of surgical fever, or to erysipelas, caused by or associated with the changes in the uterus and neighbouring parts following the process of childbirth?

3. If all cases of contagious and infectious diseases which occur under other conditions than that of childbirth are set aside, does there remain any such disease as puerperal fever?

4. Assuming that a form of continued fever—communicable by inoculation, contagion, or infection—does frequently occur in connection with childbirth, how can its spread in private and in hospital practice be most certainly prevented or checked?

5. What relation have bacteria and allied organic forms to the pyæmic process in the puerperal state?

6. What is the value of antiseptics in the prevention and curative treatment of puerperal fever?

The meeting will commence at eight o'clock. The necessary preliminary business will occupy but a short time. At its conclusion, Mr. Wells will commence his opening address, and will limit himself to fifteen minutes. It is expected that the speakers generally will not exceed this limit.

Dr. Braxton Hicks, Dr. Barnes, Mr. Jonathan Hutchinson, Dr. Hall Davis, Dr. William Squire, Dr. B. W. Richardson, and many other gentlemen, are expected to take part in the discussion; and at the second meeting, should the discussion be adjourned, it is hoped that Professors Lister of Edinburgh and Billroth of Vienna will be present, with Dr. Fordyce Barker of New York.

Mr. Wells will ask for a few minutes at the close of the discussion, in reply to the various speakers.

# SPECIAL CORRESPONDENCE.

## VIENNA.

[FROM AN OCCASIONAL CORRESPONDENT.]

*The School.—Prevalent Diseases.—Bamberger's Use of Quinine.—Typhoid Fever.—Puerperal Fever.—Billroth on the Practice of Medicine by Women.—Zeissl on Syphilis.—The Weather.*

THE winter session has lately closed, and the University classes are now discontinued. The number of students is smaller than in some previous years; but there have been about 1,100. Of this number, about forty were Americans, and ten British. It was amusing the other day at a special course to see a professor lecturing fluently in German to a class of ten, of whom no fewer than seven were English speaking.

Vienna retains its known eminence of mortality from pulmonary consumption. The habit of living in overheated, foul-aired, crowded rooms can hardly fail to favour tendencies to tubercular formations. Croup has been very rife and very fatal among children. Of ten cases in which tracheotomy has been performed in the Children's Hospital within the last two months, all have proved fatal; and the *post mortem* examinations have shown that in all the croupous exudations had extended down into bronchi not larger than a knitting-needle. The tendency to pulmonary extension becomes a characteristic of the epidemic. The chief treatment pursued has been inhalations of lactic acid and lime-water.

Professor Bamberger, successor to Oppolzer, has been using quinine pretty widely as an antipyretic or dephlogistic. He has found single doses of fifteen grains to reduce very markedly the temperature in pneumonia; and the diminution continues for forty-eight hours; a return of pyrexia is checked by a second smaller dose of quinine. In cases where it is not contraindicated by age or feebleness, Bamberger now combines with quinine the use of the wet sheet, and with excellent result. Except nourishment and palliation of any troublesome symptom, no other treatment is pursued.

Typhoid fever, or "typhus entericus", furnishes a large number of cases in the medical wards, and appears to be constantly present in Vienna. This is only to be expected from the inefficient drainage of much of the old city, and the fact that much of the water-supply is from wells.

Puerperal fever carries off a number of patients; and it seems strange to find both Professor Carl Braun's and Professor Späth's assistants conducting classes of practical obstetrics on the dead body while daily examining and delivering parturient women in the wards.

Professor Billroth recently gave a lecture in which he strongly condemned the introduction of females into the ranks of the medical and surgical profession, and went so far as to say that women's mental powers were far inferior to men's on the average, and that the character of their minds unfitted them for the exercise of medicine.

In the wards of von Sigmund and Zeissl, syphilis in its earlier stages is invariably attacked by mercury; and the former has lately been using inunction of blue ointment extensively. Zeissl expressed himself forcibly on the subject of the eradicability of syphilis. "Some", he said, "think when a patient has for some time enjoyed immunity from manifestations of syphilis, that he is cured. But I tell you, gentlemen, that, if a man contract syphilis, he will die syphilitic, and at the Day of Judgment his ghost will have syphilis."

From the latter part of January till the 8th instant, we had an unbroken frost, and the thermometer has registered as low as − 17 deg. R. (6.75 below zero, Fahr.) at nine o'clock in the morning in the city. After a few days' thaw, came fine bright spring weather; but one night lately there was again a slight fall of snow, and a recurrence of low temperature. Everyone speaks of this as an exceptionally severe winter, and the memories of the oldest inhabitants are ransacked for dates of comparison.

# ASSOCIATION INTELLIGENCE.

## COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the office of the Association, 36, Great Queen Street, Lincoln's Inn Fields, London, on Thursday, the 15th day of April next, at two o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

36, Great Queen Street, London, W.C., March 18th, 1875.

## METROPOLITAN COUNTIES BRANCH.

A GENERAL Meeting of this Branch will be held at the house of the Medical Society of London, 11, Chandos Street, Cavendish Square, on Friday, April 16th, at 8 P.M.; when a discussion will be opened by Mr. HOLTHOUSE on the subject of Legislation for Habitual Drunkards.

ALEXANDER HENRY, M.D.
ROBERT FARQUHARSON, M.D. } *Hon. Secs.*

## BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE next meeting will be held in the Council Room of the Midland Institute, on Thursday, April 8th, 1875, at 3 o'clock P.M. precisely.

*Business.*—To receive a report from the Habitual Drunkards Committee. To nominate the Officers, Council, and Representatives of the Branch in the Council of the Association for the ensuing year.

The following papers are promised:

Observations on Congenital Cataract and its Treatment: Mr. J. Vose Solomon.

On General Paralysis of the Insane: Dr. Fowler Bodington.

Members are invited to exhibit pathological specimens at the commencement of the meeting.

BALTHAZAR FOSTER, M.D.
JAMES SAWYER, M.D. } *Hon. Secs.*

## BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ORDINARY MEETING.

THE fifth ordinary meeting of the Session was held on February 11th, at the Midland Institute, Birmingham; present, W. C. GARMAN, Esq., President, in the Chair, and forty-four members and visitors.

*Habitual Drunkards Committee.*—The report of the Committee appointed to consider the subject of legislating for the care and restraint of habitual drunkards (which has already appeared in the JOURNAL) was read by the PRESIDENT as Chairman of the Committee. The report was adopted, and ordered to be printed and forwarded to the Secretaries of all the Branches of the Association.

*Medical Education.*—It was moved by Dr. FOWLER BODINGTON, and seconded by Mr. JOHN MANLEY—"That the amended report of the Education Committee, together with the scheme, be adopted by the Branch, and forwarded to the Editor of the JOURNAL for publication."

Mr. SAMPSON GAMGEE moved, and Mr. J. VOSE SOLOMON seconded, the following amendment—"That the amended report of the Education Committee be received and entered on the minutes; and that the warmest thanks of this Branch be and are hereby tendered to Dr. Fowler Bodington, the Chairman, Mr. A. Oakes, the Honorary Secretary, and the other members of the Education Committee, for the deep interest and unsparing exertions with which they have promoted and conducted the discussion on the important question of medical education."

The amendment was carried by a large majority, and was afterwards adopted as a substantive resolution.

*Hour-Glass Contraction of Stomach, etc.*—Dr. THOMPSON (Leamington) showed a specimen of hour-glass contraction of the stomach; a gall-bladder contracted to the size of a little finger containing several gall-stones; and specimens of fractures of ribs, old and recent, showing fragilitas ossium. They were all removed from the body of a female aged fifty-eight, who died suddenly under suspicious circumstances. She had suffered from asthma; and the immediate cause of death was pleurisy.

*Functional Derangement of the Ovaries.*—Dr. MALINS read a paper on this subject, pointing out the comparative frequency of such derangements, their influence on health, and their relation to uterine disease. The treatment of these perversions was also considered, stress being laid upon the harm arising from local uterine treatment where there is frequently only functional disorder of the ovaries, and attention drawn to the importance of early training and associated mental conditions.

*Ovarian Tumour.*—Mr. LAWSON TAIT showed an ovarian tumour which he had removed the day before, and which presented some features of interest. The patient had been sent to him from Stockton-on-Tees, and was of such great size that he deemed it advisable to adopt a practice against which he had a superstition, namely, preliminary tapping. He removed seven pints from the major cyst, but was disappointed to find that in two days the patient was as large as ever. From the absence of any symptoms, he hoped that this rapid increase was not hæmorrhagic; but, at the operation, he found that the cyst contained about three pints of blood-clot, yet the patient had no anæmic symptoms or appearance. On exposure, Mr. Tait found the tumour to be coursed over by large venous sinuses, and the pedicle to be very short, and intimately related to the uterus. He enclosed it in large bull-dog forceps, and, on the separation of the tumour, it was found to be occupied by numerous venous sinuses of very large size. These were tied, and the stump dropped back. So far, the patient had had no bad symptoms.

*Mechanism.*—Mr. TAIT also showed the self-retaining convolvulus catheter, the calculus-detector, and the calculus-extractor of Mr. W. D. Napier, all of which he had used, and which he characterised as the perfection of ingenuity.

## SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEETING.

THE fifty-fifth meeting was held at the Harp Hotel, Dover, on Thursday, March 18th, 1875, at three o'clock; FRANCIS E. BARTON, Esq., in the chair. Eighteen members and three visitors were present.

*Intussusception of the Rectum.*—Mr. OSBORN read an interesting report of a case of intussusception of the rectum in an adult female recently married. The case was attended with the usual symptoms, except that the sanguineous discharge was slight. Enemata and other remedies failed to reduce the intussuscepted bowel, though the obstruction was temporarily overcome by means of a stomach-pump tube passed through the strictured orifice. Fluid was introduced, and the softened fæculent matter withdrawn by the instrument. The patient, however, became gradually exhausted, and died somewhat suddenly, after experiencing a rather severe pain at the lower part of the abdomen. A *post mortem* examination revealed an intussusception of about three-fourths of an inch of the rectum, having its serous surfaces strongly adherent; the mucous surfaces were pale, and showed no signs of sphacelus. Death appeared to have been due to exhaustion, though a minute rent, overlooked in the examination, may have been the cause.

*Diphtheria and Croup in East Kent.*—Dr. ROBINSON read notes on epidemics of diphtheria and so-called croup in East Kent during 1874. He considered that the term croup was frequently used to designate prominent symptoms rather than the complete pathology of the disease, and consequently that cases of diphtheria were classified under the head of croup. Catarrhal laryngitis and laryngismus stridulus were not so likely to be confounded with diphtheria, as that form of laryngeal inflammation termed croup was characterised by plastic exudation and membraniform production. The morbid anatomy here could not be shown to differ from that of diphtheria. He laid great stress on the contagious character of diphtheria, and the persistent activity of the specific virus of the disease; and brought forward a mass of evidence occurring in his district to prove the excessive contagiousness of diphtheria, and the difficulty that many medical practitioners had evidently encountered in order to decide whether they should term the disease diphtheria or croup. Dr. West long ago regarded diphtheria as a variety of croup; and Squire, in Reynolds's *System of Medicine*, said, "epidemic croup is strictly diphtheria"; but these authors did not speak of diphtheria as a communicable disease and requiring precautionary measures against its spread. Sir Thomas Watson said, "croup is not contagious". Now, if croup and diphtheria were identical, the sooner that was generally admitted the better, because the designation of a decidedly contagious disease like diphtheria by a term used to imply a non-contagious malady was fraught with great danger to the public, and calculated to retard the acquisition of further knowledge on the subject. The paper provoked an animated discussion, and the great difficulty met with in deciding whether a case was one of diphtheria or of croup was universally acknowledged.

*Paracentesis Abdominis.*—Mr. MARSHALL read a short paper on paracentesis abdominis, with the advantage to be derived from using a small trocar and cannula. He stated that his method offered the following advantages. 1. No incision being necessary, less pain was inflicted. 2. Syncope was less likely to occur, the evacuation of the fluid being more gradual. 3. The wound closing immediately, no oozing of fluid occurred. 4. Great relief was experienced on the removal of seven or eight pints in this manner. 5. The operation was unattended with danger, either at the time or subsequently. The author brought forward cases exemplifying the above advantages.

*Esmarch's Method.*—Mr. THURSTON narrated a case of amputation of the thigh with Esmarch's plan, and spoke highly of the use of the elastic bandage, especially in sudden emergencies occurring in a country practice, lessening as it does the necessary number of assistants, or giving time for seeking further aid. He laid great stress on the necessity for regulating the amount of force applied by the elastic tubing, according to the amount of resistance the tissues are likely to give.

*Dinner.*—Twenty members and their friends afterwards dined together, under the presidency of Mr. Barton.

*Next Meeting.*—The next and annual meeting will be held at Canterbury on May 20th.

### WEST SOMERSET BRANCH: SPRING MEETING.

THE spring meeting of this Branch was held at the Royal Clarence Hotel, Bridgwater, on Thursday, March 18th, at 5.15 P.M.; H. W. RANDOLPH, Esq., President, in the Chair.

After dinner, the Secretary laid before the meeting letters of regret from several members who were prevented from attending by sickness and other causes. The minutes of the last general meeting were read and confirmed.

*Causation of Typhoid Fever.*—Dr. ALFORD (Taunton) read a paper on this subject. A discussion followed; and, Dr. Alford having suggested that members of the Branch should record facts as to the origin and attendant circumstances of cases of typhoid fever which might occur in their practice, and offered for use a tabular form which he had prepared for the purpose, it was resolved—"That the thanks of this meeting be tendered to Dr. Alford for his paper, and that the form of table he has laid before the meeting be adopted for use in recording facts relative to cases of typhoid fever; that the Secretary be requested to have the form printed, and a copy supplied to each member of the Branch. The form when filled up to be returned to the Secretary."

*Treatment of Habitual Drunkards.*—The question of the best mode of treatment of habitual drunkards was introduced by the PRESIDENT. He adverted to the efforts made by the late Mr. Dalrymple to get an Act of Parliament passed for putting habitual drunkards under restraint, and expressed his own views in accordance therewith. He proposed that the Branch should petition Parliament to take the subject into consideration with a view to supplying some legal remedy.

The Secretary read written answers from Dr. Cordwent (Taunton), Dr. Clark (Dunster), and Mr. Stephens (Ilminster). After a lengthened discussion, the following resolution was passed:—"That this meeting is of opinion that the legislature should be petitioned to enact some measure for dealing with habitual drunkards and placing them under proper restraint; and that the President be empowered to sign a petition on behalf of this Branch, provided such petition be not opposed to the views enunciated at the meeting this evening."

The above resolution was framed in the belief that a form of petition for general adoption by the Branches of the Association will be recommended by the Council of the Association.

### SOUTH-WESTERN BRANCH: TESTIMONIAL TO DR. RUMSEY.

I BEG to inform the members of this Branch that, at the suggestion of our President, Dr. Spencer Thomson of Torquay, who has forwarded me a subscription, I have to request those willing to assist in this fund to kindly send their contributions to me at once.

JOHN WOODMAN, F.R.C.S.,
*Hon. Sec. S.W. Branch.*

2, Chichester Place, Exeter, March 29th, 1875.

# REPORTS OF SOCIETIES.

## EPIDEMIOLOGICAL SOCIETY OF LONDON.

WEDNESDAY, MARCH 10th, 1875.

W. R. E. SMART, M.D., C.B., Inspector-General R.N., President, in the Chair.

*On some Arithmetical Questions involved in the Rise and Progress of Epidemics.* By G. H. EVANS, M.A., M.D.—Dr. EVANS had been led to interest himself in the mathematical expressions of the course of epidemics by observing the success with which Dr. Farr had, in January 1866, foretold that the epidemic of cattle-plague then increasing might be expected shortly to decline. The prediction, closely justified by the event, was based on the observation, that the increase for the three previous weeks was not uniform, but at a decreasing rate; so that, by the same progression, the weekly number of attacks must soon reach a maximum, and thenceforth decline. Dr. Evans explained the process by which, from a given portion of a series, further members of the series might be calculated, and went on to consider how far the method applied to some of our own ordinary epidemics might be available for the practical sanitarian. By way of illustration, he had examined the behaviour of cholera and scarlet fever in London; and he showed a number of charts in which he had inserted diagrammatically the actual weekly course of an epidemic, from its beginning to its end, along with the hypothetical course reckoned for the several weeks from the data afforded by the earlier portion of the outbreak. On several of these charts, there was a noticeable correspondence between the actual and the calculated progress of the disease investigated; and it was evident that, at some period during the rise of most epidemics, there was to be found a rate of progress from which might be deduced a series conforming very fairly to the actual numbers that are about to follow. Dr. Evans's illustrations showed, however, that the rate of progress during an increasing epidemic altered very materially within short spaces of time; so that, if calculated from a particular group of weeks, if too near the commencement, an excess obviously erroneous would result; if calculated at too late a period, the error would be on the side of defect; but, from certain weeks of its course, a calculation could be made which would be fairly justified by the facts. The illustrations showed that the data yielding the best forecasts of an epidemic were not derivable from its earliest weeks, but rather (as indeed might have been expected) from the weeks when the epidemic was tending to its culmination. Hitherto, however, he had obtained no indication to guide him in the selection of this particular period; hence, while admitting the value of the method for the purposes to which Dr. Farr had applied it, he could not at present say how to adapt it to general use as a means of predicting what the course of an epidemic would be at that part of it where such knowledge would be of most practical value.—Dr. BUCHANAN, in proposing the Society's thanks to Dr. Evans, referred to the great expenditure of time and skill that had been given to the establishment of the epidemic "curves" by which the paper was illustrated, and to the careful reasoning that had characterised Dr. Evans's conclusions. The result, though instructive, was disappointing so far as immediate practical application was in question. He had hoped that, from the earlier course of a given epidemic, it might have been found possible to predicate, on the constancy of the causative elements, what the further course of the epidemic would be; so that, by comparison of the actually observed course with the computed subsequent course, it might be possible to establish the presence or absence of some disturbing influence exercised over the epidemic. Sanitary workers sought to exercise such an influence, and it would be a great advantage to them to know for certain the fact of their success or failure; and to have a measure of the degree of any success that, by the use of this or that preventive measure, they might gain. From Dr. Evans's calculations, it appeared that one particular period of a rising epidemic must be taken, if the estimated further progress were to agree with the actual further progress; that this period could not begin a week earlier or a week later without large discrepancy between the calculated and the actual; and that at present there was no sufficient indication during the rise of an epidemic of when the safe time for prediction was reached.—Mr. J. NETTEN RADCLIFFE, in seconding the proposition, said that he was impressed with a much more hopeful and favourable view of the results attainable by this arithmetical method. Dr. Evans's calculated curves agreed very closely with the after-course of the epidemics he had investigated when the right part of it was hit upon. Now, if a definite series for one part of an epidemic can be found, we are near a law for the whole. The present difficulty seemed to be in defining when a disease ought to be considered epidemic. He wished to express his intense gratification in the interest of scientific epidemiology that Dr. Evans had favoured the Society with so valuable a paper, embodying the results of his mathematical calculations.—Inspector-General LAWSON differed from Dr. Evans in considering that the results he had obtained were unimportant, because they were to a great extent negative. The author represented the progress of an epidemic (as shown by the deaths from it) by a curve, and, finding a formula representing part of that curve, expected to complete it, and so anticipate the progress of the disease, both as to intensity and duration. This he would do, if the forces concerned in developing the epidemic remained the same, and acted in the same directions throughout the continuance of the epidemic; but more causes were active in generating epidemics than were generally taken into account. Those acted at different times and with varying force, or had their action interfered with or suspended by the intrusion of others not yet recognised. Until we were better acquainted with the different factors concerned, there was little prospect of being able to avail ourselves to any great extent of mathematical formulæ to predict the course of epidemics, or to facilitate the arrangement of the information now possessed regarding them.—Dr. EVANS, in reply, said that Mr. Radcliffe's observation exactly applied to the great difficulty he had felt throughout the inquiry; viz., that of finding out when a disease really became epidemic. If the point could be determined from which epidemic progress commenced, we could then obtain a ratio; it might be one differing by constant differences. An epidemic did not begin with the first rise above the average mortality: in taking the mortality of some of the earlier weeks of the late epidemic of scarlet fever in London, quite impossible results were arrived at, and some other curve had to be sought from the mortality registered a few weeks later. Each of the scarlet fever epidemics investigated culminated between the fortieth and forty-seventh weeks of the year; that is to say, in October or November. The disturbing forces alluded to by Mr. Lawson influenced much the course of epidemics, and no doubt the curve was greatly modified by three conditions: 1. The more susceptible were first seized; 2. A previous attack often conferred immunity; 3. The intensity of the virus was eliminated by transmission. Those increased the difficulty of the inquiry. It might be possible by more labour to arrive at trustworthy and useful results.

## MANCHESTER MEDICAL SOCIETY.

FRIDAY, FEBRUARY 3RD, 1875.

J. E. MORGAN, M.D., President, in the Chair.

*Tumour of the Brain.*—Dr. DRESCHFELD showed a brain with a small tumour of the size of a filbert, situated at the base in the median line, immediately in front of the pons Varolii. It was rounded in outline, of firm texture, and composed almost entirely of small spindle cells. The patient from whom the specimen was obtained was admitted as an in-patient of the Infirmary on September 12th, 1874, complaining of dizziness in his head, dimness of vision, and displaying considerable emotional disturbance, laughing and crying alternately. There was also weakness of the arms and legs. The eyes were examined, and appeared normal. As the disease progressed, he felt less confidence in walking, and if he stopped or turned suddenly, seemed inclined to fall. His sight became double, and at last almost total blindness set in. His speech became thicker, and just before death he was unable to swallow. His temperature rose, and he became delirious.

*Multiple Sarcomata.*—Dr. HARDIE showed a man with multiple sarcomatous tumours affecting the skin of the trunk.

*Abnormal Appendix of Bowel.*—Dr. BALL showed a specimen of an abnormal appendix to the bowel. It was obtained from a boy aged 12, admitted into the Stockport Infirmary, December 24th, 1874. He always had been subject to attacks of obstinate constipation, with tympany and abdominal distension. These attacks were of frequent occurrence, he seldom being free from them for more than a month or five weeks. The present attack had lasted for nine days, during which there had been no action of the bowels, but gradually increasing tympanites and vomiting. The boy was pale, feeble, and emaciated, with an anxious expression of countenance. The abdomen was immensely distended, and the outline of the bowels could be seen under the skin. There was frequent vomiting of a fæcal or semi-fæcal fluid. An injection of castor-oil and turpentine brought away a small piece of hardened fæces. A tube was introduced twelve or fourteen inches up the bowel. The injection was repeated, but with no better result than before. Inability to void urine came on, and it was found impossible to pass any but a flexible catheter. An examination *per rectum* was made, and a large doughy tumour, pitting on pressure, and then slowly recovering its shape, was found occupying the position of a distended bladder. The boy sank and died nineteen hours after admission. At a *post mortem* examination, twenty-nine hours afterwards, the abdominal cavity appeared to be almost completely filled with immensely distended large intestines, which pushed the bladder into the left iliac fossa. The large intestine, on a more minute examination, was found to consist from cæcum to anus of a double tube; the posterior, continuous with the small intestine, being of ordinary size, the anterior ending in a *cul-de-sac* at each extremity, the only communication between the two being by several oval foramina, about large enough to admit the end of a finger, placed at irregular intervals about twelve inches from the cæcum. The septum between the two was thin at the upper part, but became more dense near the anus. The supplemental part was filled with an immense quantity of fæcal matter of the consistence of mashed potatoes, the true bowel containing some similar matter, but in much less quantity. The small intestines and other organs were healthy. Microscopic examination showed that the wall of the extra tube consisted chiefly of muscular tissue. Dr. Ball said that, as far as he was aware, this was the only recorded example of this abnormality.

*Melanotic Tumour of the Orbit: Removal: Recurrence of Cancer.*—Dr. GLASCOTT showed the case of a man aged 40, from whose orbit he had ten months ago removed a melanotic tumour. Six months afterwards, there was no recurrence. Two months ago, he presented himself with another tumour, which was growing rapidly, and had filled the orbit. Since then, numerous nodules of cancer had made their appearance under the skin, and had continued to appear with great rapidity, until the whole body, with the exception of the legs and the forearms, was studded over with secondary deposits, varying from the size of a bean to that of a pigeon's egg. He had previously been perfectly healthy, and no hereditary taint could be traced.

*Tuberculous Ulcers of the Ileum.*—Dr. MORGAN showed an ileum studded with several very characteristic tubercular ulcers. The mucous membrane of the colon was also extensively disintegrated, and the walls much thickened.

*Diseased Kidneys.*—Mr. LUND exhibited the kidneys of an old man aged 72, who had suppression of urine from a mechanical cause. He was admitted into the Infirmary with a phosphatic calculus in the bladder. Lithotrity was contemplated, but suppression of urine took place, and the patient died comatose. One kidney was found to be completely disorganised, and the ureter of the other blocked up with some sabulous matter.

*Mitral Stenosis.*—Mr. JONES exhibited a heart with mitral stenosis. The orifice would admit the tip of the little finger, and bridging across it was a thin round fibrous cord.

## MEDICAL MICROSCOPICAL SOCIETY.

FRIDAY, FEBRUARY 19TH, 1875.

J. F. PAYNE, M.B., President, in the Chair.

*Natural Method of Mounting Microscopic Specimens.*—Dr. W. B. WOODMAN read a paper on a natural method of mounting certain microscopic specimens. It consisted of putting up urinary deposits, sputa, etc., in their mother liquor, with or without the addition of a few drops of a concentrated solution of crystallised carbolic acid, and then thoroughly cementing round the edge of the cover-glass with any good cement. Dr. Woodman had specimens which had been preserved in this way for more than fourteen years without alteration. Epithelial casts were said to keep very well if put up in this fashion for some months, but they eventually became deteriorated. Dr. Woodman did not consider that asphalte varnish deserved all the abuse it got.—Dr. PRITCHARD objected to asphalte, unless prepared as Mr. Miller used it, by drying and redissolving in dammar varnish.—Mr. F. Durham and Mr. Groves thought that asphalte and gold size in equal proportions formed a good tough cement.—The President preferred Frankfort cement.

*Marking of Specimens.*—Mr. Needham described a method he adopted for marking specimens in hardening or preservative solutions by the use of coloured glass beads—black representing No. 1, red No. 5, green No. 10, etc.; so that, by a combination, any numbers could be produced. A numbered record of all preparations was kept in a note-book, so that any specimen could be found with ease.

*Swiss Gauge.*—Mr. F. H. Ward exhibited and described a Swiss gauge which he used for measuring the thickness of covering glass.

The meeting terminated with the exhibition of a number of specimens.

### Friday, March 19th, 1875.

J. F. Payne, M.B., President, in the Chair.

*Spinal Cord in Infantile Convulsions.*—Specimens were exhibited by Dr. Sidney Coupland, taken from a child aged six months, who died in convulsions consequent upon cancrum oris. There was found great dilatation of the capillaries and small vessels of the cord, especially in the commissural part of the grey cornua and enlarged perivascular spaces, the maximum of enlargement being in the lower part of the medulla, particularly near the central canal; but the canal itself and its epithelial lining were quite healthy. The appearance resembled that described by Dr. Dickinson in certain cases of diabetes. Dr. Coupland thought that the enlarged perivascular spaces were secondary to over-distension of the vessels.—The President suggested wasting of the brain as a more probable cause for the enlarged spaces, and that they were the tunica adventitia separated from the artery.

*Urate of Soda in the Heart.*—Mr. Ward showed a specimen of plugging of the coronary artery, studded with crystals of urate of soda. It was taken from an old case of gout. Death was sudden, from ruptured left ventricle. There was no fatty change, but the heart substance was friable.—Dr. Greenfield stated that fatty change often followed plugging of the coronary artery.—Mr. Golding Bird asked if any chemical test had been applied to the crystals; he had once succeeded in obtaining crystals of uric acid under the microscope from crystals of urate of soda in gouty cartilage by the addition of weak acid.—Mr. Ward, in reply, had named the crystals from their shape only.

*Myxoma.*—A section in glycerine by the President showed the connecting processes to be rather tubular, than flattened and folded up in a gutter-like form, as usually described.

# CORRESPONDENCE.

## DR. RUMSEY.

Sir,—Dr. Henry W. Rumsey of Cheltenham has just retired in consequence of a severe attack of illness, which disables him from continuing his practice; and it is thought by many that this is a favourable opportunity for expressing their appreciation of his services to the sanitary cause, to the profession, and to the public. A sketch of his labours, extending over the greater part of his career, and of his consequent claims, has been drawn up, and is now in circulation.

I first met Dr. Rumsey before a Committee of the House of Commons, pleading at once for the poor and for the Poor-law medical officers. He was associated with his intimate friend Robert Ceely of Aylesbury; and to the energetic action of these two men, acting in concert with the Provincial and the British Medical Associations, and the press, the progressive improvement in the medical relief of the poor owes its origin. He took an active part in the endeavours of those who were seeking to put provident societies on a sound footing. Dr. Rumsey wrote on the health and sickness of town-populations (1846), and in the year 1856 published his classical volume of *Essays on State Medicine*, which was followed year after year by a series of striking papers on sanitary science and administration. Dr. Rumsey is a scholar; and his writings, remarkable for clearness of exposition and originality of view, have undoubtedly contributed to impress the Legislature with its present views of the importance of public hygiene, which, like every good cause, has had to encounter hostility. If a sagacious Prime Minister has given the world the new reading of "*sanitas sanitatum*", Dr. Rumsey has some claim to the credit of party enlightenment. But Dr. Rumsey began his labours in an age of indifference for the cause, which is only beginning to triumph when he is cruelly struck down.

Some persons held that public health is an affair that can be handled by nuisance-inspectors. Dr. Rumsey, on the contrary, saw clearly that the public health could be best dealt with by specially educated medical men, well versed in science; and it is his great merit, that in the General Medical Council, as well as elsewhere, he sought to obtain a special qualification for State Medicine from the Examining Bodies. This would be in all time to come a guarantee of competency to the public; while it would open great careers to eminent State physicians, proceeding on the lines laid down by the Father of Medicine. One of the last papers I heard by Dr. Rumsey was on this very subject.

Dr. Rumsey, its Chairman, was in constant correspondence with the Joint Committee of the Social Science and the British Medical Associations; he spared no labour, and frequently at the sacrifice of his professional time came to London. His correspondence on public matters was unintermittent. Among many other avocations, Dr. Rumsey was a vigilant sanitary critic. He criticised freely the Legislature, the Government, the public offices, including that with which I am concerned, and the registration of vital statistics. On some of these subjects he was, I think, wrong; at least, I differed from him; but I do not hesitate to say that his criticisms were often beneficial, were animated by public spirit, and were characterised by fearless honesty of purpose.

During his career, Dr. Rumsey has received many honorary marks of the appreciation of the profession; and has been recently elected a Fellow of the Royal Society. But, at the close of thirty-seven years, full of his labours for public objects and professional interests—in which he has expended much and received nothing—it does appear to me, that if Dr. Rumsey was still in the vigour of his life, the time has come when some substantial testimonial might be presented to him. Such a step could only tend to encourage men to devote themselves to the public service. And now that Dr. Rumsey, after climbing the steep side of the hill, is smitten down before he can enjoy the full fruits of professional fame, his claim is enhanced. He is a man of whom we may be justly proud. And the appeal now made in the name of that noble fraternity which binds the profession together as one body cannot be in vain. He will receive the crown he has won at last.

The British Medical Association and the Social Science Association, at the meetings of which Dr. Rumsey has presided in the Health Sections, will probably turn their admirable organisations to account in favour of the movement.

A Central Committee has been formed in London, including the most eminent men; and now it is proposed to invite leading members of the profession in the provinces to establish corresponding Committees, and their support will, I doubt not, be afforded. Dr. Rumsey himself, practising in the provinces, was one of their brilliant ornaments, and one of the most strenuous assertors of their claims and rights.

I have the honour to be, Sir, yours faithfully,
William Farr, Chairman of the Central Committee.
General Register Office, Somerset House,
London, 12th March, 1875.

## THE CONTAGIOUS DISEASES ACTS.

Sir,—The statistics of venereal disease among the Royal Engineers at Chatham, in the years 1860-74 inclusive, cannot be too widely known; and I, therefore, feel obliged to Dr. Nevins for publishing them in a graphic form. I must, however, object to his excluding the year 1874; neither he nor I nor any other man knows with certainty whether the new Regulation of 1873 had any effect; and there is, therefore, no evidence on which this year can be excluded. In reproducing the figures of another person, a writer ought, I conceive, to d so textually. I must, therefore, ask your readers to add to the graphic representation another column for the year 1874, and to run a long sloping line down with the number 23.7 at the end of it for syphilis, and a short sloping line for gonorrhœa with the number 63.3.

In his analysis of these figures, Dr. Nevins virtually repeats his former argument, to which I have already replied. Instead of following him again, allow me to restate the simple facts of the case. Syphilis is a disease of yearly fluctuations; it has always been so, and will, no doubt, continue to be so, from causes too obvious to need stating here. Consequently, a comparison between single years, in Dr. Nevins's method, is highly insecure, and long periods must, if possible, be taken. As the statistical returns of the army in their present form only commenced sixteen years ago, and the first year is deficient, the Royal Engineer statistics give us the longest available periods; viz., six years before the Contagious Diseases Acts were passed and nine years afterwards; and if the first three of these nine years are taken out, as it was a time of transition, we have two comparable periods of six years —1860-65 and 1869-74. In both periods there are fluctuations to a certain extent, but there is this great difference. In the first six years period (before the Acts), the yearly fluctuations are from 109.3, the highest, to 74.8, the lowest; in the second period (under the Acts), the fluctuations are from 76, the highest, to 23.7, the lowest, or to 44.3 if the year 1874 be excluded. Consequently the *highest* yearly admissions in the second period are almost the same as the *lowest* yearly admissions in the first period, and the lowest admissions in the second period are less than one half the lowest admissions in the first period. The means again of the two six years periods are 93.2 admissions per 1,000 of strength before the Acts, and 53.1 under the Acts.

Now, these are the simple figures of the prevalence of primary syphilis; those of gonorrhœa I omit on account of space. However Dr. Nevins may construe them, he cannot take away their force. There they are, as exact as a chemical experiment, and entitled to as much credence.

When Dr. Nevins says that, in looking at the charts, no one can say when a new agent came into operation, I must deny the accuracy of his statement. Looking to the usual amount of fluctuation and to the height of the curve before the Acts, and then to the corresponding curve after the Acts, I cannot myself conceive anyone can doubt that in the last six years some conditions tending to powerfully depress venereal admissions were in action.

The dispute must be, I conceive, not as to the reduction but as to its cause. Now, the Royal Engineers were in the same barracks, under the same sanitary conditions in both periods; neither the strength nor the recruiting, nor any other condition of the kind, gives any clue. There was no difference, in fact, between the two periods, except that in one case syphilitic women were under no check, and in the other the women were examined and prevented from spreading syphilis if found diseased. The facts are certain, and the explanation is most probable; it is, indeed, the only possible explanation. I thank Dr. Nevins, therefore, for so kindly allowing these striking facts to be again stated, and I think in this, as in other ways, he has unconsciously very much strengthened the arguments for maintaining the Acts. With your permission, sir, I should like to be allowed to bring before your readers a short summary of the statistical evidence on this subject which has been lately given in your columns and in those of your contemporaries.

Netley, March 27th, 1875. I am, etc., E. A. PARKES, M.D.

SIR,—Dr. Nevins states that it would be impossible for anyone examining the curve of his diagram indicating the rise and fall of syphilis and gonorrhœa to fix upon the period of time in which a new agent came into operation and showed itself of marked sanitary value upon the future progress of the disease. Now, it appears to me that anyone must at once perceive that, after the temporary rise in the lines in the year 1867, the fall in both diseases was greater, and the average lowness of it more steadily maintained than in the previous years. Taking the number of cases of syphilis per 1,000 for the six years preceding 1866, we get an average of $93\frac{1}{6}$, while the average for the eight years subsequent to 1866 is only 67. The average in gonorrhœa in six years before 1866 is $141\frac{4}{6}$; for eight years after 1866, $94\frac{5}{6}$.

If Dr. Nevins will give the continuation of his line for another eight years, I have not the slightest doubt that the steady progress downward will be maintained, and that it will leave off as much below 44.6 as that was below 108.

If Dr. Nevins, instead of serving up the same figures again and again in different dressings, would visit the places where the Acts are in operation and gain some practical acquaintance with the subject from those capable of giving him information, his treatment of the subject would have more weight.

My own experience at the Liverpool workhouse, where for some years we have adopted, with men and women both, compulsory retention till cure, has been that not only the extent but the character of the disease has been materially modified; and I cannot but conceive that early isolation and active treatment must have the same effect whenever or wherever carried out.

I am, sir, yours obediently, J. H. BARNES.

57, Pembroke Place, Liverpool, March 27th, 1875.

# MILITARY AND NAVAL MEDICAL SERVICES.

MOVEMENTS OF ARMY MEDICAL OFFICERS.—Surgeon-Major J. S. Comyn, M.B., is appointed to medical charge 1st Battalion 21st Fusiliers; Surgeon T. Kingston, M.D., to do duty 107th Regiment, Secunderabad; Surgeon A. Kirwan, to do duty 107th Regiment, Secunderabad; Surgeon C. C. H. Smith, M.D., to general duty, Madras Presidency Circle; Surgeon-Major Cooper, M.D., from 5th Regiment, N.I., to 2nd Regiment Light Cavalry, vice Surgeon-Major W. A. Smith, vacated; Surgeon J. M. Donnelly, M.D., from attached 1st Regiment Light Cavalry to 7th Regiment, N.I., but to continue with the Cavalry; Surgeon F. H. Blenkinsop, from attached 5th Regiment, N.I., to 5th Regiment, N.I.; Surgeon P. H. Benson, to do duty General Hospital, Madras, to do duty Lying-in-Hospital, Madras; Surgeon W. J. Charlton, from doing duty 45th Regiment, to do duty 1st Battalion 21st Fusiliers, to join on arrival of the corps at Rangoon.—Deputy Surgeon-General Woolfreyes, who served for some time in Dublin Garrison, has been appointed to the medical charge of the Western District; Surgeon-Major R. Tate, attached to the 2nd Battalion 2nd Queen's, has returned to the Royal Barracks from leave of absence, and resumed his duty; Surgeon-Major A. P. Cahill, M.D., has arrived home from Ceylon after a long service in that command.—Surgeon-Major T. E. P. Martin, secretary to the surgeon-general, has obtained furlough to Europe for two years, from date of departure in May next.—Surgeon H. J. Linton, Bengal Medical Establishment, is allowed to proceed to Europe, on medical certificate, in anticipation of furlough.—Surgeon J. H. Ritchie, Madras Medical Establishment, is allowed to proceed to Europe, on medical certificate, in anticipation of furlough.

## THE DIFFICULTIES OF ARMY MEDICAL REFORM.

SIR,—In your remarks upon the "Obstacles to Army Medical Reform", arising from want of unanimity in the expressed views of medical officers, you have touched upon a real practical difficulty: one, however, which is capable of reasonable solution. You have very correctly divided the whole department into three groups, viz., the upholders of the regimental system, the advocates of the staff scheme, and the proposers of a mixed plan, but you have not indicated what numerical proportions they bear to each other; whereas further investigation would show that the first is to the second in about the same ratio as the eleven obstinate jurymen to the unconvinced one, while the third is in reality a section of the first, ready to embrace any compromise for the purpose of saving a moiety of the original system. It is, therefore, evident that a very large majority are conservative of the old state of things, while the minority support the new *régime*.

Now, it does not of necessity follow that the many cannot err, and still less so in this instance, in which the officer highest in rank, and whose opportunities for forming a correct judgment have been so extended, holds the opinion of the minority. On the contrary, believing in the unswerving probity and disinterestedness of the efforts of the Director-General on behalf of his department, I conceive that it is the duty of every medical officer to accept with all submission the change of organisation which our representative has deemed it right to advise, *provided that* he assures his subordinates that the full spirit and form of his recommendations have been embodied in the new regulations. On the other hand, I hold that it is equally a point of honour on the part of the Director-General, should he find his proposals to be altered and emasculated by those for whose approval they have to be submitted, to withdraw from all endeavour to force a bastard system upon an unwilling department.

Now, we have of late been repeatedly informed, in almost demi-official tones by your contemporary the *Lancet*, that the intention of the originators of the staff scheme must not be judged by the results attained, and that they themselves can scarcely identify the outline even of their own conception. Under these circumstances, it is but seeking common justice to demand that, by all its promoters, this graceless mongrel scheme should be disowned.

Thus I think discord can be reduced to concord in five requirements: 1. A complete return to the regimental system. 2. Superannuation of the Surgeon-Generals and Deputy Surgeon-Generals at sixty years of age. 3. Superannuation of Surgeon-Majors at fifty-five years of age. 4. Optional retirement at twenty years on fifteen shillings a day. 5. Guaranteed promotion at fifteen years' service.—I am etc.,

HARMONY.

## DR. E. HAMILTON'S STATISTICS.

SIR,—In a letter in the *Lancet* of January 30th, Mr. Boileau attempts to defend Dr. Edward Hamilton's statistics, commented upon in this JOURNAL, in reference to the comparative expense of promotion of army surgeons at twelve years' and at fifteen years' service. In doing so, he gives Dr. Hamilton credit for more accuracy than he deserves, and at the same time does not perceive that his own more accurate figures furnish a severe commentary upon that gentleman's statistical vagaries. He shows (as was done in this JOURNAL already) that there is an excess of expenditure *every* year in the twelve-years' system, instead of a positive saving after some years, as preposterously stated in the pamphlet in question. Mr. Boileau, however, manages to make it appear that Dr. Hamilton's figures are nearer the truth by an ingenious process. 1. He calculates the bare difference of pay, and adds 8d. a day, or the difference of the lodging-allowance only. 2. He calculates the annual decrement at 4 per cent. Now, Dr. Hamilton supposed a difference of 5s. a day of allowances (instead of 8d.), and calculated the decrement at 3 per cent., which would make the sum of £4,715 *per annum* (supposed by Mr. Boileau to be the probable annual expense) more than £11,000. It is true that, just at the end of his letter, he admits that, if the forage-allowance be guaranteed, the expense will be £8,164; but states that, after the next twelve years, it will be much less. It has already been shown in this JOURNAL that the expense for the next eleven years will be £9,300 annually (as an average), calculating the decrement at 3 per cent.; and that the final constant difference would be about £8,100, below which it would not fall. Mr. Boileau's *method* is correct, but his *application* of the results is wrong. I am, sir, yours obediently, STATISTIC.

## REORGANISATION OF THE ARMY MEDICAL DEPARTMENT.

A PRINTED paper containing the following "Suggestions for the Reorganisation of the Army Medical Department" has been forwarded to us. It is stated that they have been submitted to a large number of Army Medical Officers, and that they have been carefully revised and fully approved of by them. They appear to have been drawn up in an impartial spirit, with a view to an equal participation of all medical officers in the provisions contained in them, and not for the benefit of any particular section of the medical department, as seems to have been the case in some of the schemes brought to the notice of the profession recently. We would only inquire whether a calculation has been made of the cost that would be incurred in carrying out suggestions Nos. 13 and 15. We imagine that the forced retirement of all officers of the administrative ranks at sixty years, on the terms named, would involve a larger outlay in retiring pensions and fresh appointments than is generally supposed; but it may yet not be too large a sum, if its expenditure will secure a steady course of promotion, and a more contented state of mind in all ranks of the army medical department. With this remark we place the suggestions themselves before our readers, in the order in which they have been sent to us.

1. Department to be styled the "Royal Medical Staff Corps", and all officers to be executive as far as the command of the Army Hospital Corps is concerned, both as regards officers and men.—2. Promotion to the rank of surgeon-major to be fixed at fifteen years' full pay service at *latest*, but to be earlier if possible, *e.g.*, in time of war.—3. All medical officers ranking as field officers to be entitled to forage as laid down in the warrant of 1858.—4. Every officer to be entitled to sixty-one days' leave in the year on full pay and allowances; the arrangements for the performance of his duties to be made by the administration of the "Royal Medical Staff Corps".—5. Officers requiring additional leave on urgent grounds, to be granted it on pay only, without allowances.—6. Medical officers to be placed on the same footing as officers of the rest of the army as regards sick leave.—7. Medical officers, no matter how employed, to have a fixed scale of allowances, which shall only bear one interpretation, subject, however, to deductions on a fair scale, when quarters, servants, or forage, etc., are supplied by government. Servants' allowance to be 1s. 6d. *per diem.*—8. Medical officers attached for any period to regiments, to pay the usual monthly subscriptions to the mess, but not to be liable for the fifty days' pay donation on first joining.—9. All medical officers to be placed on one roster for foreign service, and to go abroad in their turn, irrespective of any appointment they may be holding.—10. Exchanges to be allowed, and to be *bonâ fide;* the officer staying at home to take up the post vacated by the officer going abroad.—11. Medical officers to be relieved of all the duties properly belonging to purveyors; subordinates for that purpose being placed under the orders of the principal medical officer in the station, and being responsible to him for all stores.—12. The Royal Medical Staff Corps to have sole charge of and control in the military hospitals, subject only to the authority of the general commanding officer.—13. Retirement of officers of the administrative ranks to be obligatory at sixty years of age, and on more liberal terms—say 35s. a day for deputy-surgeon-general, and £2 for surgeon-general.—14. Tenure of office for administrative ranks to be limited to five years in each grade, or ten years in the two: officers so retired to receive the maximum rate of half-pay. All other official appointments (except that of director-general) to be limited to five years.—15. Surgeons-major to be allowed to retire after 20 years' full pay service on 16s. a day, to be increased by yearly increments of 1s. *per diem* for each subsequent year's service, till the maximum pension of 26s. a day is obtainable, *e. g.*, £1 1s. at 25 years' service, and £1 6s. after 30 years, and not to be dependent on medical boards.—16. Officers retiring through ill health, caused in or by the service, to be allowed a higher rate of retirement, according to the recommendation of a medical board.—17. Officers retiring from ill health before the completion of twenty years' service, to be granted seven-tenths of the pay they were drawing, when invalided.—18. Surgeons-major after twenty years' service, to rank as lieutenant-colonels, deputy-surgeons-general as colonels, and surgeons-general as major-generals, *according to date of commission.*—19th. Distinctive staff dress: tunic, patrol jacket, mess jacket and waistcoat, full dress trousers, sword and dress belts as at present. Substitute staff forage cap, and staff undress trousers for those now in use. Abolish the black belts, and substitute some other head dress for the cocked hat, except for the administrative ranks.—20. A guarantee be given that whatever terms favourable to the department be now granted, shall not be interfered with or nullified by subsequent circulars.

# PUBLIC HEALTH
AND
# POOR-LAW MEDICAL SERVICES.

## REGISTRARS' FEES FOR SANITARY PURPOSES.

NEARLY all the metropolitan parishes have been compelled to accede to the suggestion of the Registrar-General that they should pay the registrars of births and deaths for the weekly returns supplied to the medical officers of health for sanitary purposes. Those parishes which resisted the Registrar-General's reasonable proposal that the registrars should supply the number of births registered each week in their respective districts gratuitously, and be paid £1 per quarter for the first fifty, and one penny for each subsequent entry, have been compelled to pay in some instances nearly double to the registrars, as they cannot get their returns from the Registrar-General. Paddington has consented to pay 25s. per quarter for the first fifty, and 2d. for each additional entry. The St. Pancras registrars have agreed to accept £1 for the first fifty deaths, and 2d. for each subsequent entry per quarter. In Marylebone, a somewhat similar arrangement has been made; but in some of the parishes, as much as 30s. for the first fifty, and 3d. for each subsequent entry, is demanded by the district registrars.

## REPORTS OF MEDICAL OFFICERS OF HEALTH.

HASTINGS (URBAN) SANITARY AUTHORITY.—The Medical Officer of Health's last quarterly report contains also a "Retrospect for 1874". From Mr. Ashenden's calculations, it appears that the death-rate of Hastings last year was hardly at the rate of 18 per 1,000 *per annum.* The birth-rate for the same period was 26.8, or 6 below the average for England and Wales. Phthisis and cancer each contributed largely, viz., 83 and 24 deaths respectively, to the general death-rate. It would be interesting to know how many of these cases of phthisis and cancer were imported ones. The births amounted to 902, the deaths, at all ages, to 602 (112 being visitors); and 126 children died under one year of age, and 232 under five. Zymotic disorders contributed a sixth of the total number of deaths; so it would appear that Hastings has not yet arrived at anything like sanitary perfection. Of this sixth, "whooping-cough" contributed 32 deaths, and "croup" 18; diphtheria, 6; measles, 11;

and scarlet fever, 4. There were 13 deaths from violence. "The borough", says Mr. Ashenden, "has been free from any epidemic." This hardly tallies with the above figures; but it is gratifying to learn how the judicious use of disinfectants, and the isolation of fever-cases, kept scarlet fever within narrow bounds. Mr. Ashenden recommends the sanitary authority to erect an infection hospital of their own, and to provide a disinfecting apparatus and a sanitary vehicle. We hope they will follow his wise counsel.

It seems that at Hastings "bell-traps" are relied upon to keep out sewer-gas from houses. The sooner these wretched traps are discarded, and thorough disconnection from drains and outside trapping adopted, the better for Hastings, notwithstanding the belief that "there is no town in England where the drainage is so satisfactorily carried out, and the ventilators of each, with its disinfecting apparatus fulfil their purpose admirably". It is evident that a perusal of Drs. Parkes and Sanderson's report on Liverpool would teach the Hastings Sanitary authority some useful lessons. The water-supply appears to be derived from wells and from waterworks also. Out of fifty-four samples of water, Mr. Ashenden has condemned twenty as unwholesome, and he evidently considers that the list might be enlarged. More than twenty gallons per head daily are now supplied from the waterworks, but we cannot altogether endorse Mr. Ashenden's advice to the consumers "to have their cisterns large enough". The well from which St. Leonard's is chiefly supplied is stated to be "a splendid water".

As to the meteorology of Hastings, Mr. Ashenden endeavours to show the superiority of its climate to that of other watering-places. Nevertheless there were recorded in 1874, forty-two deaths from bronchitis, and twenty-eight from pneumonia.

Swansea (Rural) Sanitary Authority.—From Mr. Rogers's two reports, December 6th, 1874, and February 3rd, 1875, it appears that his district has been suffering rather severely from scarlet fever. Mr. Rogers does not state what steps are taken by the sanitary authority to combat the epidemic, but his reports are mainly occupied with statistics. The population of the district is not stated, but it is stated that there were nine deaths in the month of December from scarlet fever, and seven in January.

## POOR-LAW MEDICAL APPOINTMENTS.

Macnaughton, John, M.B., appointed Parochial Medical Officer to the Kilmichael District of Glassary Parish, Lochgilphead, *vice* W. Dougan, M.D., resigned.

Symmons, George S., M.R.C.S.Eng., appointed Resident Medical Officer to the Chorlton Union Workhouse, *vice* D. Walshe, L.K.Q.C.P.I., resigned.

Todd, John George, L.R.C.P.Ed., appointed Medical Officer and Public Vaccinator for the Byers Green District of the Auckland Union, Durham, *vice* H. G. Hardy, L.R.C.P.Ed., deceased.

## APPOINTMENTS OF CONSULTING MEDICAL OFFICERS OF HEALTH IN IRELAND.

Reid, James Seaton, M.D., appointed Consulting Sanitary Officer for the Belfast Rural Sanitary District.

Russell, John, L.K.Q.C.P.I., appointed Consulting Sanitary Officer for the Thurles Rural Sanitary District.

Ryan, John, M.D., appointed Consulting Sanitary Officer for the Killadysert Rural Sanitary District.

Sterling, Miles, L.R.C.S.I., appointed Consulting Sanitary Officer for the Thomastown Rural Sanitary District.

# UNIVERSITY INTELLIGENCE.

## UNIVERSITY OF OXFORD.

Magdalen College: Demyships and Exhibition.—There will be an election at this College in June next to not less than six demyships and one exhibition. Of the demyships, one at least will be mathematical, one at least in natural science, and the rest classical. The exhibition will be in natural science. No person will be eligible for the demyships who will have attained the age of twenty years on the 10th of October next. Candidates for the exhibition will have to prove to the electors that they cannot be supported at College without such assistance. They will not be eligible after the age of twenty-three. The stipend of the demyships is £95 *per annum*, and of the exhibition £75, inclusive of all allowances; and they are tenable for five years, provided that the holder does not accept any appointment which in the judgment of the electors will interfere with the completion of his University studies. Testimonials of good conduct will be required, and a certificate of birth, which must be presented to the President on Monday, June 14th, between the hours of four and six, or eight and nine P.M. The examination will commence on the following day. Particulars relating to the examinations in the various subjects may be obtained by applying to the senior tutor.

# MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, March 25th, 1875.

Day, Edward Joseph, Woodgates, Dorset.
Karop, George Charles, Middlesex Hospital.
Prichard, Arthur William, Clifton, Bristol.
Seward, William Joseph, Hereford.
Wilkins, Gilbert Hamilton, 112, Brixton Road.

The following gentlemen also on the same day passed their primary professional examination.

Angove, William Thomas, St. Bartholomew's Hospital.
Birt, Louis Francis Hugh, } Charing Cross.
Blackman, Joseph George, }
Hill, Alfred Bostock, Birmingham.
Maine, Walter, } Middlesex Hospital.
Price, Ebenezer Edmund, }

King and Queen's College of Physicians in Ireland.—At the monthly examination, held on Tuesday, Wednesday, and Thursday, March 9th, 10th, and 11th, 1875, the License to Practise Medicine was granted to—

Messrs. Robert Alexander Caldwell, John Clifford, Albert Croly, Henry Fitzgibbon, Abraham Nickson Hojel, Thomas Knox, Charles Sidney Richardson, Ernest Marcus Thompson.

The License to Practise Midwifery was obtained by—

Messrs. John Blood, Robert Alexander Caldwell, John Clifford, Albert Croly, John Arthur Irwin, Thomas Knox, Charles Ferdinand Marks, Charles Sidney Richardson, James Charles Stöyte, Ernest Marcus Thompson.

## MEDICAL VACANCIES.

The following vacancies are announced:—

BARTON-UPON-IRWELL UNION—Medical Officer for the Cadishead District. Salary, £25 per annum.

BETHLEM HOSPITAL—Two Resident Medical Students.

BOLTON UNION—Medical Officer for the Horwich District. Salary, £30 per annum.

BRADFORD INFIRMARY AND DISPENSARY—Physician. Applications to be sent on or before June 12th.

BRISTOL ROYAL INFIRMARY—Dispenser. Salary, from £100 to £120 per annum. Applications on or before the 12th instant.

BRIXTON. STREATHAM, AND HERNE HILL DISPENSARY—Resident House-Surgeon. Salary, £150 per annum, with furnished apartments, attendance, coals, and gas. Applications on or before April 5th.

CENTRAL LONDON OPHTHALMIC HOSPITAL—Assistant Surgeon. Applications on or before April 3rd.

DOVER UNION—Medical Officer for the St. Mary's District and the Workhouse. Salary, £180 per annum.

FYLDE UNION—Medical Officer of Health for the Rural Sanitary District. Salary, £60 per annum. Applications on or before the 6th instant.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton—Two Physicians. Applications on or before the 14th instant.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST—Resident Clinical Assistant. Applications on or before April 5th.

HULL AND SCULCOATS DISPENSARY—House-Surgeon. Salary. £150 per annum, with furnished apartments, coals, and gas. Applications not later than the 6th instant.

LIVERPOOL ROYAL INFIRMARY—Resident Medical Officer. Salary, £100 per annum, with board, lodging, and washing. Applications on or before Aoril 10th.

MANSFIELD UNION—Medical Officer for the Fifth District. Salary, £32 10s.

METROPOLITAN FREE HOSPITAL, Devonshire Square, City. Assistant House-Surgeon. Applications on or before the 12th instant.

MILFORD UNION, co. Donegal—Medical Officer for the Ramelton Dispensary District. Salary, £100 per annum, and fees.

NEWBURY UNION—Medical Officer for the Fifth District.

NEWMARKET UNION—Medical Officer for Nos. 1 and 3 Districts. Salary, £85 per annum.

POCKLINGTON UNION—Medical Officer for the Second Pocklington District and the Workhouse. Salary, £20 and £20 per annum.

POOLE UNION—Medical Officer for No. 2 District. Salary. £60 per annum.

ROYAL INFIRMARY FOR WOMEN and CHILDREN, Waterloo Bridge Road—Physician.

SALFORD AND PENDLETON ROYAL HOSPITAL AND DISPENSARY—District Surgeon. Salary, £80, with board and lodging. Applications on or before the 7th instant.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY—Assistant House-Surgeon. Salary. £65 per annum, with board. lodging, and washing.

SOLIHULL UNION—Medical Officer for the Solihull District. Salary, £44 per annum.

TORBAY INFIRMARY—House-Surgeon. Salary, £100 per annum, with board and lodging.

WESTMINSTER HOSPITAL—House-Physician. Applications on or before April 5th.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL—House-Surgeon. Salary, £100 per annum, with board, washing, and furnished apartments. Applications on or before May 3rd.

WORCESTER AND CITY LUNATIC ASYLUM, Powick—Assistant Medical Officer. Applications on or before April 5th.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication*

### BIRTHS.

DALY.—On March 30th, at 101, Queen's Road, Dalston, the wife of Frederick H. Daly, M.D., of a daughter.

LONG,—On March 31st, at 185, Amherst Road, Hackney, the wife of Mark Long, M.D., of a daughter.

### MARRIAGES.

HOPKINS—KIRKMAN.—On March 31st, at St. Peter's, Catherington, by the Rev. W. Crotch, Vicar of the Parish, and the Rev. T. W. E. Thomas, second Master of Epsom College, Henry Culliford Hopkins, Surgeon, Bath, to Georgina Mary, youngest daughter of J. T. Kirkman, F.R.C.S., of Horndean, Hants.

LITHGOW—MURRAY.—On March 16th, at St. Jude's, South Kensington, by the Rev. R. W. Forrest, M.A., Vicar, assisted by the Rev. G. B. Pennell, M.A., Robert Alexander Douglas Lithgow, L.R.C.P.E., L.R.C.S.E., L.S.A Lond., etc., of Wisbeach, Cambridgeshire, to Emily Mary, only daughter of Sir Robert Murray, Bart., of Hill Head, N.B., and of the late Lady Murray of Ardeleybury, Herts.

RIGDEN—FENTON.—On March 31st, at the Parish Church of St. George, Doncaster, by the Rev. Francis Pigou, Vicar, Walter Rigden, Esq., Surgeon, of Montpelier Square, London, son of George Rigden, Esq., Surgeon, Canterbury, to Cecilia Frances, third daughter of C. D. Fenton, M.D., of Doncaster.

### DEATH.

*PAGET, Thomas, F.R.C.S., at Leicester, aged 78, on March 19th.

## MEDICAL APPOINTMENTS.

*Names marked with an asterisk are those of Members of the Association.*

DIXON, Hanmer, M.B., appointed Assistant Medical Superintendent to the Bristol Lunatic Asylum, *vice* M. R. Draper, L.S.A., resigned.

## THE ABUSE OF HOSPITALS: MEMORIAL TO THE COMMITTEE OF COUNCIL.

SINCE we last alluded to this subject, the following names have been added to the list of signatures:—Sir Henry Thompson; Dr. C. J. B. Williams, F.R.S.; Mr. White Cooper; Dr. Russell Reynolds, F.R.S.; Dr. Wilson Fox, F.R.S.; Mr. Samuel Lane; Mr. James Lane; Dr. Hughlings Jackson; Dr. Theodore Williams; Mr. Holthouse; Mr. Henry Arnott; Dr. Whipham; Mr. A. T. Norton; Mr. T. Bond; Dr. Potter; Dr. Norman Kerr; Mr. W. Rendall (Forest Hill); Dr. Woodhouse, J.P. (Hertford); Dr. Kebbell (Brighton); Dr. Rutter (Brighton); Dr. Alfred Hall (Brighton); Dr. Seymour (Brighton); Dr. Stephens (Brighton); Mr. Beavan (Brighton); Mr. Herbert Upton (Brighton); Mr. Edward Bickncll (Coventry); Mr. McVeagh (Coventry); Mr. Fenton (Coventry); Mr. Kitchen (Manchester); Dr. Oxford (Southsea); Dr. Fiddian (Cardiff); Dr. Bacot (Blandford); Dr. T. Joyce (Cranbrook); Dr. Edwyn Andrew (Shrewsbury); Mr. Charles Solomon (Hull); Mr. S. F. Gosling (Congleton).

As it is proposed to forward the memorial to the president of the Committee of Council in a few days, gentlemen who are desirous of adding their signatures, are requested to communicate at once with Dr. Meadows, 27, George Street, Hanover Square; or with Mr. Fairlie Clarke, 12, Mansfield Street, Cavendish Square.

TESTIMONIALS.—Dr. W. M. Mackenzie of Kelso has been recently presented with a testimonial, in acknowledgment of the general appreciation of his skill, courtesy, and attention as a medical adviser, by the inhabitants of the border districts, after twenty-five years of practice among them. The testimonial was subscribed for by all classes of society, and amounted to the sum of £570. A handsome timepiece was purchased, and a cheque for the balance presented to Dr. Mackenzie. The clock bore the following inscription: "Presented to W. M. Mackenzie, Esquire, M.D., Kelso, with five hundred guineas, by his friends and patients, on the completion of his twenty-fifth year as a medical practitioner in Kelso and neighbourhood, in testimony of the high estimation in which his professional and public services during that long period are held, as well as the regard and kindly feeling entertained for him by them.—26th March, 1875."—Mr. George S. Symmons, late medical officer of the Ledbury Union, has been presented with a testimonial as a mark of the esteem in which he is held. The testimonial consisted of a purse of fifty sovereigns, and a handsome clock bearing the inscription "Presented, accompanied by a purse of £50, to George Stratten Symmons, Esq., 13 years Medical Officer of the Ledbury Union. March 18th, 1875."—Dr. Burns, the late principal medical officer of the Chatham convict prison has been presented with a handsome jug, inscribed "Presented to J. J. D. Burns, Esq., M.D., by the officers of H.M. Prison, Chatham, as a slight token of the respect and esteem with which they regard him."—The students of Anderson's University, Glasgow, have presented Dr. A. M. Buchanan, Professor of Anatomy, with an address, and a handsome ebony walking-stick with a richly chased gold head, bearing an inscription and monogram.

## OPERATION DAYS AT THE HOSPITALS.

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| MONDAY ...... | Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M. |
| TUESDAY ...... | Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M. |
| WEDNESDAY .. | St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M. |
| THURSDAY .... | St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Roya Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M. |
| FRIDAY ......... | Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M. |
| SATURDAY .... | St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M. |

## MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Mr. Henry Smith, a short communication "On a Case of Injury simulating Extravasation of Urine"; Mr. Lennox Brown, "Considerations on the Treatment of New Formations of a benign Character in the Larynx"; Dr. Metcalf of Geneva (by Dr. Sedgwick), "A Case of Numerous and Severe Injuries from a Fall".

TUESDAY.—Pathological Society of London, 8.30 P.M. Dr. Charlton Bastian will open a discussion on "The Germ-Theory of Disease; being a Discussion of the Relation of Bacteria and Allied Organisms to the Virulent Inflammations and to the Specific Contagious Fevers".

WEDNESDAY.—Royal Microscopic Society. Mr. H. C. Sorby, "A New Mode of Applying Spectrum-Analysis to the Microscope, etc."—Obstetrical Society of London, 8 P.M. Discussion on Puerperal Fever.

FRIDAY.—Clinical Society of London, 8.30 P.M. Dr. Buzzard will exhibit a patient with Disseminated Sclerosis. Dr. Dowse, "An Unusual Case of Lead-Poisoning"; Mr. Jonathan Hutchinson, "Case of Intracranial Aneurism, diagnosed during life, and in which spontaneous cure occurred, and the patient lived for eight years": Dr. Hermann Weber, "Three Cases of Pyæmia, caused by Acute Suppuration of the Middle Ear, and a Case of Acute General Tuberculosis, caused by Chronic Inflammation in the same locality".

## NOTICES TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

### ENGLISH PRACTITIONERS IN FRANCE.

S. P. inquires what are the restrictions, if any, that are placed on an Englishman wishing to practise as a physician in any of the maritime towns in the south of France.

*** To possess a French degree is an indispensable condition to practise in France. The government is rather indulgent in that way, but the *confrères* of a country town would not, for many reasons, tolerate a practitioner who did not possess a French qualification. If the possessor of an English qualification wish to practise in France, he may, with a special permission of the Minister of Public Instruction, take the Paris M.D. by passing only the fifth examination (which is purely clinical) and the thesis. This degree may be taken also at Montpellier and at Nancy.

### MEDICAL TITLES.

SIR,—Because medical men have long been called doctors by courtesy, therefore custom has established a rule, and we are now entitled to use the designation as a prefix; if this be correct, any one, because by courtesy he is addressed as Sir, in a letter or otherwise, may claim that it be written on the envelope, or print it on his cards—the only difference being that one would assume an university, and the other a court title. If Dr. Brown's motion should be carried, why should not others, following our reasoning, appropriate the title Sir, as we propose to appropriate that of Dr.?

Thanking you heartily for your advocacy in the matter of the M.D. degree, I am, yours truly,

LAM-ALEPH.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

### THE CASE OF THE LATE MR. MERRYWEATHER.

SIR,—Thanks to the kindness of yourself and others in giving publicity to the case of the late Mr. P. C. Merryweather, I am happy to be able to state that the total amount received by Dr. Atwood and myself already reaches £148 16s. Although to many persons this may not seem a large sum wherewith to recommence the world, it will enable Mrs. Merryweather to open a school as she proposed, and it gives her good hope and encouragement for the future. She feels very grateful for all that the medical brethren of her late husband and other friends have done for her.

Kindly insert the following list of the donations received; and should Dr. Atwood or I be favoured with any additional contributions we shall gratefully acknowledge them, for, as I mentioned in my letter to you of March 8th, we believe this to be especially a case in which help now given will be not only a temporary relief to the widow, but a permanent assistance to the whole family of a deceased medical brother.—I have the honour to be, sir, yours very faithfully,

CHARLES J. HARE, M.D.Cantab., F.R.C.P.

57, Brook Street, Grosvenor Square, March 22nd.

| | | | |
|---|---|---|---|
| Donations already acknowledged | £63 | 15 | 0 |
| Roberts, Major | 0 | 10 | 0 |
| Roberts, Mrs. | 0 | 10 | 6 |
| Miller, Benjamin, M.R.C.S., Denmark Hill, S.E. | 0 | 10 | 6 |
| Mrs. Morton | 1 | 0 | 0 |
| Hovell, D. De Berdt, F.R.C.S., Clapton, E. | 1 | 0 | 0 |
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| Bull, Henry G., M.D., Hereford | 3 | 3 | 0 |
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| Belcher, Rev. Henry | 0 | 10 | 0 |
| "Lily" | 0 | 10 | 6 |
| Liddard, W., Esq., Addison Road, W. | 0 | 10 | 6 |
| Langmore, Fredk. Geo., Esq., Westbourne Park | 1 | 0 | 0 |
| Frost, Dr., Ladbroke Square, W. | 1 | 1 | 0 |
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| C. S. W. | 1 | 0 | 0 |
| Seaton, Joseph, M.D., Sunbury | 3 | 3 | 0 |
| Total | £148 | 16 | 0 |

SIR,—Will you permit me to say a few words in support of the powerful appeal made by Dr. Hare in your JOURNAL of the 13th instant, on behalf of the wife and family of the late Mr. Merryweather? In the case of a similar appeal on behalf of the family of a deceased medical man, it was urged in derogation of their claims that there had been great improvidence; that, during her husband's lifetime, the lady and her children were the most expensively dressed persons in the neighbourhood. Having known poor Mr. Merryweather very intimately during the whole of his professional life, I can bear testimony to the fact that, both as to their personal and domestic expenditure, he and his wife were alike most careful and economical; and this not only in later years, when owing to his frequent illness his income had become reduced, but also at a time when his practice was good, and his prospects such as might fairly have justified a larger expenditure.—I am, sir, your obedient servant, JOSEPH SEATON, M.D.

Halliford House, Sunbury, S.W., March 23rd, 1875.

ALPHA wishes to know whether the permanent prohibition from practice of resident surgeons to large special hospitals does not involve injustice to them, especially when the cases are treated by special local means, and whether it is not too commercial to be consistent with professional principle.

*** The prohibition to which our correspondent refers seems to us to be not fair to those on whom it is imposed, and to savour too strongly of monopoly to be consistent with the principles which ordinarily guide the profession.

ASSOCIATE (Salisbury).—Dr. Richard C. Shettle is Local Secretary of the Reading Branch.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

### ASHLEY FUND: FINAL LIST OF SUBSCRIPTIONS.

| | | | |
|---|---|---|---|
| J. E. Erichsen, Esq. | £10 | 10 | 0 |
| Dr. Greenhill, Hastings | 1 | 0 | 0 |
| J. T. Clover, Esq. | 2 | 2 | 0 |
| Dr. Atwood | 3 | 3 | 0 |
| H. Stear, Esq., Saffron Walden | 2 | 0 | 0 |
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| W. B. Owen, Esq. | 1 | 1 | 0 |
| J. Owen, Esq. | 0 | 10 | 6 |
| Miss Hopkins | 0 | 10 | 6 |
| Mrs. Sconce | 3 | 0 | 0 |
| | £52 | 7 | 0 |
| Amount previously published | 152 | 7 | 6 |
| Total | 204 | 14 | 6 |

### DOES MALARIOUS POISON EXIST?

SIR,—In connexion with the controversy carried on in the columns of the BRITISH MEDICAL JOURNAL on the existence of malaria, denied by Dr. Inman, strongly upheld by Dr. Maclean, and supported by Dr. B. Hamilton, there are, I am sure, very many physicians and surgeons of large experience in the tropics, especially in our Eastern dependencies, who would probably have given their valuable testimony to the undoubted existence of malaria, did they not feel, with myself, that Dr. Maclean was very well able to do battle for the truth against any mere theorist, utterly inexperienced, and confessedly unqualified to judge from personal observation of the subject on which he was rash enough to write; and that Dr. Maclean's papers were quite convincing to any soberly judging man of education, who knows *practically* anything about the matter. But one phrase of Dr. Inman is worth considering, viz., "that until our teachers (or would-be teachers?) have a larger capacity, etc., the practice of our profession will not improve" (page 8 of JOURNAL), and "if a soldier be taught that agues come from the soil," etc. Now, here is an important practical matter, and an underlying great danger; if our young men, students and medical officers, fond, it may be, as some young men are, of new lights and pseudo-scientific deductions of unwisely conducted parlour study, should unhappily receive as truth the asseverated belief of Dr. Inman "that malaria does not exist, and that ague and other so-called malarious fevers arise from a simple chill," etc., what evil practice, and what dire results to our soldiers and sailors may not arise! "Malaria does not exist," they will argue; "therefore do nothing to avoid it. laugh at all the advised precautions of the stupid old Indian doctors, keep yourself warm with a blanket or wood-smoke, and sleep when and where you please."

In face of such danger to a new generation of military and naval surgeons who might sacrifice their hecatomb of valuable lives before being convinced of their mistake, I think it incumbent on those who have the welfare of their country and its defenders at heart, to add the testimony of large and long experience to demolish such a fatal theory as that published with such confidence by Dr. Inman and the few who agree with him. I know I must be brief, but would just allude shortly to a few of the more glaring inaccuracies referred to.

1. Dr. Inman says (page 7 of the JOURNAL), "Dr. Oldham's argument is that so-called malarious diseases are due to chill after great heat", etc.; and he naively adds, "no hypothesis can be more simple." Beautiful simplicity, no doubt; so were Dr. Sangrado's theory and practice, when the world was much younger and not so wise as now. In replying to this and other fallacies, allow me to give, as shortly as possible, bold facts that cannot be controverted, and which speak for themselves. I would instance, first, the climate of Ootacamund, 7,500 feet above sea-level, where the range of temperature at certain seasons is as great, perhaps, as in any region of the globe. As senior staff medical officer at Ooty, I had charge of the meteorological instruments supplied by Government: all of the best. On a morning in March (24th), before mounting my horse at 6.15 A.M., I have marked the self-registering thermometer at 18 deg. Fah. (14 deg. of frost); on returning home the same day at 1.30 P.M., I have marked it, in the sun's rays, 182 degs.—a range of 164 degs. in a few hours—if surpassed in any other climate, sufficient at least for our purpose. Chills in Ooty, as may readily be believed, are neither few nor slight, and are destructive enough to young and old; the ordinary diseases contracted from exposure to such changes, *e.g.*, pleurisy, pneumonia, laryngitis, and other affections of the chest and throat being of every-day occurrence. But malarious fevers of any kind, as contracted in the station, are exceedingly rare. I had some thousands of cases of disease to treat during my tenure of office, amongst them, two of continued fever following sunstroke; I never saw a case of remittent fever, except one brought from the low country for treatment in hospital. Ague, except also as imported, was unknown; the gangs of convicts under my charge, also, exposed to the burning heat of the sun as above, and to the low temperature of evening and morning, often suffering, too, from over-fatigue, got no ague, the few cases of malarious fever observed amongst all classes being in the persons of new arrivals, who had contracted the same on the ghauts or in the jungles at the foot of the mountains. On the other hand, the jungly country at the foot of the hills is full of malaria—few escape it who spend much time in passing through, or who sleep at certain stations; but, mark the fact, "there is no chill" to be had there—in the hot weather, at least! One cannot even get *cool* unless by sitting for an hour or so in the coldest water procurable (which is constantly done with impunity in these close muggy regions). The heat, say in April, is very great, 96 deg. to 110 deg. in the shade, during day; seldom below 90 deg. in the open air at night. The air at such season is almost devoid of moisture, the earth is baked as dry as a new brick, there is absolutely *no dew*, the

human body is bathed in perspiration by night as well as by day; and yet these jungles teem with malarious fevers—more at some seasons than at others, but they are never absent. In my own person, exposed as I was to the great extremes of the Ooty climate, feeling my head racked by the terrible strength of the sun's rays, through the best of pith hats, with the thickest of white covers, and being chilled through substantial home clothing when returning from a night case amid the dense fog in a temperature of 12 or 14 deg. below the freezing-point, I caught several colds, was threatened with rheumatism, etc.; but, although I had suffered very often, and very much, from malarious fevers, I never had a touch of true fever while there.

Let us turn now to a very different climate, that of Labuan, lat. 5 deg. N., off the coast of Borneo. When our countrymen took formal possession of Labuan (1846, I think, was the year), our sailors, marines, and officers who landed were cut down in most alarming fashion. The first object that attracted my attention on landing in the island in 1850, was an obelisk with a portentous and melancholy list of the victims of malaria engraved thereon. These men had no chill, they did not even sleep on shore; there was no dwelling-place to sleep in, they slept in their hammocks, well protected, but with the ship anchored well in shore, in a fine bay, and they sickened with fever, and died like "rotten sheep". On my arrival I found that my predecessor, a robust, healthy man (who had built a capital house), had died shortly before of remittent fever, after about forty hours' illness. The colonial surgeon had also been *in extremis*, had been put on board ship, and a looking-glass was applied over his lips to show if he still breathed; but he fortunately recovered, as the vessel put off to sea: he also was well housed, and there was no history or suspicion of a "chill". My *locum tenens*, who had been but a short time in the island, was in bed with fever when I called to see him, and begged me to let him be carried to the steamer (which had just conveyed our party) without the formality of "handing over medical charge". He, too, was very comfortably domiciled in the house of the governor, the famous rajah Sir James Brooke; and I believe he would bear me out in saying, that he had taken all possible care to avoid cold, and other causes of illness. Clearing of the jungle, however, was then going on, with drainage of the swampy low ground adjacent to the little town which had been built; the military and the civilians of the government staff were located on well raised and dry ground about a mile from the nearest swamp; and everything was done to expel the poison emitted from the unwholesome surface. In the year preceding my arrival, the death-rate in the detachment of troops was above 100 per 1,000; in the fourteen months during which I held charge of the detachment which accompanied me to Labuan, the death-rate was reduced to 30 per 1,000. The men belonged to the same regiment, were lodged in the same barracks occupied previously by their comrades, had the same rations, etc., and none of them were exposed to chills at any time; they had no heating or fatiguing labour, their only duties being light drill in the morning, and the furnishing of two or three guards. Now, about the climate of this pleasant abode. Little raised above sea-level, and very near the equator, the temperature was high, and varied little. The greatest heat in shade ever observed by me was not over 97 deg Fahr., in an exposed verandah, equivalent to about 92 deg. in a good house; this in the month of April. The lowest minimum, at six o'clock on a January morning, was 72 deg. in the open, outside my house; but there was no such variation for the most part, these figures being the extremes of heat and cold for the whole year. The ordinary maximum was 84 deg. to 86 deg. in the hot dry weather; and 76 deg. to 80 deg. in the wet or monsoon weather; the ordinary minimum 80 deg. to 84 deg. in the two hot months (March and April); 78 deg. to 80 deg. in the others. The hottest time in the twenty-four hours was in the forenoon; the coolest in the afternoon (about 4 P.M.)—the thermometer rising, say, from 78 deg. at 4 P.M., to 83 deg. or more at night, in the hot weather; this being explained by the prevalence of the cool sea-breeze from noon to about sunset, after which the radiated heat from the sun-baked ground again raised the temperature considerably. Fevers and agues were almost the only complaints in the island during my residence, and the percentage of sickness much the same throughout the year. I think these plain facts "speak for themselves"; and I must not enlarge. I need only add here, that the few who escaped the Labuan fever of these days, did so, humanly speaking, by sleeping as high above the ground as possible (my house was raised about ten feet above drained ground; I never had fever in Labuan), and by shutting out sedulously the malarious vapours of the night.

2. Dr. Inman says, in malarious districts (how can he allow that there are "malarious districts"?), the temperature ranges from 140 or 150 deg. to about 50 or 45 deg. I need only remark, that the most malarious districts, evolving the most deadly fevers, have no such range, as is very well known to most Indian surgeons and others who have been much in tropical countries; but have a temperature ranging from 80 to 86 deg. minimum, to 100 or 110 deg. maximum, in the hot season, and 76 to 80 deg. minimum, to 80 or 86 deg. maximum, in the monsoons. Again, it is not those, *cæteris paribus*, who work during the day who get fever, but, as a rule, rather those who are more or less idle. Regiments of European soldiers, fond of cricket, will play throughout a whole hot season (thermometer 96 to 120 deg. in the shade, 150 to 170 deg. in sun's rays), return to barracks fatigued, and their clothes soaking with perspiration, will do little even to avoid draughts and chills in cooled rooms, and yet suffer much less from fevers and other sicknesses than their comrades who loaf about the barrack and canteen; and this is well known to all experienced officers in India.

3. "Every notoriously malarious district", says Dr. Inman, "is marshy", etc. Here Dr. Inman sadly contradicts his own previous statement, that, "at Aden, and in rocky tropical localities, fevers are as common", etc.; and he elsewhere asks, "how fevers arise where there is no water?" The truth is, there are fevers in non-marshy, as well as in marshy, places; but the important fact to bear in mind here is, "that the fevers generated in most marshy places are not bad during the rainy seasons, when the marshes are full of water, but when, after the rains, they are dried up, and no water is visible"—*i. e.*, when "the hot air is not saturated with dissolved water, and does not precipitate a 'cold dew'."

4. Dr. Inman says, "If water be precipitated, there can be no emanation", etc. How, I ask, does he undertake to prove this? Because cold air falls, does hot air not rise? Because cold vapour falls, shall not warm emanations rise through such? Granting his premises, "at certain places and seasons", what then? The ground has been baked during the day, and contains much caloric; at night, the dew, if any, falls; the radiated heat (accumulated during the day) is evolved. Why should not this heat (like his "smoke" in another place) rise upwards, and carry the poison with it? How is it that, in a "notoriously malarious place", one man, who sleeps on the earth, or very near its surface, however carefully wrapped up, contracts an ague, and another man, who has slept ten feet above the surface, and no otherwise protected, escapes? No better authenticated fact than this is need be brought forward; every military or civil surgeon in India who has been much in fever-districts will testify to its truth. The circumstances, in such instance, are the same in all other respects—the temperature high, there is no chill, no dew (or there may be both dew and chill, *n'importe*). This is an every-day occurrence in all the fever-breeding localities in India. I may remark here, as relating to Dr. Oldham's toleration of the "stinks" of the Pontine marshes (and why these "stinks", again I would ask, at night, if there be no emanations? does the dew stink?), that one such case proves nothing, unless it prove the rule. I have known individuals, here and there (one, perhaps, in five hundred), who seemed quite unsusceptible to malaria; one, now I believe in England, a colonel of Engineers, went yearly to a very malarious part of Jeypore; his men all suffered; he, never. He had no secret, except taking the usual precautions well known to Indian sportsmen and others exposed in like manner. He was a teetotaller; and, did I argue like some men who study malaria in their easy chairs, I might say "it was drinking only water that saved him". Another officer, a major of the Engineer Corps, had served in very malarious districts in China, and he had no secret, took little or no precaution, and never got fever; unfortunately for my quasi-teetotal theory, this gallant officer eschewed teetotalism.

5. Lastly, "if there be such a poison as malaria", writes Dr. Inman. Just so; there is such a poison. I do not believe there are ten educated experienced men in our whole Indian empire who doubt the fact. Then let us take care that our young medical men are taught how to protect themselves and the lives under their charge from its pernicious influence. We can and we ought to guard our men against it. And well it is that we have Netley and Dr. Maclean to teach our medical youth sound doctrine and sound practical knowledge. Even without the thousand facts which prove beyond all doubt the existence of malarial poison, it is amazing that men are to be found who, arguing in the parlour, from crude theories, on subjects of which they are practically ignorant, can educe such a belief as that a "chill" can produce genuine ague in a frame not previously exposed to the fever-poison. Are the variations of temperature almost anywhere greater or more sudden than in Scotland? Are chills unknown in that happy country? What about the thousand or so of deaths due to chills or cold alone in Glasgow during the few weeks gone by? Why were none of these deaths from agues and allied fevers? Why no cases even of these? How many physicians in Scotland can give one case of genuine home-bred ague during last year? But there is no accounting for the beliefs to which men will reconcile themselves.—I am, etc.,

J. Donaldson, M.D.,
Late Surgeon-Major Medical Staff Madras Army.

A. J. Myrtle (Harrogate).—Yes.

Medicus.—As no special agreement to the contrary was made, there is legally nothing to prevent A B from visiting patients in the manner described. But we think that—especially if there were an understanding that C D should succeed to the practice at the end of the partnership—it would be an honourable act on his part to abstain as much as he can from attending patients except in an official capacity.

Library would probably obtain the information which he desires by application to a medical publisher or to a vendor of second-hand medical works.

Mr. G. C. Coles.—The demands on our space have prevented our making arrangements for the publication of the lectures referred to.

COMMUNICATIONS, LETTERS, etc., have been received from:—

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# THE CROONIAN LECTURES

## ON ADDISON'S DISEASE.

*Delivered at the Royal College of Physicians, London.*

By E. HEADLAM GREENHOW, M.D., F.R.C.P., F.R.S.,
Physician to and Lecturer on Medicine at the Middlesex Hospital.

### LECTURE III.

[*Concluded from p.* 440 *of last number.*]

NEARLY ten years ago, in a paper read before the Pathological Society, I observed that the production of the symptoms of Addison's disease by means of the implication of the nerves, was, after all, a secondary question to that of the origin of the suprarenal disease itself, of which the nerve-lesions were the consequence, not the cause. This is still my opinion; but unfortunately it is even more difficult to throw light upon the question of the etiology of the disease than upon that of its pathological processes: a difficulty owing, not only to the peculiar obscurity of the subject, but to the absence, in a majority of cases, of many of the data required in order to justify any certain conclusions being drawn from them. There are, nevertheless, some pathological conditions recorded in association with Addison's disease in so considerable a number of cases as to leave no doubt in my mind that they are not accidental complications, but have a real and more or less causal connection with the disease; and these conditions I shall now proceed to consider.

In describing the characters of the lesion in the suprarenal capsules, I have purposely avoided the use of the term "tubercular", lest I should convey an erroneous impression; but the product of the chronic inflammatory process has undoubtedly analogies with tubercle, and has been termed tuberculous, strumous, and scrofulous, more often than inflammatory. It may, indeed, be a question whether the distinction between the inflammatory and the tubercular deposits can be so clearly drawn as was formerly thought; for even the giant-cells relied on by Schüppel as decisive of the presence of tubercle are now stated by Dr. Green, in his recent *Manual of Pathology*, to be merely characteristic of chronic inflammatory processes in lymphatic structures. Be this as it may, it is impossible to resist the evidence of clinical facts as to the existence of some affinity between Addison's disease and the tubercular diathesis. By far the larger proportion of diseases of other organs found in association with Addison's disease of the suprarenal capsules are diseases of tubercular or strumous character. In the typical cases, indeed, these complications are either altogether absent, or are indicated only by small tubercular concretions in the lungs, some of which are described as cheesy, some as calcareous, others as peribronchitic nodules, and others, again, merely as indurations in the apices of the lungs. But a very considerable number of the other genuine cases of Addison's disease are complicated with more or less active tubercular disease, and, in a certain number of cases, the genuine lesion of the capsules has been found coexisting with advanced phthisis or general tuberculosis. This may be explained in two ways. Even if general tubercular disease and the particular lesion of the suprarenal capsules never stand to each other in the relation of cause and effect, it can be no matter of surprise, seeing how a vulnerable constitution, as Virchow calls it, predisposes to the development of low chronic inflammatory processes, that these two diseases should not infrequently be found in the same patient. There have been, however, a very small number of cases in which it does appear to me as if the lesion in the capsules characteristic of Addison's disease had arisen as part of a general chronic tubercular process going on at the same time in several other organs. It will be remembered that, in these cases, which were discussed in my last lecture, the characteristic symptoms and bronzing of skin were altogether undeveloped. Although this is a part of the subject on which I desire to speak with great diffidence, seeing that it can only be determined by careful *post mortem* examination of similar cases, I may say that it seems to me by no means improbable that, in these cases, secondary deposits of tubercle may have taken place in the capsules, to the extent of entirely destroying their structure, without having produced the inflammatory nerve-lesions which I regard as essential factors in the development of Addison's disease.

It is much more certain that Addison's disease of the suprarenal capsules is frequently due to extension of inflammation from diseased or injured adjacent parts. I have records of eighteen cases in which psoas abscesses arising from caries of the lower vertebræ, and other abscesses in the vicinity of the capsules, have been followed or accompanied by Addison's disease. In several other cases, in which the spine and neighbouring parts were not examined after death, distinct tenderness on pressure was observed over two or more lower dorsal or upper lumbar vertebræ; so that I believe the number I have stated by no means represents all the cases in which this form of the disease has coexisted with inflammatory lesion in the capsules. There is clear evidence, in most of these cases, that the abscesses and vertebral disease have preceded the appearance of Addison's disease by considerable periods of time; and, in some cases, they have even become entirely quiescent for years before the development of the symptoms. A man, aged 24, who died in St. Bartholomew's Hospital under the care of Sir George Burrows, had suffered in childhood from spinal disease, and, two years before death, he had had a spinal abscess, which healed after a few months. His last illness was of eight months' duration, and, after death, the fifth and sixth dorsal vertebræ were found to be destroyed; but there was no active disease. Both the suprarenal capsules contained purulent fluid and yellowish pea-sized nodules, resembling concrete tubercular matter. In a case published by Dr. Cotton of Lynn, the patient, a member of our own profession, had suffered in the year 1847 from an abscess in the right lumbar region, which produced very serious effects upon his health; but, contrary to expectation, he recovered and remained well until 1854. His complexion then underwent a marked change, and somewhat later the constitutional symptoms of Addison's disease supervened. After several alternations of remission and exacerbation the patient died in 1857, and at the necropsy a whitish fibrous-looking obliterated sinus was found proceeding from the cicatrix of the old abscess in the right loin to the site of the structures in which the diseased capsules were firmly imbedded. The disease in the right capsule appeared to be older than that in the left.

This appears to me to be a point of so much importance in its bearing on the etiology of Addison's disease, that I will quote here two other cases exhibiting similar conditions. In the case of a deformed woman, aged 26, who was under the care of Dr. McDonogh of Clapham, and whose case is recorded by Dr. Wilks, the lower dorsal and one or two of the upper lumbar vertebræ were found to be almost destroyed; and surrounding these, adjacent to the suprarenal capsules on either side, was found a quantity of putty-like cretaceous matter—the remains of an old abscess. The capsules presented the characteristic appearances of Addison's disease in a not very advanced stage. Another case, in which an inflammatory process had apparently been the exciting cause of Addison's disease, by reason of its close proximity to the suprarenal capsules, is that of a patient of Niemeyer's, a man aged 37, whose case was diagnosed as one of Addison's disease three or four years before his death. The disease seems to have run a slow, sluggish course, complicated by successive abscesses and fistulæ in various parts of the body. The constitutional symptoms and discoloration of skin were both characteristic, and he died in a sudden paroxysm of nerve-paralysis. The capsules were found in the usual conditions, the right one still showing a trace of normal structure, and both were imbedded in much firm tissue. The left capsule and kidney were blended together into one mass with the neighbouring portion of the descending colon by means of a firm tissue traversed by strong fibrous threads. The colon at this part was the seat of an extensive cicatrix of an old ulcer, which had involved the whole tube, and had much contracted it by the thickening of its walls. The colon was adherent to the pancreas by the same mass of hard tissue which bound it to the left suprarenal capsule.

In some of these eighteen cases, the disease which seems to have been the exciting cause of the inflammatory process in the suprarenal capsules, has apparently been due to constitutional tendencies; but, in several of them, there is a distinct history of injury which has obviously produced it, and in apparently healthy subjects. The most striking case of this kind which has come under my own observation is that of a coal-porter, aged 32, who was admitted into the Middlesex Hospital in the year 1866 under Dr. Stewart's care. His health had been robust until about three years before his death, when he suffered a severe strain in the back from pushing a loaded coal-truck, and felt a sensation as of something giving way. From that time, he felt more or less pain in the loins; but the first symptoms of Addison's disease supervened only ten months before his death, or two years after the accident. The case was, like most of those in the class I am discussing, a typical one as regards the constitutional symptoms and the bronzing. At the *post mortem* examination, the suprarenal capsules were both found imbedded in thick fibrous tissue, and adherent to the surrounding parts. The right capsule was much enlarged and nodulated, consisting of semitransparent tissue, yellow cheesy masses, and small calcareous patches; the left capsule was smaller, and contained more calcareous matter. Adjacent to the capsules, and in front of the lower dorsal and upper lumbar vertebræ, was a largish abscess, bounded by firm fibrous investments. Lastly, on examination of the spine, the intervertebral substance between the lowest dorsal and the first lumbar vertebra was found to be separated from the upper surface of the last-named vertebra, for two-thirds of its depth, on the left side, but the separation did not extend to the spinal canal. The denuded surface of the upper lumbar vertebra was rough and carious. The clinical history and pathological conditions, in this case, scarcely leave room for doubt that the separation of the intervertebral substance took place at the moment of the strain three years before death; and that this injury gave rise, primarily, to the abscess in front of the injured parts; and secondarily, by extension of inflammation from the abscess, to the disease in the suprarenal capsules.

Another remarkable case of the same character is recorded by Dr. Grey Glover in the *Edinburgh Medical Journal* for 1859. The patient, a furnace-man at some chemical works, had hurt his back by a fall. Three years later, he became of a yellow colour, and was supposed to be jaundiced. Notwithstanding medical treatment, the discoloration never left him, and it ultimately deepened into the typical bronzing of Addison's disease. The peculiar constitutional symptoms only began to develope three years after the first appearance of the discoloration, and the patient died after two years' illness. The capsules were entirely destroyed, and consisted of a semitranslucent deposit, with some opaque white material and cretaceous masses; and in this case also there was psoas abscess, with caries of the two lower dorsal and upper lumbar vertebræ. Dr. Wilks, to whom the capsules were sent for examination, pronounced the case to be a capital example of Addison's disease; and, in referring to it in one of his papers in the *Guy's Hospital Reports*, he stated that the fact of caries of the spine being the only disease which had in two or three cases been found preceding Addison's disease, strongly suggested the opinion that the capsules might have been secondarily affected by it.

In ten or twelve other cases, abscesses, frequently connected with disease of bones, or otherwise apparently of scrofulous character, have been found in situations more or less remote from the diseased suprarenal capsules. In several of these, as in many of the cases complicated with tubercle of the lungs, the only connection between the two diseases has probably been the constitutional vice which predisposed to the development of both of them; but in others, in which the local seats of inflammation were not far removed from the suprarenal capsules, the disease probably spread, as in Dr. Cotton's case, by continuity of tissues, although the connection was overlooked at the *post mortem* examination. In a case of my own, that of a man aged 24, who died at the Middlesex Hospital in the year 1864, there had been an abscess in the left hypochondrium about nine months previous to his death. Soon after it healed, he had been attacked with severe pain in the left hip, which never left him. Typical symptoms and discoloration of skin supervened, and he died in a few months of Addison's disease. The capsules exhibited the usual characteristic changes; and a small abscess was found situated underneath the pelvic fascia, containing about half an ounce of pus, and directly communicating with carious bone at the left sacro-iliac synchondrosis. I am now of opinion, from analogy with other cases, that I overlooked a connection between this abscess and the tissues adjacent to the suprarenal capsules. At least, it is certain that, not fully appreciating at that time the important bearings of such a connection, I made no sufficient search for it.

I must now invite your attention to a class of cases in which there is no pathological evidence of the existence of any local lesion from which there could have been an extension of inflammation to the suprarenal capsules, but in which, nevertheless, the clinical history of each case very decidedly points to some severe strain, or blow, or physical shock, usually in the back, as the starting-point of the illness. Unfortunately, the previous history is wanting in so large a proportion of cases, that I can only quote seven unequivocal cases of this class. A woman aged 31, who died under my care in 1858, when I was Physician to the Western General Dispensary, constantly assured me that she had never recovered from a strain in the back received in turning a mangle some years before her last illness. A female servant aged 30, who died in the Middlesex Hospital under the care of Dr. Burdon Sanderson, was laid up for a week with pain in her back from a fall down stairs, and began to fail in health from that time. In like manner, a druggist's assistant, aged 16, fell through a trap-door; and, although Dr. Bristowe, whose patient he was, verified the absence of any disease of the bones of the spine or pelvis, the lad's illness undoubtedly dated from the fall, which he survived sixteen months. Lastly—for it would be tedious to enumerate all these cases—a German factory-manager, whose case is related by Dr. Ploss, dated his illness from supposed rheumatic pains occasioned by a fall over a bank two years before death. These seven cases were all typical, in the sense of there being no coexisting disease of any importance; but in almost all of them some tubercles are reported in the apices of the lungs, giving evidence of the existence of a tubercular diathesis, with which Addison's disease appears to have so strong an affinity, and which may have predisposed these persons to its development from slighter or more temporary causes than would have given rise to it in persons of different constitution.

In four or five cases, patients have referred their illness to physical over-exertion; in about the same number of cases, to nervous shocks, grief, or anxiety; and in two or three cases, to attacks of intermittent fever. The evidence in such cases is, of course, somewhat vague and questionable; and, due regard being had both to the apparent inadequacy of the supposed causes, and to the occasional latent course of the disease until its symptoms are developed under some external depressing influence, it may fairly be conjectured that, in most of these cases, the lesion of the suprarenal capsules existed antecedently to the supposed cause of illness, which was only the immediate exciting cause of the manifestation of the symptoms. It is well not to overlook any aspect of so obscure a subject; and, therefore, without attaching any undue importance to the alleged facts in the history of these cases, I think it advisable to keep them in view.

There still remain, however, a majority of the whole number of cases, in which neither the clinical history nor the pathological conditions seem to afford any clue to the origin of the disease. In too many cases, indeed, these are imperfectly reported or altogether wanting; but in many others, in which they are recorded, we find no trace of any antecedent cause. Good health until the apparently causeless beginning of the fatal illness is perhaps the most frequent history; and in typical cases, the usual report is, that all other organs were healthy; the exceptions to this rule being, as I have said, the presence of small inactive tubercular deposits in the lungs.

In this absence of all internal conditions, and of all direct evidence of external injuries, which might serve to refer the origin of Addison's disease, in these cases, to any of those causes which have apparently been its starting-point in the cases belonging to the other classes with which I have dealt, we must fall back upon the indirect information to be derived from the very obvious influence of sex, age, and occupation, upon the development of the disease.

Taking the 183 cases which I classed as unequivocal examples of Addison's disease, I find, as regards sex, that in 119 of these cases the patients were of the male sex, whilst in 64 they were females.

As regards age, my analysis shows that by far the larger number of the sufferers were persons in the most active period of adult life. Of the 119 males, 92 died between the ages of twenty and fifty; whilst nineteen boys died under the age of twenty, and eight men over the age of fifty. The two youngest boys were aged eleven and thirteen years respectively, and the oldest man was fifty-eight years of age. Again, of the 64 females, 47 died between the ages of twenty and fifty; ten girls under the age of twenty, and seven women over the age of fifty. The two youngest girls were also aged eleven and thirteen years, and all the seven older women were under sixty, except one, who is stated to have reached the age of sixty-nine.

If we now look to the rank in life, and the occupation of the sufferers, we perceive that more than nine-tenths of the whole number have belonged to those classes which are engaged throughout the active period of life in physically laborious work. Only eight or nine of the male patients have belonged to the classes of gentry, professional men, or merchants, whilst not more than six of the females have been in the position of ladies.

With respect to the occupations of the men, and still more those of the women, the data are very deficient; but the fact that they were apparently almost all in the class of hospital patients speaks for itself as to the probability of their having led a life of active manual labour in some form or other. Of the eighty-five men belonging to the working classes whose occupations are recorded, fifty-one were employed as agricultural labourers, porters, stonemasons, bricklayers, coal-miners, or in similar heavy work; a considerable number were costermongers, hawkers, journeymen-tailors, shoemakers, etc., whilst a few were publicans, shopkeepers, clerks, or had other miscellaneous occupations. With respect to the large majority of women of the working class, we have no information beyond their age. Of the sixty-four female patients, ten are stated to have been servants, maids of all work, laundry-maids, or cooks, six needlewomen, and three out-door labourers. Some, and in all probability very many, of the others, were poor married women, and on no other class of their sex, perhaps, rests a heavier burden of labour.

Lastly, with respect to the extreme rarity of the disease in persons exempt from the necessity of bodily labour, I may quote my own experience. Although seven or eight cases have been referred to me in private practice, as supposed cases of Addison's disease, only two of these have been true cases of the disease, and I have met with no others amongst persons of the middle and higher classes. I believe, too, that in this respect, the experience of all other physicians will be found to coincide with mine.

From these data, therefore, imperfect as they are, the following deductions may safely be drawn.

The occurrence of Addison's disease takes place almost exclusively in persons employed in active manual labour.

The mortality caused by it is pretty equally distributed over the laborious period of life, and to that period it is almost entirely confined.

The disease is comparatively much more frequent in persons of the male sex, whose employment naturally involves the heaviest kinds of labour.

Lastly, a preponderating number of the cases which occur in persons of the male sex are found amongst those classes of labourers whose occupations are most likely to expose them to bodily injury from accident or over-exertion.

The facts thus brought out cannot fail to suggest obvious inferences as to the probability that, in many of these cases, more or less temporary causes of local inflammation may have existed, similar to those which appear to have been the starting point of the disease in some of the cases to which I have specially referred. In persons of the working classes, strains and falls, which do not involve disabling consequences, are soon forgotten, and therefore seldom reported; whilst the necessity of striving against the weakness induced by a strain or blow may tend to keep up an inflammatory process, which would have naturally subsided under favourable conditions of rest. Without, therefore, venturing to speak dogmatically on a point which can only be cleared up by much future investigation, I may yet say that I incline to believe the origin of Addison's disease, in many of the unexplained cases, to be due to traumatic causes, although its development has probably been favoured by certain constitutional proclivities.

Very few words need be said here with respect to the diagnosis and prognosis of Addison's disease. The diagnosis is founded upon the constitutional symptoms, aided, in a large majority of cases, by the presence of more or less of the peculiar change of colour in the skin. It is not always unattended with difficulty, but, to those who have any practical acquaintance with the disease, it is not, I think, more doubtful than the diagnosis of many other chronic diseases. The prognosis is, of course, invariably grave as regards the ultimate result, though it is impossible to say to what extent life may be prolonged under favourable circumstances. Rest and scrupulous avoidance of bodily or mental excitement, or any other causes of nervous exhaustion, form the essential parts of the therapeutical management of all such cases; whilst the diet and medical treatment must be carefully adapted to the inevitably varying phases of the disease.

It only remains for me to sum up, in conclusion, the objects which I have had in view in the course of lectures which I have had the honour to deliver before you.

In the first, I believe I delineated faithfully all the principal clinical symptoms of Addison's disease, and the remarkable varieties in their course; together with the true characters of the pathological lesions in and around the suprarenal capsules, which have been found to coexist with them.

In the second lecture, I endeavoured to show clearly, on the one hand, the concurrent testimony of facts in proof of the real connection subsisting between these clinical symptoms and the one specific lesion in the suprarenal capsules, and, on the other, the baseless nature of the misconceptions which have prevented the general recognition of its reality.

In to-day's lecture, I have trodden on more difficult ground. No one can feel more strongly than myself that the opinions which I have been led to form, with respect to the obscure pathological and etiological processes in Addison's disease, rest as yet upon an inadequate basis. I can only express the hope that, however problematical their correctness may appear to many, the suggestions I have ventured to make, regarding the probable mode of production of the symptoms of Addison's disease, and the probable means of origin of the suprarenal disease itself, may lead to a thorough investigation, in future cases, of all the facts bearing upon these questions; and thus, to the acquisition of knowledge which may justify positive conclusions, in place of the uncertain inferences which are all that I have been able to draw, from my own necessarily limited personal experience, and the insufficient materials at my command.

# THE GERM-THEORY OF DISEASE:

## BEING A DISCUSSION OF THE RELATION OF BACTERIA AND ALLIED ORGANISMS TO VIRULENT INFLAMMATIONS AND SPECIFIC CONTAGIOUS FEVERS.

By H. CHARLTON BASTIAN, M.D., F.R.S.,
Professor of Pathological Anatomy in University College, and Physician to University College Hospital.*

When honoured by a request from the Council of this Society, a few weeks since, to open a debate during the current session, compliance with such a wish was regarded by me as a professional duty. I was compelled, therefore, to do the best I could with the short time and limited leisure which presented themselves, though these, I regret to say, have proved insufficient to enable me to bestow the attention I should have desired upon the vast accumulation of writings directly or indirectly related to the subject selected for discussion, and quite insufficient also to enable me to throw light upon it, to the extent I should have wished, by certain new observations of my own. The subject, however, large as it is—and consequently difficult to be dealt with satisfactorily in the space of one hour—seemed to recommend itself for several reasons. (1) It is a question lying at the root of the pathology of the most important and most fatal class of diseases to which the human race is liable—diseases which cause nearly one-fourth of the total number of deaths in this country. (2) It is a subject important alike to those engaged in almost every department of our profession. And (3) it is one which I happen to have very carefully considered for several years, and for the elucidation of which I was tempted in 1869 to undertake long and laborious investigations, though these may have seemed to many to have little practical bearing upon the science of medicine.

The subject of the relation of the lower organisms to disease has, moreover, a growing importance. The notion that there is a distinct causal relation between the two—though it has long existed in one form or another—is one which has been spread enormously within the last few years, partly owing to our increase of knowledge concerning these low organisms, and partly because of their ascertained presence in numerous diseased tissues and exudations. Medical literature, both at home and abroad, now in fact teems with papers and memoirs bearing upon this relation, and such communications rapidly increase in number year by year.

In the short time allotted to me to open the debate, I shall be able to make specific allusions to but few of these contributions, as it would seem better to keep the broad issues well in view in my opening statement, and to reserve questions of detail, as these may be taken up by other speakers and subsequently commented upon where necessary.

The one common and distinguishing feature peculiar to all the diseases, whose pathology we are now about to consider, is their "contagiousness". An individual affected by either of them throws off particles from the region specially affected, or from many parts of the body; and these particles, on coming into contact with suitable surfaces in other persons, may incite similar local or general diseases—though such results do not invariably follow. This peculiarity, by means of which such diseases are spread amongst the members of a community, was, even in the time of Hippocrates, compared to the property by which one fermenting mass may communicate its state of change to another mass of fermentable material. Throughout all intervening periods such an analogy has never been lost sight of—it has rather been more and more strongly dwelt upon. Thus, more than two centuries ago, we find, as has been recently pointed out, Robert Boyle, one of our great English philosophers, and himself a pioneer in scientific investigation, giving strong expression to the then current view. "He that thoroughly understands", he says, "the nature of ferments and fermentations, shall probably be much better able than he that ignores them, to give a fair account of several diseases (as well fevers as others) which will perhaps he never thoroughly understood without an insight into the doctrine of fermentation." Again, in more recent times, it was doubtless under the influence of a belief in the same analogy between fermentations and the class of diseases of which I am about to speak, that the term "zymotic" was proposed by Dr. Wm. Farr, and adopted as a general designation, under which nearly all these diseases might be included. The consequence of the adoption of this nomenclature has been, that views as to the nature of the infecting something or *contagium* have since been so powerfully influenced as to be actually led by views at the time entertained concerning the nature of *ferments*. The relationship supposed to exist between zymosis and fermentation has indeed been stamped and ratified by the very general consent of the profession.

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* Read before the Pathological Society of London, April 6th.

Omitting for the present any remarks as to the real strength of this analogy, I would merely further point out that the foundations of the "germ-theory of disease", in its most commonly accepted form, were laid in 1836 and shortly afterwards. The discovery at this time of the yeast-plant by Schwann and Cagnard-Latour soon led to the more general recognition of the almost constant association of certain low organisms with the different kinds of fermentations. But it was not till twenty years afterwards that Pasteur announced, as the result of his apparently conclusive researches, that low organisms acted as the invariable causes of fermentations and putrefactions—that these, in fact, though chemical processes, were only capable of being initiated by the agency of living units. If, in accordance with this somewhat narrow and exclusive view, living units were to be regarded as the sole producers of fermentation and putrefaction, then they were the sole ferments. The extension of this doctrine by medical men to contagious diseases, in face of the analogy sanctioned by the use of the term "zymotic", became only too easy. It was obviously nothing but the logical outcome of the two sets of views, to hold that low organisms were the true contagia or sole "germs" of the so-called zymotic diseases.

It so happens, therefore, that the very exclusive notion just mentioned, as to the nature of contagia, is at present almost as deeply rooted in the minds of the majority of writers on epidemic diseases and contagious fevers as was the opposite notion, founded upon the physico-chemical doctrine of Liebig some twenty years ago. Then a ferment was regarded as a portion of organic matter (not necessarily living) in a state of molecular change ("motor decay"), which, by virtue of its own unstable nature, was capable of communicating molecular movement (chemical change) to other unstable or fermentable mixtures. This broader notion was promulgated by Liebig, at a time when less was known than at present as to the constant association of low organisms with the processes of fermentation and putrefaction. The nature of this relationship was, in fact, never adequately grappled with by him. Still, views of this kind, promulgated by Liebig, would not give anything like the same support to the germ-theory of disease as that afforded by the doctrines of Pasteur. Those who have adopted and developed Liebig's views now hold that living organisms, though they may operate as ferments, act in this capacity merely by virtue of the chemical changes which the carrying on of their growth necessitates; and that other chemical changes, taking place during the decay of organic matter, may make fragments of it (in the dead state) almost equally capable of initiating fermentative changes in suitable media, whilst in either case Bacteria or allied organisms are prone to be engendered as correlative products.

In the present day, therefore, two questions seem to need the serious consideration of medical men. In the first place, it may be asked, Are we justified in relying so strongly upon the analogy between fermentation and zymosis? Secondly, we may inquire whether the researches by which Pasteur claims to have established the sole nature of ferments are so conclusive as they have been commonly regarded. In reply to the first question, certain qualifying considerations will hereafter be stated, though it may be at once admitted that the analogy is so strong as to make it likely to continue to exercise a very considerable influence upon medical opinion. It therefore becomes all the more necessary for medical men to look to the foundations of Pasteur's doctrine, if they are not prepared blindly to follow his dicta on a subject which is of so much importance for medical science. It was with this view that I undertook a few years ago, and shortly after I had been called upon to teach pathology, a series of investigations bearing upon this subject. In consequence of this work, I was compelled, as others had been, to refuse assent to the exclusive doctrines of Pasteur concerning the nature of ferments. I do not enter upon this discussion now. I maintain, however, that my own investigations and those of others show that units of living matter are not the sole ferments, since fermentation and putrefaction may be initiated in their absence, and since it can be shown that mere particles or fragments of organic matter may act in this capacity. For a brief exposition of the grounds of this belief, I would refer those interested in the matter to my recently published work, *Evolution and the Origin of Life*.

Some time must be allowed to elapse before anything approaching to general agreement can be expected on such a subject; and, meanwhile, standing as we do in the face of opposite doctrines as the nature of ferments, we are free to look into the question of the relation of the lower organisms to disease on its own merits—apart, that is, from the overweening influence of any general theory of fermentation.

Leaving on one side, therefore, the influence of the analogy deemed to exist between the process of fermentation and that of zymosis, we may ask what other general evidence is forthcoming in favour of the notion that contagia are low organisms or living units, rather than dead organic particles from altered tissue-elements, or complex chemical compounds of alkaloidal constitution engendered in the tissues or in some of the fluids of the body. The consideration of this question may be introduced by a quotation from Dr. Burdon Sanderson's valuable report on the "Intimate Pathology of Contagion" (Twelfth Report of the Medical Officer of the Privy Council, 1870, p. 243). He says: "There are two obvious objections which stand in the way of the acceptance of any chemical explanation of the phenomena of contagion. The first is, that the multiplication of contagium in the body of the infected individual is a process which cannot be compared to any which is brought about by chemical agencies independently of organic development. The second is, that all contagia possess the power of retaining their latent virulence for long periods (often resisting the most unfavourable chemical and physical conditions), and only show themselves to be what they are when they are brought into contact with [the] living organism. Outside of the body, the contagious material withstands all those changes to which, on chemical grounds, we should expect it to be liable; while in the body it manifests a degree of activity, and gives rise to an amount of molecular disturbance, which is quite as unaccountable......Neither of these difficulties stands in our way if we suppose that the contagious process is connected with the *unfolding of organic forms*."

Now, although this is about as strong a statement as can be made, from an *à priori* point of view, against the mere chemical action of contagium and in favour of a germ-thery, I must confess that neither of the considerations seems to me to carry very much weight with it. I should be inclined to say, in reply (1), that proof is altogether wanting of the "multiplication of contagium" in the body in the same sense that a living unit multiplies; and that there are physico-chemical processes which may illustrate what occurs when contagium increases within the system. Instead of an increase by continuous organic development and multiplication, it may be that contagium augments by some such process as that by which crystals of sulphate of soda increase or "multiply" when a fragment of such a body is thrown into a complex fluid containing its component elements. This is confessedly a very imperfect illustration, and one to which I resort merely to indicate the possible occurrence of another mode of increase of contagium within the body; though, in an infected animal, such increase may occur in a much more subtle manner, owing to the fact that fluids altered, directly or indirectly, by the original contact of contagium with some part of the body, are either locally or generally brought into intimate relation with the active, though modifiable, living units of the various tissues. And (2), in reply to Dr. Sanderson's other objection, which stands, as he supposes, in the way of any chemical explanation of the phenomena of contagion, I should say that, although our knowledge is at present extremely vague concerning the power possessed by the various contagia of retaining their virulence for long periods, and of resisting unfavourable physical and chemical conditions, we have no reason to believe that the more complex combinations of which living matter is composed are capable of resisting influences which would prove destructive to less highly complex not-living substances—such as snake-poison, woorara, or other compounds of this class. The general evidence is, therefore, as I read it, certainly not more favourable to a vital or germ theory than to a physico-chemical theory, as regards the nature and action of contagia.

I should here point out, however, that under the term "germ-theory" two distinct views are included, each having its advocates amongst distinguished members of this Society. The side to which Dr. Sanderson leans is sufficiently obvious. Speaking of contagious particles, he says (*loc. cit.*, p. 255): "With reference to their mode of action, we have examined into those considerations which seem to render it probable that they are *organised beings, and that their powers of producing disease are due to their organic development;* and we have accepted this doctrine as the only one which affords a satisfactory explanation of the facts of infection."*

This is the doctrine with which we are at present especially concerned, though it may be well for me to say a few words concerning the other sense in which a "germ-theory of disease" is maintained by a distinguished member of this Society. Dr. Beale says (*Disease-Germs, their Real Nature*, 1870, p. 5): "We have, therefore, now to inquire what is the material substance which passes from the diseased to the healthy organism in small-pox, in measles, in scarlet fever, and other allied contagious diseases from which man and domestic animals suffer so severely. *The material in question grows and multiplies and produces its kind, as all living things do,* and as nothing that does not live has been proved to be capable of doing. We may, therefore, conclude that it is living matter." And, as to the derivation of such matter, Dr. Beale says, "a disease-germ is probably a particle of living matter derived by direct descent from the living matter of man's organism", though he supposes it to be altered and degraded as regards formative power by previous rapid multiplication of the tissue-elements or particles from which it has been derived. In many respects, I am disposed to assent to this view, so long as it is not taken in too exclusive a sense. I will now, however, only mention what I consider to be its weakness. It seems to me that proof is wholly wanting as regards the statement which I have had printed in italics. That there is an enormous increase of germinal particles in the blood and in many of the tissues in these specific contagious diseases, Dr. Beale has helped to show us by his valuable researches upon the pathology of the cattle-plague and other allied affections; but that such germinal or living particles are in any direct sense the descendants of the particles which act as contagia, or, in fact, that the contagious particles really multiply to any extent in the body—these are propositions which at present appear to me to be wholly devoid of all proof. I and other pathologists are free to hold that contagious particles, whether composed of living or of not-living organic materials, may initiate changes in the tissues and fluids with which they come into contact, which changes may be exaggerated as they spread, so as at last to implicate the blood. And, as one result of this altered constitution of the nutritive fluid and of the general febrile condition simultaneously excited, we may get that undue proliferation of tissue-elements and multiplication of their products which appear to go on in the blood and in the various tissues of persons suffering from these febrile diseases.

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* These words occur in a summary which, it is only right to add, was immediately prefaced by the following statement. "The sentences which follow must therefore be accepted by the reader as nothing more than indications of the questions we are trying to solve, or as forecasts of what we hope to establish or disprove by experiment."

Leaving this aspect of the question, therefore, I now turn to the special subject of this debate—viz., the truth of the germ-theory, as it is ordinarily understood, or the relation of the lower organisms to virulent inflammations and their sequelæ on the one hand, and to specific contagious fevers on the other.

*Applicability of the Germ-Theory to Virulent Inflammations and their Sequelæ* (*Gonorrhœa, Purulent Ophthalmia, Erysipelas, Hospital Gangrene, Puerperal Fever, Pyæmia, Septicæmia, etc.*)—A few years ago, no one would have thought of connecting the contagiousness of gonorrhœa or purulent ophthalmia with the presence of bacteria. The respective secretions were known to contain some poisonous element either in the form of a chemical compound or altered product of tissue-multiplication (pus), which, when it came into contact with a healthy mucous membrane, was capable of acting as a specific irritant, and there exciting a similar morbid process. It is by no means certain, however, that some pathologists would not, at the present time, connect this process with the presence of bacteria in the contagious fluids. Such a point of view has, indeed, been directly fostered by doctrines recently put forward by an eminent pathologist—Dr. Burdon Sanderson. At this Society, in 1871, whilst, strangely enough, professing to be indifferent to the mode of origin of bacteria, Dr. Sanderson said: "They afford a characteristic by which we may distinguish the products of infective inflammation from those which are not infective." And in a more recent paper on "The Infective Product of Acute Inflammation" (*Medico-Chirur. Trans.*, 1873, p. 354), referring to his previous researches, he says it was inferred from these that, "if infective agents are particulate, they are probably comprised in that group of bodies to which I then applied the term microcozymes, recognising their identity with the *zooglœa* of Cohn, the *micrococci* of Hallier, and the various forms described by other authors under the terms *bacterium* and *vibrio*". And he then adds, as the result of subsequent investigations, the following passage: "With reference to these organisms, two entirely new and most important facts have been demonstrated by the observations to be now recorded. It has been discovered (1) that, in all acute infective inflammations, microzymes abound in the exudation liquids; and (2) that the same forms are to be found in the blood of the infected animals". And, when Dr. Sanderson subsequently adds "that the relation of intensity between different cases of septicæmia and pyæmic infection is indicated by the number and character of these organisms", but little doubt seems to remain concerning his views as to the causal relationship of such organisms to the infectiousness of the inflammations referred to. And this view is not essentially modified by his subsequent concluding explanations, where he says: "Inasmuch as these organisms cannot have originated from the external normal tissues or juices, they must have been derived from the moisture." And, also, "It does not at all follow because these organisms come in from outside, that they bring contagium along with them; for it may be readily admitted that they may serve as carriers of infection from diseased to healthy parts, or from diseased to healthy individuals, and yet be utterly devoid of any power of themselves originating the contagium they convey." Such a doctrine still implies that bacteria are essential to a contagious process, though it seems to me to introduce certain very striking elements of weakness into the germ-theory as thus interpreted. If this theory is not tenable, without the aid of some supplementary hypothesis, I cannot conceive that the introduction of the one above mentioned will be considered to have strengthened its foundations. Yet Dr. Sanderson apparently saw the difficulty of maintaining the germ-theory in its integrity, and offered us this other view as a compromise. He considers it probable that, whereas true contagia, whether living particles or chemical compounds, may be engendered within the body in the tissues themselves, such contagia are not able to spread either within or outside without the aid of bacteria to act as "carriers". But why one set of particles should need others to carry them, or why bacteria alone should be able to bear about these mysterious contagious poisons which they are devoid of the power of originating, does not at all appear!

However complicated the doctrine may have been rendered, this is still practically the germ-theory; and the same thing may be said with reference to a view which Professor Lister seems to entertain with some favour. He thinks that the lower fungi, and their relations bacteria, may contain in themselves some chemical compound absolutely peculiar to them, and forming part of their substance, which may act upon albuminous compounds after the manner of a ferment, such as emulsin (*Nature*, July 17th, 1873). "In this sense", he thinks, "as intervening between the growth of the organisms and the resulting decompositions, the theory of chemical ferments might be welcomed as a valuable hypothesis." This seems like the language of concession, but, practically, it is the germ-theory still, and expressed too much as all germ-theorists who think out their views would have to formulate them. It would be no great concession to those who are not believers in an exclusive germ-theory if, in the light of his views, as above expressed, Professor Lister were to say that bacteria were "carriers of infection"; yet the apparent concession above referred to is no more of a concession to believers in a physico-chemical theory than the latter admission would be.

I will, however, now briefly enumerate the evidence which seems to me quite sufficient to disprove the probability of the existence of any causal relationship between the lower organisms and the diseases cited at the head of this section, and to establish, on the other hand, the position that the bacteria met with in diseased fluids and tissues are, for the most part, actual pathological products—that they are, in fact, engendered within the body, or are descendants of organisms owning such an origin, rather than of previously existing organisms introduced from without. It would take far too long were I to attempt to enter at any length upon a consideration of this evidence. I must, therefore, content myself with briefly summarising the principal facts and arguments on which a judgment may be founded.

1. The experiments of many investigators prove that the alleged causes of disease may be actually introduced into the blood-vessels of lower animals by thousands without producing any deleterious effects in a large proportion of the cases.

2. Bacteria, if not actually to be found within the blood-vessels of healthy persons, do nevertheless habitually exist in so many parts of the body in every human being, and in so many of the lower animals, as to make it almost inconceivable that these organisms can be causes of disease. In support of this statement I have only to say, that even in healthy persons they may be found in myriads in and about the epithelium of the whole alimentary tract from mouth to anus; they exist throughout the air-passages, and may be found in mucus coming from the nasal cavities, as well as in that from minute bronchi. They exist abundantly amongst the epithelial *débris* within the ducts of the skin, not only in the face, but in other parts of the body. Fresh legions of them are also being introduced into the alimentary canal with almost every meal that is taken, whence they may perhaps readily find their way into the mesenteric glands, if not further within the system. And lastly, in persons with open wounds, bacteria are constantly to be found in contact with such surfaces, especially if the wounds be not well cared for, though the injured person does not necessarily suffer at all in general health.

3. It is no answer to these difficulties to say that there are distinct species amongst these lower organisms, some of which are harmless, though others are poisonous (or so-called "germs" of disease). In support of such opinion, nothing can be alleged save some of the facts whose cause is doubtful; whilst against such an interpretation may be brought the experiments of several investigators, showing that bacteria are the creatures of circumstance, and modifiable to an extraordinary

degree. The last position is even admitted by Professors Sanderson and Lister. The former acknowledges that they are "the lowest organisms," and that they are "much more under the influence of the conditions under which they originate and are developed than organisms of any other class", whilst Professor Lister's own work has compelled him to make an admission which, in the face of facts previously stated concerning the wide distribution of bacteria within the body, seems fatal to a consistent belief in the germ-theory of disease. He says: "If the same bacterium may, as a result of varied circumstances, produce in one and the same medium fermentative changes differing so widely from each other as the formation of lactic acid and that of black pigment in milk, it becomes readily conceivable that the same organism which under ordinary circumstances may be comparatively harmless, may at other times generate products poisonous to the human economy." —(*Quart. Jour. of Microscop. Science*, October 1873.)

4. The consideration now to be mentioned suffices, in my opinion, to complete the discomfiture of the germ-theory as an explanation of the mode of causation of the diseases with which we are at present concerned. It is this. It has been shown, on the one hand, that the virulence of certain contagious mixtures diminishes in direct proportion to the increase of bacteria therein; and on the other hand, it has been equally proved that fresh and actively contagious menstrua lose scarcely any of their contagious or poisonous properties after they have been subjected for a few minutes, when in the moist state, to a temperature which no living units can be shown to survive (212 deg. F.), or after they have been exposed to the influence of boiling alcohol, which is well known to be equally destructive to all recognised forms of living matter. Such facts have been substantiated by Messrs. Lewis and Cunningham, Sanderson, and others.

Having said thus much in opposition to the germ-theory, let me as briefly enumerate the facts and arguments which seem to me to show the real relations of bacteria and their allies to the diseases in question. I turn, therefore, to the construction of an opposite doctrine.

Admitting in part the very frequent presence of bacteria in diseased fluids and tissues, I consider that their presence and import should be differently explained. I say I admit the association in part, though I by no means admit it to the extent alleged. Bacteria are not, for instance, to be found in the blood of persons suffering from pyæmia, as might be inferred from former statements of Dr. Sanderson, which I have already quoted. My own experience in this matter seems to be entirely in accordance with that of Professors Billroth and Stricker. Neither do I believe that the presence of bacteria in inflammatory fluids has the significance which Dr. Sanderson attaches to it, since it has been ascertained by myself and others that the exudation-fluids of sick persons suffering from diseases of a totally different type, are often similarly crowded with these lowest organisms; whilst the recent observations of M. Bergeron (*Compt. Rend.*, February 1875) seem to show that they may be found even in freshly extracted pus from ordinary abscesses occurring in elderly persons.

Now, it would seem quite obvious, that the consistent advocate of a germ-theory of disease can only successfully maintain such a doctrine if he can show, amongst other things, that bacteria are more capable of altering the characters and chemical constitution of fluids of the body than they are themselves prone to be altered by independently initiated changes taking place in such fluids. It seems, therefore, like unintentionally cutting himself free from the theory to which he has hitherto adhered, when we find Professor Lister, in speaking of the assumed "special virus of hospital gangrene", going on to say that "it is not essential to assume the existence of a special virus at all, but that organisms common to all the sores in the ward may, for aught we know, assume specific properties in the discharges long putrefying under the dressings". This passage has a similar import to that of a quotation previously made. In both, a first place is assigned to the modifying influence of altered fluids; and, however much the correctness of such a supposition would tell in favour of cleanliness, of free exposure, or even of antiseptic dressings, it is none the less inimical to a consistent holding of the theory on which Professor Lister has chosen to base his system of treatment.

But, though such statements are adverse to the holding of a germ-theory in the only form in which it may be at all tenable, they are entirely in accordance with my own observations and views. I maintain, in short, that even the very existence of organisms in the fluids and tissues of diseased persons is for the most part referable to the fact that certain changes have previously taken place (by deviations from healthy nutrition) in the constitution and vitality of such fluids and tissues, and that bacteria and allied organisms have appeared therein as pathological products—either by heterogenesis, or by what I have termed archebiosis, or birth direct from a fluid.

The evidence on which my belief is founded is of this nature.

1. Bacteria and their allies are found in greatest abundance during the life of the individual in connection with dying tissue-elements, and apparently are as plentiful within the dying epithelium of the cutaneous ducts, as in parts like the mouth, which are most liable to contamination with organisms from without. Again, they exist abundantly in and about the dying cells of bronchial mucus, although living bacteria appear to be almost completely absent from ordinary air.

2. The microscopical examination of such epithelial or mucous elements also favours the notion that the contained bacteria are products engendered within such cells, rather than mere results of an external contamination and imbibition. This opinion is based upon the following considerations. Bacteria only appear within the cell when it is obviously dying; and, in the case of epithelium, for instance, they manifest themselves at first as minute motionless particles scattered through the semisolid substance of the cell, where each particle grows into a distinct bacterium, which still remains motionless, and does not appear to divide for a long time. This is precisely similar to what I have observed over and over again, when amœbæ in vegetable infusions get into an unhealthy condition and become resolved into nests of bacteria. They may exist for days in a state of activity with bacteria in the fluid around them, though none are to be seen in their interior. After a time, however, the chemical constitution of the fluid seems to become no longer suited to the amœbæ, their activity ceases, they remain as almost motionless balls of jelly, and soon multitudes of the minutest particles appear throughout their substance, each of which straightway grows into a bacterium. The former amœba is converted into a mere bag of bacteria, which after a time ruptures, and thus liberates its swarming colony of newly engendered living units. Multitudes of mucus-corpuscles seem to undergo the same kind of change, so that bacterial degeneration takes place in the same manner, and is almost as typical amongst them, as is fatty degeneration amongst pus-corpuscles. The two kinds of degeneration, moreover, commonly occur side by side in epithelial *débris*. Bacterial degeneration takes place where the vitality of the unit is lowered, but where it is not sufficiently degraded to permit the still lower and more obviously destructive process of fatty degeneration; and if anyone wishes to see it in perfection, let him examine some central portion of the kidney, or other internal organ of a warm-blooded animal, five days or more after its death.

3. Bacteria are admitted by nearly all pathologists to be absent from the blood of healthy persons during life; and yet, in from eight hours to four or five days after death, according to the temperature of the air at the time, the previously germless blood of all individuals may be found to be swarming with these organisms in every stage of growth.

4. Whereas blister fluid or serum has been shown to be free from organisms in healthy persons, I have ascertained that, given a febrile patient with a temperature of 102 deg. Fahr., one can determine the presence of bacteria, at will, in any blister-bleb which remains intact for forty-eight hours or more, and this, too, where the patient does not suffer from any specific fever, but merely from pneumonic inflammation. I was led to ascertain this fact by finding, about eighteen months ago, myriads of bacteria in all the blebs of a patient suffering from acute pemphigus, with a temperature of 103 degs.

5. Lastly, as Dr. Sanderson has shown, a chemical irritant, such as liquor ammoniæ, may be introduced beneath the skin of some of the lower animals in such a way as to "preclude the possibility of external contamination", and yet here, amidst tissues which he has shown to be germless, we may thus, within twenty-four hours, determine the presence of swarms of germs and organisms in the pathological fluids effused under the influence of the local chemical irritant.

This constitutes, as it appears to me, an exceedingly strong body of evidence tending to show that bacteria are pathological products capable of being engendered within the body after death, or in certain situations during life where tissue-elements are dying, or where the fluids of the body are notably altered by disease. It is true that the facts and considerations mentioned under 1 and 2 are capable of receiving another interpretation. It may be said, for instance, and it has actually been said by Dr. Beale, that the higher forms of life are, as it were, interpenetrated by the lower forms of life. Speaking of bacteria and their allies, Dr. Beale says:—"I have detected them in the interior of the cells of animals, and in the very centre of cells, with walls so thick and strong, that it seems almost impossible that such bodies could have made their way through the surrounding medium." (*Disease-Germs*, page 72, 1870.) And elsewhere the same observer says:—"Probably there is not a tissue in which these germs are not; nor is the blood of man free from them." Noting by the way that this latter statement does not accord with the experience of others, I may further mention that some distinguished pathologists, and notably

Dr. Burdon Sanderson, are also inclined to dwell strongly upon the fact of the wide distribution of bacteria throughout the body—not believing them to be innate or connate (in the mysterious manner imagined by Dr. Beale), but supposing that they have been introduced from without through certain definite channels.

Dr. Sanderson's views on this subject, and the means by which he supports them, are sufficiently remarkable to detain us a few moments. If what he says (BRITISH MEDICAL JOURNAL, February 13th, 1875) concerning the assumed easy absorption of bacteria from the intestine by lymphatics, and their subsequent passage into the blood, were in correspondence with actual facts, then, in face of the habitual prevalence of such organisms in the intestine, the blood of healthy individuals should scarcely ever be free from them. But this is surely proving too much, since Dr. Sanderson himself assures us that healthy blood is germless.

Again, the other main channel by which, as he says, bacteria may enter into the body abundantly from without, is through the bronchi and the lungs. Now, as a result of Dr. Sanderson's oft-quoted experiments in 1871, he claims to have proved "in the most striking manner . . . that air is entirely free from living microzymes". Speaking of a previously boiled Pasteur's solution, he says that "no amount of exposure" to air "has any effect in determining the presence of microzymes therein". And yet Dr. Sanderson now talks of the air which is "entirely free from living microzymes" being the channel through which these organisms are introduced into the lungs. It is true that, in his recently published lectures, this distinguished investigator makes a tacit retraction of his previous statement. He says, in fact, in his first lecture (BRITISH MEDICAL JOURNAL, January 16th, 1875):—"It must not be understood that bacteria do not exist in the atmosphere. But their existence there in an active form strictly depends on moisture. They attach themselves without doubt to those minute particles which, scarcely visible in ordinary light, appear as motes in the sunbeam or in the beam of an electric lamp. It is by the agency of these particles that they are conveyed from place to place." Elsewhere, in the same lecture (page 70), Dr. Sanderson repeats the statement, that "solid materials in suspension in the air" play a principal part in the conveyance of bacteria from place to place, and alleges that this was shown by the very experiments of 1871, which then entitled him to express the conclusion that "air is entirely free from living microzymes". All I can say is, that I have not been able to find in Dr. Sanderson's writings any explanation of this marked change of view, and that I certainly know of no experiments of his which at all establish the fact (extremely difficult as it would be to establish) that bacteria or their germs are conveyed from place to place on the surface of aërial particles, just as his assumed particles of contagium are supposed to be borne about by bacteria themselves. If the theory be true, the conditions for aërial locomotion of contagia are, at all events, becoming a little complicated. The contagious particles cannot move about alone; they must engage the services of bacteria to carry them, and these latter porters are unfortunately so delicately constituted, that they cannot exist alone in the atmosphere; they can only survive when borne on the backs of some moisture-containing fragments of atmospheric dust, which, though much heavier than the contagious particles themselves, are freely borne through the air in all directions.

Turning from these statements, therefore, as to the assumed modes by which bacteria habitually gain an entry into the healthy human body, I may say, that many of the methods by which Professor Kühne, Dr. Sanderson, and others (BRITISH MEDICAL JOURNAL, February 13th, p. 199), have attempted to ascertain whether the different tissues contain actual or potential germs, are pointless in the face of the statements of heterogenists; since their methods cannot enable them to say, when positive results are obtained, that the potential germs from which, as they assume, the organisms have been developed are other than elementary particles of the previously healthy, though now altered, tissues, or that they have not been produced from the fluids which the tissues contain. These experimental observations are not only almost valueless on this account, but they are altogether needlessly complex. Why resort to heated knives, boiled thread, rapid movements, frequent immersions in paraffin at 260 deg. Fahr., paper boxes, warm chambers, etc., when precisely similar results might be obtained by simply leaving the dead animal alone for three or more days, and then subjecting the central tissues of either of the viscera to microscopical examination? So far as the principle of the method is concerned, or the kind of results which it may yield, it makes no difference whether we keep an extracted portion of tissue enveloped in paraffin in a warm chamber for hours or days, or resort to the much simpler method of leaving the animal unopened for several days before submitting its tissues to examination. In either case where organisms are found, this fact alone would give us no right to infer that they had developed from pre-existing germs (in the natural history sense of that term); they may, on the contrary, have arisen either by heterogenesis or by archebiosis.

The weight of probability in favour of either of these two possibilities can only be judged of by resort to a different method of procedure; because, in view of the observed absence of bacteria from the tissues of such organs as kidney, liver, or brain, immediately after death, the subsequent multitudinous presence of organisms in these situations would, in the face of satisfactory independent evidence, be more easily accounted for by heterogenesis or archebiosis than by the hypothesis of pre-existing latent or potential germs. By an appeal to evidence of this kind, moreover, we are enabled to test the probability of the hypothesis previously referred to as being supported by Dr. Beale and others—viz., that which assumes the existence of invisible and mysteriously derived germs of bacteria and fungi throughout the elements of the tissues—an hypothesis somewhat wild in character, which has, I believe, no other foundation than the frequently observed prevalence of organisms in some of these situations.

With the view of settling these questions, therefore, we may carefully prepare an infusion from some animal tissue, be it muscle, kidney, or liver; we may place it in a flask whose neck is drawn out and narrowed in the blow-pipe flame; we may boil the fluid, seal the vessel during ebullition, and, keeping it in a warm place, may await the result, as I have often done. After a variable time, the previously heated fluid within the hermetically sealed flask swarms more or less plentifully with bacteria and allied organisms, even though the fluids have been much degraded in quality by exposure to this high temperature, and have thereby, in all probability, been rendered far less prone to engender independent living units than the unheated fluids in the tissues would be. We operate, however, under these disadvantageous conditions in order to make thoroughly sure that, by the preliminary heating, we have destroyed all pre-existing life within the flask; and, notwithstanding such adverse circumstances, we are able to obtain evidence of the occurrence of archebiosis. The researches of Kühne and others have fully shown that the protoplasm entering into the composition of the tissues of warm-blooded animals is coagulated and killed at a temperature of 111 deg. Fah.; whilst my own investigations (*Evolution and the Origin of Life*, 1874, page 101) also show that bacteria and allied organisms are killed by exposure in the moist state to a temperature of 140 deg. Fah.

Hence I contend that the wide distribution of bacteria throughout the human body in connection with dying tissue-elements in the most varied situations, and also in diseased fluids, is explicable most easily by assigning for many of them an origin by heterogenesis and by archebiosis (though when so produced they multiply rapidly in the ordinary fashion); and that my position—that bacteria are pathological products—is one which may claim to have been fairly established.

On this subject I would only add a word or two concerning the point of view and reasoning employed by those who seem willing to believe in almost any infringement of natural uniformity, rather than admit the occurrence of heterogenesis and archebiosis, or either of them alone. The most remarkable recent utterances on this subject are those of Dr. Sanderson, though it is only fair to say that they are somewhat typical of the line of argument adopted by many others.

Whilst admitting that bacteria in their "ordinary state" have been proved to be killed at a temperature of 140 deg. Fah., and also by immersion in absolute alcohol, Dr. Sanderson assumes (BRITISH MEDICAL JOURNAL, February 13th, page 201) that other bacteria-germs may exist in an extraordinary state in which they have the power of resisting the influence of this temperature, the influence of absolute alcohol, and even the simultaneous action of both these destructive agents. But, if we ask on what amount of evidence this assumption is founded, many may be astonished to find that such an extraordinary belief has been adopted, simply because bacteria make their appearance in an organic infusion which has been prepared by macerating an organic extract previously submitted to the influences above mentioned, just as bacteria make their appearance within our closed flasks whose contents have been previously heated to the higher temperature of 212 deg. Fah. Has it ever occurred to Dr. Sanderson that another interpretation might have saved him from the necessity of adopting this extraordinary belief?

Again, in his third lecture, the same investigator shows himself for the time similarly oblivious of the point of view of those who believe in archebiosis, whilst the argument made use of to support his own position is of a very surprising nature. After remarking (BRITISH MEDICAL JOURNAL, March 27th, p. 403) that "of all perishable things, protoplasm is amongst the most perishable", he goes on to state that bacteria possess "a wonderful property of passing into a state of persistent inactivity or latent vitality". This is nothing more than an explicit expression of the notion previously referred to, though I wish especially to call attention to the additional "evidence" upon which the view is now based. Dust, containing organic *débris*, in which, as Dr. Sanderson confesses, he has no proof that anything living is contained, may be added to a fluid at the time barren, though freely capable of supporting life. One of the results of this addition is the appearance, after a short time, of bacteria. A physicist or chemist might conceive it possible that, as a consequence of such admixture, a compound not previously existing might have been more or less slowly formed—as this, at all events, is one of the modes by which new chemical compounds are engendered. But this point of view Dr. Sanderson will not seriously entertain—indeed, his remarks seem only explicable from the point of view of a foregone conclusion that archebiosis is an impossible process, and therefore on no account to be admitted as an interpretation of the facts. In reply to an imaginary objection, alleging that he had no proof that the dust contained anything living, he says with great *naiveté*:—"True; but I have proof that it contains that which produces life, and express this state of things, viz., the absence of manifestations of life on the one hand, and on the other the fact that the stuff in question possesses the power of impregnating something else which before was barren, by saying that the dust possesses latent vitality". The legitimacy of the inference does not seem very apparent to me, if it is to be taken in any other than a poetical sense; yet this is the only evidence adduced in favour of the assumed existence of an extraordinary state in which bacteria may exist—a state in which they are assumed to be capable of resisting influences which are admitted to be destructive to all actually known forms of life. Of course, on the same grounds, the physicist might argue that "friction possesses latent electricity", or the chemist that "oxygen possesses latent acidity", but it seems very questionable whether such statements would be regarded as serviceable additions to science. Neither can we consider that any further light is thrown upon this notion of "latent vitality" by Dr. Sanderson's concluding observations upon the subject, in which he says (BRITISH MEDICAL JOURNAL, April 3rd, p. 436):—"The vital activities of the organism are stored up for the future, *the individual being for this very end endowed* with the power of resisting external agencies, and thereby of enduring for an indefinite period". As to such teleological notions I have nothing to say; I prefer keeping to the region of fact and warranted inference. These, however, are the arguments by which a belief in the occurrence of archebiosis and heterogenesis is for the time averted.

Before drawing my remarks on this section of the subject to a close, I would point out that the views admitted by Dr. Beale and those who think with him, those admitted by Dr. Sanderson, Professor Kühne, and Dr. Tielgel, as well as those recognised by myself and others, all coincide with one another on a certain common ground. We are agreed as to the fact that bacteria are abundantly present within the body, or that they may appear therein under certain conditions independent of any immediate external contamination—however much we may differ amongst ourselves as to the interpretation of their presence, actual or possible. Yet this common ground contains an admission which is decidedly inimical to Mr. Lister's theories. Following M. Pasteur, this distinguished surgeon would have us believe, that whilst bacteria are disease-germs, they do not naturally exist within the body. He has based his antiseptic system of treatment on the assumption that air, or surfaces which have been exposed to it, coming into contact with wounded portions of the body, are the means by which his assumed animated poisons are introduced into the system. But it is, I think, now well known that the whole pyæmic process may be met with occasionally, even where there is no abrasion of the surface of the body. And, moreover, as regards the cause of the disease in persons with open wounds, I may say that Pasteur never seriously attempted to discriminate between the respective effects of the living and the dead elements entering into the composition of atmospheric dust. Effects which were often due to the action of mere organic *débris* he attributed to the influence of living germs (*Evolution and the Origin of Life*, pages 103-114); and in this respect M. Pasteur has been followed by Professor Lister.

But, as I take it, the essential practical fact which Professor Lister wishes to enforce is, that the putrefactive processes apt to take place in wounds ought to be reduced to a minimum, because it seems certain that, during such processes, poisons are liable to be engendered whose absorption or local influence upon the system may be attended by the most fatal results. Such a notion, which is assuredly throughly well founded, may, however, be acted upon by the adoption of the antiseptic system of treatment (or by free exposure of wounds and frequent removal of secretion), quite independently of the question whether mere organic *débris* may act as ferments, and also quite independently of the further question whether the poisons engendered in wounds are living entities or complex chemical compounds not endowed with the attributes of living matter.

*Applicability of the Germ-Theory to Artificial Tuberculosis, Syphilis, Typhoid, Typhus, Relapsing Fever, Cholera, Measles, Scarlet Fever, Small-pox, and other Contagious Fevers.*—I now pass to a consideration of the germ-theory in its relation to another class of diseases, although I do not wish to convey the idea that there exists in nature a distinct boundary line, such as my division of the subject might indicate. It must be clearly understood, that the local morbid processes or inflammations of a virulent type—which may or may not gradually entail a more general morbid conditon—pass insensibly, by means of such affections as artificial tuberculosis and syphilis, into that class of diseases under which are included such affections as typhus, typhoid, relapsing fever, cholera, measles, scarlet fever, small-pox, and other contagious fevers. Affections like artificial tuberculosis and syphilis might, therefore, have been placed with equal appropriateness in either of the divisions I have adopted.

The treatment of the present part of my subject may be disposed of in a more summary manner than the last, principally because many of the facts and considerations which were advanced in reference to virulent inflammations and their sequelæ, and the presence of independent organisms in the altered fluids and tissues of the body, are also applicable to the question of the relation of such organisms to the more specific contagious fevers.

The case to be made out in favour of the germ-theory, as applied to these latter fevers, is also, in my opinion, much weaker than it is in respect to the virulent inflammations and their sequelæ; since, although such contagious fevers have always been regarded as general and essentially "blood-diseases", in only one of those occurring at all commonly in the human subject does it appear that anything like an independent living organism is to be met with in the blood. There is, therefore, here a *primâ facie* inherent weakness in the whole theory, which I think a thorough examination of the question will strongly tend to confirm, rather than dissipate.

The reasons relied upon in favour of the germ-theory, as applied to these diseases, are of a purely *à priori* or theoretical nature, and such as I have already referred to. They are, in fact, based upon the assumed nature of contagium, and upon its assumed mode of increase within the body. How little conclusive such *à priori* reasons are, and how the facts may be otherwise explained I have already endeavoured to show, and as the theory in its applicability to these diseases rests upon absolutely no positive evidence that I am aware of, I am compelled to leave a gap here, and pass on to a brief enumeration of the facts and considerations which seem to tell strongly against the existence of any causal relationship between organic germs and these specific contagious fevers.

1. With two exceptions, no definite germs or organisms are to be met with in the blood of patients suffering from these diseases during any stage of their progress.

2. The virus or contagium of some of these diseases, whatever it may be, does not exhibit the properties of living matter.

3. On the other hand, the virus or contagium of most of these contagious diseases with which definite experiment has been made, is most potent in the fresh state, whilst its power very distinctly diminishes in intensity as organisms reveal their presence more abundantly therein—facts which would seem to point to the conclusion, or at least are quite consistent with the notion, that the contagious poison may be a chemical compound which gradually becomes destroyed or modified by the successive changes taking place in association with processes of putrefaction.

4. There is the extreme improbability of the supposition that this whole class of diseases should be caused by organisms known only by their effects.

5. The facts of the sudden cessation, periodical visitation, and many of the other phenomena of epidemics, however difficult they may be to explain upon any hypothesis, seem to oppose almost insuperable obstacles to the belief that living organisms are the causes of such epidemics of specific contagious diseases.

It would seem little better than an ill-timed attempt at jesting to postulate the existence of distinct germs for these several specific fevers, and at the same time to endow such imaginary entities with properties different from those of all known germs. To remain always in the germ stage in media favourable for their multiplication would, even if the imaginary germs were visible, be contradictory to all previous experience; but to suppose, in addition, that such hypothetical invisible entities are capable of resisting the influence of agencies which have been proved to be destructive of all known living matter, would seem to be going altogether beyond the bounds of probability. And, if we look at the question from this point of view, we may regard it as a definitely established fact that the virus of cholera, for instance, is not composed of living germs or particles. Messrs. Lewis and Cunningham have shown (*Report, etc., into the Nature of the Agent or Agents producing Cholera*, pp. 46 and 57, 1874) that the virus is not appreciably impaired in activity when the fluids containing it have been raised for a few minutes to a temperature of 212 deg. Fahr.; and, in reference to this subject, they say: "We have seen no living object preserve its vitality after exposure in a fluid to a temperature approaching to 212 deg. Fahr., nor have we been able to satisfy ourselves that anyone else has done so."

In only one of the specific fevers commonly met with in the human subject have organisms been found in the blood: this exception is relapsing fever. There is, however, an affection occasionally communicated from cattle (*sang de rate*, or splenic fever) in which organisms are occasionally met with in the same situation. But the fact of the existence of actual visible organisms in these cases seem altogether robbed of its significance, after the occurrence of archebiosis and heterogenesis in diseased fluid and tissues has been demonstrated. The view, indeed, that the organisms found in these affections owe their origin to certain changes prone at times to occur in the fluids of the body, is directly supported by some of the most interesting results of Dr. Sanderson's experiments concerning pyæmia. He tells us that in some of the lower animals artificial tuberculosis and pyæmia are often only different effects of the same cause. That is, that some of the same inoculating material may be introduced beneath the skin of two rabbits, and in the one a slow and more chronic set of morbid changes is induced (tuberculosis), whilst in the other more acute and rapidly fatal processes are established (pyæmia). In the former animal no organisms are to be found in the blood, whilst the blood of the latter, according to Dr. Sanderson, is swarming with them. Changes in the character of the morbid process, therefore, may occasionally favour the presence of organisms. Nay, further, we see the same kind of difference in another way. Pyæmia and septicæmia, as they occur in some of the lower animals, differ in one very notable respect from the same diseases as they occur in man. Whilst in the lower animals bacteria are to be found in the blood of the living animal, in man they are always absent during life. With such facts as these before us, and others previously referred to concerning the absence and presence of organisms in blister-fluid from different individuals, it need not excite much surprise if we find that organisms are to be found in the blood of persons suffering from one or more of these specific contagious fevers.

There are, however, three other diseases of this class in which organisms, though absent from the blood, are to be met with in those parts of the body which are severally the special seat of morbid change. The three diseases are—vaccinia, ovine small-pox (which seems to be altogether similar to the disease occurring in man), and typhoid fever.

That the organisms of the vaccine vesicle have any significance other than from being possible instances of heterogenesis or archebiosis, I find it difficult to be lieve. Even if the contagious property of the fluid be resident in some of its particles, as the observations of M. Chauveau and Dr. Sanderson seem to prove, still such particles may exist and yet not be the independent organisms existing in the same fluid. The fact that as the organisms increase in the fluid with age the virus loses its intensity, and the fact that it may remain potent even after prolonged periods of desiccation, are both of them strikingly opposed to the notion that the living organisms of the fluid are its active elements in a specific sense. On the other hand, it does appear, from the experiments of the late Dr. Henry, of Manchester, that vaccine virus loses its intensity when subjected to a temperature of 140 deg. F.

In ovine small-pox we have, as Dr. Klein's very interesting researches have shown (*Proceedings of the Royal Society*, No. 153, p. 1874), a local appearance and active growth of organisms taking place in the skin in connection with its characteristic pustules; whilst in typhoid fever we have also an active growth of rather different organisms in the substance of the ileum, and more especially in the tissues constituting Peyer's patches—that is, in connection with the anatomical marks of this disease. (BRITISH MEDICAL JOURNAL, December 5, 1874.) But just as a mere chemical irritant (ammonia) injected beneath the skin of a rabbit produces, as Dr. Sanderson tells us, a local inflammation in which the fluids effused swarm with bacteria, why may not the morbid processes taking place within the skin in small-pox engender irritants which may lead to the appearance of somewhat similar products? Hence, in face of the evidence already detailed concerning the occurrence of heterogenesis, the presence of organisms in connection with small-pox lesions may be readily accounted for, without the necessity of attaching any very important *rôle* to them. And as regards the presence of organisms in Peyer's patches and adjacent parts, in cases of typhoid fever, no greater importance could be accorded to this association by any but enthusiastic germ-theorists. For, even if the reasons above alluded to were not very influential with them, there is another mode of looking at the matter, from quite an orthodox point of view, which would equally assign to the local development of organisms a very subordinate *rôle*. Morbid tissues are generally admitted to form a favourable nidus for fungoid growths, and the intestine is known to contain the germs or spores of such bodies. The flourishing growth of leptothrix and fungi in the diseased mucous membrane may therefore be only another example of an already well-known class of effects; so that, looking at the question from all sides, it seems to me, in the present state of our knowledge, to be extremely improbable that these newly discovered organisms have any causal relationship to typhoid fever.

It only remains for me now to make a few very brief concluding observations—(1) concerning Pasteur's recent important modifications of his germ theory of fermentation; (2) upon the degree of relationship existing between fermentation and zymosis; and (3) as to the probable mode of action of ferments and contagia.

1. Pasteur has, within the last two years, made a most important modification in his theory of fermentation (*Compt. Rend.* 1873-4). Whilst he formerly held that fermentation and putrefaction are chemical processes initiated by independent organisms (bacteria and their allies), and taking place in correlation with their growth and multiplication, he has of late shown that similar phenomena may be initiated by the chemical processes taking place in the tissue-elements of certain fruits and vegetable tissues, when these are placed under certain abnormal conditions. Grapes, for instance, suspended in an atmosphere of carbonic acid, will undergo fermentation, so as to generate alcohol and other products, even without the presence of torulæ or allied organisms. Other fruits and vegetables treated in the same way behave more or less similarly. Organic multiplication of independent organisms has therefore now been shown, by Pasteur himself and his followers, not to be an essential factor in the process of fermentation. With this admission, I believe it will be found impossible hereafter consistently to entertain an exclusively "vital" theory of fermentation, and equally impossible to resist accepting the broader physico-chemical theory, and with it the almost inseparable correlative doctrines of archebiosis and heterogenesis.

M. Pasteur, in fact, now proves that fermentation takes place under the influence of altered chemical (nutritive) processes taking place in unhealthy vegetal tissue, just as we know that similar processes may be initiated under the influence of a physico-chemical process brought about by finely divided platinum. As Döbereiner pointed out, this material "has the power—and many organic substances have a similar power—of absorbing oxygen from the air, and bringing it into a condition in which it can unite with other substances with which it would not otherwise enter into combination at low temperatures" (*Beginnings of Life*, vol. i., p. 409).

And MM. Lechartien and Bellamy, following up the recent experiments of Pasteur, have found (*Compt. Rend.*, November 2, 1874) that in these modified processes of fermentation, taking place in vegetal tissues, independent organisms, though they are usually absent at first, not unfrequently make their appearance after a time. In the process as it occurs in beetroot and in the potato, on the other hand, bacteria habitually spring into existence or reveal themselves in great abundance soon after the commencement of a well-marked process of fermentation. M. Pasteur will, I suspect, find it difficult consistently to account for these facts, without admitting his long-postponed acceptance of doctrines of "spontaneous generation".

2. Respecting the degree of relationship existing between fermentations and zymotic processes, something more definite may now be said. Between the ordinary, previously known forms of fermentation, and zymosis, a most fundamental difference exists, which has hitherto been far too much lost sight of. It is this. Whereas in an ordinary fermenting fluid the changes initiated by a ferment take place in a mere isolated mixture of organic substances, in zymotic processes the changes initiated by contagium occur in the fluids and tissues of a complex living body. That this latter fact does exercise a very important influence, and that the two processes are not so similar as they have been supposed, we may now more readily recognise, since the processes of fermentation occurring in vegetal tissues have been investigated. The relationship existing between zymosis and these modified processes of fermentation taking place in fruits and tubers seems, indeed, far more close than that between the zymotic processes in animals and ordinary kinds of fermentation.

In the process occurring in vegetal tissues, as well as in those morbid processes which take place in the animal organism, the presence of rapidly multiplying independent organisms is an occasional rather than a necessary feature. Though usually absent in other allied processes, yet do we find organisms invariably manifest themselves throughout the tissues of beetroot and of the potato, when these are placed under certain abnormal ("unhygienic") conditions. And, though usually absent from the blood of persons suffering from specific contagious fevers, yet do we also find organisms invariably showing themselves in the blood of persons suffering from some of them—such as relapsing fever and splenic fever. Nay, further, under the influence of a "change of conditions" alone, we may initiate these modified fermentative processes in vegetables—that is to say, in ordinary parlance, the processes may originate "spontaneously" or *de novo*. But if the modified activity of tissue-elements suffices to initiate such morbid processes in the vegetal organism, why may it not occasionally do the same in the animal organism? This is a point of view which seems too valuable to be lost sight of, more especially in the face of the results yielded by our flask experiments.

3. In conclusion, I would maintain that the facts already known abundantly suffice to displace the narrow and exclusive vital theory, and to re-establish a broader physico-chemical theory of fermentation.

Whether the "ferment" in any given case be an independent living organism, a tissue-element, a fragment of not-living organic matter, or some mere physico-chemical influence (as in the case of the action of finely divided platinum), the initiative fermentative change is in each case a result of chemical action. And similarly, with regard to "contagium", whether it be an altered though living tissue-element, a fragment of dead organic matter, a chemical compound (or even the more vague influence of a "set of conditions", which may suffice to generate contagium *de novo*), we have in each case to do with gradually initiated chemical changes, distinctive in kind, and gradually terminating in one or other of the recognised varieties of zymotic affections. The changes in each case where we happen to have to do with living ferments or living contagia would be due only to an infinitesimal extent to the organic multiplication of such living units, though the decompositions set up by them in their respective fluids may be such as to lead to the formation of a continuous new birth of independent organisms, all of which exhibit most active powers of multiplication. The organisms produced in such cases are, therefore, only to an infinitesimal extent lineal descendants of the original living ferments or contagia, under whose influence such fermentative or zymotic processes were originally established. (*Beginnings of Life*, vol. ii., p. 361.)

Thus it would appear that the original notion borrowed from the vital theory of fermentation, that all the organisms met with in a fermenting mixture are in the strict sense of the term lineal descendants of those originally introduced as ferments, would disappear with the vital theory itself. Yet this has been the notion upon which upholders of the germ-theory of disease have always relied confidently, in explanation of the mode of increase of contagium within the body.

Looking, however, at this question from our new point of view, may we not say that chemical changes established in some one tissue, or in many, may, by dint of altered blood and other secondary processes, spread so as to be initiated also in previously sound parts; and that thus throughout the body, or in some special regions of it, living tissue, endowed with peculiar poisonous properties, or complex alkaloidal compounds, may be engendered in enormous quantities, some of which may be thrown off from this or that surface, and act after the fashion of "contagia" generally.

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## THE TEMPERATURE IN PHTHISIS.

Shortly after the publication of Dr. Sidney Ringer's work on the *Use of the Thermometer in Phthisis*, I made a number of thermal observations on phthisical patients, and came to the conclusion that valuable as the thermometer is in the diagnosis of a variety of diseases, yet, as a test of the deposition of tubercle, it is unreliable. In cases of incipient phthisis, with obscure physical signs, it did not aid the diagnosis; it was unsafe to say that there was no disease because the temperature was normal. In many cases, there was no rise, yet signs of tubercular deposit gradually unfolded themselves. In others, a rise of two or three degrees occurred, but often there was slight bronchial inflammation which might account for it. In more advanced cases, there was of course softening, and often subacute pneumonia, bronchitis, etc. I believe that the thermometer indicated only the pyrexia produced by these complications. Subnormal temperature was occasionally observed when the vital powers were low. I several times intended to record these observations, but feared they were not sufficiently elaborate to satisfy the profession, although they convinced me. Dr. Theodore Williams has now more efficiently done so; and it is satisfactory to find his conclusions tally with mine.

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## ON THE ACTIONS OF PICROTOXINE, AND THE ANTAGONISM BETWEEN PICROTOXINE AND CHLORAL HYDRATE.

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(*Continued from page* 444.)

Certain conclusions having thus been arrived at as to the actions of picrotoxine and as to the toxic symptoms produced by it when uninterfered with by treatment, it became necessary in the next place to ascertain accurately the minimum fatal dose of it, in those animals which it was proposed to make use of, in testing the supposed antagonism between it and chloral hydrate. The results of the experiments which were performed with this view are shown in the two following tables.

Table II.—*Showing the Minimum Fatal Dose of Picrotoxine in Rabbits.*

| No. | Weight of Rabbits. | Dose of Picrotoxine in parts of a grain. | Effects. | Result. |
|---|---|---|---|---|
| 9 | 2 lbs. 6 oz. | 1-60th | Dulness, hurried breathing, and prostration | Recovery |
| 10 | 3 lbs. 2 oz. | 1-40th | Lethargy and unsteadiness in movements | ,, |
| 11 | 3 lbs. 2 oz. | 1-30th | Dulness, quickened respiration, restlessness, twitching of ears | ,, |
| 12 | 3 lbs. 7 oz. | 1-25th | Lethargy, hurried respiration, twitchings | ,, |
| 13 | 3 lbs. 9 oz. | 1-25th | Prostration, hurried respiration, severe twitchings | ,, |
| 14 | 3 lbs. 3 oz. | 1-20th | Lethargy, restlessness, violent convulsions | Death in 84 min. |
| 15 | 2 lbs. 12 oz. | 1-20th | Dulness, twitchings, violent convulsions | Death in 75 min. |
| 16 | 3 lbs. 3 oz. | 1-8th | Lethargy, hurried breathing, trembling, violent convulsions | Death in 32 min. |
| 17 | 2 lbs. 2 oz. | 1-3rd | Drowsiness, twitchings, violent convulsions | Death in 30 min. |
| 18 | 2 lbs. 15 oz. | 2-3rds | Staggering, loss of power in legs, violent convulsions | Death in 19 min. |

Table III.—*Showing the Minimum Fatal Dose of Picrotoxine in Guinea-Pigs.*

| No. | Weight of Guinea-Pig. | Dose of Picrotoxine in parts of a grain. | Effects. | Result. |
|---|---|---|---|---|
| 19 | 1 lb. 2 oz. | 1-55th | Lethargy, followed by restlessness, with twitchings of ears | Recovery |
| 20 | 1 lb. 6 oz. | 1-50th | Dulness, quickened respiration, twitchings of ears and mouth | ,, |
| 21 | 1 lb. 4 oz. | 1-40th | Dulness, hurried respiration, twitchings, three severe fits, with tonic and clonic spasms | ,, |
| 22 | 1 lb. 5 oz. | 1-35th | Lethargy, restlessness, twitchings of ears and mouth, loss of power in hind legs | ,, |
| 23 | 1 lb. 5 oz. | 1-30th | Drowsiness, hurried breathing, restlessness, three fits, then constant convulsions | Death in 123 m. |
| 24 | 1 lb. 2 oz. | 1-30th | Lethargy, twitchings, violent convulsions | Death in 62 min. |
| 25 | 1 lb. | 1-30th | Liveliness, startings, violent convulsions | Death in 40 min. |
| 26 | 1 lb. 2 oz. | 1-20th | Lethargy, twitchings, violent convulsions | Death in 75 min. |
| 27 | 1 lb. 6 oz. | 1-4th | Lethargy, hurried breathing, startings, violent convulsions | Death in 25 min. |

These tables demonstrate that one-twentieth of a grain of picrotoxine may be regarded as the minimum fatal dose in a rabbit weighing about three pounds, and that one-thirtieth of a grain may be regarded as the minimum fatal dose for a guinea-pig weighing about a pound and a quarter. This point having been satisfactorily settled, the next experiment was directed to ascertain whether, as had been supposed, the action of the picrotoxine could be modified or controlled by chloral-hydrate.

*Experiment* xxviii.—A vigorous rabbit, weighing exactly three pounds, was procured, and to it one-twentieth of a grain of picrotoxine was administered by hypodermic injection, ten grains of chloral-hydrate being simultaneously administered in the same way. Ten minutes after the injection, the rabbit was heavy and dull; and, five minutes later, its bowels having in the meantime acted very freely, there was superadded to the dulness some drowsiness. It still rested upon its feet, but its head drooped to one side. The breathing was exceedingly rapid. Twenty minutes after the injection, it was drowsy, but still sitting up, and able to move away at once when pinched or disturbed. The respirations were at the rate of 140 per minute, and somewhat irregular. Forty minutes after the injection, it remained in nearly the same condition, except that it was stretched out upon the floor, and looked more prostrated. It did not scream when its tail was pinched, but simply moved away from the annoyance. Fifty minutes after the injection, it was uneasy, and frequently changed its position. It was still sitting up, and able to move about, though with some unsteadiness. Seventy minutes after the injection, it lay upon its belly, with its limbs stretched out, but could still spring on to its feet when disturbed. Ninety minutes after the injection, it got up voluntarily, and sought out a dark corner, in which it ensconced itself. One hundred and twenty minutes after the injection, it was quite well, and eating freely. From first to last, there were no tremblings, no spasms of any kind, and no deep sleep nor coma.

*Experiment* XXIX.—A guinea-pig, weighing 1 lb. 4 oz., had one-thirtieth of a grain of picrotoxine injected at the same time with five grains of chloral-hydrate. In seven minutes, it was very drowsy, and in eleven minutes it was sleeping quietly. In twenty-six minutes, its sleep was unquiet, and it often awoke, got up, changed its position, and then dropped off to sleep again, its breathing all the time being very rapid. In forty minutes, it was awake, looking about it, and moving a good deal. In fifty minutes, it had again fallen into a sleep; from which, however, it could be readily roused. In seventy minutes, it was still asleep, but restless, and tossing about from time to time. In ninety minutes, it was sleeping quietly; and in this state it remained until three hours after the injection, when it awoke up quite recovered. From first to last, there were no spasms, and no profound comatose sleep.

These two experiments were regarded as very remarkable, and as clearly indicating the existence of the antagonism which had been suspected. It was felt, however, that a much larger body of proof was requisite for its full demonstration; and accordingly the series of experiments summarised in the following tables was next undertaken.

TABLE IV.—*Showing the Effects of the Hydrate of Chloral Injected with Fatal Doses of Picrotoxine in Rabbits.*

| No. | Weight of Rabbit. | Dose of Picrotoxine in parts of a grain. | Dose of Chloral Hydrate in grains. | Effects. | Result. |
|---|---|---|---|---|---|
| 30 | 2 lbs. 14 oz. | 1-20th | 10 | Drowsiness, disturbed sleep for two hours | Recovery |
| 31 | 3 lbs. 1 oz. | 1-20th | 12 | Drowsiness, hurried breathing, deep sleep for 2 hours | ,, |
| 32 | 2 lbs. 8 oz. | 1-16th | 15 | Drowsiness, sleep easily disturbed | ,, |
| 33 | 3 lbs. | 1-15th | 12 | Prostration, hurried breathing, twitchings of head and ears | ,, |
| 34 | 3 lbs. 4 oz. | 1-8th | 15 | Dulness, hurried breathing, twitchings, five severe fits | ,, |
| 35 | 3 lbs. 6 oz. | 1-4th | 21 | Twitchings, convulsions, drowsiness, deep sleep | ,, |
| 36 | 2 lbs. 13 oz. | 1-3rd | 20 | Drowsiness, lethargy, twitching, violent convulsions | Death in 24 hrs. |
| 37 | 2 lbs. 14 oz. | one-half | 20 | Drowsiness, hurried breathing, twitchings, violent convulsions | Death in 6 hrs. |
| 38 | 2 lbs. 14 oz. | 2-3rds | 24 | Restlessness, hurried breathing, drowsiness, sleep, twitchings, violent convulsions | Death in 59 m. |

TABLE V.—*Showing the Effects of the Hydrate of Chloral when Injected with Fatal Doses of Picrotoxine in Guinea-Pigs.*

| No. | Weight of Guinea-Pig. | Dose of Picrotoxine in parts of a grain. | Dose of Chloral Hydrate in grains. | Effects. | Result. |
|---|---|---|---|---|---|
| 39 | 1 lb. 12 oz. | 1-30th | 5 | Drowsiness, sleep, but not so profound as chloral sleep usually is | Recovery |
| 40 | 1 lb. 4 oz. | 1-30th | 5 | Drowsiness and disturbed sleep | ,, |
| 41 | 1 lb. 6 oz. | 1-20th | 6 | Drowsiness, restless, disturbed sleep | ,, |
| 42 | 1 lb. 2 oz. | 1-16th | 7 | Drowsiness, restlessness, twitchings, broken sleep | ,, |
| 43 | 1 lb. 4 oz. | 1-8th | 10 | Drowsiness, twitchings, violent convulsions | Death in 4 hrs. |
| 44 | 1 lb. 7 oz. | 1-8th | 8 | Lethargy, restlessness, twitchings, hurrried breathing, coma | Death in 10 hrs. and 40 min. |
| 45 | 1 lb. 3 oz. | 1-4th | 10 | Drowsiness, deep sleep, coma | Death in 7 hrs. |
| 46 | 1 lb. 7 oz. | 1-4th | 6 | Restlessness, startings, convulsions | Death in 90 m. |

As these experiments progressed, it became abundantly evident that chloral-hydrate counteracts the effects of poisonous doses of picrotoxine in the most decisive manner, and that the antagonism which exists between them is one of the most striking instances of antagonism that has yet been discovered. For, whereas the largest dose of strychnia which has yet been antagonised by chloral-hydrate in a rabbit—one-fortieth of a grain—is just about equal to two minimum fatal doses, the largest dose of picrotoxine that has been so antagonised—one-fourth of a grain—is equal to five minimum fatal doses; and, whereas the prolongation of life in the rabbit by chloral-hydrate after doses of strychnia, which it was powerless altogether to antagonise, has never exceeded eight times the period in which life is destroyed by the same dose of strychnia unmodified by treatment, the prolongation of life in the rabbit by the same agent, after doses of picrotoxine under similar circumstances, has amounted to as much as forty-eight times the period in which death would have ensued, had the picrotoxine been uninterfered with in its action.

When the minimum fatal dose of picrotoxine—one-twentieth of a grain—was administered, and with it ten or twelve grains of hydrate of chloral, the rabbit, instead of dying in about an hour and a half after violent convulsions, perfectly recovered after a more or less disturbed sleep of two or three hours' duration; and the same rabbit that thus recovered was killed about a week later by the repetition of the same dose of picrotoxine—one-twentieth of a grain given alone—within one hour and a half of its administration. When one-fifteenth or sixteenth of a grain of picrotoxine was given with twelve or fifteen grains of chloral, perfect recovery took place after a prolonged sleep, broken in upon by restlessness and trifling twitchings. At and beyond this point, no crucial experiment, consisting in the repetition of the same dose of the poison, after a suitable interval, without the antidote, was deemed necessary. Such an experiment, indeed, would have been but an useless waste of life, as I have never seen a rabbit recover after a sixteenth of a grain of picrotoxine. Having received such a dose, rabbits invariably die within an hour, after severe convulsions. When one-eighth of a grain of picrotoxine was administered with twelve grains of hydrate of chloral, satisfactory recovery took place, but after a succession of symptoms which revealed outwardly in a singular manner the struggle for the possession of the nervous system which was going on within by the two opposing agents. So nearly were their forces matched in this instance, that the conflict was severe and long maintained, and the ascendancy was gained by each in turn; the victory, however, finally falling, not to the bane, but to the antidote. The drugs were administered at 3.30 P.M., and ten minutes thereafter the rabbit was drowsy, its head nodding, and its breathing being exceedingly rapid. In eighteen minutes, it was lively, and able to move about; but in twenty-four minutes it was very feeble, and swayed visibly when it attempted to walk. In twenty-five minutes, there were shakings of the head from side to side, and twitchings of the ears, lasting just six seconds. The instant these movements terminated, the animal manifested great drowsiness, nodded repeatedly, and then let its head fall flaccid on one side. In twenty-eight minutes, sleep having lasted for three minutes, there were a start and sudden awakening, and then drawing back of the head and rapid twitchings of the ears and mouth, continuing eight seconds, and again merging into sleep. In thirty-three minutes, there occurred another seizure. This time the head was drawn back, the fore-paws were spread out, and the body then reared aloft on them; while the lips and ears were sharply agitated. During the fit, pinching the tail secured no response; but whenever the fit was over, and the animal had fallen asleep, the same irritation caused wakening and movement, but no cries. The breathing immediately before and after the fit was so rapid as to be uncountable; but during the interparoxysmal sleep it became gradually slower. In thirty-six minutes, there was another fit like the preceding, except that the head was drawn to the right side. At the close of this fit, and before the supervention of sleep, there was a sharp attack of sneezing. In forty minutes, there was another fit, in which the head was violently shaken, and in which the munching movements were very vigorous. In the sleep of four minutes' duration which followed upon this fit, there was occasional slight shaking of the head (the rabbit was still in a sitting attitude), which did not, however, interrupt sleep. In forty-four minutes, there was another slight attack of clonic spasms, limited to the head, and accompanied by a free flow of saliva from the mouth. Subsequently to this, no twitchings occurred; the rabbit fell into a deep sleep, which lasted for an hour and a half; and then it awoke and began to scramble about. It remained in a feeble and stupid state for three hours more, and was not altogether well until next morning.

In this case, the dose of chloral-hydrate given was rather too small, absolutely, and from the first, to counterbalance the effects of the picrotoxine, so that the contest between them became visible. Had twenty instead of fifteen grains of chloral-hydrate been administered, it is probable that no fits would have occurred.

When one-fourth of a grain of picrotoxine and twenty-one grains of chloral-hydrate were injected simultaneously, the phenomena observed were very like those described above, except that, after about a dozen separate fits and intermediate sleep harassed by frequent twitchings, there was a short period of continuous clonic spasms, in which, for about three minutes, the head was drawn back, and the fore-paws went through active running movements, which were arrested by deep and protracted sleep. When still larger doses of picrotoxine were administered to rabbits, as one-third, one-half, and two-thirds of a grain, with from twenty to twenty-four grains of chloral, evidences were not wanting of the extraordinary power of the latter drug to modify, arrest, and mitigate the effects of the former. Although, in these cases, the chloral-hydrate failed to ward off death, it marvellously extended life, and reduced the severity of the most distressing symptoms. With such enormous doses of picrotoxine, much larger doses of chloral-hydrate than were resorted to would be called for, in order to render it efficacious as an antidote—doses so large, indeed, as to be in themselves poisonous to a degree not to be counterbalanced by picrotoxine. The rabbits that received these enormous doses perished from the picrotoxine and an insufficiency of chloral. In one, life was drawn out and slight twitchings persisted for twenty-four hours, death then being due to exhaustion; and, in the other, death was due to the terrible convulsions and their immediate consequences.

[*To be continued.*]

## THERAPEUTIC MEMORANDA.

### INTERNAL ADMINISTRATION OF TAR IN PSORIASIS.

It may not be out of place if I avail myself of the opportunity afforded by the publication in the JOURNAL of March 20th, of the researches of Dr. Ringer and Mr. Murrill into the value of the ingestion of tar in winter-cough, to state the results of an investigation as to the value of the ingestion of tar in psoriasis. A distinguished teacher, under whom both Dr. Ringer and I studied, was in the habit of treating his cases of psoriasis with tar administered simultaneously internally and externally, and used to impress the memory of the fact on the minds of his class by telling them that such patients should be done to as Noah did to his ark; that is to say, they should be pitched within and without; and his patients certainly did well under the treatment. This led me to feel curious to know which of the two was the more important—pitching within or pitching without. I accordingly, as soon as I had hospital patients of my own, dealt with all my cases of psoriasis for some time as follows. The first had tar-ointment and camphor mixture; the second had tar internally in the shape of tar-capsules, without other treatment of any kind; the third was treated like the first; and so on with about thirty cases in all—the odds being simply pitched without, the evens being impartially pitched within. At the end of a couple of months, a very decided result was obtained. Those pitched without had all very considerably improved, and some were perfectly well. Those pitched within remained very much as before, some of them being even worse than at first. To obviate the possible contingency of those pitched within being obstinate cases, they were next pitched without, and they all of them thereupon began speedily to undergo improvement. In administering tar internally in this experiment, I pushed it in every case *ad nauseam*. I began with a stronger dose than an ordinary tar-pill, namely, a tar-capsule three times a day. I increased this dose by doubling it, and then by trebling it in cases where it could be borne without excessive nausea; but in no case did it seem to do the least perceptible good. The experiments of so pre-eminently able an observer of the action of drugs as Dr. Ringer prove without question that tar is capable of producing an effect on organs remote from those to which it is applied. I am unable, therefore, to offer any explanation of the results I arrived at. I can only offer my experiment to him, in the hope that he may think it worth while to repeat it and report whether or not I am correct in my conclusion, that tar taken internally has no effect in curing psoriasis, although its local application to the disease has in all cases a decidedly beneficial effect, and in many is of itself sufficient to cause the complete disappearance of the eruption.

BALMANNO SQUIRE, M.B.

### ON THE USE OF DIGITALIS IN THE TREATMENT OF SOME CASES OF BRONCHITIS.

GIVEN a patient past the meridian of life, either very stout, or emaciated from previous bad health, and let him, or more commonly her, have a neglected bronchitis, and we have the following class of symptoms produced: A perspiring skin, a poor and quick pulse, urgent dyspnœa, bluish tinge of lips and skin, and respiration accompanied by loud wheezing sounds. The most successful plan of treating these cases, so common during the present severe winter, is the free administration of digitalis, which may be advantageously combined with the compound spirit of ammonia. The digitalis may be given in doses of ten minims of the tincture every two hours. In less urgent cases, the pills recommended by Dr. Fothergill, in his Hastings prize essay published in this JOURNAL, are very useful, and have the advantage of less easily inducing sickness than the tincture. In these cases, it is the heart which is at fault, the right ventricle being gorged with blood, which it is unable to propel through the lungs. The best test of the truth of this theory is its success, for the pulse will be found to become full and slow, and the breathing relieved, directly the digitalis has had time to act on the heart. Its action is sometimes assisted by the judicious administration of a little alcohol. I prefer common gin. If, however, it be found that these cases of commonly called bronchitis are really dependent, for their non-recovery at least, upon weak hearts, care must be taken as to the administration of stimulants, for they accelerate the action of the heart, and in the end weaken it. In fact, digitalis slackens the speed, and stimulants increase it, so they to some extent contradict each other. I have had some cases lately in which twenty minims of tincture of digitalis were given every two hours for a whole day, and then decreased to ten minims every four or six hours. This medicine will be found to be chiefly valuable when the pulse is weak and rapid. In one old lady about 80 years of age, the effect was remarkable, and in another, seen to-day, the pulse has fallen to 76, with corresponding relief to the other symptoms. In another case, in which the pulse was 130 and very weak, it acted magically, but I am sorry I made no note of the exact rate to which the pulse fell. Good support of all kinds may at the same time be given. I like stimulants less and less in this form of disease; if you want a horse to go one mile rapidly and well, the spurs may be used, but for a long journey a steady pace is better. Some patients are more susceptible of digitalis than others, therefore the effects must be watched, and the dose increased or diminished, as necessary.

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## REPORTS
OF
## MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

### ALL SAINTS INSTITUTION, GOWER STREET.

CASES OF OVARIOTOMY.

(Under the care of Dr. GRAILY HEWITT.)

(*Continued from page* 478.)

CASE XI. *Multilocular Cystic Tumour of Ovary: Considerable Adhesions: Ovariotomy: Recovery.* (Reported by Mr. A. P. GOULD, M.B.)—C. F., single, aged 40, had been under the care of Dr. Trouncer of Surbiton. She had had suppression of the catamenia for one year from cold at the age of 14. Since that time, she had been rather irregular. She was liable to œdema of the legs and feet. Eight months ago, after some exertion, she felt "ricked" in the side, and retention of urine occurred for one day. Six weeks later, she had a fall, and struck the side, soon after which the abdomen began to increase in size. On July 19th, 1874, she had menstruated last two months ago. She was emaciated. There was considerable œdema of the legs. The abdomen was much enlarged, more on the left than on the right side. Fluctuation was distinct, and limited to the area of dulness. The flanks were resonant. A vertical groove divided the tumour into two parts. The whole mass within the abdomen reached nearly to the ensiform cartilage.

On July 30th, ovariotomy was performed in the presence of Dr. Trouncer and others, Dr. John Williams assisting, together with Mr. B. P. Gould and Mr. D. Edwards. Chloroform was given by Mr. Meredith. The incision extended to the umbilicus. Adhesions inextricably confused the recognition of the peritoneum, and three cysts were punctured, allowing each about one pint and a half of thick tenacious fluid to escape. The tumour was then found to be universally adherent over its anterior aspect, some of the adhesions above being very firm. The tumour, when finally turned out, was found to proceed from the right ovary, its pedicle being a broad one. An artery as large as the radial was seen in it after it was cut through. The tumour was made up of a very large number of cysts; one was as large as a cocoa-nut. The pedicle was transfixed, tied in two portions, and secured externally by Dr. Graily Hewitt's gutta-percha clamp.

The progress of the case was good. The temperature once reached 100 deg. on the evening of the second day after operation; but, on all other days, below, or about 99 deg. The pulse never exceeded 96. The pedicle ligatures came away on the eighth day; the last suture was removed on the ninth day. On August 27th, the patient was discharged, cured.

Much comfort was given in this case by carefully bandaging both legs from the feet upwards, and slightly raising them.

CASE XII. *Unilocular Large Cyst of Ovary: Three or Four Small Cysts: Muscular Coat to Principal Cyst: Ovariotomy: Recovery* (Reported by Mr. D. EDWARDS).—J. E., aged 20, single, had been under the care of Dr. W. Ward Carr of Blackheath. She had good health until two years ago, when a tumour was noticed low down on the left side of the abdomen. A year ago, her breathing became embarrassed, the abdomen gradually increasing in size. Menstruation became more scanty than formerly, and ceased two months ago. There had been emaciation latterly. On examination, on October 15th, 1874, the abdomen was found to be much enlarged, pretty equably so, but more on the left side. Fluctuation was very distinct over the anterior aspect; the flanks were clear on percussion. Vaginal examination showed that the uterus was small; the os was close to the pubic symphysis; the fundus embedded in a soft tumour (the ovarian cyst).

On October 27th, 1874, ovariotomy was performed. Mr. R. Edwards gave chloroform. Dr. John Williams assisted in the operation; also Mr. Markham Skerritt and Mr. D. Edwards. The abdomen was thickly covered with fat. The incision made was three inches in length. There were no adhesions. Seventeen pints and a half of a very thin clear fluid were removed through the trocar, and the cyst was drawn out. The pedicle proceeded from the right side, and was very broad. It was transfixed, and tied, with the intention of fixing it externally; but it proved not long enough. The first ligature slipped a little in this attempt, and it was again tied lower down, cut short, and dropped. The cyst was a large simple cyst; at its base were three or four other cysts of the size of small nuts. Externally, the cyst had a quite distinct muscular envelope, which was one-eighth of an inch thick when contracted. This contraction excited attention directly afterwards, from the internal surface being thrown into folds, like the convolutions of the brain. Dr. Williams found muscular fibres in this envelope, which was, doubtless, derived from the posterior layer of the broad ligament drawn up and spread over this cyst. The subsequent history was favourable. There were no bad symptoms. The temperature was generally about 99.5 deg. The deep sutures were removed on the eighth day. On November 23rd, she was discharged, cured.]

CASE XIII. *Multilocular Ovarian Cystic Tumour: Ovariotomy: Acute Rheumatism a Fortnight after Operation: Recovery* (Reported by Dr. MARKHAM SKERRITT).—E. G., aged 36, single, had had pretty good health. She was of dark complexion. Menstruation of late had been rather too frequent. She had had rheumatic fever. The abdomen was first noticed to be enlarged five months ago, when also it became painful. Morning sickness and giddiness were also observed. The abdomen was now (December 5th, 1874) enlarged and globular; the umbilicus was depressed. A tumour, elastic, non-fluctuating, consisting evidently of large cysts, extended to three fingers' breadth above the umbilicus. The greatest measurement round the abdomen was 39¾ inches.

On December 8th, 1874, ovariotomy was performed; Mr. R. Edwards giving chloroform; Dr. Williams, Dr. Skerritt, and Mr. D. Edwards, assisting in the operation. The abdominal wall was found to be enormously thickly covered with fat, quite two inches in thickness. The incision did not extend above the umbilicus. No adhesions were found; but the right broad ligament was drawn upwards to such an extent, that it covered the right aspect of the tumour, and gave the idea at first of the existence of adhesion to the pelvic brim. Several cysts were emptied of an opalescent fluid, one after the other being opened. Finally, the tumour was turned out, on which it was seen that the pelvis had been tightly packed by the growth of secondary thin walled cysts into the Douglas pouch. The pedicle was on the right side. It was transfixed, tied with whipcord, and fixed, externally to the wound, to a gutta-percha frame-clamp.

The final result was good; but the condition at times gave rise to anxiety. On the second day, an erythematous blush was noticed on the thighs; on the third evening, the temperature was 101.4 deg.; pulse, 120; on the fourth evening, temperature, 102 deg.; pulse, 132. Next day, there was improvement. For the next ten days, there was satisfactory progress, when, on the fourteenth day, the patient became attacked with acute rheumatism. The ligatures separated on the ninth day; the sutures were gradually removed one by one about the same time. The healing of the wound was slow. The rheumatic affection gave great trouble for nearly four weeks, the arms and shoulders being severely affected. At the end of a month, however, she was able to sit up, and was discharged, cured, seven weeks after operation.

CASE XIV. *Ovarian Tumour, composed of one large and several smaller Cysts: Four previous tappings: Ovariotomy: Death on Third Day* (Reported by Dr. SKERRITT).—R. B., aged 51, single, menstruated for the last time one year ago. The abdomen was first noticed to be enlarged three years ago. She had been tapped four times, the last time two months since. The patient had a worn expression; the digestive organs were not acting well; the breathing was short, and she did not sleep well. There was an abdominal tumour, globular in shape, reaching to one inch below the ensiform cartilage, presenting distinct fluctuation in all directions. After three weeks' preparation, the operation of ovariotomy was performed on December 21st, 1874. Mr. Downes gave chloroform. Dr. John Williams, Dr. Skerritt, and Mr. D. Edwards, assisted in the operation. The operation was borne badly, the respiration failing occasionally, especially just after emptying the cysts. The incision was at first short, but had finally to be extended above the umbilicus, in order to reach adhesions at that situation. There were no adhesions below, but very firm ones superiorly. The tumour consisted of one principal cyst containing a clear fluid, and several smaller cysts. The pedicle was long, about the size of a swan quill. The adhesion near the umbilicus was very firm, and was cut through by the actual cautery. The cyst-wall at this point presented a hard nodule, in which was found cretaceous deposit. The pedicle was tied with whipcord firmly; but, being small, it was not transfixed. The pedicle was secured to the frame of gutta-percha outside the wound. The insertion of the sutures produced an unusual amount of bleeding.

In the evening, it was found that there had been slight bleeding from the wound, but it ceased on being uncovered. The following morning, on further examination, it appeared that a part of the pedicle had slipped from the ligature, and it was then transfixed and retied; but no further hæmorrhage had occurred. On December 23rd (the third day), the patient had slept badly; a good deal of pain at the epigastrium; the temperature was 101.2 deg., and the pulse 128. The exhaustion gradually increased, and death took place on December 24th, a few hours less than three days after the operation. The wound presented hardly any union; there was some formation of pus at the sutures internally; there was a small clot, of the size of a walnut, in the pelvis, and also a small quantity of reddish serosity. The orifices of some of the vessels in the pedicle had become retracted below the point where the ligature was placed. The right ventricle of the heart was found to have excessively thin walls, and to be enlarged; the walls of the left ventricle showed signs of fatty degeneration. The lungs were congested inferiorly; a patch about one inch square in the lower lobe of the right lung was in a state of incipient gangrene. The kidneys were small, and the cortical substance was atrophied; cysts were evident on the surface of one kidney.

The death of the patient was due to a combination of causes: the weak heart, the slipping of the ligature, the cold weather (snow was then on the ground), and the disturbance of the wound necessitated by the occurrence of hæmorrhage. It is plain also that, however small the pedicle, it is better to transfix it before tying.

REMARKS.—In the present series of seven cases of ovariotomy, there were five recoveries and two deaths. In the total number of the reported cases at All Saints Institution (fourteen), there were nine recoveries and four deaths, or a percentage of recoveries of 64 per cent. The gutta-percha framework clamp mentioned in the above cases is a simple contrivance for maintaining the pedicle at the surface of the wound, which Dr. Graily Hewitt now employs, and finds admirably adapted for all cases in which the "clamp" method of dealing with the pedicle is selected.

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## WEST LONDON HOSPITAL.

### EXTRAVASATION OF URINE: BOUTONNIÈRE OPERATION: RECOVERY.

(Under the care of Mr. TEEVAN.)

FREDERIC E., aged 14, was put under Mr. Teevan's care at the hospital by Dr. Atwood, at 5 P.M., June 4th, 1872.

*History.*—Seven years ago, whilst the lad was walking along the top of a fence, he slipped and fell astride the bar, severely injuring the perinæum, so that a surgeon had to be sent for. After the accident, he made a very poor stream of urine, and latterly it only came in drops.

*Present State.*—When the patient was admitted, he was in a very emaciated condition, as he was only then recovering from a severe attack of acute rheumatism. The expression of his face was anxious, and he was crying on account of the pain he was suffering. The pulse was quick and feeble, and the tongue dry and brown. The body was covered with a profuse clammy perspiration. The hypogastric region was distended and dull on percussion. The scrotum and perinæum were swollen, red, and brawny. No instrument of any kind could be passed; but, as fluctuation could be felt in the right ischio-rectal fossa, Mr. Teevan made an incision there, and let out some pus and about a pint of urine.

June 5th. The patient was comfortable; urine flowed freely from the wound. Redness had disappeared from the perinæum.

June 12th. No instrument, soft or metallic, could be passed from the perinæal wound into the bladder. There was much induration there, although urine was escaping freely. The stricture was found to commence three inches and a half from the meatus externus.

June 27th. The patient was very feverish; the tongue dry and brown; the perinæum red and brawny. Chloroform having been administered, a No. 4 silver catheter was passed down the urethra as far as it would go, and Mr. Teevan laid open the canal for one inch above the stricture in order to search for the entrance into the contraction, but was unable to find it, and had to dissect bit by bit downwards and backwards till he arrived at the pervious portion of the urethra, when he was enabled to pass a flexible catheter into the bladder. The instrument was immediately withdrawn. On July 3rd, No. 3 silver was passed; on the 6th, No. 10 elastic, French gauge; on the 10th, No. 11; on the 13th, Nos. 12 and 13. The wound was nearly healed; most of the urine came through the penis.

July 20th, No. 14 was passed. The patient left the hospital on July 24th. A few days later, the wound was healed. For a month, the patient attended once a week to have a catheter passed, and then discontinued coming to the hospital. As a result of the patient's neglect, an urinary abscess formed in the perinæum, and forced him to re-enter the hospital on December 5th. Mr. Teevan was unable to pass any instrument into the bladder, and opened the perineal abscess. In the course of ten days, the parts were in a favourable condition for instrumentation, and Mr. Teevan tried twice each week to pass different bougies, soft and metallic, without success. On February 18th, the lad was put under the influence of chloroform, and the boutonnière operation was again performed by Mr. Teevan. As the boy's urethra was very sensitive to the introduction of instruments, an elastic olivary catheter was left in the bladder. On February 26th, the instrument was removed, and passed with ease two days later; but all the anterior portion of the urethra was excessively sensitive to the passage of the catheter.

March 2nd. The lad suffered so much pain when Mr. Teevan was passing the catheter, that its further introduction was not persisted in. A week's rest did not improve the condition of the urethra, and every attempt to pass the catheter caused the lad excessive pain. Under these circumstances, Mr. Teevan determined to abandon the anterior portion of the urethra, and content himself with keeping the posterior part well open by passing a catheter from the perinæum into the bladder, a procedure which caused the lad but slight annoyance. On March 12th, the patient left the hospital with a perinæal fistula, through which he passed most of his urine.

February 8th, 1875. Ever since the last report, the lad has presented himself about once a month to have a soft olivary catheter passed through the perinæal fistula into the bladder. The introduction of the instrument through the portion of the urethra posterior to the fistula is not attended with pain; but, if the catheter be passed down the anterior portion, the boy suffers much pain. He is in first-rate health, and follows his occupation of paper-hanger. He can hold his urine for six hours with ease, and passes nearly all of it through the fistula, a few drops only escaping from the meatus externus.

Mr. Teevan remarked that when the boy was admitted, he departed from his usual practice of at once performing the boutonnière operation, as the lad was in so prostrate a condition, and contented himself with making an incision which sufficed not only to let out the pus, but also to give exit to the urine. The case showed the desirability of establishing a straight and free communication with the bladder, and demonstrating the patency of the opening by the frequent passage of a large olivary elastic catheter; for, before many days were over, the perinæum became red and brawny, and the boutonnière had to be performed. The result was eminently satisfactory; for the boy left the hospital in good health, without any fistula, and with a repaired urethra, which permitted the introduction of No. 14, French gauge, with ease.

Unfortunately, the lad neglected to attend at the hospital, and in six months' time had to be readmitted with a relapse, which necessitated a second operation; the sequel of which was not so pleasing, as the boy recovered with a fistula, and there is, at present, no chance of its being closed, as the cicatrisation of a perinæum which has been so damaged with urinary abscesses has been attended with a tense and leathery condition of the integuments. But the closure of the fistula would not be desirable, even if it were possible; for that portion of the urethra which is anterior to the opening is so horridly sensitive to the introduction of instruments, as to entirely preclude all hope of the boy being able to pass a catheter for himself, or to permit a surgeon to do it. Some years hence, when the lad may possibly possess the requisite skill and determination to introduce an instrument upon himself, an attempt may be made to close the fistula if the state of the skin in the perinæum be such as to permit its being made. For the present, however, the patient resembles the female in his manner of micturition, and would, if married, in all probability be sterile.

# SELECTIONS FROM JOURNALS.

## THERAPEUTICS.

Action of Subcutaneous Injection of Morphia.—Chouppe finds (*Gazette Médicale de Paris*, No. 35, 1874), as the result of a thousand experiments on himself, that the subcutaneous injection of morphia at the painful part produces its anæsthetic effect from two to two and a half minutes sooner than when it is made elsewhere. The pain ceases sooner than can be explained by supposing the morphia to act through the general system. A further proof of the local action of morphia is found in the use of concentrated solutions. While a weak solution of morphia in distilled water (1 in 150) produced severe pain at the point of injection, the injection of stronger solutions (1 in 50 and 1 in 30) was quite painless.

Action of Mercury and Iodine.—According to Wreden (*Med. Neuigkeiten*, 1874; and *Allgemeine Med. Central-Zeitung*, No. 99, 1874), mercurial solutions act on iodised persons, and iodine solutions on mercurialised patients, twice or three times as quickly, whether used externally or internally, as when these medicines are given separately. He believes that this depends on the formation of biniodide of mercury in the tissues of the body. If a portion of the skin be rubbed with mercurial ointment and carefully washed after a few days, the inunction of iodine ointment produces the same symptoms of inflammation as arise from the inunction of biniodide of mercury. If a solution of corrosive sublimate (one or two grains in an ounce of distilled water) be dropped into the ear, no inflammation is produced, even though the application be repeated for several days; but it appears if, even after most careful cleansing, a solution of iodide of potassium (five grains to the ounce) be dropped in. If mercury have not been used, a solution of twenty or thirty grains of iodide of potassium is easily borne. Wreden has observed that, in patients who bore painting with iodine well, the skin, under the use of mercurial treatment by inunction, and even under the use of Zittmann's decoction, became exceedingly sensitive to iodine. He also remarks that the internal use of iodide of potassium by patients subjected to an energetic course of mercurial inunction produces more or less gastro-intestinal irritation, which is not the case in the same persons when even much larger doses of the iodide are given.

## PATHOLOGY.

Choked Disc.—At the New York Society of Neurology and Electrology, on December 21st, 1874, Dr. E. G. Loring, jun., read a paper on the retinal circulation and the mechanical cause of choked disc. The first part of the paper detailed a series of experiments, from which it was concluded that the general circulation might be profoundly affected, as by drugs, electricity, or mechanical interference (as ligature of the arteries going to the head), and yet the circulation of the eye be uninfluenced, or but slightly so. Two alternatives were forcibly presented: either that the circulation of the eye is not a reflex of that of the brain, though derived directly from it; or, if it be so, that the influence exerted on the circulation of the brain by certain agents is very much less than hitherto supposed. From the similarity of the physical conditions and arrangement of the circulation of the eye and that of the brain, the question was raised whether there was any pulsation of the cerebral arteries; and reasons were given for inferring that, as there is none in the eye-arteries, there ought, by analogy, to be very little or none in the cerebral. The mechanical cause of choked disc was next considered. Von Graefe's theory of its production by increased intracranial pressure, Benedikt's hypothesis of a neuro-paralytic origin, and Schwalbe-Schmidt's that it was attributable to the passage of fluid from the arachnoid space between the outer and inner sheaths of the optic nerve, were mentioned and discussed. The conclusion was that Graefe's explanation is insufficient, as is that of Schwalbe-Schmidt, and that that of Benedikt is the least assailable, perhaps because the least demonstrable. Dr. H. D. Noyes said that the theory of extension of fluid from the brain was not substantiated, but most necropsies showed fluid at the ocular but not at the cerebral end of the nerve. As the nerve approaches the eye, its circulation is increased by the accession of vessels, and around its entrance into the ball a vascular ring is formed. The nerve can only find room for expansion in a longitudinal direction. Caution is necessary in deducing cerebral conditions from examination of the ocular end of the optic nerve. Dr. R. H. Derby thought that the unreliability of the ophthalmoscope in the diagnosis of cerebral hyperæmia or anæmia was conclusively proved. Dr. Knapp remarked that there was a distinction between two forms of choked disc: that from neuritis descendens, with inflammatory action in the nerve or sheath, and distinct elevation of the disc, and that where fluid existed between the layers of the optic sheath. Blood might sometimes ooze from the brain through the intervaginal space into the eye. He believed that, with few exceptions, neuro-retinitis pointed to cerebral disease. Dr. Dalton considered the absence of arterial pulse in the eye as a remarkable fact, and the pulsation in the veins under abnormal conditions as still more incomprehensible. We might, perhaps, explain the non-pulsation of the arteries, but not that of the veins.

## PHYSIOLOGY.

THE ACTION OF AMMONIA ON THE ANIMAL ORGANISM.—Lange writes on this subject, in a paper published in the *Archiv für Experimentelle Pathol. und Pharmak.*, 1874. He has endeavoured to determine whether, after the administration of ammoniacal salts, ammonia is eliminated in the gaseous state by the lungs, what relation exists between the blood and ammonia, and how ammonia is eliminated by other ways. He has also made experiments in order to ascertain whether the remote and general action of the different salts of ammonia has characters in common. To determine the question of elimination by the lungs, he made animals breathe through an apparatus containing sulphuric acid, which was afterwards tested with soda and Nessler's reagent. He could not on any occasion find ammonia in the expired air. A peculiar relation appears to exist between blood and ammonia. The author's experiments show that the blood of healthy animals, tested for free ammonia by Strauch and Kühne's method, gives off ammonia at a temperature of 60 to 65 cent. (140 to 149 Fahr.); and that living and dead blood behave differently towards carbonate of ammonia. When carbonate of ammonia was added to blood taken from the dead body of an animal, ammonia was given off at a temperature of 40 to 45 cent. (104 to 113 Fahr.); but when blood was taken from a living animal was treated in the same way, a temperature of 80 to 90 cent. (176 to 194 Fahr.) was required for the extrication of ammonia. The endeavours to arrive at sufficient data regarding the destiny of ammonia in the blood were frustrated by extraordinary difficulties. On this point, Lange expects light to be thrown by Schultzen's researches on the synthesis of urea in the blood. With regard to the physiological action of ammonia-salts, Lange arrives at the conclusion that they have a common character, differing one from another only in intensity. He regards chloride of ammonium as the most poisonous salt. The symptoms produced in the nervous system consist in more or less violent paroxysm of convulsions, affecting all the voluntary muscles, and, when the dose is very large, producing death. The respiration is much affected. Immediately after the injection of ammonia into the veins, the breathing is arrested for some seconds; then, after moderate doses, there is an enormous acceleration of the respiration. With larger doses, the acceleration is preceded by a marked retardation. No reduction in frequency nor dyspnœa is produced by division of the vagus after acceleration of the breathing has set in. The blood-pressure at first falls, but then suddenly rises; and then gradually sinks again, until in a time, varying from one to five minutes, it is reduced below the normal. Division of the cervical spinal cord produces no change in the phenomena. The frequency of the pulse follows the changes in the blood-pressure; it increases with it up to a certain limit. Increase of the dose of ammonia beyond a certain quantity produces a rather rapid fall of the blood-pressure, and arrest of the heart's action. Lange gives the following explanation of these phenomena. The salts of ammonia produce convulsions, having their origin in the spinal cord; the respiratory centres in the medulla oblongata become abnormally irritated, and transmit an excess of irritation to the ends of the vagi in the lungs (producing the brief arrest of respiration). The increase in the blood-pressure has nothing to do with implication of the vaso-motor centre in the medulla; it is independent of the convulsions.

## BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1875.

SUBSCRIPTIONS to the Association for 1875 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

# BRITISH MEDICAL JOURNAL.

SATURDAY, APRIL 10TH, 1875.

## THE QUALIFICATIONS OF HOSPITAL MEDICAL OFFICERS.

IN a late impression of the JOURNAL, we had occasion to refer to the proposal made by Mr. Semon to the Governors of the Bradford Infirmary, that they should so amend their rules as to allow general practitioners to offer their services in the care and treatment of the medical patients of the hospital. Since that time, the matter seems to have excited considerable interest in the town, numerous letters having appeared in the local prints, which have also in other ways commented upon it. Our attention has been called to a communicated article, and also to a leader, in the *Bradford Observer*, the leading paper of the town, in which the subject is carefully and more or less exhaustively considered. As we understand the question, the following is the position of affairs.

The rules of the infirmary allow four general practitioners to take charge of the surgical patients of the hospital, but two pure physicians are required for the medical patients: and while the surgical staff is always easily maintained at its full complement, great difficulty has been for some years experienced in finding physicians. It is contended by Mr. Semon, that the restriction regarding the medical cases is not required, as there is no more apparent necessity that medical cases should be attended by pure physicians than that surgical patients should have the services of pure surgeons. Further, it is stated that, since the foundation of the hospital in 1825, the rule has been far more frequently broken than kept. The rule, as is generally the case in public hospitals, seems to have been drawn up to suit the state of things in existence when the hospital was founded; and as there were in 1825 three pure physicians in Bradford—and, by the way, the medical staff originally consisted of three physicians and not two as at present—the clause was naturally enough appended to the rule appointing the physicians, that no person could be elected to or retain the office of physician who was in practice as a general practitioner. Until 1845, when Dr. Outhwaite left the town, things seem to have worked smoothly enough, Dr. MacTurk and himself having carefully attended to the medical cases of the hospital. But since that time a large number of gentlemen, who are named in Mr. Semon's circular, seem to have come to and gone from Bradford, after finding that there was not in the town any demand for the services of two pure physicians. So noticeably was this the case, that even during Dr. MacTurk's lifetime, and when his large private consulting practice prevented his giving so much of his valuable time as formerly to the care of the infirmary patients, the board of management found it necessary to appoint two paid general practitioners to attend to the medical out-patients. Since then, several physicians have been attached to the infirmary, no fewer than four having been appointed in the last four or five years; and at the present time only one physician on the staff is left to do among the medical and more numerous patients of the hospital what four general practitioners do for the surgical and less numerous. Mr. Semon's question to the Governors is: Why should this unsatisfactory state of things be allowed to continue? He proposes to so amend the rule regarding the appointment of physicians, as to allow general practitioners to offer their services to the infirmary board, urging, in addition to what has been said, that general practitioners are eligible to do purely medical work at the Fever Hospital, where the arrangement works well.

As regards the particular case of the Bradford Infirmary, no doubt the governors may be trusted to do their own business in the way they think best. Our sole interest in the matter is that the institution should perform in the most efficient manner those services which are the special glory of all infirmaries. But we have been led to inquire into this case specially, because the procedure of this infirmary, and the difficulties experienced in Bradford, are part of a great question which is of general interest to the public and the medical profession: we mean the appointment of physicians to hospitals in general. On this point the greatest diversity of procedure seems to prevail. Some infirmaries follow the course adopted at Bradford, and restrict the holders of physicianships to the practice of pure physic. Others allow general practitioners to be appointed with or without a restriction as to practising pharmacy; which, however, usually holds equally in the case of the surgeons. And yet others draw no distinction between the gentlemen in charge of the medical and those in charge of the surgical cases, appointing simply a certain number of honorary medical officers whose duty is to be responsible for cases medical or surgical, as they are admitted. And it is a curious fact that, with the exception of medical schools, where for obvious reasons pure physicians—and pure surgeons also—tend to become attached to the hospitals, those infirmaries which experience the difficulty felt at Bradford of supplying their patients with the services of physicians are precisely those which, like it, restrict their physicians to the practice of pure medicine. Taking some of the Yorkshire infirmaries near Bradford, for example, we find that in Huddersfield the rules require the appointment of two pure physicians, but at the present moment there is, as there has been for some time past, only one on the staff. The same hospital has no difficulty whatever in finding five gentlemen, general practitioners, to do the surgical work of the institution. In Halifax again, though the rules allow the appointment of three pure physicians, for some time there was only one, and now there are no more than two on the staff, one of them being the medical officer of health for the district, the tenure of whose office depends on his not doing private practice. The case of Halifax, indeed, seems to us to be the *reductio ad absurdum* of the system pursued. For it will surely not be denied that one of the main uses of having a physician in a town is, that his colleagues may from time to time have the benefit of his advice and assistance in cases where they experience difficulty. And yet in this instance the gentleman in question is appointed just because he cannot take private practice, and can, therefore, neither be of any assistance to his medical brethren, nor yet afford to infirmary patients the advantage of that extended experience which a gentleman must have who is in the constant habit of dealing with private as well as with public cases. It will not, of course, be supposed that our remarks have any personal reference, it being well known and recognised both by the profession and the public that the gentleman in question possesses qualifications for his work of a very high order indeed; but the system under which he is appointed seems a bad one, and detrimental to the interests of the general public, of the profession, and of the infirmary patients themselves. Besides this, the rule works so badly, that, though three physicians are arranged for, only two are obtained even by this device. In Northampton, the same difficulty has been experienced, and from the same reason. Though here the rule only requires the candidate for physicianship to be a graduate in medicine of an university, it has always been interpreted as preventing general practitioners from holding the office; and the consequence is, that, while two physicians are required, one of the two is at the present moment a gentleman who has retired from private practice. That is to say, in the case of Halifax, a physician is appointed who cannot do any private practice, and, in the case of Northampton, one who has retired from it. Could anything be conceived more utterly condemnatory of the system which produces such appointments?

Similar instances of anomaly and difficulty induced by this cause might, no doubt, be multiplied. But the point we are chiefly interested in insisting on is, that the difficulty of finding physicians is non-existent where the rules are different. Thus, at Portsmouth and Preston, where eight and six honorary medical officers respectively are required, the staffs are full. In Chester, Shrewsbury, Norwich, and Taunton, where the rules in each case require three physicians, but allow general practitioners to hold the office, there is no difficulty in finding men, and the staffs of all these hospitals are at the present moment complete. And so in numerous other cases, where two or one physician-general-practitioner is required, the men come forward. Not a single instance, for example, has come under our notice in which any difficulty in filling the post of physician coexists with the throwing of the office open to practitioners, and this must surely be taken as a strong fact in favour of Mr. Semon's proposed change at Bradford. In addition to this consideration, we are informed that a large proportion, in fact the great majority, of the medical practitioners in the town, including some of the leading men on the infirmary staff, are in favour of the proposed change. If this be really so—and there ought to be no difficulty in finding out the state of medical opinion on such a point—the governors of the Bradford Infirmary ought to have an easy task before them.

Of course, in the remarks which we have made, we would not be understood as saying anything against the gentlemen who hold these appointments, nor against the appointment to public hospitals of pure physicians when such men offer themselves. Still less do we deny that, when medical men devote their whole energies to any branch of medicine, they are likely to attain to special skill and eminence in their own department. The whole history of professional work points to the contrary conclusion. But the question may very fairly be raised whether the method pursued at Bradford of from the first restricting men to special work, and still more to special fees, is the best means of evoking the best talent of the profession in special directions. At least we know that, in some of the most famous medical centres in the country, the opposite course is followed, and with the best results. In none of the Scotch medical schools, for instance, not even in Edinburgh itself, are the physicians prevented from doing what form of private practice they think proper; and yet Edinburgh has produced some of the most eminent names in the whole medical profession; besides that her graduates hold some of the chief positions in various parts of the country. No doubt, in towns where the custom prevails, more or less specialisation of function is sooner or later attained, and many of the physicians who begin as practitioners become pure consultants afterwards—a position to which they never might have risen had the other course of procedure obtained. In fact, this seems the fairer plan, since it allows to poor men, who may prove their competence for the position, equal facilities with richer competitors against whom they would otherwise have had far less chance of succeeding. The best men ought to come to the front, and that system is best which encourages the best men to do so. Another consideration in favour of this view is, that the character of medical education all over the country has materially advanced of late years. There is, in fact, no guarantee, because a man calls himself a physician, that he is in any respect more able or more competent than his neighbour who is a general practitioner. He may be so, and no doubt often is so; but things are commonly enough reversed, particularly in provincial towns; and, in point of fact, we frequently find two men practising side by side, the one as a physician, the other as a general practitioner, whose course of study has been the same, whose qualifications are the same, and whose relative positions have been determined by the accident of dissimilar circumstances or disproportionate means. The day has, at any rate, long gone by when a surgeon occupied a sphere of culture and education no higher than his barber-partner, and both were quite unfit company for the scholarly and accomplished gentleman who was the physician to a hospital. We shall await the issue of the question now raised in the Bradford Infirmary with considerable interest, partly from its local, but chiefly from its general interest; but, whatever the result may be, we trust that the discussion may further the work and increase the usefulness of that and other kindred institutions.

## PROVIDENT INSTITUTIONS AND HOSPITALS.

### II.—OUT-PATIENT REFORM.

WE now pass on to consider the system of management and work of some of the most important provident dispensaries. It would be almost impossible, if the space at our disposal were adequate, to give a description of all, or nearly all, the various dispensaries which have some portion of the provident scheme in connection with their management. We shall, therefore, content ourselves with taking as our models the Royal Victoria Dispensary, Northampton, and the District Provident Dispensaries, Manchester; because the former is, we believe, the oldest in the kingdom, many of the more recent provident dispensaries being founded upon the basis laid down in its scheme of management; and the latter embrace so many novel and excellent features that our articles would be incomplete without an account of their system.

The Northampton Dispensary was founded in the year 1845. A building was purchased for £1,000, which sum was raised in donations, and the work has been carried on in the same premises to the present day. Its objects were declared to be "to enable the working classes to ensure for themselves and their families efficient medical advice and medicine during illness, by their own personal payments, with the assistance of contributions from the more opulent". That is to say, the subscribers to the dispensary, as apart from its members, are the governors; they elect from amongst themselves a committee of management; and their subscriptions, which amounted in the year 1873 to £199, are devoted to the payment of half the midwifery fees and all the expenses attending the management of the institution. A special feature in this dispensary is that the whole of the money subscribed by the poor or free members, after deducting the expense of drugs and medical appliances, is divided amongst the medical staff in proportion to the number of cases attended by them.

The persons for whose benefit this dispensary was founded are called free members, and are confined to "working men and servants, their wives and families"; but any person in receipt of parish relief, or who is proved to be able to pay for medical attendance, is refused admission to the benefits of the institution. That is to say, the only persons who are accepted as members, are "all artisans working as journeymen, and labourers, without reference to the rate of wages they may receive"; but "all persons acting as foremen, or earning their living by keeping a shop, and all persons keeping beer-shops or public-houses", are refused admission. Every free member has to pay one penny a week if over, and a halfpenny a week if under, fourteen years of age; twopence a week is the sum demanded for a man and his wife and their children under fourteen years of age; and, in the first case, an entrance fee of six shillings, and in the last of one shilling, has to be paid in addition. Servants pay five shillings a-year in half-yearly payments. All payments are made in advance, and a fine of one penny weekly is inflicted for every week in arrear. In addition, the wives of members subscribing twopence per week, are entitled to attendance during their confinement, on payment of five shillings three months previously, provided they have been members at least six months. An additional fee of five shillings is added from the subscriptions of the governors, so that the medical officer gets ten shillings for each case he attends.

There were at first six medical officers appointed; but, owing to much disagreement and jealousy arising between them, this number was eventually reduced to three, who have for years worked together most amicably and satisfactorily. The balance of the contributions of the free members available for the payment of the medical staff is divided amongst them, in proportion to the number of members who appear on the register as attached, by their own choice, to the respective medical officers, the numbers in each being quite unlimited. No fewer than 46,101 people were seen in the year 1873 by the medical staff of this institution, who received £1,507 as payment for their services; and 32,852 prescriptions were made up.

Two questions necessarily arise: How has this scheme worked? and what are the opinions of the profession at Northampton in regard to it? Mr. Becke, the Honorary Secretary, states: "With upwards of six thousand members on the books, we do not receive complaints of more than five or six families yearly being in circumstances such as to enable them to pay for relief; and these families are always expelled." Great care appears to be taken to prevent abuse, and the plan pursued is worthy of record. A book containing the name, address, and occupation of every person applying for admission is laid before the Committee every week. This book lies open on the table all the week, and the medical men are invited to inspect it. If the name of the applicant be known to any of the Committee, the word "proper" is written in a column kept for the purpose; or, if the applicant be known to be ineligible, some observation of this kind is written, "Is a foreman", "a shopkeeper", "has house-property", and so forth; or private information may be sent to the Secretary. The list is read over to the Committee at each meeting; and those cases which "require investigation are handed to the different members of the Committee: each committee-man taking a district, and making personal inquiries". On the following week, the whole of these names, with the observations and reports of the inspectors, are read; and each application is decided on its merits, the name of the committee-man making the report being entered in the book.

Mr. Becke adds, "during fourteen years I have not had more than fifty cases brought before me in which it was alleged that the members were able to pay for medical advice, and generally speaking these persons have been induced to withdraw." He also says that many small shopkeepers have been refused, where it would have been a great charity to admit them; and "I have known persons refused relief at this institution as being able to pay for medical aid in the ordinary manner, go without advice, until they could get a ticket to admit them into the Infirmary". Here we have direct evidence, from a gentleman of large experience, of the abuse to which hospitals are subjected under their present system of management. Fancy it being possible for a man to obtain admission to a charitable institution like a hospital, whose income was considered too large to entitle him to a share of the benefits of a provident institution like this, for which he would have to pay! On the other hand, we are informed that the majority of the profession at Northampton are strongly opposed to this dispensary on the following grounds, all of which are alleged to be true.

1. "That the dispensary is not open to all the medical men of the town who would be willing to join it.

2. "That the appointment of the medical officers is practically vested in the hands of two or three gentlemen. The present three medical officers are all quite recent arrivals in the town compared with several older resident members of the profession, whose claims to the post have been persistently ignored.

3. "That the practices of several medical men in the town have sensibly decreased in value since the establishment of the dispensary,

proving that persons who heretofore have paid for private medical attendance are now improperly admitted into the dispensary.

[The following three cases, all members of the dispensary at the present time, have been sent to us in confirmation of this statement: *a*. Mrs. W., keeps a beershop in W. street, occupies her own house and owns several others. *b*. G. M., a sexton, lives in his own house and owns the next. *c*. S., lives in his own house and owns another in B. street.]

4. "That the work cannot properly be done by three medical men, and that, therefore, especially during the last few years, these three medical officers have in many cases employed an assistant to do their work for them. When the large salaries received by the staff are borne in mind, and the sum probably paid to such assistant is considered, they are of opinion that an insight is gained into one of the greatest abuses of this dispensary."

We must leave our readers to judge these opposite statements side by side, to form their own opinion of the amount of abuse which is likely to exist, and to compare it with the great public good this dispensary undoubtedly does. For our own part, we cannot but regard as satisfactory the fact that the medical staff receive on an average not less than six shillings per family *per annum* for their services. There is one point which, as a profession, we ought not to overlook, and it has been clearly set forth by Mr. Becke in his pamphlet, to which we made reference in our former article. It is this—the principle of co-operation is spreading everywhere among the working-classes, and if we do not promote Provident Dispensaries based upon principles which are equitable to the medical men as well as to the members, the artizans will assuredly set on foot "medical institutes" (as has already been done in several places), in which the terms of membership are much less strict than they are at the Provident Dispensaries, so that they admit tradesmen, foremen, and others of a superior grade; and in which the committee, being wholly composed of working men, is not a pleasant master for an educated gentleman to serve under. It is our true policy to put ourselves at the head of the provident movement, and thus both to amend the club system, and to anticipate the establishment of such "medical institutes". We must leave to a future paper the description we purpose giving of the Manchester dispensaries.

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THE *conversazione* of the Quekett Microscopical Club will take place at University College on the 16th instant, at 8 o'clock.

The next meeting of the American Medical Association will be held at Louisville, Kentucky, on the first Tuesday in May.

ALDERMAN JESSOP of Sheffield has given £12,000 towards the building and furnishing of another hospital for women in Sheffield.

DR. C. THEODORE WILLIAMS has been appointed by the Council of the Medical Society of London to deliver the Lettsomian Lectures in January 1876.

THE annual dinner of the Chairman and Committee of Management of King's College Hospital will take place in the College on the 14th instant, at a quarter before seven. H.R.H. the Duke of Cambridge, President of the institution, will take the chair.

THE statement recently made by a medical paper, that the General Medical Council will meet on June 10th, is inaccurate. No date has yet been fixed for that meeting. In all probability it will occur considerably later than the day indicated.

HER MAJESTY the Queen has expressed her personal sense of the long and faithful services of Dr. Minter, Inspector of Hospitals and Fleets, by appointing him to be Honorary Physician to the Queen upon his retirement from the Royal Navy.

WE hear that the Croonian Lecture of the Royal Society this year will be delivered by Dr. Ferrier. It will include an account of some further experimental results of the investigations on the Localisation of the Functions of the Brain, by which he has already greatly distinguished himself and enriched physiological knowledge.

### GOOD NEWS FOR LONDON CHARITIES.

ANONYMOUS donations of £1,000 have not ceased with the death of Mr. Attwood. We hear that, on Monday last, a gentleman walked into the London Hospital, and said he wished to give a small donation. On entering the Secretary's office, he handed a £1,000 note to the House-Governor, and said he wished it acknowledged from J. A good many Secretaries will probably scan unknown visitors for some time to come with peculiar interest.

### THE HEALTH OF FOLKESTONE.

THERE can, we think, be little question that Lord Robert Montagu's statements in the House of Commons on Tuesday night, in reference to the health of Folkestone, considerably overshot the mark. First, with regard to the death-rate, his lordship said that the Registrar-General in August last placed Folkestone, not in the first or second category, but in the third, with a death-rate of 23 per 1,000. The registrar really placed Folkestone, for the second quarter of last year, in the category of places having a death-rate of from 20 to 23 per 1,000; that of Folkestone being the merest fraction over 20. The death-rate for the whole year was but 18.1, and for ten years ending 1870, 16.4 per 1,000. There has been no decennial average taken since 1870; but we have no reason to believe that a fresh one would place Folkestone in any lower position. In the quarter to which his lordship refers, an unusual number of visitors died; but it is stated that many of them had but just reached Folkestone after wintering abroad. The local officer of health (Mr. Bateman) states that, during the two years that he has held the position, the town has been remarkably free from fever. In 1874, there were but two deaths from fever and two from scarlatina; in 1873 none; and at the present time he is not aware of the existence of any case of fever at all. The "fever-dens" to which reference was made are buildings such as call for condemnation, but it is somewhat remarkable that no fever has occurred in them for some years, and the registrar has no recollection of a death from fever there at any time. The sewerage arrangements are good; no backwash of sewage on the beach can occur, and the sewers are well ventilated. Altogether, we have every reason to believe that Folkestone may still challenge comparison with any town in England.

### THE LATE COUNT DE JARNAC.

WE have received the following from Dr. A. Vintras, the able and accomplished Physician to the French Embassy, London.

"A report having been spread that the late French ambassador, the Comte de Jarnac, was bled at the commencement of his illness, this has led to the supposition that blood was taken from the arm; and, as such was not the case, it may dispel an erroneous idea from the minds of his friends if I briefly state the actual facts. The Count was attacked with pleurisy supervening upon dry asthma, from which he had been suffering since the beginning of the year, without having submitted to any treatment. On my first seeing him, I at once applied four leeches to relieve the local pain, which was very considerable, and great relief was afforded by them. The notion that such a small abstraction of blood at the onset of the disease could be other than beneficial to the patient, cannot, I think, be entertained."

### SOME STATISTICS OF ADULTERATION.

JUST now, while the working of the Adulteration Act of 1872 is under consideration, a table published in the *Chemical News* showing the "aggregate results" of the working of the Act in a good many places is of some interest. We gather from it that, notwithstanding the determination which is now being shown to "relax the severity of the Act", it has proved itself as capable of yielding no results at all as the warmest friend of the retail tradesman could desire. Thus, although 701 samples were analysed in the combined districts of Greenwich, Plumstead, and Woolwich, of which 84 were found to be adulterated, there were "no convictions". In South Staffordshire, 526 samples were analysed, of which nearly one-half (251) were found to be adulterated, including 88 samples of milk and 137 samples of tea, without any conviction being obtained. So also in Wolverhampton, although 163 samples have been analysed with the result of finding 56 to be adulterated, there were no convictions; while in the neighbouring town of Birmingham the analysis of 163 samples, of which 101 proved to be adulterated, led to 38 convictions. It is impossible to doubt that the law might have as effectually been put into operation in one part of the Midland Counties as another; it is, therefore, evident that in any amendment of the law the authorities should be required to carry it into effect. The use of a public analyst is not very apparent, if those to whom he reports make no efforts to protect the public from the frauds which he discovers. Among the London districts, we find St. George's, Hanover Square, remarkable for a similar inactivity; 151 examinations of food showed adulteration in 51 instances, but there were "no convictions". The greatest vigour appears to have been shown in Somerset, where 2,216 samples were examined, of which 845 were found to be adulterated, and 520 convictions were obtained under the Act.

### SHAM SANITATION.

It may be worth while for the members of the House of Commons, in considering Mr. Sclater-Booth's Bill for consolidating and amending the Public Health Acts, to bear in mind that a main cause of the failure of Mr. Stansfeld's Public Health Act of 1872 was his refusal to provide adequate areas with suitable authorities and efficient officers. Without again travelling over this ground, we may point out that our predictions of failure have been precisely fulfilled; and that at this moment there exists all over the country a complete chaos of authorities, areas, and officers. Where there has occurred a voluntary fusion of districts to form an adequate area, good results have been attained, as by Dr. Bond in Gloucestershire, Dr. Child in Oxfordshire, Mr. Haviland in Northampton, Dr. Ogle, Dr. Syson, Dr. Baylis, and others, each in their respective districts. But there exists a great class of underpaid medical officers serving burlesque boards of health, whose sole object is to comply with the forms of, perhaps, the most clumsy Act of Parliament framed in modern times, and altogether to evade real sanitary work. We find a singular confirmation of this fact in the preface to a little book on *Water Analysis*, recently published by Dr. C. B. Fox, a medical officer of much activity. He recognises the existence of this state of things, but expressly intimating that "it was *not* written for the instruction of *dummy* medical officers of health who receive £5 or £10 a-year as a salary, with the understanding that they are to do nothing". A recent reviewer, in noticing this passage, observes: "We fear that the existence of such sham health-officers, appointed not to execute but to evade the sanitary laws, is an undeniable fact. The tacit 'understanding' of which Dr. Fox speaks might, indeed, be difficult to prove. But when a gentleman accepts for such a sum duties which, if really performed, would engross, perhaps, half his time, it is but fair to infer that his functions are no less nominal than his salary. We could name a little town where, behind every dwelling, the cesspool and the draw-well stand in amicable propinquity, separated by at most six yards of gravel, shingle, and chalk. The 'conscript fathers' of that town have appointed a health-officer at £10 a-year, and we are certain that any display of conscientiousness or vigour on his part would lead to his dismissal at the earliest opportunity."

### VALUE OF VACCINATION.

The following vaccination statistics have been compiled from the books of the Montreal General Hospital. During the past twelve months, fifty-five unvaccinated persons were admitted into the small-pox wards. All of them except five have had the confluent form of the disease—*i. e.*, the serious form; and out of the fifty-five who were admitted, twenty-eight died, showing a mortality in the unvaccinated of over 50 per cent. On the other hand, among those who had been once vaccinated and had two good marks on the arm, there were only four deaths. Only seven had more than two good marks, and those seven had the mildest form of the disease, and made a rapid recovery. Only two cases were admitted during the last twelve months who had been successfully revaccinated; and in them the disease was so mild that they might have been permitted, except as a precautionary measure, to follow their ordinary avocations. Thus, in the unvaccinated, the mortality was over 50 per cent.; among those who had been properly vaccinated in their infancy, but who had neglected to be revaccinated, there were only four deaths; while only two cases had been admitted where revaccination had been successfully performed, and they were of the mildest description.

### A PLEA FOR PARDON.

We are very glad to hear that a petition is being numerously and influentially signed for the remission of the sentence of Mr. Edwin Peacock, lately sentenced to six months' imprisonment for maltreatment of a lying-in woman by removal of a portion of intestine protruding through a rent in the uterus. The circumstances are no doubt fresh in the memory of our readers, and we believe all will concur that the facts proved in this case were such as to fully warrant the immediate exercise of the prerogative of the Crown. We should be very slow to urge any plea in such a case, were it not that it is certain that there was no want of professional skill, nor any neglect or remissness of duty, still less any fault of intention; but that the circumstances were due to an error of judgment under conditions of great difficulty and excitement.

### OBSTETRICAL SOCIETY OF LONDON.

At the meeting on Wednesday evening, which was densely thronged by practitioners from all parts of the kingdom, Mr. Spencer Wells opened the discussion on the Relation of Puerperal Fever to the Infective Diseases and Pyæmia in a very able and lucid address, in which he stated that his object was to elicit rather than to impart information. A letter from Dr. Matthews Duncan was read, in which he expressed his dissent from the late prosecution of midwives for disseminating puerperal fever, and stated that he thought it preposterous to expect practitioners to give up their practice on this account, affirming that strict cleanliness of person and changing the clothes was sufficient precaution to take. Professor Leishman of Glasgow said that it was frequently affirmed that pyæmia and puerperal fever were likely to be engendered by decomposing animal matters, and that students who dissected were liable to convey this infection; but, if this were so certain and so frequent, we should have far more puerperal fever in the practice of students than actually occurred. Dr. Newman of Stamford concluded, from observations made during twenty years of large general and hospital practice, that there was no such thing as a distinct puerperal fever so-called, but that there was always a direct or indirect communication of contagion of some definite poison. In some instances, mental disturbance seemed to play an important part in the production of puerperal fever, or at least in rendering the patients very susceptible to the development of febrile disturbance. Dr. Braxton Hicks referred to a paper of his published in the twelfth volume of the *Obstetrical Transactions*, wherein he had recorded the result of eighty-nine cases observed by himself, showing that the contagion of scarlet fever exercised a marked influence in the production of puerperal fever. Mr. Jonathan Hutchinson considered that there was no such thing as a specific poison which would produce puerperal fever, but that this might be caused by a number of different maladies. The term surgical fever was even more vague than that of puerperal fever. We ought to attempt to define the terms we use when we speak of pyæmia, septicæmia, or specific disease. Erysipelas itself was not a specific fever, but only a local condition. The term septicæmia ought to be employed only when patients were poisoned by the disintegration of their own tissues. Pyæmia was produced by inflammation of the patient's own tissues. Dr. B. W. Richardson thought we should bear in mind the condition of the patient after delivery. The blood was in a peculiar condition, the fibrin being in excess, the salts diminished. There was also a nervous condition to take into consideration; the conditions being similar to those met with in febrile disturbance. From experiments and observation, he was unable to declare that there was a special poison creating puerperal fever. There were very distinct forms of fever; in one case, pure simple surgical fever following delivery; in others, fever of a bilious remittent character, with symptoms of jaundice. In another class, there was a form of septicæmic poisoning, where there was exposure of the cellular tissue and poisoning immediately from the patient herself. In a fourth class, the poison was carried from without, as scarlatina, erysipelas, etc. As regarded the relation of bacteria and allied organic forms to the pyæmic process in the puerperal state, he considered the organic products as mere coincidences. The discussion was adjourned to the next meeting. We shall publish a full report next week.

### ORIGIN OF TYPHOID.

THE following is taken from the Annual Report of the Medical Officer of Health for the Rural Sanitary District of Basford, and, as bearing upon the question of the origin of typhoid fever, about which much discussion has taken place, is of interest. It will be remembered that Professor Tyndall has publicly and emphatically endorsed the doctrine ably set forth by Dr. Budd of Bristol, that typhoid fever, like small-pox, can spread and occur only by propagation from one to another—in fact, cannot arise *de novo*. It is on this point that Mr. Whitgreave speaks to the following effect.

"My observations for many years have convinced me most thoroughly that Professor Tyndall is wrong. I speak strongly upon this subject, because, were he right, there would be little necessity to continue efforts to remove nuisances from the neighbourhood of human habitations. The only possibility of preventing typhoid fever would be excluding everybody from entering the district who might have it, and enforcing an edict that every one now living in the district must never go out of it, for fear they should go where typhoid fever is. Typhoid fever is certainly slightly infectious; and, if any water or food in the most minute degree contaminated with the discharge of a fever-patient gain entrance into the stomach of a healthy person, typhoid fever is almost quite certain to be the result. But, in addition to these means of the disease being propagated, it may begin at any time anew in a person who, being perhaps at the time in a low condition of health, becomes exposed to even inhaling the emanations of some fermenting (zymotic) nuisance. I will give an illustration. W. D., aged 16, of Ruddington, on October 24th went to see a fire at Bunny (where, however, there had been an isolated case of typhoid six months before). He remained away all night, and came home in the middle of the next afternoon. He was very cold and tired, having been all that time without food and his accustomed sleep. Just in front of his house, there were two untrapped gulleys communicating with a choked-up drain, which has since then been rebuilt. The boy soon became ill; had to take to his bed; said he had a 'bad cold'; but it proved to be an attack, beyond any doubt, of typhoid fever. Fortunately, under the treatment of Dr. Hall, he did not die. Disinfectants were used, the drains were attended to, and no other case occurred in the yard. If the disease were always created by contagion or infection, we should not have solitary cases cropping up in such distant parts and at such different dates of the year. The probabilities are, that we should have it in epidemics, which would be also endemic or local."

### ETHER INTOXICATION.

THE *London Medical Record* of this week contains a translation of a paper by Dr. Ewald of Berlin on a case which, if not unique as he supposes it to be, must be of extreme rarity. It is that of a man aged 32, who was lately admitted into the Charité Hospital under Professor Frerichs, suffering from general debility and trembling of the muscles. On inquiry, it was found that he was notorious in Berlin for intoxicating himself with ether, his abuse of which had reduced him to his present miserable condition. He was originally temperate, and had been an university student, passing all his examinations with credit; he was, however, of a mystical turn of mind. Unfortunately, a little more than nine years ago, there fell into his hands a medico-popular treatise, in which the use and effects of ether used medicinally were described, and a glowing account was given of its effect in quickening the creative power of the mind. He procured about two or two and a half ounces of sulphuric ether, and inhaled it from a handkerchief; the result being to produce insensibility for about a quarter of an hour, during which time he imagined that he lived for an indefinite time and travelled over whole worlds. This condition, however, he was not again able to induce in so high a degree. Becoming gradually more and more addicted to his habit, he no longer confined himself to indulging himself in his own room, but, with his etherised handkerchief before his face, he wandered through the streets, purchasing small quantities of ether at the druggists' shops, until at last he became so great a nuisance to them that many of them closed their doors against him. He was also turned out of his lodgings on account of the annoyance produced by the smell of his breath, and became a houseless wanderer, reduced in means and in health. In the hospital, there was no indication that his mind was affected; his memory was not impaired; his style of speaking was fluent. On one occasion, an attempt was made to produce complete anæsthesia. For this purpose, more than seven ounces were required; the ether being given by an inhaler, and loss being prevented by closing in the apparatus with cotton-wool. No sooner, however, was the inhalation stopped, than the state of insensibility passed off. He was then allowed to take the ether in his own way, by inhaling it from a handkerchief. Given in this way, it produced a stage of excitement, during which he danced about the room, talked nonsense, and appeared much pleased; but there was no true narcotism. It was not thought justifiable to subject him to other experiments with ether, as it was desirable to break through his habit. It is interesting, that his susceptibility to the action of cannabis Indica was not impaired. This drug was given as a substitute for ether; and on the first occasion, too large a dose having been given, the result was the production of phantasms, such as are induced by the smoking of haschisch.

### AN EMINENT PHARMACEUTIST.

THE premature death of Mr. Daniel Hanbury, F.R.S., before completing his fiftieth year, is announced. Some words of commemoration in these pages are due to a man whose life was largely spent in studies ancillary to the practice of therapeutics, and who afforded a bright example of intellectual activity, and personal modesty and worth. His latest great work, the *Pharmacopœia*, which he published last year in company with Professor Flückiger, we noticed at the time as a monument of skilful erudition and hard work. Mr. Hanbury was a honour to the class to which he belonged; the annals of British pharmacy in this country are associated with no worthier name. He was greatly respected by the many medical men to whom he was personally known. His life and labours have added much to our exact knowledge of the characters and sources of medicinal plants and substances; and have elevated the character of British pharmacy at home and abroad.

### WATER-SUPPLY.

ON April 2nd, a deputation from the Social Science Association waited upon Mr. Sclater-Booth, President of the Local Government Board, at the offices in Whitehall. Dr. Lyon Playfair, M.P., after a few words on the importance of a better supply of water, not only to towns, but villages, introduced the deputation. Mr. Michael eulogised the Government measure now before Parliament as far as it went, but represented that, to deal properly and thoroughly with the question, an exhaustive inquiry by a Royal Commission was necessary as to the best sources of supply and the best plans for distribution. As regarded the first point, there was no subject on which there was greater real ignorance; and on the latter, it was notorious that the existing water companies were a great hindrance to local authorities, whose efforts were hampered, if not neutralised, by the powers of those companies. Mr. Bailey Denton said that the best evidence that something must be done was the fact that there were no less than thirty water bills now before Parliament. Most of these bills were based on the aggressive principle; that was, they helped themselves from other water-beds than their own, and left the districts so robbed without water at all. He suggested that some provision ought to be made under which landed proprietors might, by storage or other means, supply water to villages, and recoup themselves for the cost. Dr. Farr and Dr. Guy supported the appointment of a Royal Commission. Dr. Sandwith spoke of the pollution of the water-supply of London; human excrement being, he alleged, found in the cisterns of one of the large clubs in Pall Mall. What was wanted was more wholesome relations between the river and the mouth. He dwelt upon the evil results of intermittent supply. Mr. Sclater-Booth, while admitting that there might be subjects on which inquiry would be useful, pointed out that there had already been a Royal Commission on the water-supply of the metropolis. While, therefore, he should be most happy to represent to the Government the suggestions of the deputation, it would be well if they were supplemented by a statement from the Social Science Association of the points on which a further inquiry might be useful. Dr. Lyon Playfair undertook that this should be done, and the deputation withdrew.

### THE GERM-THEORY OF DISEASE.

On Tuesday evening last, there was a large gathering of the Fellows of the Pathological Society of London, to hear Dr. Charlton Bastian open the discussion on the Germ-Theory of Disease: being a discussion of the relation of Bacteria and Allied Organisms to the Virulent Inflammations and to the Specific Contagious Fevers. Dr. Bastian commenced by referring to the analogy which existed betwixt zymosis and fermentation, in that particles in each case set up processes which resulted in the reproduction of other particles identical with the first. He contrasted Pasteur's views with the transferred eremacausis of Liebig, inclining to the views of the latter. The contagium multiplied within the body in a manner which might be compared to organic growth and multiplication. Bacteria were not found in the blood of healthy individuals; yet, in from eight to forty-eight hours after death, they were found in abundance. He contended that bacteria had a causal connection with infection, and that they were not mere "carriers of infection", but were for the most part actual pathological products engendered within the body; that in fact, there was a bacterial degeneration which claimed to rank side by side with fatty degeneration. After expounding his views with much skill and detail, he was followed by Dr. Burdon Sanderson. Dr. Sanderson declined to go into the germ-theory in its entirety, but confined himself to the negative facts that bacteria identical with those found in morbid tissues, might be introduced into the body without any ill effects; and to the positive facts that, in destructive inflammations, bacteria were found only in the outer zone of the disease, where it was spreading, and not in the central parts; and that in relapsing fever spirillæ were only found during the febrile paroxysm and not afterwards; and that in erysipelas and sheep-pock, the bacteria were found not in the vesicles, but in the lymphatics of the skin. These facts, he thought, were opposed to Dr. Bastian's views. The time having expired, the Chairman, Mr. Campbell De Morgan, adjourned the discussion until the next meeting of the Society.

### A HOME OF HEALTH.

We have had lately the opportunity of inspecting the Ilkley Wells House Sanatorium, situated at Wharfdale in Yorkshire. There are, we believe, many who will be glad to know that in this fine building they will find what is often a great desideratum, "a home of health", situated in a romantic moorland district, and having all the advantages which have rendered "hydropathic establishments" popular, without any of the relations to quackery which have made many of them objectionable. Ilkley Wells House is a fine pile of buildings, open to the moors, having all the advantages of "Roman wells", pure water, fresh air, a romantic neighbourhood, simple mode of life, and ample arrangements for domestic comfort such as may be found in a great hotel. Built by a company some years ago specially for its present purposes, it has come recently under the management of an orthodox member of the profession, Dr. Leeson of Bradford, who has professional recommendations of a satisfactory kind from eminent members of the profession in London and throughout the northern districts, where he is well known. The chief drawback to many institutions of the kind—which are all the same largely patronised in spite of them—will here be removed; and Dr. Leeson may, we think, be justified in believing that he has, in undertaking this important enterprise, filled a want which has been much felt, and may expect considerable support from his professional brethren, who frequently desire to recommend overworked and debilitated patients to take a healthful rest, under the most favourable conditions of physical hygiene and mental repose, without knowing where they can safely send them. Ilkley Wells Sanatorium seems to fulfil all the required conditions.

### RECENT URBAN MORTALITY.

During last week, 5,945 births and 4,275 deaths were registered in London and twenty other large towns of the United Kingdom. The average rate of mortality was 29. It was 22 in Edinburgh, 30 in Glasgow, and 30 in Dublin. Of eighteen large English towns it was lowest (23) in Portsmouth; whilst in Manchester it was 31, Oldham 31, Bradford 32, Nottingham 32, Bristol 33, Birmingham 33, and Wolverhampton 33. The zymotic rate in these eighteen towns ranged from 0.9 and 1.8 in Portsmouth and Leeds respectively, to 5.8 and 6.2 in Wolverhampton and Hull. Scarlet fever is still fatally prevalent in Bradford and Hull, and whooping-cough caused 18 deaths in Birmingham. In London, 2,493 births and 1,873 deaths were registered; the births exceeded the average by 42, and the deaths by 207. The death-rate was 28. To the seven principal zymotic diseases 219 deaths were referred, being 25 below the average, and equal to an annual rate of 3.3. The deaths from scarlet fever were 32, from measles 24, diphtheria 16, and whooping-cough 92. The deaths referred to diseases of the respiratory organs were 534, being 142 above the average. In outer London, the general and zymotic death-rates were 20.0 and 2.1 respectively, against 28.4 and 3.3 in inner London. At Greenwich, the mean temperature of the air during the week was 45.8 deg., or 1.9 above the average. The direction of the wind was variable. No rain fell during the week.

### THE BIRMINGHAM MEDICAL INSTITUTE.

The decision of the Committee of the Birmingham Medical Institute, which we reported in February last, to admit homœopaths to the use of the library, has been the subject of very animated debate. A good deal of unnecessary inkshed has taken place; and one of our contemporaries, which did not at the time see how it could properly refuse paid advertisements of lectures on homœopathy, has yet been highly indignant that homœopaths should be admitted to the use of a medical library. After a very animated discussion in the public newspapers of the town, which we think was much to be regretted, and not always in good taste, and after an extensive appeal by circular to the neighbouring practitioners, it has been once more decided, by a very important majority, that homœopaths may be admitted to the library. The decision does not appear to us to involve any very important principle. It is a question of local liking and personal feeling. If the issue raised had been one of admission to a medical debating society, it would undoubtedly have had a more general application. But there is a wide difference between the membership of a medical society and the mere right given to use a reading-room. We apprehend that none of the half-dozen homœopaths who are now free of the library are a whit nearer to the membership of any of the medical societies of Birmingham. The latter would involve an admission which cannot, we think, be fairly made—the admission that they are capable of fairly weighing medical evidence and discussing profitably questions of medical science and practice. So long as they call themselves homœopaths, and profess the absurdity of basing their whole theory and practice of medicine upon the doctrine that *similia similibus curantur*, we do not see that they can expect to be treated otherwise than spiritualists are treated by reasonable persons, with personal courtesy but professional and polite contempt. Homœopathy, like spiritualism, is not truly a doctrine in any scientific sense, but an abnegation of reason. It is quite certain that it has been largely supported, like spiritualism, by trickery; and that its professors may be broadly divided into dupes of nature and sciolists in art. But just as physicists and naturalists would not refuse the society of Mr. Crookes or Mr. Wallace on account of their spiritualistic performances, although they would decline to enter into a discussion with them on the subject of their delusions, so the Birmingham medical men, fully persuaded of the honesty of some of the homœopathic practitioners of the town, have decided not to refuse them admission to the medical library, although declining to meet them in consultation on medical subjects, where their delusions render their society uncomfortable, and deprive them of the basis for sound medical reasoning or rational practice. It is a good sign that homœopathic practitioners and homœopathic journals are beginning to plead to be allowed to drop the title of homœopathists, just as they have for some time pleaded that infinitesimal doses are excrescences and not essentials of their doctrine, and that they are entitled to use the whole armament of rational medicine. When the abandonment of infinitesimal doses is universal, as it promises soon to be, and when the distinguishing and absurd title of homœopathy is extinct, the Hahnemannian folly will be practically at an end. We do not think that time is far distant; and probably the action of the profession in the midland counties may tend, if not exaggerated or misinterpreted, to hasten the consummation.

### THE ADULTERATION OF SPIRIT.

DR. ALFRED HILL, the county analyst for Warwick, stated at the Quarter Sessions that the Adulteration Act had worked so satisfactorily in that county, that the number of adulteration cases had decreased from 57 to 10 per cent. The Act was, however, sadly defective, inasmuch as no standard of strength was fixed for distilled spirits. In consequence of this omission, no legal action could be taken in regard to the adulteration of spirits with water. The samples of spirits submitted to him varied from seventeen to forty-four degrees under proof, water being the chief adulterant.

### ARMY MEDICAL SCHOOL.

THE summer session of the Army Medical School at Netley was opened on the 1st instant, in the presence of the staffs of the Royal Victoria Hospital and School, and of a few visitors from the neighbourhood. Dr. Fayrer, C.S.I., who retired a short time ago from the Professorship of Surgery at the Medical College of Calcutta, and who has lately been appointed Physician to the Council of India and a member of the senate of the Army Medical School, in the place of the late Sir Ranald Martin, also attended. The introductory lecture was delivered by Professor Aitken, F.R.S. The address embraced a variety of topics having a general bearing on the work of military medical officers in the various spheres of the public service, and, though it occupied a full hour in delivery, was listened to with marked attention. In the course of his address, the lecturer paid a warm tribute to the public services, and kind and genial disposition of Sir Ranald Martin, one of the members of the senate of the school, who had passed away since the last session. Sir R. Martin, the lecturer remarked, as much as, if not more than anyone else, had contributed to the formation of the school by his writings, by his determined energy in enlisting the sympathies of others in the cause, and especially by his unflagging exertions as a member of the several sanitary commissions under Sidney Herbert in getting it officially established. He hoped, therefore, that the memorial which his friends and admirers were now seeking to establish, a Ranald Martin prize to be competed for by the candidates of all services at the Army Medical School, would be successfully accomplished, and in a manner worthy of the man whose name it would bear. After Professor Aitken had concluded his remarks, Dr. Fayrer, who was introduced by Surgeon-General Fraser, C.B., addressed the assembled candidates, and, after congratulating them on the fields they had severally adopted for their future careers, gave them some excellent advice on the best manner of attaining successful positions in them. He said he could speak to them from personal acquaintance with all three services, for he had been for a time an assistant-surgeon in the Royal Navy as well as in the Royal Artillery; but, as the greatest part of his life had been passed in the Indian Medical Service, he would more particularly speak of it. Dr. Fayrer then gave a rapid sketch of the vast field that was open to medical officers in India, the valuable appointments which were open there to those who distinguished themselves by their professional attainments and character, but particularly on the immense importance of the educational work that was now being carried on among the natives by members of the Indian Medical Service, and would have to continue to be carried on by those who were now sitting on the benches before him. He believed that nothing was establishing a greater influence and hold on the minds of the two hundred millions of natives in India than the diffusion of medical knowledge and practice which was going on through the great medical colleges of Calcutta, Madras, Bombay, and Lahore. When he left the medical college at Calcutta, there were 1,400 natives being trained in medical education there. All the professorial appointments connected with medicine and surgery at these colleges were held by members of the Indian Medical Service who had distinguished themselves by their abilities and professional merit. Dr. Fayrer explained at some length the means by which health could be best preserved in India; showed the necessity for early acquirement of the Hindostani language, described how medical practitioners could not only make themselves most useful in the country, but also secure their own personal interests; and, after a long and eloquent address, concluded by a few kind and encouraging remarks to all the candidates for commissions; not only to those who would be shortly passing into the particular field which he had not long since left, but emphatically to all; for, as he said, looking at them from a higher point of view, he could only regard the three medical services as branches of one great united military medical body acting in the general service of the Queen and country. The school has opened with twenty candidates for commissions in the Indian Medical Service, eight for commissions in the British Service, and ten in the Royal Navy. Two surgeons of the Royal Navy have also arrived to go through the course of practical work at the school.

### MANCHESTER SICK CHILDREN'S HOSPITAL.

A FANCY fair and bazaar on a large scale was opened in the Free Trade Hall, Manchester, on the 6th instant, for the purpose of raising the sum of £12,000 or £15,000 to complete the Pendleton Sick Children's Hospital. This charity is acknowledged to be one of the most catholic in its objects of any in the district. It is connected with a dispensary in the heart of Manchester, at which about 8,000 patients are now annually treated. Every child under 14 years of age, wherever born, or wherever resident, is qualified on a simple application, without any recommendation, to obtain advice. The inhabitants have entered into the scheme with great spirit and unanimity, and it is expected that a large sum will be realised.

### THE WEST RIDING LUNATIC ASYLUM.

THE Easter holidays at the West Riding Asylum, Wakefield, were marked by a series of entertainments of a very high class. Among them was the performance of *Pygmalion and Galatea* by a party of accomplished amateurs organised by Mr. and Mrs. Briggs of Stanley Hall, kindly and influential neighbours of the asylum. The performance was arranged and superintended by Mr. Gilbert, the author of the play, who also acted in it. Mr. Briggs had written a prologue for the occasion, and the programme included a rhyming argument written specially for the occasion by one of the visitors. The mounting and dresses were most complete; and the acting was admirable, Miss Alice Rathbone of Liverpool playing the part of Galatea with singular pathos and a sentiment of exquisite purity which produced a very marked impression on the numerous auditory. Mrs. Briggs, Mr. Dyke, and Mrs. Crichton Browne, sustained the leading parts with great histrionic power. Nearly a thousand of the lunatic inmates were present at the play and at the ball which followed. The West Riding Lunatic Asylum is now well known as one of the most admirably organised institutions of the kind in Europe. Under the directorship of Dr. Crichton Browne, who has the advantage of working under a most liberal and enlightened

Board of Governors, the best results have been attained in every direction. Great scientific activity pervades the institution, as the admirable yearly volumes of reports testify, and as our pages this week and often bear witness. These good results are largely attained by the judicious liberality of the county magistrates, who, having secured the services of an able medical director, reward them fairly, and entrust to him full power of management. In return, they obtain excellent results, a high proportion of cures, an economical expenditure, and withal a model establishment, in which there is no stint, and of which they may be justly proud.

### NORTHERN COUNTIES ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

A PRELIMINARY conference of the medical officers of health of the counties of Northumberland, Cumberland, Durham, and Westmorland, was held in the Newcastle Infirmary on Saturday, April 3rd, for the purpose of forming an Association. Dr. Elliot (Carlisle) occupied the chair. The attendance of medical officers was numerous and representative. Letters approving of the object of the conference were read from gentlemen unable to be present. The business, which was strictly of a formal nature, consisted of the passing of resolutions, the election of officers, etc. The annual meeting of the Association is to be held at Carlisle on the first Thursday in July, under the presidency of Dr. Elliot. Quarterly meetings will also be held alternately in one or other of the principal towns of the northern counties.

### SEAMEN'S HOSPITAL, GREENWICH.

THE committee of the Seamen's Hospital, Greenwich, appeal urgently for subscriptions. During the past year 3567 patients received treatment; of this number, 2058 were in-patients. This is a larger number than had been relieved in any year since the foundation of the hospital. The committee look with anxiety to the future, for the income of the hospital has materially fallen off, and the cost of necessaries has risen, and notwithstanding that, the benefits conferred by it have been greater. The annual expense of the hospital is £9500, whilst the only permanent and reliable source of income, derived from investments, is £3500, which leaves the hospital dependent on voluntary contributions to the extent of £6000. The hospital is thoroughly cosmopolitan. Seamen of every nation are admitted without any letters of recommendation; an applicant, being a seaman, has only to show his need of medical treatment, and he is at once received into the Hospital; and, after recovery, he is retained as a convalescent until he is fully capable of resuming his duties on board ship. The committee therefore appeal with confidence to all classes and all nationalities for the means to carry out their laudable objects. Subscriptions may be paid to the Secretary, Mr. H. C. Burdett, Seaman's Hospital, Greenwich, or to Messrs. Williams, Deacon, and Co.

### MERCANTILE MARINE HOSPITAL SERVICE.

A SHORT Bill to provide for the organisation of a Mercantile Marine Hospital Service and the Medical Examination of Merchant Seamen has just been printed. The Bill provides compulsory inspection of seamen, the establishment of hospitals at certain ports to which foreign seamen are eligible under restrictions, the appointment of medical officers and superintendence, and the provisions for creating a marine hospital fund. The Bill is in charge of Captain Pim and Mr. Wheelhouse, and has been drafted under the active influence of Dr. Vavaseur Sandford.

### NEWCASTLE AND GATESHEAD PROVIDENT MEDICAL SOCIETY.

A public *soirée* to inaugurate the above society (to the formation of which we alluded some time since) was held last week in the Town Hall, Newcastle. Among those who were present were Mr. C. F. Hamond, M.P., and the Rev. Canon Martin, while letters from Mr. Joseph Cowan, M.P., Mr. Thomas Burt, M.P., and the Mayor of Gateshead, were read, expressing their cordial approval of the movement, and their regret that they were unable to be present at the meeting. The Chairman, the Rev. Rowland East, said: "It had struck some that if an institution could be formed on the co-operative system, by which, through a moderate subscription, every member could claim medical advice, without seeking it as a matter of favour, it would be a grand thing for the whole community. This was no new idea. Institutions of the kind had been established in Derby and Liverpool, and were extending in London in every direction. To become a member of the Newcastle and Gateshead Society, a man required to pay 3s. per year only; if his wife became a member, 3s. per year more, and 1s. additional for each child. While they were unable to do without other institutions in the town, none of which would he for a moment underrate, yet it was not a pleasant thing for persons to be indebted to these institutions. It was more in accordance with the independence of man, and the freedom of the human mind, that a person should make an arrangement to pay for medical assistance, just as he paid for his clothing, his bedding, or the education of his children. The Newcastle and Gateshead Society was only four months old: there were already about 1,500 members, but as many more would be required to make it work to the satisfaction of the promoters." Mr. Hamond, M.P., in moving a resolution which pointed out that the death-rate in Newcastle was high, mentioned that £35,000 were spent annually on the sanitary arrangements of the borough, and that an institution which provided for the medical necessities of the working population, while at the same time it encouraged them in habits of forethought, was well worthy of support. We ought never to permit it to be said that Englishmen were less self-reliant in this nineteenth century than they used to be; and it should never be forgotten that self-dependence was the sure road to esteem and respect. As to the Provident Medical Society, its cost would be a mere bagatelle compared with the good results that would follow.

### HOAXES.

SOME nameless practical joker has occupied himself in hoaxing the medical men and dentists at Southport by sending a forged letter purporting to proceed from a gentleman in the town who required their attention; the result being, that the majority of practitioners met at the same time on a "fool's errand". A similar hoax was perpetrated not long since; a surgeon having been called out of bed to attend some severe cases of fractures and broken limbs, which turned out to be nothing more serious than the overturning of a waxwork exhibition. It would be as well for the perpetrators of this sort of mischievous folly to remember that they render themselves liable to be indicted for forgery.

## SCOTLAND.

THE winter classes have now come to a close, both in the university and Anderson's Institution, Glasgow. The classes in the latter closed on the 25th ultimo, and in the former on the 7th instant.

WE are glad to be able to report that Professor Sanders, whose illness for some months past has given great anxiety to his friends, and has been such a serious loss to the teaching power of the University, is now quite convalescent, and is able to be out for a short time every day.

THE winter session came to an end on Wednesday, March 31st, both at the Edinburgh University and at the Extra-Academical School of Medicine, where prizes were as usual distributed to the successful competitors. The past session has been the most successful one as regards the number of students attending the various classes for many years.

### LEITH HOSPITAL.

A LARGE addition to the buildings of the Leith Hospital, which has just been completed, was formally opened on Friday last (April 2nd). The new buildings were begun at the end of 1872, shortly after the receipt of a legacy of £25,000, bequeathed by the late Mr. Williamson

Ramsay, a native of Leith. The hospital authorities had previously been much cramped in their operations for want of space, and they at once set to work to enlarge their premises. Plans were prepared, and, after careful consideration by the directors and medical officers, were adopted, special attention being paid to the providing of thorough ventilation and sanitary arrangements on the most approved principles. Accommodation is provided for 36 patients, while the old building will in future be entirely devoted to fever cases, with the exception of one room set apart for dispensing. The total outlay in connection with the improvements reaches about £10,000, about £20,000 of capital remaining on hand. At the meeting on Friday, the Provost of Leith, who presided, read a short history of the hospital, which showed that, in the year 1788, a branch of the Humane Society of London was constituted in Leith, and, in 1815, a dispensary was formed; these were combined in 1825. A casualty hospital was established in 1837, and their operations continued until 1847, when all these combined to form the present institution.

### ST. ANDREW'S UNIVERSITY.

AT a meeting of the St. Andrew's University Court, on Wednesday, March 31st, Dean Stanley, the Rector, presided, and appointed the Earl of Elgin as his Assessor. Among other items of business, the Court appointed Dr. Thomas Keith as an extra medical examiner, and sanctioned an increase of the fee allowed to medical examiners. The Court also appointed Dr. Handyside, lecturer on anatomy at the Royal College of Surgeons, Edinburgh, as substitute examiner in anatomy for this year, in consequence of the illness of Professor Oswald Bell. The Court disposed of several applications for recognition of lectures as qualifying for medical graduation.

### GLASGOW INSTITUTE FOR INCURABLES.

DURING the past week, a bazaar, on a very extensive scale, has been held in the Battle Palace, Glasgow, with the object of raising funds for the erection of an institution and cottage-homes for the relief of incurables in Glasgow and the West of Scotland. The proceeds of this bazaar, which was one of the most important and successful ever held in Scotland, reached the very handsome sum of nearly £12,000.

### FEVER-PATIENTS IN EDINBURGH.

AT the last meeting of the Edinburgh Town Council, a letter was read from the Clerk of the Royal Infirmary, in which it was stated, in answer to a previous communication from the Council regarding the future accommodation of fever-patients, that the idea of having a fever-hospital or fever-wards of any kind in connection with the new Infirmary, had been abandoned; but that the managers had determined to retain the piece of ground at the east end of the present infirmary site, which contains the present fever-wards and the old fever-hospital, for the accommodation of fever-patients, both in ordinary times, and during any epidemic. They are prepared to make provision for the treatment of seventy-four fever-patients, and will afford the Town Council every facility for the treatment of any infectious diseases in excess of this number, either in these buildings or in others, temporary or permanent, which may be erected on the same site. An unanimous vote of thanks to the managers of the Infirmary was voted by the Town Council.

### WATER-SUPPLY OF EDINBURGH.

THE trustees for carrying out the Moorfoot scheme for the better supply of water to Edinburgh, have been compelled to abandon the site originally fixed on for one of their largest reservoirs, in consequence of the discovery of a chasm in the rock bottom. A special meeting of the trust was held last week to find a new locality; and they virtually decided on a site about a mile lower down the Fullarton Burn, which is the feeding stream. A series of borings have been made at this spot, and show that solid rock is to be found all along the proposed line of embankment within a few feet of the surface. It will probably be necessary, to avoid future difficulties, to obtain a fresh Act of Parliament sanctioning the proposed change of site. As, however, it has been found that a reservoir of considerably less size than was anticipated will be required, it is calculated that, when all the expenses incident to a supplementary Act have been paid, the public will save over £20,000 of the expenditure originally estimated for this part of the scheme. The present delivery of water is reported at 927.96 cubic feet per minute, equal to 30.89 gallons per head daily to a population of 270,300.

### LECTURES ON SURGERY AT THE GLASGOW ROYAL INFIRMARY.

WE learn with some satisfaction that the ice has been, in a manner, broken in a direction which we have more than once advocated in these columns. Dr. H. C. Cameron has obtained the consent of the directors of the Royal Infirmary to conduct a course of lectures on systematic surgery in their lecture-room. Of course this is simply the permission to use a lecture hall in the Infirmary; but we may be allowed to look on it as what Scotch theologians are accustomed to call the thin end of the wedge. If, as we anticipate, the advantages which a lecturer will possess from a connection with such an institution become apparent, then it will speedily stir up others to follow his example. We trust that from this small beginning a Royal Infirmary School of Medicine will develop. The teachers in such a school can hardly fail to be recognised by the University.

### DONATION FROM THE GLASGOW FACULTY TO THE WESTERN INFIRMARY.

IT is with unfeigned pleasure that we record the very handsome donation of five hundred guineas, voted by the Faculty of Physicians and Surgeons in Glasgow towards the funds of the Western Infirmary. This example of liberality on the part of the profession in Glasgow cannot fail to raise them in the estimation of the community.

## IRELAND.

ON last Monday, a motion for petitioning Parliament to prohibit the sale of intoxicating liquors on Sundays in Ireland was carried by the Corporation of Dublin.

ON the 3rd instant, Mr. Rainsford, Assistant-Surgeon to St. Mark's Ophthalmic Hospital, Dublin, was appointed to the new chair of Ophthalmic Surgery in the Ledwich School of Medicine.

DR. BELL has been appointed Lecturer on Chemistry to Dr. Steevens's Hospital, in the room of Dr. Cameron, recently appointed Professor at the Royal College of Surgeons. Mr. F. W. Warren has succeeded Dr. Bell as Lecturer on Botany.

AT the last meeting for the session of the Surgical Society of Ireland, held on April 2nd, the President, Mr. Joliffe Tufnell, handed over to the College of Surgeons a bequest from the late Mr. L'Estrange, in the form of a number of surgical instruments invented by him, which he wished the College to retain.

### BEGGAR'S BUSH BARRACKS.

NOTWITHSTANDING the reassuring character of Mr. Hardy's statement in the House of Commons, we have reason to believe, from inquiries which we have made, that the sanitary condition of these barracks is far from being satisfactory. The general health of the officers is poor, and they suffer a great deal from dysentery and diarrhœa. The attack of fever from which Captain Van der Weyer suffered is very generally believed to have been contracted in the barracks. Complaints are made also of the apathetic manner in which the reports of the medical officers are received and ignored by the authorities. It seems to be the rule to discard the advice of the medical officers in the military department, until it has been proved by the occurrence of the predicted evils. This was the case at Woolwich; and we know of several similar instances in the Dublin district. When a complaint is made by a sanitary officer, the rule seems to be to detail a board who rely upon their noses, as their most instructed organ, to smell the cause of evil, and if the stench do not at the time seem very bad, these gentlemen report on the side of economy and delay. Usually the men suffer more than the officers, but on this occasion the officers have been and are sufferers, and the remedy will possibly be applied.

### THE MEATH HOSPITAL.

Dr. Stokes has resigned his office of Physician to the Meath Hospital. We regret that Dr. Stokes's retirement is in consequence of his failing health. We are glad, however, to state that he will still continue an active member of the profession; and, when lightened of his arduous duties as a clinical teacher, we trust that he may be enabled long to ornament the profession of medicine in Ireland, of which he is the acknowledged head. Dr. John W. Moore, Assistant-physician to the Cork Street Fever Hospital, has, we are glad to hear, been appointed Physician to the Meath Hospital in succession to Dr. Stokes.

### IMPORTANT INQUEST IN DUBLIN: CHARGE OF NEGLIGENCE AGAINST THE APOTHECARIES' HALL OF IRELAND.

An important inquest has been held at Sandymount, one of the eastern suburbs of Dublin, upon the body of a Mr. Marsden, who recently died from the result of an explosion, which took place while the deceased was engaged in the manufacture of oxygen gas. Mr. Marsden, who was employed in the Bankruptcy Court, had been in the habit of giving amateur exhibitions of dissolving views and such like amusements, in which the oxyhydrogen lamp was used as an illuminator. He had always prepared the gas and arranged the apparatus, without any accident having previously occurred. The deceased purchased the materials, chlorate of potash and what purported to be oxide of manganese, from the Apothecaries' Hall of Ireland. He mixed the materials in the usual way, but, on applying heat, the mixture exploded, injuring the operator so much that he died in two days. The evidence before the court was to the effect that the substance sold by the Apothecaries' Hall as oxide of manganese was black antimony, which, on being mixed with the chlorate of potash and heated, gave rise to the fatal result. The jury, after a very brief deliberation, found the following verdict: "That the deceased, James Marsden, aged 40, came by his death on the 20th of March in consequence of injuries accidentally received on the 18th of March from manufacturing oxygen gas, and that the explosion was caused by sulphuret of antimony having been supplied from the Apothecaries' Hall in mistake for manganese." We need scarcely say this verdict is tantamount to a grave charge of negligence against the Hall. The "Hall" is largely engaged in compounding prescriptions, and is the responsible authority in Ireland for the supervision of pharmaceutical chemists.

### PURIFICATION OF THE LIFFEY.

At a meeting of the Corporation of Dublin, held this week, it was resolved that the Port and Docks Board be invited to join them in taking the opinion of counsel on the question of the liability of the Corporation or Port and Docks Board as to the cleansing of the Liffey from Carlisle Bridge to Banack Bridge, both bodies to abide by the decision. An extensively signed memorial lies for signature by the ratepayers, praying that the Government will not accede to the request of the Corporation in the matter of borrowing £500,000, without full inquiry into the whole subject by a Royal Commission.

### NORTH DUBLIN UNION: COST OF MEDICINES.

Dr. King, one of the inspectors of the Local Government board, attended at the board-room of this Union on the 1st inst., for the purpose of examining books and documents relating to the cost of medicines, etc., obtained by the workhouse dispensaries during the year ending 29th September, 1874. This matter has already been referred to in our columns, and we merely state now that the investigation is owing to the considerable difference that existed in last year's medical contracts in this Union as regards the South Dublin Union.

# SPECIAL CORRESPONDENCE.

## BIRMINGHAM.

[FROM OUR OWN CORRESPONDENT.]

*The Medical Institute: Annual Meeting: Admission of Homœopaths.*

The principal subject of professional interest lately has been the progress of our Medical Institute. The policy of the Election Committee having made a legal qualification the basis of membership, and thus admitted some half-dozen homœopathic or other "unorthodox" practitioners amongst the two hundred members, much exception was taken both to the admission and the mode of it. Some hard words were used; and at a meeting for the election of a "Bye-Laws Sub-Committee", a good deal of personal and party feeling was shown. However, at a large meeting—the first annual one—held last week, the policy and the principles of the original, and of the election committee, were amply vindicated and approved. Both sides of the question have been temperately stated in your issue of February 20th, but it will be worth while to record more fully than usual this last meeting, which was of much interest and importance. In the report which was presented, the committee repudiated the justice of allegations which had been made against their fairness and honesty, and invited a fair and full discussion.

In moving the adoption of the report, Mr. Alfred Baker, with considerable humour and satirical power, criticised Mr. Pemberton's course of action, and demonstrated that the action of the committee was perfectly open, legitimate, and honourable.

Mr. Pemberton then stated his views much as he had already done in the pages of a contemporary, but with this important addition, that "if there was the shade of a shadow of a thought that he attributed a want of honour or honesty to the gentlemen named, he entirely and completely withdrew it." This disclaimer was received with much applause. He hinted that he and others might withdraw if some fresh arrangements were not made for the future conduct of the "possibly great institution"; but finally seemed to waive the main question at issue, and proposed the following resolution: "That this meeting regrets that the original committee did not call a special meeting of the profession before they accepted donations from professed homœopaths, thereby permitting a committee only to decide so grave a question."

Dr. Heslop, in an eloquent speech, said that in his younger days he, too, had earnestly denounced his homœopathic brethren. He was then what he was made by the prejudices of his teachers; but now he stood before the meeting made by his experience, by his observation, and by his liberal reflection upon those who differed from him in any form. He was not responsible for the thoughts that he had when fresh from the benches of prejudice, and from lecturers who hounded down those who differed from them in opinion; but that day, with grey hairs on his head, having pondered over matters in every sphere of thought, he was going to challenge their opinion, not upon the side issue which Mr. Pemberton had put before them, but upon the entire issue between the committee and that gentleman. After some criticisms upon his course of action, it was explained emphatically that the proposed institute would not be an ethical society, nor one for regular meetings for debate; for some time it would be but a set of rooms, in which there would be books. Some of the rooms would be rented, possibly, in twenty years by certain medical societies, acting under their own regulations. Would they say that no one, who did not quite agree with them in the whole range of speculative therapeutics, should be allowed to come into those rooms because they did not like his opinions? Did the College of Surgeons close its laboratory, museums, and lectures to homœopathic surgeons? Let them not, however, be led by anything; and he besought them to be true, not to the worst, but to the best traditions of their honourable profession. The speech, as delivered, was calculated—as we heard it remarked—to make one feel proud of the profession, and it carried with it the large body of the meeting. The mild resolution of censure as to the manner of election was rejected by a majority of thirty; and the approval of the report, and virtually of the liberal course of action, was then carried amid much enthusiasm, and without a single dissentient.

Bequests.—Mr. W. James, an old inhabitant of Birmingham, who formerly took a very active part in the public affairs of the town, has left £100 to each of the following institutions, free of legacy duty: The General Hospital, the Queen's Hospital, the General Dispensary, the Deaf and Dumb Institution, the Blind Asylum, and also to the Orthopædic Hospital.

# ASSOCIATION INTELLIGENCE.

## COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the office of the Association, 36, Great Queen Street, Lincoln's Inn Fields, London, on Thursday, the 15th day of April next, at two o'clock in the afternoon. FRANCIS FOWKE, *General Secretary.*

36, Great Queen Street, London, W.C., March 18th, 1875.

## METROPOLITAN COUNTIES BRANCH.

A GENERAL Meeting of this Branch will be held at the house of the Medical Society of London, 11, Chandos Street, Cavendish Square, on Friday, April 16th, at 8 P.M.; when a discussion will be opened by Mr. HOLTHOUSE on the subject of Legislation for Habitual Drunkards.

ALEXANDER HENRY, M.D. } *Hon.*
ROBERT FARQUHARSON, M.D. } *Secs.*

## SOUTH HANTS DISTRICT: SOUTHERN BRANCH.

THE next ordinary meeting will be held at the Red Lion Hotel, Fareham, on Tuesday, April 20th, at 4.45 P.M.

Notice has been received of the following communications:

1. Dr. MANLEY: The Diagnosis of Insanity.
2. Mr. G. H. CASE: A Case of Polypus of the Rectum.

Dinner will be provided at 6.15 P.M., charge 6s., exclusive of wine. Members intending to be present, are requested to communicate with Dr. Case, Fareham, on or before April 17th.

J. WARD COUSINS, *Hon. Sec.*

## NORTH OF ENGLAND BRANCH.

THE Spring Meeting of the above Branch will be held at the Assembly Rooms, Bath Terrace, Tynemouth, on Thursday, April 29th, at two P.M. The following papers have been promised:

1. On the Treatment of Habitual Drunkards. By Dr. Eastwood.
2. On the Pathology of Catarrhal Pneumonia. By Dr. Macdonald.
3. A case of Extrauterine Fœtation. By Dr. Byrom Bramwell.
4. A case of Extrauterine Fœtation. By James Wilson, Esq.
5. A case of supposed Renal Calculus. By Anthony Bell, Esq.

Gentlemen who are desirous of reading papers, exhibiting pathological specimens, or making other communications, are requested to communicate with the secretary, at their earliest convenience. Dinner at the Bath Hotel, Tynemouth, at four P.M. Tickets, 7s. 6d., exclusive of wine. G. H. PHILIPSON, M.D., *Honorary Secretary.*

Newcastle-upon-Tyne, April 3rd, 1875.

## BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ORDINARY MEETING.

THE sixth ordinary general meeting of the session was held on March 11th, at the Midland Institute, Birmingham: present, W. C. GARMAN, Esq., President, in the Chair, and 33 members and visitors.

*New Members.*—Mr. J. G. Brown, Birmingham, and Mr. A. W. Orwin, Dudley, were elected members of the Branch.

*Communications.*—The following communications were made.

1. Dr. MACKEY showed cases of Bronchiectesis after Empyema; 2. Alopecia Areata; and 3. Chronic General Lichen.

2. Mr. LAWSON TAIT showed a Pathological Specimen.

3. *General and Special Hospitals.*—Dr. MACKEY read a paper on General *versus* Special Hospitals, with reference particularly to the treatment of skin-diseases. After stating arguments in favour of general against special hospitals, it was concluded that the latter were now fully recognised by the profession; (1) when they were markedly more advantageous to large classes of cases—*e.g.*, hospitals for disease of women and of children, and for chest-diseases; (2) when adapted for cases usually declined in general hospitals—*e.g.*, epilepsy and paralysis. A third reason commonly advanced for their recognition was, that they advanced professional knowledge; but this alone could not be held as a sufficient reason, for the same end could be better obtained by special departments in general hospitals, if properly and liberally organised. Illustrations were drawn from the practice of certain special skin-hospitals in London as compared with special departments for the same diseases in the large metropolitan hospitals; and the formation of such departments at all hospital schools was advocated as most desirable in the interests of the profession as well as of the public.

4. Mr. F. MANBY read a paper on Rheumatic Hyperpyrexia.

5. Dr. WARNER related a case of Rheumatic Hyperpyrexia treated by the Cold Pack. A discussion followed, in which the President, Dr. Totherick, Mr. Lawson Tait, Dr. Hinds, Dr. Sawyer, and Dr. Foster took part.

*The late Mr. F. Turton.*—It was moved by Dr. FOSTER, seconded by the President, and resolved unanimously:

"That this Branch desires to express its deep regret at the early death of one of its members, Mr. F. Turton of Wolverhampton, who for many years was an active and highly esteemed member of the Branch, and on several occasions a valued member of the Council."

## BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE fifth ordinary meeting of this Branch was held at the Royal Hotel, College Green, Bristol, on Thursday, April 1st, at half-past seven o'clock; F. MASON, Esq., President, in the Chair. There were also present forty members.

*New Members.*—Mr. S. Craddock of Shepton Mallett was elected a member of the Association and of this Branch; Mr. J. B. Colthurst was also elected a member of this Branch.

*Croup and Diphtheria.*—Dr. E. L. FOX read a paper on Croup and Diphtheria; and an animated discussion followed, in which Dr. Caddy, Mr. Weatherly, Dr. Goodridge, and Messrs. Bartrum, C. H. Collins, Craddock, Steele, and Dr. Swayne took part.

*Psoas Abscess.*—Mr. STEELE read a paper on the Causes of Psoas Abscess. It was followed by some remarks by Mr. C. H. Collins.

*Dr. Rumsey.*—The President introduced the subject, and the Secretary read the resolutions passed at the meeting at Somerset House. Dr. DAVEY proposed, and Mr. BARTRUM seconded:

"That every assistance should be afforded, and the deep sympathy of this Branch be expressed for Dr. Rumsey."

Dr. PAYNE of Stroud confirmed the good feeling of the profession in Gloucestershire to Dr. Rumsey, and the anxiety to assist him and do him deserved honour.

# REPORTS OF SOCIETIES.

## PATHOLOGICAL SOCIETY OF LONDON.

WEDNESDAY, APRIL 7TH, 1875.

CAMPBELL DE MORGAN, F.R.C.S., F.R.S., Vice-President, in the Chair.

### THE GERM-THEORY OF DISEASE.

DR. CHARLTON BASTIAN read a paper on this subject, which is published at p. 469.

Dr. BURDON SANDERSON said it had been suggested to him to open the discussion; and he rose to do so, though the hour warned him that he must be brief. The subject before the Society was one of the greatest interest and moment. Ere commencing, he should like to limit the subject; if he were bound to discuss the germ-theory, he should decline to enter upon it. Four years ago, he had put together the strongest grounds for it which then existed. In those processes of disease in which organisms were found, there were two forms of life: viz., the life of the tissues, and a life introduced into their life. The latter life was derived from the affected organism. It was not possible for protoplasm, to say nothing of bits of protoplasm, to be removed alive from the organism. It was impossible to accept this hypothesis. He felt that this was an important fact. He was now aware of what he was not previously aware; viz., that these views had been brought forward by Henle in 1840. There the germ-theory was put forward in a most complete form. If the Society had at that time begun discussing the subject, it might have been discussing it still without having advanced at all. If it had done so, like the French Academy, it would have fallen behind the times. This Society was founded for the observation and registering of facts. It had now left, or was leaving, this for the investigation of morbid processes, as in the discussions on tubercle and cancer. But there was no reason, after changing its ground, to change its method. As to the germ-theory, if any pathologist who had investigated it were asked if he believed in it, he would answer, "I cannot give you any opinion. There are numerous observations made, upon which an opinion can be formed." But, if he were asked as to his personal opinion, he would probably shrug his shoulders. What he wished to ask after this was: "Is there anything else which can be discussed?" There was something which might be usefully discussed. Time was too brief for the discussion and enunciation of what were pathological and not biological questions. Firstly, there was a series of negative facts. There were bacteria, which, on microscopical examination, were identical with those of morbid tissues, and could be introduced into an organism without results. But this did not contradict the fact that some bacteria, when so introduced, did produce marked results. It was known that there was no substance which could produce fever in its different stages, except albuminous substances in a state of decomposition. Already it was known that it could not be said that the bacteria found in these substances produced these results; for an alcoholic extract could be made, which would also be able to produce fever. Then there was a series of positive facts. In all destructive inflammations, bacteria were present in the fluids of the part affected. In all such inflammations, these organisms were present. Different names had been given to them by different observers; but all had found them under the same circumstances. Then, there was the other fact that all destructive inflammations spread. This, together with the bodies found, furnished characteristics special to these inflammatory processes. Since his first communication to the Society was made, they had been found in diphtheria, in puerperal fever, and in the process of erysipelas. In spreading erysipelas, bacteria were found in the lymphatic spaces of the skin, but only in the early stages of the disease. They belonged to the spreading zone, but were not found in the interior of the part affected. There was an intimate relation betwixt the bacteria and the process, but not as a result. Then, there were other facts mentioned by Dr. Bastian. As regarded specific disease, the position was a most difficult one. In two diseases, however, viz., in relapsing fever and in sheep-pox, there were distinct forms. In relapsing fever, spirilla had been observed first by Obermeier in Berlin. The spirilla existed only during the febrile paroxysm, and disappeared afterwards. The question was a very difficult one. Were they spontaneously annihilated by the febrile process? They were specific and distinct in their form. If the evidence rested wholly upon Obermeier, it might be alleged that he was an enthusiast; but his observations may be confirmed by many other observers. In an epidemic at Breslau, the observations of Obermeier were corroborated by Dr. Litten; indeed, they had been confirmed by all who had had an opportunity of making observations. It was impossible, then, to accept Dr. Bastian's explanation. In sheep-pox, there were two processes. There was the development of pustules in the skin, quite clearly seen in various stages of progress, forming a complete series. Then there was a complete series of development of organisms, commencing in the corium and extending into the rete Malpighii, not in the skin, but in the lymphatics. These changes were synchronous with changes in the fluid in the vesicles. It was impossible to deny the fact, that some relation must exist betwixt them. It was not worth while to maintain that the organism was the cause of the process, nor that the process was the cause of the organism. The environment of an organised being always affected it, but the organism did not affect its environment. The two processes were associated; but we had yet to find out which was cause and which effect. What we had to find out was, what organic forms had an inseparable connection with the morbid processes. It was irrational to pass by facts which had been noted by good observers, and about which there was no reasonable doubt. If they were true, they must be taken into consideration; if they were false, they must be rejected.—On the motion of the CHAIRMAN, the discussion of the subject was adjourned to the next meeting.

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## MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

WEDNESDAY, MARCH 3RD, 1875.

RUTHERFORD HALDANE, M.D., President, in the Chair.

*Exhibition of Patients and Specimens.*—Mr. JOSEPH BELL showed a patient, who, some months ago, while sharpening a scythe, had sustained a frightful Wound of the Neck, by the scythe falling along with the heavy vice in which it was fixed. The wound extended diagonally across the neck, cutting the edges of both sterno-mastoid muscles, and dividing the larynx into three fragments. After performing tracheotomy, with the assistance of Dr. Lucas and Mr. Thomson, Mr. Bell carefully replaced and stitched together with numerous catgut sutures the broken fragments of the larynx. A rapid recovery ensued, and the tube was taken out on the eighth day.

Dr. P. H. WATSON showed a specimen of Giant-cell Sarcoma of the Tibia. The disease had begun in the periosteum. Amputation was necessary.

Dr. WATSON showed an Elbow-joint excised by the true Subperiosteal Method of M. Ollier of Lyons; also various joints and bones from the carpus and tarsus, excised by him. In all these operations, he stuffs the wound with lint soaked in a solution of chloral; then applies a firm compress of the same over the wound, before removing Esmarch's bandage, so that the operations are absolutely bloodless. The first dressing is not removed for forty-eight hours.

Dr. WATSON also showed an Upper Jaw removed for Epitheliomatous Tumour, which had spread from the gum through an aperture in the alveolar margin.

Dr. THOMAS KEITH showed two large Fibrous Tumours of the Uterus, and a photograph of a third, which he had lately removed along with the uterus and both ovaries in each case. All the patients had recovered. He believed these were the first successful cases of this nature in Scotland.

Dr. ARGYLE ROBERTSON showed an Eyeball with a large Tumour attached to its posterior surface, which he had lately removed from the orbit of an elderly female. The whole contents of the orbit were removed, and it was sponged out with chloride of zinc. The disease returned after some months.

Dr. A. ROBERTSON also showed an Eyeball atrophied, in which a piece of stone had been embedded for fifteen years.

Mr. JOSEPH BELL showed a specimen of Exfoliation of the whole Mucous Membrane of the Female Bladder, which he had removed *per urethram* in a sloughy state, about a fortnight after delivery, from a patient of Dr. Thatcher. She was making a good recovery, and already could retain urine for about two hours.

Dr. JAMES DUNSMURE, jun., showed a specimen of Spinal Cord from a child who had died of Cerebro-spinal Meningitis, in which recent lymph one-eighth of an inch in thickness was found.

Dr. A. G. MILLER showed a Bulbous-pointed Catheter, which he lately had made an inch longer than the common ones.

Dr. MILLER showed also a specimen of Epithelioma from the Lip of an old woman who was not a smoker.

*Grouse-Disease.*—Mr. ANDREW WILSON, Lecturer on Comparative Anatomy and Zoology, Edinburgh, read a paper on the Grouse-Disease, in which he described certain appearances resembling those of an acute inflammatory lesion, which he had observed in grouse perishing from the so-called "disease". Mr. Wilson strongly supported the hypothesis of an epidemic disease, as opposed to that of parasitism or helminthiasis. He contended that, whilst the latter theory might be applicable to a certain number of cases in which an excess of parasites caused death, the theory could not explain the nature of, or account for, a fatal issue in by far the greater majority of cases, in which a moderate and usual degree of parasitism was present, but which cases presented no appearance of fatal helminthiasis. Mr. Wilson drew an analogy between the pleuropneumonia of the veterinarian and the presumed symptomatology of the grouse-disease. The latter lesion, he felt persuaded, would ultimately be found to affect the respiratory tract. The paper concluded by expressing the hope that proprietors of lands and sportsmen would afford means and opportunity for the investigation of the grouse-disease, in the interests of the preservation of moors and game.—The PRESIDENT thanked Mr. Wilson for his interesting paper.

*Cases in Conservative Surgery.*—Dr. MACDOUGALL of Galashiels read a paper entitled, "Notes of some Cases of Conservative Surgery". In it he related:—1. A case of excision of the whole tibia during the progress of acute necrosis; the patient was shown with an excellent limb and full movement of both knee and ankle-joints, with very little deformity; 2. A case of primary subperiosteal excision of the elbow-joint, and some inches of the humerus; the patient was also shown; he had a most useful arm, with very free movement of the joint; 3. A case of excision of elbow-joint, with part of the humerus, to remedy contraction following a burn, and permit of healing. This patient was not shown, but a photograph was exhibited, showing that a most useful limb had been preserved.—Mr. SPENCE expressed his interest in the paper. He did not approve of amputation in acute necrosis, as his experience had shown him that a patient had a better chance of life with his leg on than with it off in this disease. By excising the bone, however, even before its separation was complete, an useful limb was preserved, and risk to life was diminished and suffering abridged. He thought the bloodless method was exceedingly suitable in such cases. He believed that so-called subperiosteal excisions of joints were impossible in most cases of gelatinous disease, as the periosteum was really destroyed by the disease. He had no fear of the occurrence of flail-like joints, as much more frequently too little bone was removed than too much.—Dr. P. H. WATSON expressed his sense of the value of the paper, and the good results of the cases.—Mr. CHIENE differed from Dr. Macdougall's nomenclature of the case of acute necrosis. He did not think the bone was dead, but only suffering from a tendency to death; and he believed that, by opening abscesses in such cases with antiseptic precautions, the necrosis could be prevented.—Mr. SPENCE said that acute necrosis was an useful conventional term, and that in many cases the whole bone was not actually dead, but portions remained adherent to the periosteum, from which eventually new bone formed.—Dr. P. H. **Watson** showed the wide application of the term acute necrosis, including as it does both the process of dying and the process of repair. With reference to the mysterious effects of certain methods of treatment referred to by Mr. Chiene, the whole question lay in a nutshell. If a piece of bone were dead, it would remain dead despite any treatment; if not dead, it could be kept alive without any special treatment.—Mr. **Joseph Bell**, in praising the paper, and especially the case of excision of the tibia, briefly described two cases in which, in impending necrosis, he had recently excised the whole shaft of the ulna with good result, and complete reparation of the bone.—Dr. **Macdougall** stated, in answer to Mr. Chiene, that, in the case of necrosis, the bone was separated almost entirely from the first; but that, in many other cases of acute periostitis, he had cut down on the abscesses with excellent results, without any antiseptic precautions.

## GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

### March 9th, 1875.

W. T. Gairdner, M.D., President, in the Chair.

*Morbid Specimens and Patients.*—Dr. H. C. **Cameron** showed an Epulis just removed; also a Cystic Tumour of the Mamma; this was referred to committee.—Dr. **Wood Smith** presented an elderly man with a large polypus in posterior nares. Dr. **George Buchanan** presented a specimen of cancer of the knee.

*Intraocular Tumour.*—Dr. **Thomas Reid** showed a man about 50 years of age, with a tumour in the ciliary region. The tumour occupied the lower third of the anterior chamber; it had a nodulated appearance, and extended backwards to the equator of the eye; there was separation of the retina. The duration of the disease seemed to be about twelve months. As enucleation would likely be required, the specimen might come up before the society hereafter.

*Defect of Corpus Callosum.*—Dr. D. N. **Knox** brought up a report on the case of defective corpus callosum presented by Dr. Alexander Robertson to the Society in January. The patient was a woman about 40 years of age, affected with idiocy of a low type; she could walk, but seldom did so; she usually lay on her back; she never showed any recognition of her attendant, although she could evidently see and hear. Her head was of average size, but the occiput flat, and the brow low. There was no paralysis, but slight club-foot. The brain weighed thirty-six and a half ounces (after being in spirits for ten days). The hemispheres were nearly symmetrical, but these fell outwards, and at once showed the parts in the floor of the lateral ventricles (the membranes, however, had been removed from one hemisphere). The corpus callosum was wholly wanting, or only represented by a very slight ridge scarcely perceptible in front, but one-tenth of an inch behind. About half way back, it separated from the fornix, and at last ran into the lower part of the hippocampal convolution. The fornix was completely divided in the middle line. A trace of the septum lucidum was found at the side, but the fifth ventricle was quite open and communicated with the general ventricular cavity. Various defects were found and described in the convolutions. It could not be said whether the soft commissure had existed. Dr. Knox gave a review of the literature of the subject, from which he concluded, that in those cases in which the commissure system is wholly wanting, or very rudimentary, idiocy or imbecility prevails; and that in those cases in which the corpus callosum is only partially defective, while the other commissures are present, intelligence but slightly below the average, with dulness and childishness, are the usual mental characteristics.

*Melanotic Cancer in Liver, Peritoneum, and elsewhere. Peculiar reaction of Urine with Nitric Acid. Fatty Tumour in Uterus. Unusual Murmur referred to Pulmonary Artery.*—Dr. **Gairdner** presented a number of specimens illustrative of melanotic cancer from the body of a female patient, aged 40, who died in the Western Infirmary. The parts chiefly affected were the liver, omenta, mesentery and peritoneum, and, in a minor degree, the pleuræ, lungs, and kidneys. The heart was normal as to size, but had been during life the seat of a peculiar murmur; but the whole of the cardiac points in this case were referred to a committee for investigation. The whole clinical history that could with any probability be associated with the enormous masses of disease presented, did not extend back much more than four weeks before death. The patient, an intelligent and respectable married woman, affirmed most positively that, with the exception of several rheumatic attacks during the last four years (the last being three months before admission), she had always enjoyed good health; the catamenia had, however, ceased since her first severe attack of rheumatism, which had confined her to bed for five months, and had left her very weak. After this, she had suffered from palpitations, but had no dropsy, and had been attending to her household duties up to a fortnight before admission. At that time she caught a severe cold, and immediately afterwards her abdomen began to swell so rapidly that in two days she was as large as she ever became afterwards, and also suffered seriously from cough and difficulty of breathing. These symptoms were accompanied by a great falling off in the quantity of her urine, which became very high coloured. The bowels had been very costive throughout. The family history was without significance. The patient was under observation only from February 3rd to 18th, 1875, making the whole duration of the fatal illness, as far as could be ascertained, about a fortnight before, and a like period after her admission to the infirmary. The axillary temperatures (during the period of observation taken twice daily) were very little elevated, the absolute maximum being 100.2 deg.; the mean of fourteen morning temperatures 98.8 deg.; of thirteen evening temperatures 99.3. The quantity of urine averaged twelve ounces daily, varying from six to sixteen ounces. It was high coloured and of high specific gravity (1035), sometimes clear, sometimes with a deposit of urates. By all the tests successively and carefully employed on several occasions, it proved to be non-albuminous, but a peculiar reaction with nitric acid attracted attention from the first, and was throughout observed, viz., a darkening of tint, almost amounting to a sooty discoloration, though nothing could be collected as a distinct sediment. A similar darkening of the urine took place spontaneously after keeping it for some time, without loss of acidity or distinct decomposition. Dr. Finlayson made special observations on this peculiar reaction, and a portion of the urine was committed to Professor Ferguson, but without any very definite result in the way of chemical analysis. Almost the whole of the positive symptoms connected with the disease on admission were those of abdominal distension, which was obviously in part from fluid in the peritoneum, but in part also from a much enlarged liver, which could be easily felt. There was, in a minor degree, œdema of the legs, but this was ascertained to be of later origin than the abdominal swelling, and the lungs gave signs of œdematous congestion. Five days before death, severe pain occurred in the abdomen, which was not allayed by external soothing applications, and was accompanied by considerable perspiration and a rapid pulse (112), but not by any appreciable increase or diminution of surface temperature. This severe pain recurred at intervals, and at last became constant, being only relieved by hypodermic injections of morphia for a short time, and ultimately producing exhaustion with a fatal result on February 18th. The *post mortem* examination showed a great accumulation of dark brownish fluid in the peritoneum, but scarcely any adhesions, and no recent lymph. This fluid was highly albuminous and did not react like the urine, as above described, with nitric acid, nor could it be definitely stated to differ from ordinary peritoneal serous effusion, though somewhat darker in colour. The liver was much enlarged, extending nearly to the umbilicus and right iliac margin; its weight was estimated at not less than eight pounds. The masses of cancerous matter in its substance were mostly of a bistre or soot-black colour, more or less deep; but a few of them were quite free from this peculiar pigment, and resembled ordinary cancerous tubercles both in form and colour. It appeared, however, to Dr. Gairdner at the time, that the non-pigmented deposits were not only smaller, but, judging from their consistence and obvious structural characters, probably of an older formation than the pigmented, which were larger, softer, and apparently less circumscribed than the others. The largest of the nodules was about two inches in diameter and slightly umbilicated. Dr. Coats also found a considerable amount of infiltrated pigment, apparently replacing the normal hepatic tissue, without any distinct nodular arrangement. The greater and lesser omenta and the mesentery were everywhere closely occupied with growths, which, by crowding together, constituted a thick mass of morbid material, in which the natural structures were almost lost. In the greater omentum, these growths individually varied from a very small size up to that of a filbert, most of them, however, being about the size of peas, and having very much the appearance and colour of preserved black currants. Most of them were of soft consistence, and some of them after a little keeping were almost diffluent on section. The rest of the peritoneum, and, to a less extent, the pleura, were occupied by similar growths, mostly, however, flat and sessile, up to a diameter of a quarter of an inch, and varying from a brown to a pale tint. In the substance of the lungs, a few similar growths were found, but of small size. In the kidneys (which in other respects were normal), a few very minute black deposits were found, not larger than pin-heads. Dr. Joseph Coats examined many of these growths microscopically, and made a detailed report of which the following is an abstract. The nodules on the mesentery of the small intestine showed an enormous number of cells, having various shapes, mostly rounded, but many tailed, and a few spindle-shaped. The cells were by no means all pigmented, even where the colour of the growths, as observed by the naked eye, was deep brown or almost black. On the contrary, the pigmented cells were in a minority, usually in a proportion of one pigmented cell to four, or from this to ten, unpigmented. The pigment was of a brown colour, and the cells were apparently stained with it, the staining being of various degrees in depth, and frequently affecting not the whole but only a part of the cell. On examination, in the fresh state, it was particularly noticed that the pigment was not, so far as appeared, granular, but rather a simple brown staining. Both pigmented and colourless cells were the seat of fatty degeneration, and Dr. Coats was convinced that any appearance of separate pigment-granules, which might have been supposed to exist, was really dependent on fatty degeneration in the pigmented cells. The addition of liquor potassæ produced no perceptible alteration in the colour of the pigment, although by degrees destroying the cells.

*Fatty Tumour of Uterus.*—Dr. JOSEPH COATS showed the uterus in the case just detailed. It was normal in size, and its cavity was normal. In its posterior wall, towards the right side, a somewhat bulky tumour was felt, on cutting into which there was found an encapsuled growth about the size of a small hazel-nut. It had a yellow colour, suggestive of fat, but it was of rather firmer consistence, although by no means so firm as the ordinary myoma. It was buried in the muscular parenchyma of the organ. The appendages of the uterus were very much matted together, and the organ was adherent to the rectum behind but free in front. Douglas's space was occupied by a collection of melanoid growths similar to those of the peritoneum generally (see preceding communication), but of larger dimensions and exceedingly soft. The Fallopian tubes were hardly to be made out, buried as they were in multitudes of black growths, and obscured in their relations by adhesions. On the right side, what was supposed to be the ovary was occupied by two melanoid growths, one as large as a large hazel-nut, and the other a third of that size. It was not certain, however, that this was the ovary, and on the opposite side only apparent traces of the ovary could be made out. [This woman had been twenty-three years married without any family. The catamenia ceased at the age of 36, four years before her death, after a severe attack of rheumatic fever; for the details of fatal illness, etc., see above.] The microscopic examination of the uterine tumour showed in all respects the usual characters of the fatty growth; large fat-cells occurring in closely set aggregates, with some intervening fibrous tissue.

*Vesical Calculus.*—Dr. WM. MAC EWEN showed a calculus, weighing over eight drachms, removed by the lateral operation from a man aged 40. He had complained chiefly of pain in the hepatic region, but, on inquiry, it was found that he passed blood occasionally with his urine, and this led to the detection of the calculus by the sound; the wound healed completely in twelve days.

*Urethral Calculi.*—Dr. MAC EWEN also showed two calculi which had been removed from the urethra of a boy, having given rise to retention of urine. As they could not be removed by forceps, a valved incision was made, and both extracted by the same wound; in this way the wound in the urethra was subcutaneous; a catheter was kept in for some days, and in a fortnight he was well.

# CORRESPONDENCE.

## OUT-PATIENTS' MEDICAL RELIEF.

SIR,—Assuming that the main difficulty in the way of out-patient reform relates to the business of discriminating between those who can and those who cannot afford to pay for medical advice upon the very easy terms of provident dispensaries, it seems pertinent to observe that the special knowledge needed for this task, as well as the place where the selection can be best made, should be sought for not within the hospital, but away from it.

Such, indeed, is the theory upon which letters of recommendation were originally issued, a theory which assumes that each subscriber will institute due inquiry as to the means and needs of applicants before making petition (for "a letter" is no more than that) on their behalf.

The theory fails because it assumes too much. This intelligent scrutiny is not really exercised, nor is the letter taken as a request, but as a demand. Of all modes of admission, this has come to be the worst.

But the principle is right nevertheless, only its machinery is defective. Hospital letters (good in so far as they relieve hospitals of a duty they have no means of performing) might be made wholly good if the discrimination and care in their bestowal which we now assume were actually secured, and those to whom they are entrusted were required to give account of their trust. With this view, hospital letters should be dealt out by tender, yearly or half-yearly, upon certain specified conditions. Charity organisations, ministers of religion, visitors of the poor, approved philanthropists, perhaps provident dispensaries themselves, should be so supplied on their own requisition; the conditions being that they would render to the hospital periodically, according to an approved form, a strict account of their stewardship. Subscribers, of course, would not be excluded from obtaining letters on the same terms; but the payment of a guinea would no longer secure as at present the right of pauperising the poor, or of obtaining, under the fair name of charity, medical advice for a large staff of workpeople or servants.

If some such plan were adopted by the general hospitals in London, the returns so obtained might be forwarded ultimately to some central organisation, which would thus be furnished with the means of estimating on a large scale the actual working of the present system of outdoor medical relief.

Be the plan what it may, it is at least necessary to prevent indiscriminate crowds of sick from collecting in hospital waiting-rooms. Only last week, at the place where I sit and cure, there appeared among the number a little child in the desquamative stage of scarlet fever. She had been waiting some hours in these realms of fancy with other children, pretty closely packed, expecting, like the rest, her turn to be healed. If the gross result of that morning's work could be estimated, would it be good or bad?

With the ignorance of the poor, with the impotence of drugs, with the dangers incident to long waiting and exposure in bad weather, with the impossibility, under *any* system, of determining beforehand which should come and which should stay away, out-patient practice is beset with evil. Yet, so long as the public will have it so, we can but seek to minimise this evil. And, indeed, until we are persuaded that our work as assistant-physicians is, on the whole, beneficial, it seems premature, if it be not impossible, to determine, as is now proposed, a scale of recompense.

Your obedient servant, OCTAVIUS STURGES.

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SIR,—I have read with much satisfaction the extracts from the report of the Royal Free Hospital on the above subject, and your comments thereon. Believing, with you, that some may feel "the Royal Free is not a fair example of the General Hospital, because it requires no governors' letters of recommendation", I think it may be of value to reproduce the results of an inquiry made by the Charity Organisation and Mendicity Society, in the latter part of 1873, into the circumstances of the patients attending a large provincial general hospital—the Queen's Hospital, Birmingham—where the ticket system was and is in force. Having myself had a good deal to do with the conduct of this inquiry and the mode of operation adopted, I can fully confirm the thoroughness and accuracy of the information obtained. The chairman of the Charity Organisation and Mendicity Society, the Rev. J. C. Blissard, devoted a large portion of his time and attention to the investigations made; and, in addition, the assistance of some of the foremen of the largest manufacturing firms in Birmingham was secured, who displayed much interest in the inquiry. The results of this investigation may be briefly summarised thus:—

*Cases investigated*—In-patients, 88; out-patients, 366. Total, 484.

*In-patients.* Ticket cases: false addresses, 5; cases unsuitable, 6. Free cases: emergency and accident cases able to contribute towards maintenance, 8; emergencies, unsuitable, 2; leaving legitimate objects of charity, free and ticket cases, 67; total, 88.

*Out-patients* (all ticket cases):—Information refused, 2; false addresses, 34; parish cases, 6; unsuitable, 64; legitimate, 260. Total, 366.

It will thus be seen that, of the in-patients, 10 per cent. were found to be unsuitable cases, and of the out-patients 64, or nearly 20 per cent., were rejected on the same ground. It will further be observed that three-fourths of the unsuitable in-patient cases were admitted by ticket, thus clearly showing that the free system is far less abused in practice than the ticket; and this view will be further confirmed when the above figures are compared with those published in reference to the inquiry at the Royal Free Hospital. I ought, perhaps, to mention that in this inquiry "cases of severe disease, such as epilepsy, hypochondria, etc., and some cases of venereal disease, independently of the patients' pecuniary circumstances", and also "cases of chronic or prolonged illness, where the patient had previously paid for medical advice in adequate proportion to his means", were classed as legitimate. It may be well to give samples of each class of cases, as taken from the list published in the report.

*Legitimate Cases.*—No 339. A parish case passed as legitimate, because she had previously been attended for three months by the parish doctor, but without obtaining much benefit.—No. 44. Comfortably off when able to work. Passed, because husband's earnings were stopped by reason of his poisoned hand.—No. 189. Young woman, whose family earned good wages. Passed because she had been ill a long time.

*Cases of Imposition.*—No. 76. Married man, aged 50; wife and one daughter, aged 20, at home. Keeps a thriving public-house twenty miles from Birmingham; has a large yard and out-premises, and is a dealer in hay and straw. Comes into Birmingham on Thursdays for business, and takes the opportunity of going to the hospital.—No. 214. An elderly lady, whose son lives out of Birmingham, but has a large manufactory in the town.

*Unsuitable Cases.*—No. 36. Youth, aged 15. Lives with father and mother. Earnings of family 30s. per week. The other children married or in service.—No. 88. Married man, aged 24. Wife and one child. Is a painter; has left his wife, and is a drunkard.

I think these instances will suffice to show on what grounds cases were accepted or rejected. In conclusion, I may state that the report strongly recommends the abolition of the present method of issuing tickets in return for subscriptions, and the adoption of the free system—the one in use at the Royal Free Hospital. No one who has watched the working of these two systems carefully can doubt that the sooner the free system, with the addition of a provident dispensary on the Devonport or some similar plan, is adopted universally by the committees and governors of our medical charities, the better will it be for the hospitals, the patients, and the public generally.

I am, yours faithfully, HENRY C. BURDETT.

London, March 27th, 1875.

# MEDICO-PARLIAMENTARY.

## *HOUSE OF COMMONS.—Monday, April 5th.*

*The Army Medical Service.*—In Committee of Supply, on the vote of £248,700 for medical establishment and services, Mr. DUNBAR pressed Mr. HARDY to give the committee some assurance that the system of promotion and pay of medical officers would, on an early day, be taken into careful consideration, as at present it did not give satisfaction.—Mr. HARDY said the differences of opinion as to what the grievances of these officers were, made it a difficult thing to deal with the matter. He had been deluged with pamphlets written on one side or the other of the subject, by gentlemen of considerable eminence. There were, however, certain points with regard to which he thought he should be able to grant some of the desired advantages. The vote was agreed to.

*The Contagious Diseases Act.*—On the vote of £368,700 for the Commissariat and Ordnance Store Establishment and wages, Mr. GOURLEY proposed to reduce the vote by the sum of £4,750, the police expenses in carrying out the Contagious Diseases Act.—Mr. G. HARDY said that it was impossible to bring in the army estimates without including the item to which the hon. member objected. So long as the Act remained in force his was a purely administrative duty, and he could not exercise any control in the matter. The question would be raised on another occasion, and then he should be prepared to express his opinion upon it. It would be absurd to pass an Act which could not be carried out without the payment of money, and then to refuse to grant the sum necessary for the purpose.

*Unhealthy Barracks in Ireland.*—On the vote of £759,700 for works and buildings at home and abroad.—Colonel ALEXANDER called attention to the unhealthy state of the barracks in Ireland, especially Beggar's Bush, Island Bridge, and Richmond Barracks. Although they were reported on so long ago as 1872, nothing had been done up to this time to remedy the water-supply. He also asked when it was proposed to erect a separate building in Dublin for the treatment and isolation of soldiers' families suffering from contagious diseases. He was glad to find that the huts at the Curragh were to be renewed, and he hoped the same would be done at Beggar's Bush Barracks. In the past winter, two officers of the 3rd battalion of Guards succumbed to the attacks of typhoid fever, caught whilst stationed at Beggar's Bush barracks. After several minute inspections of the state of the barracks, it was at last discovered that the drains were in a most wretched state, and were no doubt the origin of the disease that prevailed there.—Lord C. J. HAMILTON said that, having been formerly stationed in Ireland, he could say that the state of Island Bridge Barracks, Richmond Barracks, and Beggar's Bush Barracks had become a public scandal. They were little better than pest-houses, and he hoped the Secretary of State for War would give his earnest attention to the matter, in order that it might be remedied.—Sir H. HAVELOCK was glad to find that money was to be applied to the amelioration of married soldiers' quarters in various parts of Ireland. He had seen ten married families in two rooms, consisting of between thirty-five and forty individuals in each room, with no separation between them. Kilmainham Barracks were in a very unsanitary state.—Colonel MURE said that, when an inspection was made at Beggar's Bush Barracks, it was found that it would only cost £15 to put them in a proper sanitary condition, yet that small sum had been refused, because the department did not wish to alter the army estimates at the last moment.—Mr. HARDY was quite sensible of the distressing nature of the circumstances that had occurred at these barracks, but was not prepared to conclude that the illness of the officers there was due to the causes which some persons assigned. With respect to the private soldiers, they were in perfect health. As soon as his attention was called to the subject, he directed an inquiry to be made on the spot. As the hon. member for Devonshire had given him notice of a question bearing on this matter, he would defer giving full particulars.

*Miscellaneous Votes.*—The following sums were voted for the ensuing year in Committee of Supply:—Science and Art Department, Great Britain, £1,600; Local Government Board, £116,000; Lunacy Commission, £2,500; General Register Office, £7,500; Broadmoor Criminal Lunatic Asylum, £5,000; Learned Societies, £2,000; University of London, £1,600; Lunacy Commission (Scotland), £1,000; General Register Office (Scotland), £1,100; Board of Supervision, £13,300; Scotch Universities, etc., £3,000. For Ireland: Local Government Board, £18,300; General Registrar Office, £3,100; Pauper Lunatics, £20,000; Dundrum Criminal Lunatic Asylum, £1,000; Queen's University, £700; Queen's College, £700; Hospitals and Infirmaries in Ireland, £3,100.

## *Tuesday, April 6th.*

*Beggar's Bush Barracks.*—Mr. HARDY, in reply to Sir L. Palk, said he had no official knowledge of a report on the sanitary state of the barracks in 1873, though he had no reason to doubt that some such report was made. In December 1873, the officer of the Royal Engineers asked permission to remove the cesspits, and they were done away with, and the privies in the rear of the mess premises and barrack-sergeant's quarters were converted into water-closets by March 1874. He regretted to say that there were several deaths from scarlet and typhoid fever in 1873, especially of children. The report of the Medical Officer of Health for 1874 said, "The general health of the troops has been good during the period specified. The Grenadier Guards have not been so healthy for the past twenty years." No cause of disease could now be found in the barracks, but additional ventilation for the drains had been authorised, and the Army Sanitary Committee would inspect the place on April 12th.

*Small-pox in Ireland.*—Sir M. BEACH, in reply to Captain Nolan, said he was not able to inform the House how many cases of small-pox had occurred since the 1st of October in the counties of Galway and Mayo. Certain offenders had been sentenced to six months' imprisonment for violating the law, by practice of inoculation, and he hoped that that sentence would have a salutary effect. With respect to the general prevalence of small-pox in Ireland, he was happy to say that it had lately decreased.

The second reading of the Mercantile Marine Hospital Service Bill has been deferred till Tuesday next, the 13th instant.

# PUBLIC HEALTH
AND
# POOR-LAW MEDICAL SERVICES.

The Sheffield Board of Guardians have increased the salary of Mr. George H. Shaw, medical officer for the Attercliffe District, from £60 to £100 *per annum*.

VACCINATION.—Mr. George O. Kell, the vaccination officer for the Winsford district, has been awarded, by the Local Government Board, the sum of £16 11s., for efficient vaccination. This is the second award of the kind which he has received.

### EFFECTS OF SEWER-GAS.

DR. SAUNDERS, medical officer of the combined rural sanitary districts of Hertfordshire, writes to us: The paper of Dr. Fergus, to which you drew attention in last week's JOURNAL, on the effects produced by sewer-gas, is a further evidence of the great necessity for casting aside all dependence on "traps", and of making provision for the inevitable sewer-gas finding its way into the external atmosphere on one or other side of the soil-pipe connection, in such situation as it shall be harmless.

There is one point of the soil-pipe, using that term to convey the idea of the pipe leading from the closet-pan to the sewer, which needs ventilating as much as any other, and yet, in the ordinary way in which a ventilating shaft is put in, escapes; I mean that which is technically known as the "container", the portion of the pipe, *i.e.*, immediately above the D trap. This D, or syphon-trap as the case may be, contains water through which all the fæces must pass, and, consequently soon becomes exceedingly foul; the discharge of water taking place each time the closet plug is pulled not being nearly sufficient, in nine times out of ten, to change the contents of the trap and leave fresh water behind. The trap consequently becomes corroded as Dr. Fergus showed the soil-pipes to do, its capacity is lessened by deposit of urinary salts, it offers obstruction to the free and rapid passage of fæcal matter, and, holding less water, acts less efficiently as a trap to the soil-pipe below. Every water-closet, therefore, should be provided with some means by which a definite supply of water, equal at least to the capacity of the trap, should be discharged each time the closet plug is pulled. Messrs. Grist and Grimes have patented such an arrangement, and I have had it used with the best results. The other essential point, to which I wish to direct especial attention, is the additional ventilation, by a small (one inch) pipe, of the closet "container". This may be carried to an outside wall, and cut short, taking care that it is not immediately under a window; or, if the ventilating pipe of the soil-pipe proper, be near at hand, it might open into it, but I do not think this necessary. This small ventilating pipe then gets rid of the offensive gas from the never-wholly-changed water in the trap (a miniature cesspool), and should the trap, as is too frequently the case, be incompetent, it provides an outlet for the sewer-gas to the external air, instead of into the water-closet and dwelling.

### POOR-LAW MEDICAL APPOINTMENTS.

**Bernard**, Armand, M.B.Dubl., appointed Medical Officer for Nos. 7 and 8 Districts of the Parish of Liverpool.

**Bolton**, John A., L.R.C.S.I., appointed Medical Officer and Public Vaccinator for the Coniston District of the Ulverston Union, *vice* J. H. M. Galwey, resigned.

**Colman**, Thomas J., M.D., appointed Medical Officer of the Third District of the Clifton Union, *vice* R. G. Fendick, M.R.C.S., resigned.

**Downing**, E. H., Esq., appointed Medical Officer for the South Deptford District of the Greenwich Union, *vice* T. D. Parker, Esq., deceased.

**Ellis**, E. T. C., Esq., appointed Medical Officer for the Third A District of the Hailsham Union, *vice* W. Press, Esq., resigned.

**Fairweather**, A. F. A., Esq., appointed Medical Officer to the Second Pocklington District and Workhouse, *vice* R. E. Deane, L.R.C.P., resigned.

**Fox**, Edward C., M.D., appointed Medical Officer for the Newton Poppleford District of the St. Thomas Union, Exeter.

**Gay**, John H., M.R.C.S.Eng., appointed Medical Officer and Public Vaccinator for the Spilsby East District of the Spilsby Union, *vice* J. Thimbleby, L.R.C.P.Ed., resigned.

**Hayden**, W. G., Esq., appointed Medical Officer to the Workhouse of the Wycombe Union, *vice* — Bowstead, Esq., resigned.

**Ruckley**, H. R., Esq., appointed Medical Officer to the Third District of the Wycombe Union.

**Osbaldeston**, L. F., M.R.C.S., appointed Medical Officer to the Third District of the Hatfield Union.

**Penrice**, David S., M.R.C.S.Eng., appointed Medical Officer and Public Vaccinator for No. 2 District of the Henstead Union, Norfolk, *vice* A. C. T. Findlay, M.D., resigned.

**Roberts**, C. H., Esq., appointed Medical Officer for the Workhouse and the Fourth District of the Alderley Union, *vice* F. C. Bennett, Esq., resigned.

**Sinclair**, John, M.D., appointed Medical Officer for No. 10 District of the parish of Liverpool.

**Smyth**, H., Esq., appointed Medical Officer to the Second District of the Poole Union, *vice* A. Crabb, M.D., deceased.

**Waugh**, John, Esq., appointed Medical Officer to the Toddington District of the Woburn Union, *vice* W. T. G. Helps, Esq., resigned.

## MILITARY AND NAVAL MEDICAL SERVICES.

### REDUCTION IN THE NUMBERS OF ARMY MEDICAL OFFICERS.

The statement of the Secretary of State for War, in reply to questions asked by Dr. Lyon Playfair, that there are now no vacancies in the ranks of the army medical department, but, in fact, at the time he spoke that there were seven officers in excess of the established number, has called attention to the reduction that must have been made in the strength of the establishment of this branch of the public service. Strangely enough, the numbers of officers of the army medical department shown in the annual estimates of the War Department laid before Parliament do not seem to indicate any such reduction. But, on reference to the monthly army lists, it will be seen that during the past twelve months thirteen medical officers of different ranks have been lost to the service from death, while forty-two have retired on half-pay, one has resigned his commission, and two have been transferred to the African service. This makes a total of fifty-eight officers who have disappeared from the active lists of the department. On the other hand, during the same period, only seven officers have been brought in from half-pay, one transferred from the African to the general service, and twenty-four fresh appointments made. Thus there are now twenty-six army medical officers less than there were a twelvemonth ago. This reduction implies a considerable saving in money to the Government; and, as it also entails a greater amount of work on the medical officers, it entitles them to ask for additional compensation. The chief point is, however, that there ought to be no difficulty in ascertaining what the fixed number of army medical officers in each rank of the service is; and there is at present a great difficulty in reconciling the statement on this head by the Secretary of State for War with the statement set forth in the Army Estimates. Can it be that Mr. Hardy, in speaking of the number of medical officers being in excess, refers to an excess over the number which he intends to be that of the future establishment of the army medical service? If so, the contemplated future strength of the department ought to be made known. At any rate, it is clear that the strength on the full-pay list has been reduced by twenty-six officers during the past twelve months.

### NAVAL MEDICAL APPOINTMENTS.

**Blake**, Surgeon F. W., to the Royal Marine Artillery Division at Portsmouth.
**Dick**, Surgeon James N., additional, to the *Fisgard*.
**MacClinton**, Surgeon W. F., to the *Duke of Wellington*.
**Negus**, Surgeon Fysher, to the Portsmouth Dockyard.

## UNIVERSITY INTELLIGENCE.

### UNIVERSITY OF CAMBRIDGE.

Scholarships in Gonville and Caius College.—The Open Scholarship in Natural Science at this College, of the annual value of £60, has been adjudged to Edmund J. Legg of Dulwich College.—*Proxime accesserunt.*—W. Wellington Lake, St. Thomas's Hospital; William Stone, Clifton College. In consequence of the indisposition of Dr. Drosier, senior fellow, Dr. Bradbury has, for the present undertaken the duties of medical lecturer in the College.

## MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen passed their primary examinations in anatomy and physiology at a meeting of the Court of Examiners on the 6th inst., and, when eligible, will be admitted to the pass-examination:

Messrs. William J. Cant, Charles L. Williams, Alfred Pratt, and Cordley Bradford, students of the Birmingham School; Percy A. Steedman, Thomas H. Gillam, Alexander R. Anderson, and Ernest H. Walter, of St. Bartholomew's Hospital; William J. Pycock, B.A. Cantab., and Edward J. Wood, B.A. Cantab., of the Cambridge School; Henry J. D. Innes, and Oscar Tottie, B.A. Cantab., of St. George's Hospital; Henry Davey, and Frederic H. Berry, of Guy's Hospital; Edward S. Morgan, and Arthur Hemsted, of University College; Basil H. Walker, John G. Clark, and Major Greenwood, of the London Hospital; Gilbert S. Griffiths, and Thomas James, of the Middlesex Hospital; Graeme B. Fraser, and William L. Cox, of St. Mary's Hospital; Bernard J. Newmarch, of King's College; Wm. L. O. Williams, of the Glasgow School; Joseph Wiglesworth, of the Liverpool School; Francis F. Willis, of the Manchester School; Clarke K. Morris, of St. Thomas' Hospital; Robert N. Hartley, of the Leeds School; Hayward Whitehead, of the Charing Cross Hospital; and Cecil Henderson, of the Bristol School.

The following gentlemen passed on the 7th inst.:

Messrs. James Rose, William Gillibrand, Walter Barber, and Roger H. Jones, of the Liverpool School; Hamilton Lighton, B.A. Cantab., Thomas E. Morgan, and George R. Turner, of St. George's Hospital; William M. Hope. William J. Frankish, and Edwin Hughes, of University College; John C. Uhthoff, John W. Meek, and Peter Horrocks, of Guy's Hospital; George H. Sidebotham, John Ferguson, and Albert Andrew, of the Manchester School; Frederick W. Giles, and John H. Battye, of St. Thomas's Hospital; Cæsar F. Hawkins, and Edward Berdoe. of the London Hospital; Walter J. Milles, and Edgar Thurston, of King's College; Robert H. A. Schofield, and William J. Haines, of St. Bartholomew's Hospital; William Leah, of the Birmingham School; Frank S. Boreham, of the Charing Cross Hospital, and Frederick Bellaby, of the Middlesex Hospital.

The following gentlemen passed on the 8th inst.:

Messrs. William Dunstan, William Lane, John Morgan, Edward C. Greene, and Joseph Hammersley, of Guy's Hospital; Thomas E. F. McGeagh, James J. Jones, James W. Browne, and Frederick L. Benham, of University College; Charles E. Sheppard, Robert J. Mills, Francis H. Weekes, and George W. Robinson, of St. Thomas's Hospital; Harold G. Taylor, Frederick De Caux, Edmund H. Howlett, and Arthur G. Blainfield, of King's College; Percy Kidd, B.A. Oxon., William B. Clarke, Thomas Wilmot, and Edward E. Cripps, of St. Bartholomew's Hospital; William E. Luscombe, Charles J. R. Owen, and Henry L. Webb, of St. Mary's Hospital; Arthur Bennett, Robert E. Inman, and Charles A. S. Ling, of the London Hospital; Hardwick Le Cranier, and Francis Goodchild, St. George's Hospital; and Samuel A. Clinton, M.D., New York, and Arthur R. Davis, of the Middlesex Hospital.

## MEDICAL VACANCIES.

The following vacancies are announced:—

AXMINSTER UNION—Medical Officer and Public Vaccinator for the District comprising the southern parts of the Parishes of Membury and Chardstock. Salary, £23 : 6 : 8 per annum, and fees. Applications on or before the 14th inst.

BARTON-UPON-IRWELL UNION—Medical Officer for the Cadishead District. Salary, £25 per annum.

BETHLEM HOSPITAL—Two Resident Medical Students.

BOLTON UNION—Medical Officer for the Horwich District. Salary, £30 per annum.

BRADFORD INFIRMARY AND DISPENSARY—Physician. Applications to be sent on or before June 12th.

BRADFORD MEDICAL AID ASSOCIATION OF FRIENDLY SOCIETIES—Surgeon. Salary, £200 per annum, with fees, house, gas, etc. Applications on or before the 21st instant, to Mr. W. B. Cawthra, 18, Newington Street, City Road, Bradford.

BRISTOL ROYAL INFIRMARY—Dispenser. Salary, from £100 to £120 per annum. Applications on or before the 12th instant.

BURTON-ON-TRENT UNION—Medical Officer for the Etwall District. Salary, £70 per annum.

CALNE UNION—Medical Officer. Salary, £200.

CHELTENHAM GENERAL HOSPITAL AND DISPENSARY—Honorary Medical Officer at the Branch Dispensary. Applications on or before the 17th instant.

DOVER UNION—Medical Officer for the St. Mary's District and the Workhouse. Salary, £180 per annum.

DUNDEE ROYAL INFIRMARY—Resident Medical Superintendent. Salary, £200 per annum, with board, lodging, and washing. Applications on or before the 21st instant.

GRAVESEND AND MILTON UNION—Medical Officer for the Milton District. Salary, £70.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton—Two Physicians. Applications on or before the 14th instant.

LIVERPOOL ROYAL INFIRMARY—Resident Medical Officer. Salary, £100 per annum, with board, lodging, and washing. Applications on or before April 10th.

METROPOLITAN FREE HOSPITAL, Devonshire Square, City. Assistant House-Surgeon. Applications on or before the 12th instant.

MILFORD UNION, co. Donegal—Medical Officer for the Ramelton Dispensary District. Salary, £100 per annum, and fees.

NEWBURY UNION—Medical Officer for the Fifth District.

NEWMARKET UNION—Medical Officer for Nos. 1 and 3 Districts. Salary, £85 per annum.

ORTH BIERLEY UNION—Medical Officer for the Workhouse. Salary, £90 per annum, and fees. Applications on or before the 13th instant.

ROYAL INFIRMARY FOR WOMEN and CHILDREN, Waterloo Bridge Road—Physician.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY—Assistant House-Surgeon. Salary. £65 per annum, with board, lodging, and washing.

SOLIHULL UNION—Medical Officer for the Solihull District. Salary, £44 per annum.

TORBAY INFIRMARY—House-Surgeon. Salary, £100 per annum, with board and lodging.

WIRRALL UNION—Medical Officer for the Upton District. Salary, £30.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL—House-Surgeon. Salary, £100 per annum, with board, washing, and furnished apartments. Applications on or before May 3rd.

## MEDICAL APPOINTMENTS.

*Names marked with an asterisk are those of Members of the Association.*

CARTER, Charles H., M.D., appointed Physician to the Hospital for Women.

COLLINS, Walter H. G., M.B., appointed Assistant House-Surgeon to the Swansea Hospital.

CUMMING, Hugh G., F.R.C.S.Eng., appointed House Surgeon-Apothecary to the Devon and Exeter Hospital, vice E. J. Domville, L.R.C.P., resigned.

HEARN, Richard T., M.B., appointed House-Surgeon to the Dorset County Hospital, *vice* H. B. L. Smith, M.B., resigned.

HOLLAND, Edmund, M.D., appointed Assistant-Physician to the Hospital for Women.

LEDIARD, Henry A., M.B., appointed Medical Officer to the Central London New District Sick Asylum, Cleveland Street.

ODLUM, D. C. G., M.B., appointed Assistant Medical Officer to the Durham County Lunatic Asylum, Sedgefield.

PARKHOUSE, Henry, M.R.C.S., appointed Senior Resident Medical Officer to the Kilburn Dispensary, *vice* S. T. Cass, L.R.C.P.Ed., resigned.

PARKES, Alfred, M.R.C.S.E., appointed House-Surgeon to the District Hospital, West Bromwich, *vice* J. Johnston, M.B., resigned.

REID, Watson, M.B., appointed Resident Medical Officer and Secretary to the West Norfolk and Lynn Hospital, *vice* C. E. Priestley, L.R.C.P.Ed., resigned.

SMITH, Richard T., M.D., appointed Assistant-Physician to the Hospital for Women.

TOOZE, A. S., M.R.C.S.Eng., appointed House-Surgeon to the Seamen's Hospital, Greenwich, *vice* J. Glanvile, M.R.C.S.Eng., resigned.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication*

### MARRIAGE.

COWERS—BAINES.—On the 6th instant, at East Parade Chapel, Leeds, by the Rev. E. R. Conder, M.A., W. R. Gowers, M.D., of 50, Queen Anne Street, Cavendish Square, London, to Mary, second daughter of Frederick Baines, Esq., Westwood Lodge, Leeds.

### DEATH.

TYLEY.—On February 28th, at South Bank, Wedmore, Somerset, Elizabeth, the dearly beloved wife of Richard Purnell Tyley, M.D., and only surviving daughter of Joseph Wollen, Esq., J.P. aged 38.

## OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY ......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Roya Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.

FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

## MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Mr. Churton, "A Case of Accumulation in the Ascending Colon, followed by Spasm of Larynx, in an Infant"; Dr. Edwards Crisp, "On Croup and Diphtheria, with recent illustrative Cases"; Staff-Surgeon L. H. J. Hayne, R.N. (communicated by the Secretary), "An Account of an Epidemic of Enteric Fever which occurred on board H.M.S. *Doris* in the West Indies in 1873".

TUESDAY.—Royal Medical and Chirurgical Society, 8 P.M. Ballot.—8.30 P.M. Mr. Acton, "On the Comparative Prevalence and Severity of Syphilis among Troops in London, Paris, and Brussels".

WEDNESDAY.—Epidemiological Society, 8 P.M. Dr. Seaton, "On the International Sanitary Conference at Vienna".—Hunterian Society, 8 P.M. Dr. Pye-Smith will introduce the subject of Hodgkin's Disease (Leukæmia).

THURSDAY.—Harveian Society, 8 P.M. Mr. George Field, "Cases in Aural Surgery".

## NOTICES TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

M. S.—We do not advise on such subjects. Any respectable practitioner may be consulted.

### TAR PILLS.

SIR,—With reference to Mr. R. R. Cheyne's query in your last week's JOURNAL, I beg to inform your readers that tar can most conveniently be made into pills by the following formula:—Take of tar two grains; lycopodium one grain; mix to make one pill. These proportions form a mass which can be moulded into pills readily, but the mass improves and becomes firmer if kept a few days before rolling out. Two parts of liquorice powder, added to three parts of tar, make a tolerably good mass. Flour, as recommended by Dr. Garrod, does not answer well. But the most elegant and palatable form of administering tar is that of the gelatine globules (containing on an average about two and a-half grains in each), prepared by M. Thevenol, of Dijon. They have no odour, are perfectly soluble, and can readily be taken by the most fastidious.

While on the subject, I desire to add a word of caution about the use of calcined magnesia as an excipient for forming tar into pills. One part of it added to three parts of tar makes a soft mass, which soon hardens, and can be moulded into pills. Pharmaceutically, they are all that can be desired, but the creasote and resinous acids contained in tar form compounds with magnesia, which are so insoluble that they are passed by the patient undissolved. They can even be boiled in water withuot losing much of their globular shape. The same remarks apply to creasote itself—many dispensers find a little calcined magnesia, or slaked lime, answers admirably for this substance in forming it into pills; but if genuine creasote be used, the pill so made are as insoluble as marbles.—I am, Sir, yours faithfully,

10, New Cavendish Street, W., March 29th, 1875. WM. MARTINDALE.

MR. GLISSAN (Brynmawr).—A man holding the single qualification M.R.C.S.E., 1857, cannot legally charge for attendance and medicines in purely medical cases. No one can prevent him from attending medical cases, but he cannot receive payment for such attendance

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

### An Appeal.

SIR,—An appeal is earnestly made on behalf of the widow of the late George D. Dermott, the well known lecturer at the School of Anatomy, in Charlotte Street, Bloomsbury.

Mrs. Dermott is 73 years of age, and is suffering from defective sight and many bodily infirmities, which require more attendance and comforts than the small income she possesses can procure. It is, therefore, hoped that by the liberality of the profession, and especially of the friends of her late lamented husband, a sum may be raised which will be sufficient to place her, for the brief remainder of her life, in more comfortable circumstances.

Thirty years have now passed away since the death of Mr. Dermott, but doubtless there are many of his pupils still living, who on noticing this appeal, will willingly add their contributions. The following sums have been promised :

| | | | |
|---|---|---|---|
| Sir W. Jenner, Bart. .. .. .. .. | £5 | 5 | 0 |
| Sir H. Thompson .. .. .. .. .. | 5 | 5 | 0 |
| Dr. Dow, Bayswater .. .. .. .. | 1 | 1 | 0 |
| Dr. George Ross, Bloomsbury .. .. .. .. | 2 | 2 | 0 |
| J. Roche Lynch, Esq., Notting Hill .. .. .. | 2 | 2 | 0 |
| W. M. B. C. .. .. .. .. .. | 1 | 1 | 0 |

Further contributions will be thankfully received and acknowledged by Dr. George Ross, 11, Hart Street, Bloomsbury ; or by the undersigned,

J. ROCHE LYNCH, L.R.C.P. (Lond.),

41, Chepstow Villas, Notting Hill, W.

MR. VAN H.—You will find a long and interesting account of Evolution of Light in the Human Subject, by Sir Henry Marsh, in the *Dublin Journal*, vol. xxii, page 133.

### Fees for Police Cases.

SIR,—Your powerful advocacy of the cause of medical men against the tyranny of magistrates and others, encourages me in bringing before you the following case, which, in my opinion, ought to be made public, in order to be a lesson to others. At the end of December last, I was house-surgeon to the Carmarthenshire Infirmary, which post I had held for eighteen months. A few days before my leaving, I was asked by the police to give evidence in the case of a woman who had been under my care in the Infirmary. Having taken the precaution to be summoned by the superintendent in the usual way, I attended at the court and gave my evidence. A day or two afterwards, I called at the clerk's office for the fee, and was told by his deputy that I was entitled to a fee, but that there was none ordered. He then said he would bring the matter before the magistrates at their next sitting, and asked me to call again. I did so, and was this time requested to make an application in writing for it. As I was on the point of leaving the town for London, I made that application from here. After having waited for an answer for more than a fortnight, I wrote again to the clerk, telling him what I had done, and renewing the application. After another considerable delay I received a letter, dated February 13th, 1875, enclosing another letter dated February 6th, 1875, which had been misdirected. In the latter, I was informed that "It is not usual to allow any fee for attending as a witness in police cases if the witness live in town", but that the case would be mentioned to the bench, etc. In the other letter (February 13th), I was told that the case had been mentioned, and that "they declined to make an order".

On the advice of a medical gentleman of considerable experience in these matters, I wrote to the Secretary of State, enclosing a copy of the correspondence. I received a reply that the subject would be "fully considered". A few days later I received another letter, stating that the Secretary of State had "no power to order such fee to be paid". That is the whole of the case, and it speaks for itself. The amount of the fee is insignificant compared with the principle involved. What greatly aggravates matters, is the fact that two of the magistrates for the borough of Carmarthen are medical men.—Yours truly, RICHARD WILLIAMS.

22, Percy Circus, W.C., March 23rd, 1875.

PSYCHOLOGIST.—Our immortal Shakespeare truly says :

"Grief best is pleased with grief's society ;
True sorrow, then, is feelingly surprised
When with like feeling it is sympathised."

### Use of Sal Ammoniac.

SIR,—Will any of your correspondents favour me with their experience of the use of ammonium chloride (sal ammoniac, N $H^4$ Cl.)? I have used it in cases of flatulent distension of the stomach and upper part of the alimentary canal, combining it with dilute nitro-hydrochloric acid (minims 10 to 15), and have apparently had good results in many cases, when the acid alone failed to give relief. The dose I usually give is fifteen grains two or three times a day. I have found it most useful in those cases where there has been a furred tongue, with enlarged and irritable circumvallate papillæ, with more or less constipation of the bowels, tasteless eructations, and what patients call a "stomach-cough". It appears to act slightly as a cholagogue, increases the mucous secretion of the bowels, and allays the irritable cough which is often present in cases of dyspepsia, when no physical signs of bronchial or laryngeal irritation can be heard. It appears to me to be useful in those cases of dyspepsia which are brought on by excessive smoking, and which are very numerous in the practice of A YOUNG DISPENSARY SURGEON.

F.R.S.—Mr. Frank Buckland is a son of the late Dean of Westminster, and a member of the College of Surgeons.

E. R.—It was Terence who said, "Nostræ virgines—si bono habitu sunt, matres pugiles esse aiunt, et cibum deducunt." In some countries, however, moderate obesity is considered a beauty. If *embonpoint* is generally a sign of good humour and a cheerful disposition, "scragginess" frequently betokens a sour, crabbed, and ill natured character. Solomon has said, "A merry heart doeth good like medicine, but a broken spirit drieth the bones".

ASSOCIATE, KING'S COLLEGE.—The portrait of Sir William Fergusson is now in the possession of the College of Surgeons : the engraving from it is finished, and we believe that subscribers will receive their copies shortly. Write to Surgeon-Major Logie, Knightsbridge Barracks.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

### Tincture of Capsicum in the Treatment of "Tippling".

A CORRESPONDENT of *Land and Water* throws out some suggestions to alleviate, if not cure, "tippling in private life." He says : Of course, as a rule, moral means, such as persuading or frightening the patient, are futile. Dr. Ringer, in an able article in the BRITISH MEDICAL JOURNAL in 1871, advocated the use of capsicum, "given in doses of the tincture (ten drops), or the powder, twenty grains to be taken before meals, or whenever depression or craving for alcohol arises." It also induces sleep in early stages of delirium tremens. It obviates the morning vomiting, removes the sinking at the pit of the stomach, the intense craving for stimulants, and promotes appetite and digestion. This treatment I have tried with great success in several cases, and in one in particular, that of a young man, whom no one by any means in their power could possibly keep from tippling. Shut up the spirits, he had a key made on the quiet, while his wife was away for a day—of course he sent her. Take away his money, he would "tipple" on credit. He came under my care for bronchitis. I soon heard of his propensity, and tried Dr. Ringer's treatment. I began by giving him five drops of the tincture in a little syrup of orange-peel, and some orange bitters, and increased the dose of capsicum to twelve drops. He rapidly improved, and at the end of a month he was quite another man. He was no longer to be seen in a half muddled state, hanging about the low cabarets and taverns by himself, but every day walking out with his wife, and taking an interest in all that was going on. He left here for England about three months afterwards, and I have since heard that he still takes to his bottle (the capsicum bottle) whenever he feels inclined to indulge in the other sort of "tincture". Another case was that of a lady, over forty years of age, but not so successful as the one above cited. Of course, it is a great thing to wrap up the capsicum in a convenient vehicle, and the above suggested to me by M. Dutertre, the well-known pharmacian of our town, is, I think, as good a form as any.

AN OLD MEMBER.—There are fine collections of medical portraits in the possession of the College of Surgeons and the Royal Medical-Chirurgical Society, the nucleus of which was collected by the unfortunate Mr. Fauntleroy, the banker of Berners Street, who was hanged at the Old Bailey for forgery.

### Maternal Impressions.

A FEW years ago, I attended a Mrs. S., wife of the manager of an equestrian troupe then exhibiting here—herself an active, wiry, and exceedingly clever horsewoman. I was with her nearly all night. Her delivery was very painful and difficult, owing to curious malformations of the two upper extremities. It was a footling presentation and a first child. The child, a male, was delivered alive, and some time since the mother informed me that it was an interesting, clever child, now being reared and educated in a private establishment. The child was healthy and well-developed, with the following exceptions : the nose, that is, the alæ and point of the nose, was of a rosy-red, looking as if carefully painted ; this did not appear to spoil the face, which might be pronounced handsome. The forearm of one upper extremity terminated abruptly about an inch below the elbow-joint, and ended in an index finger, capable of perfect flexion and extension. The other upper extremity terminated, also abruptly, exactly midway between the shoulder and elbow-joints, and was likewise completed with a perfect index finger. It was the shape of these limbs that caused all the difficulty and pain, and puzzled me much when delivering her. I am not aware of any of the other women of the troupe being similarly or at all impressed. I think it likely that it is only certain women can be impressed, and that at some certain period of utero-gestation. I have met with cases of face-marks, etc., which the mothers traced to some particular circumstance that shocked or impressed them when pregnant, but these are not new to any obstetrician. However, I will not go so far as a friend of mine, who once told me that such a lady was such a day delivered of a bouncing boy with a wooden leg, and a good iron ferrule thereon—because a neighbour whom she was in the habit of meeting had the misfortune to stamp about on such a contrivance.

Yours faithfully, W. HENRY SANDHAM, M.R.C.S.Eng.

Cork, 20th March, 1875.

### Acid Dyspepsia.

SIE,—In the JOURNAL of March 30, L.R.C.P.Edin., asks if any one can tell him some remedy for a case of acid dyspepsia which appears so far to have baffled him. I think I can help him in the matter if he will only adopt my suggestion, which is to give his patient small doses of dilute sulphuric acid, say three drops four times a day in a half wineglassful of water. I attach importance to its being given thus plainly and without any admixture of other drugs. I have treated with unfailing success several hundreds of such cases, whether arising from dyspepsia pure and simple, or complicated with cardiac disease. L.R.C.P.Edin. should remark the dose, which is probably smaller than he has ever used ; but if he give the sulphuric acid in the ordinary doses, he will most likely find himself in the same predicament as a practitioner who recently was treating a patient with ten-grain doses of iodide of potassium three times a day, and noticing as a result, severe "cephalalgia" and "fluent coryza", was driven to inquire if any one can tell him "how he might obtain the therapeutical effects of the drug without producing such severe physiological action" !—I am, etc.,

CHARLES ROBERT FLEURY,
M.D. (Exam.) Erlang., L.R.C.P.Lond.

P.S.—I have assumed that the diagnosis is correct when L.R.C.P.Edin. states that the pain after food arises from "intense acidity" ; hence the confidence with which I recommend sulphuric acid. Should the case, on the other hand, be one of "gastrodynia", from irritation of mucous membrane without any positive evidence of acidity, I would urge L.R.C.P.Edin. to give his patient one-minim doses of liquor arsenicalis four times a day, half-an-hour after food ; five grains of Bullock's pepsine directly after food will help. The patient should be prohibited from the use of solid food for a few days, giving instead, Brand's essence of meat, chicken-jelly, egg-yolk, etc. Stimulants are hurtful.

### Malaria,

SIR,—Dr. Donaldson, in his letter to you, has, like many other of your correspondents, confounded things together, and reproached me with the confusion. It is not by any means the first time that I have been represented as saying certain things, and then made the butt of tiny shafts of small satire for propounding nonsense. I certainly have never, like Dr. Donaldson has done, confounded a contagious fever with one of so-called malarious origin. Most readers of army and other reports are aware that in hot countries there appear to arise, no one knows how, such formidable diseases as cholera, and that commonly called "yellow fever". Not having any definite information as to their nature, these complaints have been—provisionally—attributed to "telluric" influences. But we recognise them as wholly distinct from ague and non-contagious remittents. We know that when once produced they spread both by infection and contagion, and reach parts of the globe wholly different from that from which they sprung.

When the army or navy medical adviser has to manage either of these formidable complaints, he adopts, as far as possible, a plan analogous as that adopted at Labuan, mentioned by Dr. Donaldson. We do not yet know the original cause of typhus, typhoid, relapsing, fever, dysentery, variola, scarlatina, measles, leprosy, cholera, Asiatic and European, and in these days it is the endeavour of arm-chair philosophers to disentangle the innumerable involved threads of imperfect, insufficient and wholly worthless assertions, and to inquire into what is really the cause of such common complaints as catarrh, influenza, the fever spoken of as ague, and non-contagious remittents, as well as of the others before named. As I pointed out in a former note to you, we shall not arrive at a definite knowledge of any one of the causes which we seek to discover, by preferring "the rule of thumb" to the use of brains,

Dr. Oldham has pointed out, in a singularly practical book, that certain causes are capable of producing certain definite effects, and that certain other causes, supposed to be powerful agents, are inoperative to produce those effects, unless they are attended with the first class. All his observations are drawn from military and naval reports and personal observations, and he unquestionably deserves the credit of being the first author who has treated the subject of malaria in a strictly logical manner. In that work, which it would do Dr. Donaldson good to peruse, he distinctly limits his observations to the non-contagious agues and remittents.

The study of these is quite distinct from that of the complaint which Dr. Donaldson found at Labuan: the two are as different as "tertian" and "typhus".

I am surprised that the very practical surgeon-major of the medical staff of the Madras army did not, apparently, recognise the difference, when he saw it. In this case, I fear any arm-chair philosopher would have been more than a match for him.

The rest of the doctor's letter does not deserve notice.—I am, etc.,

THOMAS INMAN, M.D.

### MEDICAL TITLES AND DEGREES.

*M.D. or Physician?—"That is the question."*

SIR,—In the last number of your publication, containing Sir W. Jenner's able address, I find him styled *Physician* in Ordinary, etc., also *Physician* to University College Hospital. The worthy baronet also, in his practical address, employs the word *physician* four different times, including himself once, where he states, "The Presidentship of the Clinical Society is, in my estimation, one of the highest honours that can be bestowed upon a *physician*." Again, Sir William adds that, "friends advise him (a patient) to consult a *physician*." The learned President then remarks, "nor would medicine as a practical science fail in public estimation, or the *physician* be less highly esteemed, were the public instructed, etc."; and as a conclusion, observes that "the *physician* in such cases is likened to the physicist who, though he cannot prevent the discharge from the electric-laden clouds, can yet save," etc.

Now, sir, from the above quotations, I ask whether the above italicised repeated expressions are intended as a little joke upon some of the St. Andrew professors, teachers, or doctors of medicine, or rather to include some of those practitioners who, after a long period of general practice, have properly qualified themselves as physicians, in order that they may then combine a little more *otium cum dignitate*?

I will not weary your readers with repetitions of what has been stated upon this vexed question, but conclude by asking a simple question or two, with a view of aiding to solve it. In these liberal days, for the purpose of satisfying the majority, must we not submit, in this free land, to allow a discerning public to call or designate us what they like, or rather what they will? Can we divide ourselves in these gallant days into three classes, viz., 1. The professor, teacher, or doctor of medicine (doctor medicinæ); 2. The lady physician, as medicinæ docta; and, 3. The gentleman physician, as medicinæ doctus?

I have here placed, or rather misplaced, the lady's position before the gentleman's. The rule in my Latin grammar says, that the masculine is more worthy than the feminine, although I cannot say from my experience that I bow in this instance to the *propria quæ maribus* authority. I leave the doctors and doctoresses of *music* to distinguish themselves from doctors of medicine as they think best.—I remain, Sir, your humble subscriber, 'Αποτέθηκα

Lincolnshire, March 29, 1875.

SIR,—A communication from Dr. Brown, of Rochester, in the last number of the JOURNAL, announces his intention of bringing before the annual meeting of the South-Eastern Branch of the British Medical Association, and his hope that similar action may be taken at the annual meetings of the other branches, the proposition, "That in the opinion of this meeting, the title of 'Doctor' ought to be accorded to all registered members of the profession, as an act of courtesy, and in agreement with general usage on the part of the public."

This question of titles has grown into importance, and has been the subject of much correspondence in the medical journals. But I hold that it is beyond any immediate or direct legal action from within the profession, and even beyond any such action on the part of the public. Titles are necessarily granted by the Crown, or obtained from such authorities as are delegated by the Crown to confer them. The title of Doctor is an university degree, the granting of which has been delegated to the respective universities under Royal Charter. If the Queen should see fit to grant such a power to any association, or college, or any official person or persons, the title conferred would of course be legal. Otherwise it cannot be legal; and if not legal, then necessarily without value. No college of physicians has been vested with the power of conferring any title beyond that of Licentiate, Member, or Fellow. The London College of Physicians has even ruled that it will not recognise any such assumption. Any other title might be as reasonably assumed without authority from the Crown. I am unable to see, if some distinction is considered to be necessary as a prefix to the name of an individual, that the old and disused custom of prefixing the word "Surgeon" should not be revived, or why those deriving their qualification from a college of physicians, should not, if they think fit, prefix the word physician. If the legal position be held to be wrong, let efforts be made by those who think so to induce "the powers that be" to extend the privilege of granting this degree; and until such extension is granted, it is surely only right that a title which is not legal should cease to be assumed. In the meantime, every registered practitioner has the same rights, and the question of relative rank or distinction is really referable to individual character, merit, and success, and may be truly said to depend as little as may be on the medical title that may have been obtained. I should be concerned to find the short time necessarily allowed to the meetings of the Association in any degree occupied in a discussion, the outcome of which could only be a proposition to enlarge, and so far invalidate, the privileges and powers of the Universities, and and which could be attended with no commensurate advantage to the members of the profession.—I am, Sir, WILLIAM HENRY ROBERTSON, M.D., F.R.C.P.

Buxton, Derbyshire.

### CORONERS' INQUESTS AND POST MORTEM EXAMINATIONS.

DR. E. HOLLAND suggests the division of all cases of death concerning which the propriety of an inquest becomes a question into three classes; a *post mortem* examination being always regarded as a necessary supplement, not only in the interests of truth and fact, but for the elucidation of mystery and the furtherance of useful pathology. The classification which he proposes is as follows.

1. Cases in which inquests are desirable and necessary.
2. Cases in which inquests are not desirable or necessary.
3. Doubtful cases, to be eventually included in one or other of the preceding classes.

As illustrations of Class 1, he selected all cases of sudden deaths directly or indirectly resulting from accident, violence, poisoning, or *obvious* negligence; all sudden deaths of persons away from their homes; all sudden deaths in individuals who have not been previously attended by a duly qualified and registered medical practitioner; all sudden deaths in infants out at farm, and sudden deaths from overlying; all infants found dead, whether premature or not; and all deaths (sudden or otherwise) that appear medically mysterious or tangibly suspicious; and, finally, those cases in which the survivors desire an investigation solely to clear themselves of unjust and malicious imputations.

As illustrations of Class 2, he mentions all cases of natural decease in which the patient is seen alive, but dies rapidly with the recognisable symptoms of known disease; patients suddenly succumbing in midwifery practice from hæmorrhage or embolism, in properly qualified hands; sudden deaths at their own homes in chronic cases that have been previously under treatment, where the surroundings are such as are consistent with natural decease, and where there is no ground for suspicion; and, finally, all deaths from natural disease in the hands of legally qualified and registered medical practitioners.

In Class 3, he placed all sudden deaths in anæsthesia, where the anæsthetic has been administered by a duly qualified person, and in the presence of a second; all deaths under operations, or resulting therefrom, when the operation is undertaken with consent, and performed by a properly qualified surgeon, and in the presence of a second; sudden deaths from spasm of the glottis where there is a history of previous attacks; and sudden deaths from atelectasis pulmonum in infants who manifested the condition at their birth, and who, after lingering a few weeks, die suddenly without being seen by a medical man.

DR. C.—From the last annual report of the receipts and expenditure of the College of Surgeons, it appears that the former amounted to £16,596 5s. 11d., and the latter to £12,672 14s. 5d.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Croydon Chronicle; The Newcastle Daily Journal; The Derby and Chesterfield Reporter; The Hampshire Telegraph; The Newton Directory; The Hereford Times; The Hackney Express; The Liverpool Mercury; The Glasgow Herald; The Birmingham Daily Post; Saunders' News Letter; The Sheffield Daily Telegraph; The Bath Argus; The Berkshire Chronicle; The Cork Constitution; The Exeter and Plymouth Gazette; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—Mr. O. Lousley, Reading; Mr. R. H. Smith, Manchester; Mr. J. H. Joy, Tamworth; Rev. H. W. Waddy, Gloucester Dr. J. Coats, Glasgow; Dr. W. T. Gairdner, Glasgow; Dr. G. H. Philipson, Newcastle-on-Tyne; Dr. Inman, Clifton; Dr. J. B. Russell, Glasgow; Dr. Taaffe, Brighton; Mr. A. Meek, Devizes; Dr. W. Handsel Griffiths, Dublin; Mr. H. J. Puckle, London; Dr. A. B. Steele, Liverpool; Dr. T. Keith, Edinburgh; Mr. Jas. Foulis, Edinburgh; Our Dublin Correspondent; Mr. W. E. Poole, London; Dr. A. Vintras, London; Mr. E. J. Adams, London; Mr. L. Holland, Windsor; Mr. Oliver Pemberton, Birmingham; Mr. D. Watkin Hughes, Wymondham; Mr. W. Stewart, Barnsley; Dr. E. Hamilton, Dublin; Dr. Finlayson, Glasgow; The Registrar-General for Ireland; Mr. E. R. Morgan, Neath; Dr. J. W. Cousins, Southsea; Dr. Munro, Cupar Fife; Mr. J. L. Nairne, Crosshill; Mr. J. W. Grove, London; Mr. Ashton Warner, London; Dr Syson, Huntingdon; Dr. Britton, Halifax; Dr. Whitelaw, Kirkintilloch; Mr. T. W. Jackson, Cardiff; Mr. G. Griffith, London; Mr. James Todd, Carlisle; Dr. A. S. Myrtle, Harrogate; Mr. Thos. McClure, Weston-super-Mare; Dr. Sheen, Cardiff; Surgeon-Major Oldham, Punjaub; Dr. R. Brown, Dublin; Mr. R. W. Jolly, London; Mr. H. C. Burdett, Greenwich; Our Edinburgh Correspondent; Mr. J. Roche Lynch, London; Dr S. Martyn, Clifton; Dr. Ramskill, London; Dr. H. Charlton Bastian, London; Dr. Squire, London; Dr. Bowles, Ilkeston; Mr. Stainer, Ilkeston; Dr. Edis, London; Mr. Southam, Manchester; Mr. A. D. Madden, Clavering; Mr. G. H. Bishop, London; Dr. C. Parsons, Dover; Mr. C. Hartley, Linton; Dr. J. Dewar, Arbroath; Mr. W. Stanfield, Leeds; Mr. C. E. Lyster, Liverpool; Mr. T. B. Henderson, Glasgow; Mr. T. C. Gresham, Cork; Surgeon-Major Mitchell, Colchester; Mr. W. Daniel, Wareham; Mr. E. C. Board, Clifton; Dr. F. Oppert, Berlin; Dr. A. M. Robertson, Glasgow; Dr. Procter, York; Dr. J. Sawyer, Birmingham; Surgeon-Major Preston, Aldershot; Dr. Lorimer, Buxton; Mr. Eastes, London; Dr. T. J. Preston, London; Dr. J. Smyth, Naas; Dr. J. Macnaughton, Lochgilphead; Mr. W. A. Parsons, Warwick; Mr. R. Lord, Crewe; etc.

## BOOKS, ETC., RECEIVED.

Year Book of Pharmacy, and Transactions of the British Pharmaceutical Conference, 1874. J. A. Churchill, 1874.

# AN ADDRESS

ON THE

# RELATION OF PUERPERAL FEVER TO THE INFECTIVE DISEASES AND PYÆMIA.

*Delivered before the Obstetrical Society of London, on Wednesday, April 7th, 1875.*

By T. SPENCER WELLS, F.R.C.S.,
Surgeon to the Samaritan Hospital, etc.

In opening a discussion this evening on the relation of puerperal fever to the infective diseases which are among the most numerous class of cases treated by the physician and general practitioner, and to the varied forms of traumatic fever which, under the head of pyæmia, fall more frequently under the care of the operating surgeon than of the obstetrician, I wish particularly to impress upon all who honour me by their attention, that my object is rather to elicit than to impart information; to call forth the stores of knowledge now latent in the Society, to ask for the results of your observation, rather than to attempt to add to the knowledge of the Fellows by any contribution of my own.

It has been the custom of the Society in whose room we meet to stimulate the Fellows to enrich the *Transactions* by papers of original research and sterling value; to make this one of the chief objects of the Society; and, if not directly to discourage, certainly not to encourage, full or exhaustive discussions at the meetings. I have long felt, and have publicly expressed my conviction, that this course might be amended with great advantage to all medical societies, and to the advancement of medical science and practice; and I had some small share, in the earliest of the preliminary meetings of this Society—I may say even before the Society was constituted—in determining that in our *Transactions* there should be a permanent record not only of the papers read before the Society, but of the discussions to which the papers gave rise. This custom has ever since been honoured in the observance, and the example is now being followed by other societies. If I am not greatly mistaken, the discussion on Pyæmia in the seventh volume of the *Transactions* of the Clinical Society will be referred to hereafter with more interest and profit than any of the papers in that or in any of the earlier volumes of that Society's *Transactions;* and the discussion on Cancer in the twenty-fifth volume of the *Transactions* of the Pathological Society was most certainly as great an addition to the value of that volume as one could well imagine, until last night many of us heard the opening address of Dr. Bastian on a subject closely allied to some of the questions which I have to bring before you this evening, and the admirable speech of Dr. Sanderson in commencing the discussion, both full of deep thought, and eminently characteristic of the tendencies of our age and our nation to reject any theory which is not supported by facts, and to bring the highest developments of science to our help in the needs of daily life. These discussions lead to the almost painful reflection, how greatly would the value of the earlier volumes of the *Medico-Chirurgical Transactions* have been increased, if we had now not only a copy of the papers read, but a report of the comments they called forth from Baillie and Halford; from Cline, Cooper, and Abernethy; from Travers, Brodie, and Lawrence; from Bright and Addison. The marble busts of these great men of the past now surround us; but the workers of the present and the future can find no record of what they have said here, and can only regret that, while their form and features are preserved by the sculptor, their thoughts have not been embalmed by the reporter and the printer.

> "Who of us can tell
> What he had been, had Cadmus never taught
> To man the magic that embalms the thought?"

As I have reason to believe that the discussion this evening will be fully and accurately reported, and will be preserved in our *Transactions*, I must now ask you to pardon these few prefatory remarks, and also to forgive me if I venture to express the hope that, as the subject of puerperal fever is not of less interest than that of cancer, is closely allied with pyæmia and with the relation of bacteria to contagious and infectious diseases, it will be debated with as much ability and as complete freedom from any other than purely scientific and truthful feeling, as have characterised the discussions at the Clinical and the Pathological Societies.

If you permit me to consider what I have so far said as introductory, and to commence the subject of puerperal fever now, I hope I shall not encroach upon your time beyond the fifteen minutes within which limit I have tried to condense what I wish to say.

In order that some definite direction might be taken in this inquiry, attention has been already publicly requested to six leading questions. The first, second, and third are so closely allied, that I will, if you please, read them together now.

1. Is there any form of continued fever, communicated by contagion or infection, and occurring in connection with childbirth, which is distinctly caused by a special morbid poison, and as definite in its progress and the local lesions associated with it as typhus or typhoid, scarlet fever, measles, or small-pox?

2. May all forms of puerperal fever be referred to attacks of some infective continued fever—as scarlet fever or measles—occurring in connection with childbirth on the one hand; or, on the other, to some form of surgical fever, or to erysipelas, caused by or associated with changes in the uterus and neighbouring parts following the process of childbirth?

3. If all cases of contagious and infectious diseases which occur under other conditions than that of childbirth are set aside, does there remain any such disease as puerperal fever?

In framing these questions, after searching for an accurate definition of the term puerperal fever, or for some short description of this as distinguished from other forms of continued fever, I have taken, as the most accurate and comprehensive, the definition from the Nomenclature of Diseases drawn up by a Committee appointed by the London College of Physicians (for which definition I believe the Committee are indebted to Dr. Arthur Farre). It is this: "A continued fever, communicable by contagion, occurring in connection with childbirth, and often associated with extensive local lesions, especially of the uterine system." To this definition, this very important *note* is added: "In returning cases of puerperal fever, the more important local lesions, such as peritonitis, effusions into serous and synovial cavities, phlebitis, and diffuse suppuration, should be specified."

Here, then, we are led, on the authority of the most distinguished obstetric teacher of his day, supported by a committee appointed by the Royal College of Physicians of London, to the conclusion that in puerperal fever we have a contagious continued fever *often* associated with the important local lesions just enumerated; not *always*, but *often*. You may then, according to this definition, have this contagious fever without these local lesions. The poison may be so potent, or the dose so large, that it may kill before there is time for the development of the local lesion; or the dose may be so small, or the poison so feeble, that it only produces some transient elevation of temperature, some greater rate in pulse and respiration, some increased action of skin, kidneys, and bowels, and the morbid material is eliminated before any local lesion is established. But I must ask you to say if, in your experience, you ever saw such a case which could not, on careful inquiry, be traced to exposure of the patient to some one or other of the contagious or infectious fevers—to scarlet fever or diphtheria—to measles or small-pox? I need not remind you how these diseases are intensified or modified by the puerperal condition; and I proceed to ask if, in any case where puerperal fever could not be proved to be really scarlet fever, diphtheria, measles, or small-pox occurring in connection with childbirth, it was not a traumatic or surgical fever, erysipelas, pyæmia, or septicæmia; the local lesions associated with the fever assuming rather a primary than a secondary importance in the chain of sequence. Time does not permit me to enter on the very important practical question as to the sole dependence of erysipelas upon a specific morbid poison. Whether this peculiar inflammation of the skin and cellular tissue, tending to spread indefinitely and preceded or accompanied by fever, can arise from the spontaneous generation in the human body of a poison communicable by contagion; or, whether a poison capable of producing erysipelas exists at all times in varying quantity somewhere, ready to increase and multiply under favourable conditions; or, whether (as some believe) erysipelas may arise independently of any poisonous influence from without, we need not inquire now. The important fact for us now is, that erysipelas often attacks the parts concerned in the process of childbirth, and that the fever which accompanies it, intensified by the puerperal condition, is a very fatal form of one of the diseases confounded together under the term puerperal fever. Set aside the infectious fevers and erysipelas occurring in connection with childbirth; and then we come to the local lesions associated with puerperal fever, and we ask what relations this fever and the local lesions bear to each other. Bruises or tears of the genital canal or perinæum; inflammation, and the production of pyrogenic liquids or solids, which may contain both bacteria and some poisonous material or particles which have the power of impregnation; diphtheritic exudation on the mucous membrane of the uterus and vagina, especially on the place of the separated placenta, and plugging of the lymphatic vessels with granular masses or colonies of bacteria or spheroids; the rapid development and growth of plant-life, and the disturbance of function and alteration of structure which must follow; does all this arise under perfect sanitary conditions, spontaneously, or from mere chemical decomposition, or only when some poisonous agent is introduced from without—the seed of some plant sown in a fruitful soil?

Again, supposing inflammation is set up in the uterus, in its veins and lymphatics; that the albuminoid secretion known as the lochial discharge contains pus; that pus, or putrid material, or organic germs, are found in the lymphatic vessels of the uterus and the subperitoneal cellular tissue, with diffuse peritonitis; that the blood in the uterine veins clots, softens, breaks up, is the seat of chemical and vital change, is detained in or near the pelvis, or is carried away to distant parts, or alters the composition and properties of all the blood in the body; that we have purulent infection, or pyæmia—putrid infection, or septicæmia; can all this arise in a healthy woman, placed in favourable conditions, if she be not exposed to some morbid poison? Is puerperal fever ever a simple traumatic fever modified by this puerperal condition, or does it always and necessarily depend on the action of a morbid poison? Or, let me put the question in another form. Did you ever see a case of puerperal fever which was not really either a case of scarlet fever or measles, or some such infectious or contagious fever, or erysipelas? or a traumatic fever caused by the bruising or tearing of the parts concerned in childbirth, and the changes in the blood-vessels, blood, and lymphatics, following the injury? If you have seen such a case, then let us know something about the fever, its period of latency, its course and duration, and its termination; and especially tell us something about the poison which has been the cause of the fever.

Time does not allow me to do more than put the question. I await your reply, and pass on to the fourth, fifth, and sixth heads of our subject, which I will also read together. They are these.

4. Assuming that a form of continued fever—communicable by inoculation, contagion, or infection—does frequently occur in connection with childbirth, how can its spread in private and in hospital practice be most certainly prevented or checked?

5. What relation have bacteria and allied organic forms to the pyæmic process in the puerperal state?

6. What is the value of antiseptics in the prevention and treatment of puerperal fever?

And, to show the close connection of these with the previous questions, I must remind you that even those who admit that a tear of the perinæum, or a bruise of the vulva, by leading to inflammatory exudations around the vagina or uterus, or to clotting of blood in the veins, and consequent changes in the whole of the blood in the body, is quite sufficient to account for fever, which, aggravated by the puerperal condition, may lead to all the local lesions specified in the note to the official definition of puerperal fever—even those believers in the spontaneous or local origin of the fever, seeing the hundreds of cases where the injury is observed without the fever for every one where the fever is observed, and the prevalence of the fever in certain seasons and districts, and in the practice of certain surgeons or midwives,—still freely admit that it is only under some endemic or epidemic condition, or as a result of contagion or infection, that the ordinary wounds, or bruises, or tears, inevitable during the process of parturition, and commonly free from any serious consequence, become in exceptional cases so deadly.

It is especially in this direction that the knowledge of our country Fellows may be of the greatest value to us. In the practice of a large hospital, or in private practice in a large city or a thickly populated district, it is impossible to say that a patient may not have been exposed to some contagious or infectious disease. But, when isolated cases arise in private practice in the country, where any source of poisoning can be readily traced, the accurate record of such cases, their origin and course, and their arrest or extension, may be of incalculable value. A country surgeon attends a man who has erysipelas after a broken arm. He also attends a healthy woman in an isolated cottage in a natural labour. There is no puerperal fever in the district, yet this woman dies of puerperal fever, and so do others attended about the same time by the same surgeon. These women, in all probability, would have recovered in the ordinary course, had not erysipelas occurred in the man who broke his arm. Such a history as this would have tenfold weight, as being free from numerous sources of fallacy and doubt attending any similar history in a large city.

And, again, we cannot consider the mode of preventing the spread of puerperal fever without examining into the part which bacteria and other organic forms may play either as poisons or as carriers of poison. Here I must ask you to allow me to refer to a paper, which I read twelve years ago at Cambridge, on the Causes of Excessive Mortality after Surgical Operations. It may be found in the second volume of the *Medical Times and Gazette* for 1864. In that paper, I gave some account of Pasteur's researches on fermentation, on the organised corpuscles in the air, on spontaneous generation, and on putrefaction; sketching rapidly the results of some of his researches, to show the influence of the germs of the lowest organisms present in the atmosphere, especially bacteria and vibrios, upon animal bodies in health and disease, and on our tissues during life and after death, and especially upon the development of epidemic and contagious diseases. I also showed, from the observations of Angus Smith, Chalvet, Eiselt, and Réveil, that germs may be often found in the air of crowded rooms and hospital-wards, which only require favourable conditions for their rapid development.

Now that the influence of bacteria is beginning to assume a more general importance in pathological investigation, I must remind you of the account, which was published twelve years ago, of what I even then thought Pasteur's discoveries were leading us to. I may also say that, in the same paper, I gave some account of the relation of bacteria to splenic apoplexy in sheep; and referred to demonstrations of the presence of living germs in the air capable of reproducing contagious diseases, by Lemaire finding the achorion in the air which had passed over a scalp affected with favus, and by the experiments of Kennedy and Salisbury on the production of measles by the inoculation or inhalation of fungi given off from mouldy straw or linseed-meal. And then, in concluding that paper, after recording proofs—1. That the injection of a certain quantity of pus into the blood produces pyæmia and affections characterised by multiple abscesses; 2. That the injection of putrid matter produces septicæmia, or putrid infection, characterised by the symptoms of typhoid gastro-enteritis; 3. That the injection into the blood of the exudative materials in contagious diseases, as in glanders, produces the general contagious affections; and that, in all these cases, the introduction of the foreign substance or poison into the blood must be regarded as the origin of the disease—I went on to give some account of Pölli's antiseptic treatment of these various forms of disease by sulphurous acid and the alkaline and earthy sulphites, showing how they arrest or prevent fermentation and putrefaction, and how it might not only be expected that the living fluids and tissues charged with the sulphites would resist the action of morbid poisons, and that there were proofs that, when the sulphites had been taken, they really altered the actions of pus upon the blood of a living animal, as well as that of putrid matters injected into the blood, and that of a virus distinctly contagious and not putrid.

This was in 1864. It was two years afterwards—towards the end of 1866—that Lister began to treat cases antiseptically in the Glasgow Infirmary, using carbolic acid rather than sulphurous acid or the sulphites but with the express purpose of destroying the organic germs present in the air, or in any of the liquids or solid substances about the patient; or of protecting any wounded or injured part from the contact or development of the germs. How he has gone on gradually perfecting the details of the antiseptic system, I need not describe to you; and the results are too well known to require more than the most passing allusion to the prevention of surgical fever, of pyæmia and septicæmia, the checking the spread of erysipelas after its importation into a ward, the lessening of mortality after both the greater and the more trifling operations, the saving of limbs after compound fractures, the healing of large burns, ulcers, or abscesses, and the general freedom of hospital-wards from noxious odours and matters, and from the introduction of poison from the dead-house or dissecting-room, while the hospital atmosphere is not only purified for the patients, but for the surgeons and nurses.

If all this have been gained since 1866 in Glasgow and Edinburgh, and in other British and foreign hospitals, where the example has been more or less closely followed; if traumatic fever and pyæmia can be kept out of a surgical hospital, why should not puerperal fever be kept out of a lying-in hospital, or be prevented from spreading, if it have been accidentally imported? There has been a great outcry against lying-in hospitals of late; but I trust this Society may be able to guide the feeling rather in the direction of freeing them from puerperal fever than of destroying them. What has been done by reducing the size of a surgical hospital in Edinburgh and in London, the size of the wards, the number of beds in each ward, the number of attendants, and enforcing the utmost care in protecting the patient from any contagious or infectious influence, and in securing the greatest possible cleanliness in all things about her; in reducing the mortality after one of the most serious operations to which a human body can be subjected and still live,—is known to those who have watched the progress of ovariotomy. It is for you to say whether a similar enforcement of obedience to the laws of sanitary science, a more exact observation of the origin and progress of the many different conditions which have been classed together under the one head puerperal fever, and of the treatment called for by each condition; and a careful attention to the details of the antiseptic system, as it is brought more completely into accord with our daily increasing knowledge of the natural history of the lowest forms of organic life, shall or shall not be your rule and guide henceforth in your daily practice. What I have said in the very hasty and imperfect sketch it has been possible for me to offer in the few minutes you have so kindly accorded to me may soon pass out of your thoughts. But I am fully persuaded that there are many here to-night who will be able to assure us that such a diminution of unnecessary or excessive mortality after childbirth may be hoped for as may relieve you and your successors from much anxiety and sorrow, and, while making your own lives more useful and happy, may raise still higher in national esteem the noble profession to which we should all be proud to belong.

## TWO CASES OF INOCULATION WITH THE SEPTIC LOCHIA OF PUERPERAL WOMEN.

By WILLIAM STEWART, L.R.C.P.Edin., Barnsley.

THE elucidation of the nature of the poison and the etiology of puerperal septicæmia, is of such vital importance, and, at the present time, occupies such a prominent place in the mind of the profession, that I feel no apology is required from me for bringing under the notice of the profession the two following cases.

CASE I. Miss G., aged 52, a delicate woman, frequently suffering from hepatic derangement, and the subject of an obscure internal abdominal tumour, said to have followed an injury from a railway accident, called me to see her on Sunday, October 8th, 1871. I found her suffering from most excruciating pain in the right forefinger. The pain was so agonising that I was led to inquire whether she had not scratched or injured it in any manner, when she informed me she had very slightly scratched that finger and the one next to it a few days previously. Upon remarking further that I was afraid she had received some poisonous matter into the scratch, she then remembered having given an injection to a lying-in woman on the evening of the 6th (about thirty-six hours before my visit), whose nurse was very inexperienced, and had neglected to change the patient for several days after delivery. I was informed by the medical gentleman in attendance upon the confinement, that his patient had peritonitis at the time. My patient had wrapped a piece of adhesive plaister round the middle finger, which was therefore quite unaffected, but unfortunately had left the scratch on the forefinger totally unprotected. Here, then, was the clue to the case, decomposing lochial discharge applied to the recent scratch. This case ran a most acute and rapid course. Thirty-six hours after the application of the septic matter, I saw the patient. The finger was then hard and indurated, but not much swollen. The back of the hand was very red and much enlarged. The inflamed lymphatics in red streaks could be seen passing up the forearm; and in twelve hours more, in spite of all measures adopted to arrest the advancing disease, the finger had mortified. The next day, her relatives being very anxious, I met in consultation two neighbouring medical gentlemen, who agreed with me as to the cause of her symptoms; but the gangrene continuing to spread soon involved the other fingers, hand and wrist, and was followed by a fatal termination on the 10th, being ninety hours from the application of the poison, and about forty-eight hours from the time when I first saw the case. Throughout the short course of her illness, the general symptoms were those of high fever, persistent vomiting, and, towards the close, delirium.

CASE II. The poison in this case was introduced from a puerperal patient in my own practice. Mrs. L., a primipara, was delivered by Dr. Heath, my assistant, on October 24th, 1874. Three days afterwards, symptoms of acute peritonitis set in, preceded by decomposition of the lochia and accompanied by profuse diarrhœa, and other symptoms of blood-poisoning. Injections of Condy's fluid into the uterus and vagina were used to disinfect the discharge. These were administered by Mrs. M. (her mother), who, on November 5th, two days before her daughter's death, had inflicted a slight wound with a table-knife over the first joint of her left thumb. The wound being slight, she did not consider it necessary to mention it, or to apply any dressing to the part, but continued to administer the injections without any protection to the thumb. On the 7th, I found her suffering from most violent pain in the thumb, which was swollen and indurated; the wound was gaping and sloughy in appearance, the back of the hand red, shining, and erysipelatous. A free incision on the thumb above the wound, followed in a few days by another on the back of the hand, gave exit to a large quantity of pus, and relieved to a certain extent the severity of the symptoms; but the purulent affection seemed to travel along the cellular tissue of the forearm, which in turn had to be relieved by incision. The lymphatics were inflamed as high as the elbow, where there was a patch of erysipelas. This case terminated favourably in six weeks, leaving only the first joint of the thumb stiff.

These cases appear to me to be specially instructive; first, because of the danger to which attendants are exposed when it becomes necessary to give vaginal injections to puerperal patients. And I think it becomes the duty of the medical attendant to warn the nurses to take precautions not to allow the discharge to come into contact with any recent wound or abrasion of skin. Secondly, they are exceedingly interesting from their tendency to throw light upon the nature and production of puerperal septicæmia, as they show that the application of decomposing lochia alone to a recent scratch or wound has been sufficient of itself to produce gangrene of the part and death of the patient in the one case, and a very severe attack of phlegmonous erysipelas in the other, although no puerperal condition existed in either of the inoculated subjects. I think we may, therefore, draw the conclusion, that the passage of decomposing lochia over any abraded surface in the vaginal passage is sufficient to produce puerperal septicæmia without the importation of any other specific poison. In this manner, we may account for the disease attacking much more frequently primiparous cases, as the vagina and perinæum are much more likely to be slightly lacerated in those than in multiparæ. If it were possible to apply as effectually the antiseptic treatment to these cases as it is carried out by Professor Lister in surgical cases, I have little doubt that as good results would be obtained. Obstetricians too frequently begin to lock the door when the horse is stolen; we wait until there is evidence of decomposition having already taken place in the lochia before steps are taken to prevent or counteract the danger. Cannot some antiseptic means be devised to be used from the time of delivery? I should be inclined to think that folds of antiseptic gauze instead of the ordinary napkin, and an antiseptic lotion for detergent purposes, would be of very great service, and might prove quite sufficient to prevent the setting in of putrefactive change in the discharge.

## ERYSIPELAS AND MIDWIFERY PRACTICE.

By HENRY H. HATHERLEY, M.R.C.S.Eng., Nottingham.

THE following case is, I think, of especial interest at the present moment, when the question of infection in relation to midwifery practice is much discussed.

Mrs. H., aged 37, wife of a lacemaker residing in New Radford, came under my care on January 8th last for erysipelas of the face, she being at the time far advanced in her tenth pregnancy. The course of the disease was at first most unfavourable, the whole of the scalp and naso-pharyngeal tract becoming involved. She had great fever and prostration, sleeplessness and constant delirium, and marked difficulty of deglutition. On January 11th, she was confined by a midwife of a live male child at the full term. From January 11th, Mrs. H. steadily improved; the erysipelas subsided; the lochia were profuse, but otherwise natural; the secretion of milk was normal. Both mother and child (who still has the breast) did well.

In this case, parturition, instead of adding an element of danger, appeared to have a favourable influence on the course of the erysipelas, the patient's improvement dating from her confinement. The midwife has an extensive practice, but no harm accrued to any of her patients. I attended about this time nine labours (between January 5th and 22nd), all of which did well, although I took no special precautions to prevent infection.

I think that, as far as any inference can be drawn from this isolated case, it is that the danger of infection to lying-in women from ordinary zymotic disease is less than is commonly supposed, and that a medical man is justified in fulfilling his midwifery engagements when attending infectious cases other than true puerperal fever.

The question of responsibility for infection is a very serious and a very difficult one: to debar practitioners (morally, if not legally) from attending midwifery, whilst attending cases of scarlet fever, erysipelas, typhoid or typhus fever, diphtheria, etc., would not only mean ruin to many a medical man, but would so limit the number of medical men "justified in practising" as seriously to inconvenience the public.

I am one of those who believe that the term "puerperal fever" is applied too comprehensively, and that a more strict definition of this disease would shut out many so-called cases of "puerperal fever". I would ask, in conclusion, the following questions.—1. What proof have we that puerperal fever is not a distinct zymotic poison, incapable of being produced by any common infectious disease? 2. Can it be proved by statistics that puerperal fever is generally of more frequent occurrence during the prevalence of such diseases as scarlet fever, erysipelas, etc.?

# NOTES OF A SHORT ADDRESS

## TO THE CANDIDATES AT THE OPENING OF THE ARMY MEDICAL SCHOOL AT NETLEY, APRIL 1ST, 1875.

By J. FAYRER, M.D., C.S.I.,
President of the Indian Medical Board; Member of the Senate.

GENTLEMEN,—By permission of Dr. Fraser and the Senate, I propose to make a few remarks on this occasion of the commencement of another session of the Army Medical School. My reason for doing so is, that I think a few words from one who has been long engaged in the work you are commencing may not be out of place. They will be the result of some experience, and you may accept them as a token of the interest I take in your future career.

No position in which I have been placed has afforded me more satisfaction than that I now occupy as a member of the Senate of this School; for it places me in relation with the rising generation of medical officers, and enables me to feel that I may still in some degree further that which has always deeply interested me—medical education.

It is more than a quarter of a century, though it seems but as yesterday, since I was, as you now are, commencing my career as a medical officer; but how great are your advantages, compared with those of the date to which I look back! How much has been done to promote your interests and improve the means of fitting you for your work! Since the Crimean war, great changes have taken place in the constitution of the medical services, and in the duties and responsibilities of the medical officers. The sciences of military hygiene and medicine have made rapid progress. The medical officer is no longer regarded merely as the physician or surgeon to treat disease or wound; he is the guardian of the health of armies and fleets. In some cases, and especially in India, he holds the same position in regard to the civil population. It is a fact, that officers in the Indian Medical Service, as sanitary commissioners, are the guardians of the health of two hundred millions of people.

Your duties will be of a varied character, and you must be well prepared to discharge them efficiently. Prevention of disease and preservation of health are very essential; but they must not occupy your attention to the exclusion of the study of disease itself, which you must be prepared to treat in every form, and as it occurs in epidemic and endemic visitations. You must be general practitioners in the widest sense of the term, equally prepared to perform a surgical operation, treat disease, lay down the sanitary conditions for the proper construction of a barrack or hospital, analyse a doubtful potable water, detect an obscure poison, or deal with an impending or present visitation of cholera or other epidemic disease. Where you are going, there will be no room for specialisation. Admirable as the specialist may be in great cities, he would be of little use in a field-hospital or ironclad during an action, or in a cholera or fever camp in India or the tropics.

In some services, the medical officers have substantive military rank. The Medical Director-General of the United States army is a general. The reports of his department contain papers by majors and captains, who are the surgeons and assistant-surgeons of regiments. Such is not the case with us; and you must bear in mind that, though your position is as good as that of other officers, your relative rank gives you no title to assume the duties or offices of the combatant branch. I need hardly hint at the bad taste of assuming anything to which you are not entitled, especially that to which your own position as members of a learned profession should make you indifferent. But still you are soldiers; and it may happen, as it has done before, to devolve on you, in emergencies, to act as such. You have many brilliant examples of the medical taking the place of the combatant officer. Should it fall to your lot, be ready to show that you are as ready for this as for any other duty.

Let me advise you not to forget that you are medical at the same time as you are military men. Let there be a due combination of each element. Keep to your own distinct sphere of duty, and you will exercise great influence for good. Overstep it, and you will not only be in a false position, but your efforts for good will be negatived, and your counsels useless. So much of the influence for good in the position of the medical officer depends on his personal character, that you should endeavour to let the standard of that be pitched as high as possible.

Whatever may be said or thought of the position of the medical officers collectively, no one can deny that individually they always receive the consideration and respect that is due to their own individual and personal merits. You have abundant examples—living, I am glad to say—to imitate; and I might remind you of one recently removed from among us ripe in age and distinction, who always and to the last took deep interest in this school and in his younger brethren, who has left us the history of a life and character, which all young naval and military surgeons may study with advantage.

Having completed your work at Netley, you will be ready to enter on your duties, and you will probably think that you are entitled to rest after your labours, and have leisure to digest and assimilate all that you have taken in here. But short interval will intervene before you are in harness, and begin the business of life in earnest. You will realise the value of the training you have received. You must act for yourselves, add to your stock of knowledge and that which may be of use to your successors in this school, when, perchance, one of you may occupy one of its professorial chairs, or endeavour, as I do, to encourage your younger brethren in starting on their journey in life.

The field before you is large. Far from being exhausted, it is in many places hardly touched. Great problems of hygiene and medicine still await solution. Large questions concerning disease; the laws regulating the rise and spread of cholera and other epidemics, their pathology, etiology, and therapeutics; the nature and action of that which in our ignorance we call malaria; the subject of fever in all forms; and many kindred subjects—will engage your attention, and give you ample ground for exploration and discovery. Or, apart from medicine and hygiene, we may turn to the whole range of natural science. The zoology, botany, geology, mineralogy, meteorology, climatology, ethnology, of many countries, and especially of India, offer rich mines, in which are veins of wealth yet unexplored and unrevealed.

You must feel a longing to enter on a career that offers so many paths to instruction. Think, too, of the examples in whose footsteps you may follow, and of what has been done by such men—all military or naval surgeons—as Guthrie, Ballingall, Richardson, Falconer, Annesley, Twining, Thompson, Martin, Hooker, Huxley, Flower, Parkes, Maclean, Longmore, Goodeve, Chevers, Murchison, and many more; and shall they not be followed by some whose names will be written in the annals of this school? I must not dwell longer, much as I should like to do so, on this subject, for I have a few words to say about the services you are to join, and especially of the Indian; for though I have served in them all, I am best qualified to speak of that in which the greater part of my life has been passed.

The covenanted Indian medical service comprised, on January 1st, 1875, 675 members of all ranks; of these, 3 were surgeons-general, 22 deputy surgeons-general, 357 surgeons-major, and 293 surgeons. The designation of assistant-surgeon, as you are aware, has been discontinued. This was a title in no case, perhaps, very appropriate, but least of all so in India, where most commissioned medical officers held independent charges from the beginning. There are three divisions, those of Bengal, Madras, and Bombay, each with its own list, and not concerned with the others. To one or other of these, according to circumstances, already doubtless known to you, those destined for India will belong; and to any of the varied appointments offered by them each of you may aspire. I wish, however, to remind you, that the Indian medical service is not purely military, but general, and that it is not the public medical service only, but *the* medical profession in India; for on you will devolve all important professional duties, including medical education, in the country.

Two years must be passed in military duty before you can obtain promotion; but, after that is completed, the work is often of a different character, and quite distinct from the army. There is also another condition, that, before you can permanently hold any appointment, civil or military, you must pass an examination in the language of the Presidency to which you belong. This used formerly to be merely colloquial; it now includes both reading and writing the language in the native character, and I strongly recommend you to set yourselves to do this immediately after reaching India. It is important that you should commence it early, for if put off it becomes irksome, as increasing work leaves you less time and inclination to devote to it. Though the lower standard, as it is called, is all that is absolutely required, you will do well to aim at the higher; and there are others still more advanced, for which a successful examination is rewarded by a considerable sum of money—sufficient, at least, to defray the expenses of tuition. The value of a sound knowledge of the language is great; it is seldom acquired if not begun early; it is essential in your communication with the natives, and is a condition of holding many appointments. No one, I am sure, has ever had cause, even when it was not compulsory, to regret the time or labour bestowed on it.

The grades in the Indian are like those in the British medical service, though you have the exceptional advantage of promotion to surgeon-major after the lapse of twelve years, if you have passed a professional examination, which is, in future, to be enforced, though it has not been so up to the present time. This, also, you should do as soon as possible, whilst the habits of study and passing examinations, in which you have been pretty well exercised, are fresh upon you. Depend on it, these things do not become easier from delay, and you will feel more comfortable and settled in your real work, with minds relieved of the burden.

After twenty years' service, you will obtain a step in relative rank and an increase of pay. After this, should you remain in the service so long, comes the next step of deputy surgeon-general. A period of five years in this grade adds materially to your pension (£250 a year). Should you be fortunate enough to attain the highest post of all, that of surgeon-general, and hold it for five years, your pension will receive another substantial increment of £350. But, though few may attain to this position, there are many other appointments even more lucrative, though not involving extra pension, some connected with the military service, others quite distinct from it. The appointments open to medical officers are fewer than formerly; still they are numerous, and I will tell you briefly what they are, or have been, since my own connection with the service.

In addition to the administrative appointments of surgeon and deputy surgeon-general, the following are now, or recently were, held by medical officers; principal and professors in all the subjects of an university curriculum in medicine, in the Colleges of Calcutta, Madras, Bombay, and also a limited number in the College of Lahore; superintendent of native medical schools at Agra, Nagpore, Patna, Dacca, etc.; these generally being held in combination with the office of civil surgeon of these important stations.

The important subject of medical education will be entirely in your hands, whether as members of the medical faculty, of the senate, or as examiners in the Universities of Calcutta, Madras, or Bombay, or as professors in the Medical Colleges. The new College of Calcutta, which was founded in 1833 by Lord W. Bentinck, is, I may tell you, the largest medical school in the world. When I left it in 1872 it numbered over 1,300 medical students on its rolls, and it is increasing every year. There is, perhaps, nothing that has exercised a greater political or social influence for good on the native mind, or done more to consolidate our hold on the affections of the people and the country, since the days when Broughton and Hamilton gained for the British power the earliest concession of privileges which gave us our first hold in the country from the Moghul of Delhi; and since when, in 1836, the learned Pundit Moodhosoodun Guptoo, laying aside the prejudices of caste, initiated the study of anatomy by dissecting the human body, than the study and extension of medical science in India. It will be for you to sustain and extend the prestige it has acquired, and there is, perhaps, no direction in which your talents and energies may be more usefully directed.

Among offices that may be, or have been, held by medical men in India, the following may be mentioned:—

Surgeons and assistant surgeons, and resident surgeons of the General and College Hospitals; superintendents of eye infirmaries; garrison surgeons; field surgeons and assistants to armies in the field; surgeon to the viceroy; surgeon to the commander-in-chief; presidency and district surgeons; marine surgeons; police surgeons; superintendent of lunatic asylums; superintendent of emigration; medical superintendent of emigration; medical examiner of accounts; principal medical storekeeper; other medical storekeepers; civil surgeons of stations, very numerous; and sometimes remunerative appointments, to which are joined others; regimental appointments; chemical examiners to Government; analysers of waters; assay and assistant assay masters; superintendent of botanic gardens, Calcutta, Scharunpore, and others; of cinchona plantations; forest appointments; superintendent of fisheries; sanitary commissioner to Government of India; sanitary commissioner of provinces; statistical officer and officers on special duty for investigation of cholera, held by two very distinguished students of this school, Messrs. Cunningham and Lewis; inspector-general and inspector of jails; superintendents of jails; inspector-general and superintendents of vaccination; political agents; assistant political agents; magistrates, coroners; commissioners and deputy commissioners of divisions, offices involving judicial functions; opium agents and assistants; professor of Arabic and secretary to Colleges (formerly); governor of the Andaman Islands (formerly); superintendent of Darjeeling, the late lamented Dr. Campbell; a former Persian envoy; and others that at this moment escape my memory. With many of these offices are combined other duties, or two or more may be held by the same officer.

In most cases, the civil and military medical appointments give opportunity for private practice. In the Presidency cities and larger civil stations, it is often considerable; and though, perhaps, not so lucrative anywhere as in former days, it is such as would compare not unfavourably with the results of medical practice in European cities. I have heard it said, that the late Dr. N., when surgeon to the General Hospital in Calcutta about thirty years ago, made as much as one lac of rupees, £10,000, a year. Things have changed since then; medical men are more numerous and honoraria are smaller. Those who realise half the amount are fortunate; but this is not equal to the same in England. The cost of living is great, and the expenditure large; but if health continue, most medical officers may look forward at the completion of their service to retirement with a competency. Unfortunately, health is not always preserved, and the position is forfeited by the necessity of seeking change in Europe. But, lest I should excite undue apprehension in reference to the evils of the climate, I will presently say a few words on the mode of life in India.

I have thus given you a glance at your future work, and an idea of what you may aspire to; I am sure it depends on yourselves how far you may profit by the advantages offered. In these days, though interest and the influence of friends will do something, they are as nothing to personal merit, which will do more.

To men of apathetic temperament, though correct in all their proceedings and relations of life and duty, the opportunities may seem never to come; but the real fact is, they are neither perceived, nor grasped when they offer, and the favourable moment passes by unheeded, perhaps not to return, and mediocrity is the result; but even to these the service offers something. There is sufficient for all present wants and a pension for the future. After periods of from seventeen to thirty years, you have the option of retiring on a pension according to the length of service, varying from £220 to £550 a year, or if the last five years have been passed in the position of deputy-surgeon or surgeon-general, you will add an additional £250 or £350 to your pension. A liberal allowance of leave is accorded, amounting to six years in the whole period of thirty years; but, unless under very exceptional circumstances, not more than two years can be taken at a time, and that after stated intervals. You will do well to avail yourself of this privilege, even though your health should not seem to require it, for it gives you the opportunity of renewing your home impressions, and refreshing your knowledge of professional subjects; and you will do very well, if it be permitted, to spend portions of your furlough here with that object.

Now, as to your mode of life in India, and indeed other hot and tropical countries, with reference to the preservation of health, I have not much more to say than that common sense and careful living are all that are required. India means every variety of climate, from the hot damp plains of Bengal to the dry arid plains of the north-west and Punjab, or the cold rarefied atmosphere of the Hill stations; and you must act accordingly. Temperance in all things; regularity of life and habits; avoidance of excessive, prolonged, or undue exposure to the direct rays of the sun and to malarious influences, especially as they occur in certain localities; attention to clothing, which should consist mainly of light woollen materials, to protect you from chills, and equalise the temperature of the body; plenty of, but not too much, work; sufficient exercise; plain food, and extreme moderation in alcoholic drinks of all kinds; and as little tobacco-smoking as possible—these precautions, if observed, will keep you in good health, and fit for work for many years; and you will find, I think, as a general rule, that men in India work as hard or as harder than they do here, for, from the time you occupy a position of the least responsibility, work goes on steadily increasing, and developing new motives to exertion.

Of course, in such climates as those of India and the tropics, one is liable to sudden and serious attacks of disease; but, escaping these, as you may reasonably, with care, expect to do, it is wonderful how high a standard of health may be preserved even under the hardest work and the greatest exposure. The tendency is to suffer as much from mental as from physical strain, and as many break down from overwrought brains as from physical exhaustion; but, fortified by such means as I have suggested, you may to a great extent bid defiance to both. I would repeat the advice that you should, if possible, avail yourselves, at reasonable periods, of the leave which the Government accords you to Europe. It is often said that the doctors and the indigo-planters, men who are most exposed, are the healthiest men in India. This is not, perhaps, altogether true; but it shows that the advantages of exercise, combined with mental occupation, are popularly recognised.

And now a few words to those of you who are destined for the Navy and Army. Though I cannot profess to indicate all that you may look forward to so well as I can to your Indian colleagues, yet this much I may safely assert, that for you, too, an interesting field of work is open; and, though the variety may be less than in the Indian service, yet it is equally interesting and important. To you will be committed the care of the health of our soldiers and sailors, and of our military and naval stations at home and abroad. Many of you will work side by side with your Indian friends. In the event of war—and who can say how long we shall remain at peace?—the treatment of our sick and wounded will also be your care. To you also it will fall to investigate the laws that govern the origin and diffusion of epidemic and other forms of disease; and, as your experience will be gathered in all quarters of the globe, your opportunities of studying the influences of climate will necessarily exceed those of all others, and will enable you to solve problems that are yet unexplained. Nor will your duties be limited to those of a purely military or naval character; for, though I am not sufficiently acquainted with all the details of your services to describe them, I know that there are many special appointments open to those who will aspire to them. In short, to whichever branch of the service you belong, you have before you an useful and honourable career, which will be useful and honourable just in proportion to your own application of the capabilities you possess. In no case, I fear, may you expect to acquire wealth. Were this your object, you should have chosen another profession; but competency, and the means of doing justice to your families, and of supporting the position you attain, you may realise; and if so, and you feel that you have served your country well, and to the best of your ability advanced the knowledge of your profession and the bounds of science, you may be content, for you will have gained that which will bring you the truest happiness and the best reward.

And now I must not detain you longer. I have already trespassed too much on the patience of all, and I will conclude by wishing you all prosperity and success in your present and future career.

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# ON THE ACTIONS OF PICROTOXINE, AND THE ANTAGONISM BETWEEN PICROTOXINE AND CHLORAL HYDRATE.

By J. CRICHTON BROWNE, M.D., F.R.S.E.,
Medical Director of the West Riding Asylum.

(*Continued from page 478.*)

HAVING clearly established the existence of a remarkable antagonism between picrotoxine and chloral-hydrate, I next performed a few experiments with the purpose of supplying an answer to the important practical question, how long after the administration of a fatal dose of the one, may the other be administered with any hope of saving life.

TABLE VI.—*Showing the Influenee of Hydrate of Chloral Injected at Different Intervals of Time after Picrotoxine.*

| No. | Weight of Guinea-Pig. | Dose of Picrotoxine in parts of a grain. | Dose of Chloral in grain. | Interval between the administration of Picrotoxine & Chloral Hydrate. | Effect. | Result. |
|---|---|---|---|---|---|---|
| 47 | 1 lb. 9 oz. | 1-20th | 6 | 10 min. | Deep sleep, twitchings | Recovery |
| 48 | 1 lb. 8 oz. | 1-20th | 7 | 15 ,, | Restlessness, staggering, startings, convulsions, deep sleep | ,, |
| 49 | 1 lb. 10 oz. | 1-20th | 7 | 30 ,, | Restlessness, twitchings, convulsions, sleep | ,, |
| 50 | 1 lb. 9 oz. | 1-20th | 7 | 38 ,, | Restlessness, violent convulsions, coma | Death in 5 hrs. |
| 51 | 1 lb. 6 oz. | 1-20th | 6 | 40 ,, | Restlessness, convulsions long continued | Death in 2 hrs. |

It thus became evident that chloral-hydrate as an antidote to picrotoxine may be effectually employed for half-an-hour after the reception of that poison into the system, and even after several severe convulsive seizures. The certainty and celerity with which alleviation followed the introduction of the chloral into the system in the experiments above tabulated, as well as in a rabbit, to which twenty grains were given twenty minutes after a sixteenth of a grain of picrotoxine, which had induced four violent fits, was most striking and satisfactory. It may be safely asserted that if, after a poisonous dose of picrotoxine, chloral can be given in proportionate amount before the occurrence of clonic spasms, life will certainly be saved; and that, if it be given even after several convulsive seizures, but before the spasms have become continuous, there is still a good prospect of a favourable issue.

The next point which it was thought requisite to determine was, whether the antagonism between chloral-hydrate and picrotoxine was interchangeable. Could the lethal action of chloral be as certainly arrested and modified by picrotoxine as that of picrotoxine had been shown to be by chloral-hydrate? In proceeding to solve this problem, advantage was taken of the researches of the Edinburgh Committee to avoid a tedious preparatory inquiry. The report of that Committee had approximately fixed the minimum fatal dose of chloral as twenty-one grains for a rabbit of three pounds weight, or seven grains for each pound of body-weight. That result being accepted as accurate, the following experiments were instituted.

TABLE VII.—*Showing the Effects of Picrotoxine when injected with Fatal Doses of Chloral-Hydrate.*

| No. | Weight of Rabbit. | Dose of Chloral-Hydrate in grains. | Dose of Picrotoxine in parts of a grain. | Effects. | Result. |
|---|---|---|---|---|---|
| 52 | 3 lbs. 4 oz. | 23 | 1-40th | Prostration, sleep slightly disturbed | Recovery |
| 53 | 3 lbs. 9 oz. | 25 | 1-20th | Deep sleep, from which readily roused | ,, |
| 54 | 3 lbs. 7½ oz. | 30 | 1-25th | Restlessness, sleep much disturbed | ,, |
| 55 | 3 lbs. 4 oz. | 30 | 1-20th | Lethargy, loss of power in hind legs, deep sleep | Death in 4 hrs. |
| 56 | 2 lbs. 14½ oz. | 35 | 1-25th | Restlessness, deep sleep, great prostration | Recovery |
| 57 | 3 lbs. 5 oz. | 35 | 1-20th | Deep sleep | ,, |
| 58 | 2 lbs. 9 oz. | 40 | 1-25th | ,, | ,, |
| 59 | 3 lbs. 5 oz. | 40 | 1-12th | Deep sleep for nine hours, slight movements of mouth and paws | ,, |
| 60 | 3 lbs, 6 oz. | 42 | 1-25th | Deep sleep, occasional spontaneous movements | Death in 3 hrs. |
| 61 | 3 lbs. 2½ oz. | 45 | 1-16th | Restlessness, deep sleep, slight twitchings | Death in 1 hour and 40 min. |

The conclusion to be drawn from these experiments was obvious. Picrotoxine impeded and arrested the fatal effects of chloral-hydrate to a remarkable extent when they were injected together. How long after the administration of chloral-hydrate could picrotoxine be administered so as still to exert an antagonistic action? That was the next question that suggested itself, and to it the answer was sought in a few additional experiments.

TABLE VIII.—*Showing the Effects of Picrotoxine when Injected at Different Intervals after a Fatal Dose of Chloral-Hydrate.*

| No. | Weight of Rabbit. | Dose of Chloral Hydrate in grains. | Dose of Picrotoxine in parts of a grain. | Interval between Chloral Hydrate & Picrotoxine. | Effect. | Result. |
|---|---|---|---|---|---|---|
| 62 | 3 lbs. 13 oz. | 26 | 1-16th | 30 min. | Sleep, restlessness | Recovery |
| 63 | 3 lbs. 14 oz. | 26 | 1-20th | 60 ,, | Deep sleep | ,, |
| 64 | 3 lbs. 4½ oz. | 30 | 1-20th | 60 ,, | ,, ,, | ,, |
| 65 | 2 lbs. 14 oz. | 40 | 1-25th | 15 ,, | ,, ,, | Death in 2 hrs. 15m. |

It thus appeared, that picrotoxine might be resorted to as an antidote to a fatal dose of chloral-hydrate, with a good prospect of a favourable issue, for about an hour after the reception of that fatal dose. This discovery seemed a very momentous one, as the wide use of chloral-hydrate at the present day makes it peculiarly desirable that an effectual and practically available antidote against its poisonous effects should be possessed. And an antidote, which can counteract double the amount of a minimum fatal dose, and overtake a poison which has had one hour's start of it, must be said to be both effectual and practically available. But the hopes which were thus not unreasonably formed, were doomed to be speedily in great measure disappointed. In ten days after the experiments which have just been enumerated, it became necessary to perform what Professor Bennett calls the crucial test, of repeating the same dose of the poison without the supposed antidote. To the rabbit which had received twenty-three grains of chloral-hydrate, and one-fortieth of a grain of picrotoxine, the same dose of the former alone was administered. It recovered just as rapidly as on the previous occasion. To the rabbit that had received twenty-five grains of chloral-hydrate, and one-twentieth of a grain of picrotoxine, twenty-five grains of chloral-hydrate were again given, and it also recovered as completely and rapidly as when the picrotoxine was conjoined with the chloral-hydrate: and so on, up to a dose of thirty-five grains of chloral-hydrate. All the rabbits that had recovered from the effects of chloral-hydrate with picrotoxine, recovered nearly as well without the picrotoxine after a sounder and less agitated sleep. The conclusion was, therefore, forced upon me, that the minimum fatal dose of chloral for rabbits had been underestimated. Whether it was that Yorkshire rabbits have more robust constitutions than

Scotch ones, or that my experiments were conducted under circumstances materially different from those under which the experiments of the Edinburgh Committee were carried on, I could not decide; but it was indubitable that our results differed to a very serious degree. A new set of experiments which was at once undertaken gave perfect distinctness to the divergence of our results.

TABLE IX.—*Showing the Minimum Fatal Dose of Chloral-Hydrate in Rabbits.*

| No. | Weight of Rabbit. | Dose of Chloral-Hydrate in grs. | Result. |
|---|---|---|---|
| 66 | 3 lbs. 2 oz. | 30 | Recovery |
| 67 | 3 lbs. 11 oz. | 30 | ,, |
| 68 | 4 lbs. 2 oz. | 35 | ,, |
| 69 | 3 lbs. 1½ oz. | 35 | Death in four hours |
| 70 | 3 lbs. 3 oz. | 36 | Recovery |
| 71 | 3 lbs. 10 oz. | 40 | Recovery |
| 72 | 2 lbs. 1½ oz. | 40 | Death in two hours |
| 73 | 2 lbs. 12½ oz. | 40 | Death in two hours and twenty minutes |
| 74 | 3 lbs. 1 oz. | 42 | Death in three hours and ten minutes |
| 75 | 3 lbs. 2 oz. | 46 | Death in one hour and twenty-five min. |
| 76 | 2 lbs. 14 oz. | 46 | Death in one hour and fifty-four minutes |

Instead of finding, as the Edinburgh Committee did, that seven grains of chloral hydrate per pound of body weight was fatal in rabbits, I satisfied myself that nothing less than twelve grains per pound of body weight can be regarded as a fatal proportion of that drug in these animals. The only explanation of this discrepancy which I can offer is, that perhaps temperature had something to do with it. The room in which I worked had usually a temperature of about 56 degs. Fahrenheit's scale, and the rabbits, after having had chloral given to them, were always placed near a warm fire, and on cotton-wool. If the Edinburgh Committee maintained the heat of the rabbits upon which they experimented less carefully, it is conceivable that a smaller dose of chloral-hydrate would suffice to extinguish life; for Dr. Lauder Brunton has shown that warmth is most potent in hastening recovery from the effects of chloral hydrate, and in preventing death after an overdose. The chloral-hydrate used in my experiments was supplied by Messrs. Harvey and Reynolds of Leeds, and Messrs. Davy, Yates, and Routledge of London, and the solutions were prepared with scrupulous care.

To determine whether picrotoxine was really antagonistic to chloral-hydrate, and, if so, to what extent that antagonism extended, another set of experiments was clearly necessary, and these were forthwith undertaken; the minimum fatal dose of chloral-hydrate being now taken as twelve grains to each pound of body-weight.

TABLE X.—*Showing the Effects of Small Doses of Picrotoxine injected with Fatal Doses of Chloral-Hydrate.*

| No. | Weight of Rabbit. | Dose of Chloral-Hydrate in grains. | Dose of Picrotoxine in parts of a grain. | Effects. | Result. |
|---|---|---|---|---|---|
| 77 | 3 lbs. 3 oz. | 36 | 1-30th | Deep sleep | Recovery |
| 78 | 3 lbs. 3½ oz. | 37 | 1-20th | Restlessness, sleep | ,, |
| 79 | 3 lbs. 2 oz. | 38 | 1-40th | Deep sleep | ,, |
| 80 | 3 lbs. 3 oz. | 38 | 1-20th | Disturbed sleep | Death |
| 81 | 2 lbs. 14 oz. | 39 | 1-40th | Deep sleep | Recovery |
| 82 | 3 lbs. 1 oz. | 40 | 1-30th | Disturbed sleep | Death |
| 83 | 3 lbs. | 40 | 1-40th | Deep sleep | ,, |
| 84 | 2 lbs. 13 oz. | 41 | 1-30th | ,, | ,, |
| 85 | 3 lbs. 1 oz. | 41 | 1-40th | ,, | ,, |
| 86 | 3 lbs. 4 oz. | 42 | 1-20th | ,, | ,, |

These experiments made it apparent that the antagonism of picrotoxine to chloral-hydrate in rabbits is by no means so great as it was at first thought to be. Whenever the dose of the latter exceeded by four grains the minimum fatal amount, picrotoxine failed to avert death. Given in large amount, the chloral seemed to take possession of the nervous system so completely that it could not be dislodged by moderate doses of picrotoxine. And the issue of one experiment, in which a highly poisonous dose of picrotoxine, one-fourth of a grain, was given, after a fatal dose of chloral-hydrate—forty grains, did not encourage the hope that picrotoxine, in any quantity, could be employed to counteract large doses of chloral. The rabbit died, without having suffered from convulsions, much more rapidly than it would have done if left to sink under chloral poisoning. And yet, that there is a certain degree of antagonism exerted by picrotoxine against the toxic effects of chloral hydrate, is unmistakable. It does secure recovery in some cases, in which, but for its influence, death would almost inevitably ensue; and even, when it is powerless to save life, it notably controls symptoms. It rouses the cerebral centres from time to time, from that state of torpor which chloral spreads over them. It limits the depth of the chloral narcosis, and breaks in upon it occasionally by intervals of semi-wakefulness, in which there are various spontaneous movements. It diminishes the hyperæsthesia which chloral sets up; and it prevents, to a considerable degree, that gradual production of slowness of the respiration, and that fall of temperature, which chloral constantly induces. The following table exhibits its action in keeping up the respiratory movements and the animal heat, in contrast with the unmodified effect of chloral upon these.

TABLE XI.—*Showing the Effects of Chloral-Hydrate in reducing Temperature, and the Number of Respirations and the Effects of Picrotoxine in partially preventing that reduction.*

| No. of min. aft. injection. | No. 87. Rabbit weighing 3 lbs. 1½ oz., injected with 35 grs. of Chloral-Hydrate alone. | | No. 88. Rabbit weighing 2 lbs. 14½ oz., injected with 35 grs. of Chloral-Hydrate and 1-25th of a gr. of Picrotoxine. | |
|---|---|---|---|---|
| | Temperature. | Respirations. | Temperature. | Respirations. |
| 5 | 100.4 | 60 | 100.0 | 72 |
| 10 | 99.6 | 57 | 99.1 | 72 |
| 20 | 98.6 | 50 | 98.4 | 68 |
| 50 | 97.4 | 43 | 98.2 | 68 |
| 60 | 96.8 | 40 | 98.4 | 65 |
| 90 | 95.5 | 33 | 98.4 | 65 |
| 120 | 94.9 | 27 | 97.6 | 61 |
| 150 | 94.3 | 27 | 96.6 | 61 |
| 180 | 92.0 | 21 | 95.0 | 54 |
| 190 | 90.8 | 21 | 95.4 | 52 |
| 210 | 89.5 | 20 | 95.0 | 66 |
| 230 | 85.8 | 16 | 94.5 | 60 |
| 240 | Died. | — | 93.0 | 60 |
| 250 | — | — | 90.8 | 60 |
| 270 | — | — | 92.2 | 60 |
| 300 | — | — | 94.3 | 60 |
| 320 | — | — | Ultimately quite recovered. | |

[*To be continued.*]

## CROUP AND DIPHTHERIA.

By WILLIAM CUMMING, M.D., Edinburgh.

THE question as to the identity of membranous croup and diphtheria is worthy of the attention it has recently received; but, I confess, I have some difficulty in understanding how the two diseases *can* be ranged under the same category. Many years ago, I saw a large number of cases of membranous croup, and its characters were of the most pronounced kind.

1. The type was sthenic. 2. The exciting cause was atmospheric, *i. e.*, cold and damp. 3. The treatment most successful in my hands, was antiphlogistic, viz., tartar emetic in frequent and nauseating doses. 4. It was non-contagious. I never saw two cases in one family either occurring simultaneously or in immediate succession. 5. It was never followed by paralysis or other consequences affecting the nervous system. 6. It was limited to a certain age; never in my experience occurring after twelve years of age. 7. The membrane, as ascertained by *post mortem* examinations (which were sufficiently frequent), was firm, tough, tense, and of a light kid colour, and was strictly limited to the laryngo tracheal tract, at least in its upper part, though it not unfrequently passed downwards into the bronchi in the form of plastic bronchitis. The disease never invaded the pharynx, fauces, or nose.

All who have seen much of diphtheria cannot fail to remark how totally different pronounced cases of it are. 1. The type is asthenic. 2. The exciting cause is septic. 3. The treatment is antiseptic, nourishing, and stimulating. 4. It is markedly contagious, and, unless the most stringent precautions are taken, attacks, and proves fatal to other members of the family, or those in direct contact with it. 5. Nervous symptoms, and especially paralysis, are not unfrequent consequences, and are always to be feared. 6. It has no respect for age. 7. The membrane is ash grey, friable, in many cases almost pultaceous, and generally soft. It is seldom limited to the laryngo tracheal tract, but as frequently as not extends to the pharynx, fauces, and nose, and often begins there, passing downwards, which membranous croup never does.

Typhus and typhoid fever are recognised now by sufficiently distinctive characters, but they are, in my opinion, not more, or indeed so distinct, as are membranous croup and diphtheria.

A COTTAGE INFIRMARY is to be built at Mold. The Duke of Westminster, Mr. P. B. D. Cooke, and Mr. W. B. Buddicom, have each subscribed £100, and others smaller amounts, making in the aggregate about £500.

# OBSTETRIC MEMORANDA.

## UNITED TWIN MONSTROSITY.

On March 23rd last, about 8.45 A.M., I was called to Mrs. B., who was in labour with her fourth child. She had been all night in pain, and at my arrival the head presented at the brim in the first position. The membranes were unruptured, and the os dilatable. On rupturing the membranes, the head slowly descended, but, to my surprise, remained for about two hours and a half on the perinæum, although the pains were severe and her previous labours had been very easy. As the head seemed as though it would never pass the perinæum, I pushed it and the soft parts of the mother back over the head, which emerged with the face to the sacrum in the usual way. The head being thus born, the fingers could be easily placed round the neck, and any justifiable amount of traction used; but the body refused to descend even in the least degree. However, after a time, the head of itself rotated to the position of the occiput to the sacrum; and I found that, by forcing it directly forwards and upwards, gradually the shoulders, back, nates, and finally the feet, were born. It then became evident that there was a second child attached to the abdomen of the first, thus causing this peculiar mode of delivery. The second child was born first feet, then nates, and finally vertex, in a similar way to an ordinary abdomino-anterior footling case. I thought it well to record the mode of delivery in this case, as it shows the way in which, in vertex-presentations, united twins can be born; that is, by the head of the first child passing, becoming fixed against the pubic arch, and the rest of the body coming down by a natural process of version. The children were two perfect female infants perhaps rather smaller than the average size, united in the median line by a broad band extending from the lower part of the sternum to the umbilicus, the abdomina seeming continuous. The umbilicus, cord, and placenta were single.

Each infant had the two upper central incisors developed. The first breathed during birth, which was necessarily prolonged and difficult; the second was quite still-born. G. Percival Hadley, M.D.

# SURGICAL MEMORANDA.

## PRELIMINARY TRACHEOTOMY.

Mr. Underhill's suggestion, in the Journal of March 13th, "that in future major operations about the mouth and air-passages tracheotomy should be performed as a first step", is one the value of which has for some time been recognised by continental surgeons, and especially by Professor Langenbeck of Berlin. He found, however, that the ordinary tracheotomy-tube, however well it might seem to fit, did not sufficiently answer the purpose of preventing blood from trickling down the air-passages. The following method was, therefore, suggested by one of his assistants (Dr. Trendelenburg), and found to answer remarkably well. An ordinary tracheotomy-tube was surrounded by a tightly fitting thin India-rubber bag, which communicated through the wound in the trachea by means of a small tube. After introduction, by blowing through this tube and then applying a ligature, the bag surrounding the tracheotomy-pipe was inflated with air, and thus adapted itself with the utmost precision to the parts around, and so effectually barring the way to the passage downwards of any material whatsoever. The idea was very simple, and was found to answer perfectly, thus doing away with all the inconvenience and not a little of the danger attendant upon operations in this region.

Charles F. Hutchinson, M.D., Scarborough.

## TREATMENT OF SPINA BIFIDA.

Having lately cured a case of spina bifida, on the plan advocated by Dr. Morton of Glasgow, I beg to add my testimony in favour of his treatment. On November 1st, 1874, I attended Mrs. T., in labour with her second child, which was born a few minutes after my arrival. It was a plump, well-nourished boy. Over the three upper lumbar vertebræ was a tumour, of the size of a peach, which had ruptured with the expulsive efforts of parturition, and part of the contents had escaped from the sac. Careful that too much fluid should not drain away, I applied a pad of cotton-wool over the opening, and a broad binder. Two days afterwards, it had partly refilled, and, when the child cried, became tense. It was semi-transparent, and had a pinkish appearance except at the upper part, where on each side there was a bluish spot, about the size of a sixpence, which, the mother remarked, were like two eyes. The child cried whenever firm pressure was made over the tumour. The nature of the case having been explained to the parents they were anxious for the operation to be done. On November 19th, I punctured the sac with a grooved needle, and drew off part of the fluid, a cotton-wool pad and binder being applied. The operation was repeated four days afterwards. On neither occasion did the child suffer from constitutional disturbance. On the 28th, after drawing off half the contents through the needle of a subcutaneous syringe from the bluish spot, at the upper and left side of the tumour, I injected through the same needle half a drachm of the iodo-glycerine solution (previously warmed at the fire to liquefy it). Flexile collodion was painted over the minute opening, and a piece of lint dipped in olive oil, with a pad of cotton-wool, laid on it; the binder firmly securing the whole. The child cried lustily after the operation, and in about ten minutes suddenly turned pallid in the face, the nurse exclaiming that it was dying. Fifteen drops of brandy in a teaspoonful of water were given, and the little fellow was soon sleeping soundly in his mother's arms. Gradual thickening of the contents took place, and on January 4th, 1875, complete consolidation was present in every part, except the bluish spot on the right side, where a little fluctuation was felt. Fifteen drops of Dr. Morton's solution were injected into it with the subcutaneous syringe; and by the end of the month the cure was complete. The child is now (March 20th), in good health, the only appearance noticed on the back being a corrugated and hard condition of skin over the site of the former tumour.

J. Ackworth Angus, M.R.C.S. Eng.
Surgeon to the Hospital for Diseases of the Skin,
Newcastle-upon-Tyne.

# REPORTS
OF
# MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

## CHARING CROSS HOSPITAL.

### PSOAS ABSCESS, FROM CARIES OF ANTERIOR PART OF SACRUM, COMMUNICATING WITH SPINAL CANAL.

(Under the care of Mr. Barwell.)

[From Notes furnished by Mr. Jolly, Assistant House-Surgeon.]

F. Adams, aged 23, footman, was admitted into Charing Cross Hospital, under the care of Mr. Barwell, on January 2nd, 1875. He had come to the hospital complaining of rupture. The tumour was as large as half a hen's egg; was situated below Poupart's ligament, on the left side, and inside the femoral vessels, in the situation of crural hernia. The skin over it was red; much manipulation had been used to return the swelling, which was elastic, had a distinct impulse on coughing, and the greater part of it, except a harder remnant, could be returned within the abdomen. Mr. Barwell saw him in the casualty-room, diagnosed abscess, and ordered him to be admitted. There was no gonorrhœa, no sores on the leg, no angular curve, nor tenderness on percussing the spine. He stated that he had always been of a weak constitution; could not remember having received any blow, but, about twelve months ago, on lifting a heavy plate-chest, felt a severe pain in his back, which, however, passed off in a few days. Three weeks previously to admission, he noticed a small lump in the groin, which gradually increased, but which was and had been quite painless.

January 12th. An opening was made into the red part of the swelling. Twelve ounces of thick yellow pus, without any fœtor, escaped. The wound was closed with a pad of lint secured by a spica bandage, and rapidly healed: the man felt much relieved.

January 16th. He got up and walked about the ward; but, in rather more than an hour, felt sick, with pains in the spine and head. The tongue was soon afterwards found to be furred; temperature, 103.

January 18th. During a fit of violent coughing, the wound in the abscess reopened, and gave exit to a large quantity (probably more than a pint) of pus; this gave great relief, but the temperature only fell one and a half or two degrees.

January 26th. Mr. Barwell examined the opening with a probe; he found, first, a passage leading by the inner side of the vessels and of the bone to the back of the femur; secondly, with some difficulty, another passage, which led upwards and inwards into the pelvic cavity. From this, he considered that the disease was caries of the sacrum.

February 16th. During these three weeks, there had been free discharge of pus. The temperature varied from 101 to 103. The abscess was syringed daily with carbolic acid lotion (1 in 60).

March 28th. He had been becoming thinner and weaker, with the morning and evening variations of hectic temperature; he had diarrhœa, but never passed any pus *per rectum*. About three weeks ago, he complained of pain in the right thigh, which became flexed on pelvis, but for which no cause could be detected. Gradually losing strength, he became worn out, and died at the above date.

*Necropsy.*—All the viscera were healthy, except a few cheesy tubercles (?) in the lungs. On taking out the abdominal contents, the front of the sacrum and the lower lumbar vertebra were found carious, the pus having passed into the sheath of the left psoas, and gravitated downward to the groin. On the right side, pus had also found its way into the psoas, the muscle being softened and swollen; but this was of recent date, and may have accounted for the pain latterly experienced in the right thigh. Although the whole front of the sacrum was carious, the brunt of the disease chiefly fell about the second and third division, and here, namely, about the lower part of the second bone, was a sequestrum, which, on being removed, exposed a hole, singularly round, almost like a gun-barrel. The finger passed into this, detected at the bottom a fissure, which appeared to lead into the spinal canal. The front of the sacrum was removed with the saw, and the fissure, on being exposed, was found to communicate with that cavity. Pus continued to ooze from it even after being sponged away.

This case is interesting, as a guide among the obscurities of intrapelvic abscess, especially in the absence of spinal symptoms; also as an instance of the rare conditions found on *post mortem* examination.

# SELECTIONS FROM JOURNALS.

## TOXICOLOGY.

Poisoning by Sausages.—Dr. L. Müller, gives in the *Deutsche Zeitschrift für pract. Medicin*, Nos. 1, 2, and 3, 1875, the history of a remarkable case of sausage-poisoning, at Middelburg in Holland, the particulars of which were communicated to him by several Dutch physicians. In March 1874, nearly 400 persons became ill in the course of a few days, after eating liver-puddings obtained from a certain butcher's shop. The symptoms, which appeared a few hours after eating the sausages, consisted of *malaise* and vomiting, diarrhœa with watery and very fœtid discharges, at first yellow, afterwards of a grass-green colour, colicky pains in the intestines, with, in many cases, pain in the epigastrium and tenesmus, urgent thirst, and great diminution of the secretion of urine. The fever was rather high; the temperature exceeded 39 per cent. (102.2 deg. Fahr.); the pulse was small, 100 to 120. Herpes labialis appeared off and on. After a few days, apparent convalescence set in; but was, in many cases, interrupted for several days by a recurrence of the symptoms, generally, however, without vomiting. Nothing is said as to the state of the spleen. Sometimes the disease finally assumed an intermittent character. Of 343 patients whose cases are recorded, 6 died. *Post mortem* examinations were made in two cases; but these, as well as chemical and microscopical examinations, and experiments on animals by feeding them with the sausage-meat, gave only negative results.

## THERAPEUTICS.

Treatment of Hooping-Cough.—R. Meyer of Zürich says (*Schweizer Correspondenz-Blatt*, and *Allgemeine Med. Central-Zeitung*, No. 93, 1874), that hooping-cough commences with a catarrh of the nasal passages, which, passing downwards, affects the fauces and the larynx. Sometimes it passes to the bronchial tubes, and produces bronchopneumonia. The "whoop" is not absolutely characteristic of hooping-cough; it depends on the preponderance of the otherwise comparatively feeble contractors of the glottis over the dilators, and, while it is absent in the milder forms of pertussis, occurs in other inflammatory affections of the larynx. Meyer attaches most importance to the local treatment. A laryngoscopic examination should be made, and good ventilation and isolation of the patient are recommended. In the catarrhal state, while the nasal mucous membrane alone is affected, he advises the local application once or twice daily of a one or two per cent. solution of nitrate of silver; in adults, he uses a nasal douche, with a one per cent. solution of chlorate of potash. Sudorifics, alcoholics, smoke, and anything that may irritate the nose, are to be avoided. In the spasmodic stage, it is necessary to act directly on the mucous membrane of the fauces and entrance of the larynx with nitrate of silver, alum, and tannin; the two latter are to be mixed with two parts of powdered talc. If they cannot be blown in, the patient may inhale them; the operation is to be repeated from three to four times daily for three or four minutes at a time, the tongue being held down. Dr. Meyer also uses for inhalation a solution in water of chlorate of potash or alum (2 per cent.), and tannin or carbolic acid (1 per cent.) In children under three years old, the best plan is to touch the affected parts with mild astringent solutions. The local application should be continued after the paroxysms of cough had ceased, as irritability remains, and is liable to produce a return of the attack, and even vomiting. Nüscheler of Zürich (*ibid.*) writes on the same subject; and, in support of the view that the paroxysms of cough are dependent on paralysis and not on spasm of the glottis, he cites the case of a man under the care of Professor Biermer, in whom, though he had paralysis of the vocal cords, attacks resembling those of hooping-cough occurred. In speaking of the treatment, he says that opium and belladonna did not cut short the disease, but only weakened the individual attack, by producing an unpleasant toxic state. He did not see any markedly good results follow the use of bromide of potassium or of chloral-hydrate. Dr. F. Vogelsang strongly recommends, in Betz's *Memorabilien*, No. 10, 1874, the use of bromine in the nervous stage of hooping-cough. The atmosphere of the patient's room to be impregnated with the vapour of bromine, and a tablespoonful of the following mixture is to be given from one to three times daily in water: ℞ Bromide of potassium half a drachm; water, about three or four ounces.

The Treatment of Diarrhœa.—In a paper in Virchow's *Archiv*, vol. lxi, Dr. Hartsen observes that diarrhœa of all sorts goes along with an irritable state of the intestinal canal, and any increase of this irritability is to be carefully avoided. He considers that the more usual astringents are, in addition, irritants; and he instances among them the salts of lead, zinc, and bismuth. In all cases, soothing means should first be adopted; and of these, warm applications to the abdomen, in the form of bread poultices, or fomentations, are perhaps the best. The chief medicine recommended is opium, which soothes, but, in large doses, interferes with digestion. If the diarrhœa be so violent as to hinder the absorption of opium introduced into the stomach, then morphia should be injected subcutaneously. Of equal importance is the diet. If the person be strong, everything, both solid and fluid, should be withheld; but, where this cannot be done, the food should be of the lightest and simplest. The author specially refers to rice and arrowroot as simple vegetable diets, while any animal food given should be free from fat. Milk should not be too much used, and in any case should be boiled.

## SURGERY.

Flexible Catheter for Irrigating the Bladder.—Dr. Stuart Eldridge, in the *New York Medical Record* of December 1st, 1874, describes as follows an instrument for the irrigation of the bladder in certain cases in which the rigidity of the ordinary instrument renders its use inconvenient or impracticable. Through the side of a soft India-rubber catheter (No. 10 to 12, English gauge), an opening is made by a broad needle, or the point of a lancet, at the distance of an inch and a half from the open end of the tube. Through this opening is forced the point of an ordinary gum catheter of such size as to lie very loosely in the bore of the rubber instrument. In passing the smaller catheter into the larger one, the surface should be well wetted, and the stylet retained until the point of the gum instrument has passed into that of the rubber one, when the stylet should be removed, and the instrument is ready for use. In a similar manner, an irrigator may easily be extemporised from an ordinary metallic catheter, either male or female, by adjusting upon the open end of the instrument a short piece of rubber tubing, through the side of which a gum catheter is passed in the manner described above.

Vertical Luxation of the Patella.—In the *New York Medical Record* of December 1st, 1874, Dr. S. P. Davis reports the case of a servant-girl who, while sitting upon the floor, suddenly reached forward to seize a child, and found immediately afterwards that she was unable to move her leg. On turning the patient upon her back, the left patella was seen to be turned upon its inner edge, so that its upper surface looked towards the opposite knee. It was rigidly fixed, and the limb was entirely helpless. The patient was etherised as she lay upon the floor. The whole limb was then elevated by an assistant, so as to relax the muscles in front of the thigh, and, by forcibly crowding down these muscles towards the knee with one hand, manipulating the patella at the same time with the other, reduction was effected with the utmost ease.

Bequest.—By the will of the late Jane C. Murdoch, Greenock, £100 has been left to the Larbert Imbecile Institution, and £100 to the Greenock Infirmary.

## BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1875.

SUBSCRIPTIONS to the Association for 1875 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, APRIL 17TH, 1875.

## COUGHS.

THERE are few objective phenomena more frequently presented to the notice of the medical man than cough. There are many varieties of cough, according to causation. In its simplest form, cough is a strong expiratory effort to get rid of some irritant matter in the respiratory tract. If a crumb get into the larynx, cough is at once induced. If one cough be insufficient for the expulsion of the intruder, another follows, and then another, it may be, until a prolonged fit of coughing is induced. Finally, the offending matter is expelled; or, in rare cases, it remains, the parts becoming habituated to the presence of the foreign body, and only at intervals do there occur attempts at expulsion.

A cough consists of, first, a quick inspiratory movement, then the diaphragm is fixed, and a strong action of the expiratory muscles follows. So forcible is the effort at times, that matters are expelled thereby from the abdominal cavity. The effect of the cough is to expel the contents of the air-tubes into the mouth, whence they are driven by another muscular movement. Under these circumstances, cough is an useful natural effort; but, when occurring under other circumstances, it may call for active remedial measures.

Cough may be divided into two divisions: the one, that of thoracic origin; the other, that of extrathoracic causation. When of thoracic origin, cough may be caused by irritation existing in the air-tubes, in the structure of the lung, in the pulmonic circulation, or by some growth or abnormal fluid accumulation within the larynx. According to its causation, and the condition under which it appears, so will be its appropriate treatment.

One of its commonest forms is that of its association with a cold. The mucous lining of the respiratory tract is dry, sensitive to slight impressions, so that a current of cold air blowing into the air-passages will prove a source of irritation, as well as a means of irritation itself. Under such circumstances, cough is repeated, uncontrollable, and persistent. If the condition be that of mere dryness with much irritability, sedative remedies are indicated, as paregoric, etc. If, however, it be but the first stage of inflammation of the mucous membrane, it is accompanied by a small amount of expectoration—a tenacious mucus streaked with blood. Here the condition must be met by nauseant remedies, especially those which also act powerfully upon the skin. By the administration of such relaxants, the turgid condition of the mucous membrane is diminished; free secretion follows; the mucus is more easily dislodged; and the first step towards recovery is secured. Having thus secured free secretion, or, as it is termed, "loosened" the cough, then the nauseant expectorants may be abandoned in favour of the stimulating expectorants. It is useless, however, to give squill, carbonate of ammonia, and senega, in the first stage; they may well follow the use of tartar emetic, ipecacuanha, or iodide of potassium with acetate of ammonia, but they may not take their place. The action of nauseant expectorants may often be usefully aided by the application of large hot poultices round the thorax; and, if the cold be fixed, counterirritation by croton-oil liniment, etc., is often of great service. A free secretion having been induced, then stimulating expectorants must be resorted to, and the system sustained by stimulants and beef-tea, milk, etc. The difficulty of breathing through the obstructed air-tubes, the disturbed and broken sleep, tax to the utmost the powers of endurance. Exhausting as this action may be, it is not good nor safe to give opium here. Not only would it tend to arrest the bronchial secretion, but it would tend to check those voluntary respiratory efforts which are often absolutely necessary. The patient could sleep without the aid of narcotics, if the air-tubes were but unclogged. As it is, however, the tubes must be cleared by cough, or the chemical interchanges carried on by respiration must cease. As a consequence of this demand upon the powers, bronchitis is a very fatal affection in the very young, the aged, and the feeble.

At other times, cough is not constant, and only appears under certain conditions. Such, for instance, is the morning cough common in cold weather, especially in a dust-laden atmosphere. The mucus which has gradually formed during the night, and to some extent the day before, is dislodged from the spots upon which it has accumulated, and which have become accustomed to its presence, and, in the movements of dressing, especially in stooping, slides on to some new locality, where the irritation so caused at once sets up cough. Piece by piece, the masses are dislodged in repeated series of coughs. At last, the air-tubes are cleared, and the cough disappears, to return next morning. When the source of irritation is laryngeal, direct applications to the morbid surface will do away with the irritation and its consequent reflex action—cough.

At other times, cough is due to the presence of some growth in the structure of the lung, acting as an irritant—a true thorn of Van Helmont. Such is the cough of a tubercular mass. This acts as an irritant to the terminal nerve-fibrils in the lung-tissue, and a series of reflex muscular actions is induced. It is obvious, however, that here the cough is useless, and the expulsion of the irritant matter is not to be accomplished. The cough is troublesome and exhausting, while it is futile. Under such circumstances, then, it is desirable to resort to some agent which will lessen reflex action. These agents are to be found amidst those neurotics which lessen nerve-action. Such are opium, bromide of potassium, hydrate of chloral, etc. These agents directly arrest the action in nerve-cells, and possibly lessen the conducting power of nerve-fibrils. Especially do they arrest those reflex actions which entail a pretty long course over different sets of nerve-fibrils. In the case, then, of cough which is excited by the presence of a growth in the lung-tissue acting as a foreign body, and which is obviously unavailable for the expulsion of the irritant matter, we must resort to these neurotic agents. To be efficient, these agents must be given continuously; and this entails some evil consequences. Opium is very useful but very objectionable in cases of tubercle, from its destructive effects upon the appetite. Nevertheless, it is desirable to allay the cough by some means.

When the tubercular mass has softened, and, by ulceration around its periphery, opened into an air-tube, then the cough is useful in procuring the expulsion of the semifluid mass. Here it is not desirable to allay the cough, unless it be absolutely indicated in order to admit of sleep. For the purpose of procuring rest, narcotics may be administered at bedtime; or, if there be a condition of hyperæsthesia leading to excessive and uselessly persistent cough, then they may be given in small doses during the day. Some care is requisite, however, to avoid the unnecessary resort to these agents.

When cough is due to a state of congestion of the pulmonic circulation, as it often is in disease of the heart, sedatives are undesirable and pernicious. This cough is dry and harsh, and may be induced in most persons by running rapidly up stairs. The excessive amount of blood in the thorax acts as an irritant, and so induces cough. Doubtless, in these conditions, opium will give immediate and temporary relief to the cough; but it will produce such an effect upon the heart and circulation as will but aggravate the state of matters. Not only so, but it interferes with nutrition, and the powers fail: a very undesirable condition of matters in affections of the heart. Here the cough must be met by rest, and by those agents which increase the power of the ventricular contractions. By such means, the cough will be relieved at the same time that other good results are secured.

If, however, the cough take its origin in the presence of an aneurism, the sedatives, combined with measures which lower blood-pressure generally, and so diminish the tension in the walls of the aneurism, are clearly indicated. Where there is a growth in the mediastinum which excites cough, sedatives are also to be resorted to. If there be any accumulation in the pleural cavities, the fluid must be dispersed by absorption or other means; and in the meantime the cough may be soothed by anodynes.

Cough is often extrathoracic in its origin. Not uncommonly it is induced by an elongated uvula, which tickles the epiglottis and the parts around, and so causes fruitless but troublesome cough. Here, obviously, the only satisfactory line of treatment is to remove the cause by amputating the uvula.

So persistent is the cough of pharyngeal ulceration, especially in its follicular form, that it was commonly taken for the cough of pulmonary tuberculosis, until the late Dr. Horace Green demonstrated its true nature. By a most interesting series of observations, he clearly indicated the nature of these cases; and, by applications to the seat of the ulcerations, he caused them to heal, and, in so doing away with the cause of the cough, cured it too.

At other times, cough is the consequence of irritation existing in the ear, and is termed ear-cough. Of course, for the successful treatment of this form of cough, the services of the aural surgeon must be invoked.

Cough is very commonly induced by irritation in the abdomen. Specially is this seen in the cough of gastric irritation, frequently associated with an undue consumption of alcohol. Usually, it is a morning-cough, and passe s away after some alcohol has been imbibed, and more so still if some food also be taken. In such cases, the correction of the habits, and the use of tonics with a mineral acid, will furnish the best line of treatment. At other times, cough marks a state of intestinal irritation, as diarrhœa.

Cough is also associated with irritation in the uterus in some cases, and here it may be necessary to subject the uterus to local applications ere the cough can be subdued. In all these cases, the only method of treating the cough, besides the removal of the cause, is the administration of those agents which lessen reflex action by their effects upon the nervous system.

Sometimes cough is due to certain modifications in the nervous system itself. Such is the cough which is found in young girls at puberty, and which causes much concern to anxious parents. It is a dry, short, persistent cough, in many respects resembling the cough of tubercle. It is not accompanied by any of the physical signs of tubercle, nor by any rise of temperature; in this, it differs from the tubercular cough. As, however, it is often accompanied by much wasting and by sleeplessness, due to the cough, it frequently causes much alarm. If the friends be injudicious, it may be impossible to remedy this cough. The measures to be resorted to are combinations of bromide of potassium with tonics. If there be ovarian excitement, and there be an erotic element in the case, the bromide may be pushed into full doses. If there be rather an irritable or adynamic condition of the nerve-centres, then chalybeates with vegetable tonics are indicated; and the bromide may be given at bedtime, or hydrate of chloral may be resorted to instead. These cases are troublesome and unsatisfactory; usually they persist, more or less controlled by remedial measures, until the attention is directed to some other absorbing matter, and then the cough disappears silently and unnoticed.

At other times, cough is a simple neurosis, and, as such, must be treated by the ordinary measures of tonics, stimulants, good food, etc.

Such, then, are the chief varieties of cough; whooping-cough not being a neurosis so much as a specific ailment. In all of them, there is a tendency to persist merely as a habit. For the correction of the factor formed by habit, the exercise of the will is essential. In children, especially those of neurosal habit, it is often as difficult as it is desirable to induce this action of will. It may often be assisted by the promise of a reward; and even some deterring power might be brought to bear where the will seems wanting. The desired volition may be further aided by good food, wine, and tonics. In adults, the force of habit rarely presents difficulties, unless it be in that intractable class of cases termed hysterical. If cough be an involuntary action in its origin, still some influence can be exercised over it by the will. This is seen in the different manner those persons cough, in cases where there is some phlegm to be raised, who have given attention to the matter, as compared with those who have not. The latter often have distressing fits of coughing, because they do not take pains to insure a good deep inspiration preparatory to the expiratory effort. We all know how ineffectual is the repeated cough where no such inspiration has been achieved; it goes on until at last either the contraction of the bronchial fibres has extruded the mass, or a convulsive inspiration enables the mass to be expectorated. Others, again, when they feel the inclination to cough becoming irresistible, secure a deep inspiration, which results in the mass being dislodged at the first expiration. Even if the first effort be not successful, the condition of inflation of the chest renders the cough less painful, and enables a second inspiration to be more easily secured; and it is of a fuller character, and consequently more efficient. In cases of chronic bronchitis, it is of much moment to teach the patient how to cough in the most effective and least distressing manner.

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An outbreak of cholera is said to have occurred at Oude, and is causing some mortality among railway passengers.

The British Medical Benevolent Fund has received a donation of £100 from Dr. Charles Shrimpton, of Whitehall, and formerly of Paris.

The *Student's Journal* mentions a case of death from inhalation of ether, stated to have occurred in Manchester. The case is not officially reported. We shall hope to receive details for publication.

A well-known and ably conducted medical journal, the *Deutsche Klinik*, which first appeared in 1849, has come to an end with the life of its founder and editor, Dr. Alexander Göschen.

It is stated that a serious escape of sewer-gas has occurred at the new public offices in Downing Street, London, so that they cannot yet be occupied.

At the Society of Medical Officers of Health this (Saturday) evening, Dr. Alfred Carpenter of Croydon will read a paper on the Practical Power of Soils, Air, and Vegetation to purify the Sewage of Water-Closet Towns.

The German surgeons held their fourth annual congress in Berlin last week, under the presidency, as heretofore, of Professor von Langenbeck. The meetings commenced on April 7th, and ended on the 10th.

The execution of Alfred Heap, the quack doctor, who was sentenced to death at the Liverpool Assizes, has been fixed to take place at Kirkdale Gaol on Monday the 19th. His friends are making a vigorous effort to obtain a reprieve, and a memorial with that object has received over 4,000 signatures, including those of thirty clergymen.

The President of the Local Government Board, in a letter to the St. Pancras Vestry, stated that, in the Bill which he proposes to bring in during the present session for the prevention of the pollution of rivers, he hopes to introduce a proviso which will have the effect of preventing the contamination of rivers and canals by sewage and other impurities.

At a meeting of the Council of University College on Saturday last, Sir Henry Thompson was appointed Emeritus Professor of Clinical Surgery, on his retirement from the duties of the hospital. The post is not to be altogether devoid of duty.

We understand that it is the intention of the Society of Apothecaries to institute, during May and June next, at their Hall a limited course of lectures on State Medicine. These lectures will be delivered by Dr. De Chaumont, Assistant-Professor of Hygiene at the Army Medical School at Netley.

A Bill to amend the Medical Act, 1858, so far as relates to the registration of women who have taken the degree of Doctor of Medicine in a foreign University, proposes to make registerable the degrees of the Universities of France, Berlin, Leipzig, Berne, and Zürich. It gives the General Medical Council power to add to the schedule, and to register such degrees, subject to the fifteenth section of the Medical Act. It is introduced by Mr. Cowper-Temple.

A new variety of special journal has appeared in France, *The Annals of the Diseases of the Ear and Larynx*. The first number includes an attempt at the Classification of the Diseases of the Larynx and Pharynx, by M. Isambert; Amygdalotomy, Part 1, by M. Germain; Menière's Disease, by M. Lacharrière; Rhinoscopy, by Dr. Krishaber, Part 1; Naso-pharyngeal Polypus, by M. Labbé; Laryngopathy of the First Phase of Syphilis; Parasitic Otitis; etc.

A committee, consisting of Professors Hildebrandt, Litzmann, Martin, Schwartz, and Spiegelberg, met in 1873, at the instance of the Prussian Government, to agree on the principles of a new hand-book for midwives in the kingdom. The preparation of the work was entrusted to Professor Litzmann, who has completed it; and the committee met again last week in Berlin for the purpose of revising it. Dr. Aveling some time since announced a similar manual for the midwives of this country; but it has not yet made its appearance. It would seem to be much wanted.

### A RESULT OF EXPERIMENT ON ANIMALS.

Dr. Ogilvie Will publishes in the *Edinburgh Medical Journal* for April a very interesting case of strychnia-poisoning successfully treated by chloral-hydrate. Interesting in many ways, it is especially so as one of the earliest practical applications to the saving of life and mitigation of pain of the latest researches on animals of the Edinburgh Committee on behalf of the British Medical Association, for which last year's grant was appropriated.

"The result of the treatment adopted in this case seems to me to be a proof that the antagonistic action of chloral-hydrate to strychnia, proved, by the experiments of the Committee appointed by the British Medical Association to investigate the antagonism of medicines, to exist in the lower animals, also shows itself in man; and I think that it is strong testimony in favour of some of the conclusions arrived at by Dr. Bennett and his co-workers, as given in the British Medical Journal of January 23rd, 1875. One it at any rate corroborates: 'That, after a dose of strychnia has produced severe tetanic convulsions, these convulsions may be reduced both in force and frequency by the use of chloral-hydrate, and consequently much suffering saved'; and, considering the undoubted severity of the symptoms, without laying much stress on the repeated statement of the patient that he had taken 'not less than four grains of the poison', I cannot but think myself justified in asserting that it goes far to prove the correctness of another, viz., 'That, after a fatal dose of strychnia, life may be saved by bringing the animal under the influence of chloral-hydrate'."

### THE WEATHER AND THE SOUTHERN HEALTH-RESORTS.

The *Berliner Klinische Wochenschrift* says: The severity of the winter just past has unfortunately made itself severely felt in the climatic health-resorts. From the *Œsterreische Badezeitung* we learn, that at Meran there was a quite unusual fall of snow in November, followed by extraordinary cold; and since then, the ordinary steadiness of the climate has been wanting till the spring, though the variability has been somewhat mitigated by the calm. Even Nice and San Remo have been for weeks together without the sun and their usual warmth; in Catania alone was there a steadily warm winter, curtailed in February only by nine days of rain. These statements are confirmed by private information, which we (*Berliner Klin. Woch.*) have received. At Nice, Mentone, San Remo, and Pisa, there were cold and stormy days in the beginning and middle of February: in the three first named places the thermometer sank in the course of the winter to —2 and even —3 cent. (28.5 and 26.5 deg. Fahr.); and at Naples and Capri there was similar weather at the end of February and beginning of March.

### THE WOUNDED IN WAR.

Some printed "Proposals for the Formation of an Army Hospital Corps", by "Unitas", have been forwarded to us. The chief feature of the plan is, that every company of Infantry, Royal Engineers, Royal Artillery, and Cavalry, should maintain at least one orderly, who should wear the dress, and be an unit in all respects, of the company, until his promotion to the grade of non-commissioned or warrant officer, when he should leave his regiment, and adopt the dress and equipment of the Army Hospital Corps properly so called. The regimental or company orderly should have two years' previous service in the ranks; should be sent for training to a general hospital; and then, if found fit after examination, should receive a certificate as a qualified orderly. It is presumed that it is intended by the plan set forth that, when not required for hospital duties, the orderly should be employed in the ranks as a soldier; for among the proposals is one that, when not employed on hospital duty, he should wear the Geneva badge on his arm over his regimental uniform. The plan proposed appears to be a very feasible one, if it be really intended as an addition to the Army Hospital Corps as at present constituted. If it be intended as a substitute for it, we fear it would hardly be found to answer the expectations of its author. One of the evils which the establishment of the Army Hospital Corps was intended to prevent, was the little reliance that medical officers could place on having suitable hospital attendants, or any at all, in sufficient number, when they depended on the regimental ranks for them. It is notorious that, in time of war, the combatant wants always overrode the medical wants, the accession to the fighting ranks of every soldier that could use a firelock being regarded as a matter of vital importance; and that, in time of peace, military considerations were constantly clashing with medical considerations, so far as concerned the soldiers employed in hospital duties. It was felt that the only way to prevent this discord, and to provide satisfactorily for meeting the wants of the sick, was to have a special independent corps of men thoroughly trained in hospital work, and maintained for that alone—not even carrying rifles, so that they might not be at any time employed in the ranks as combatants. There is no argument that can be brought forward for any one special corps in the army, that cannot be brought forward with greater force for a regular corps of hospital attendants on the sick. If the plan proposed, however, be additional to the existing Army Hospital Corps, then it appears to meet a want which will be surely felt in case this country should become involved in an European war. The present strength of the Army Hospital Corps is on all sides stated to be insufficient for the hospital duties which it has to discharge. All the men of the corps will certainly be wanted for the general hospitals in time of war; and where then will be the trained men for doing the responsible duties of giving the first assistance to the men wounded in action, of carrying them to the hospitals in the rear, and attending to their wants on the way? We believe we are right in saying that there is no army in Europe without a specially organised establishment designed to meet these urgent wants, except our own. The proposals of "Unitas", if carried out, would in some degree afford a provision for them.

### PROFESSIONAL PERILS.

We regret to announce the death of Mr. J. D. Hill, surgeon to the Royal Free Hospital, at the early age of 35. It occurred at his residence, Guilford Street, Russell Square, on Wednesday morning last, and was occasioned by erysipelas, cases of which disease he had been lately treating in the hospital. Mr. Hill received his medical education at Guy's Hospital, obtained the membership of the College of Surgeons in 1859, and the fellowship (by examination) in 1867. After filling the office of house-surgeon to the Royal Free Hospital, he was a few years since elected surgeon to that institution. He was also surgeon to the Orthopædic Hospital in Oxford Street. Mr. Hill was well known as an active and hard-working surgeon, and was a frequent contributor to medical journals, reviews, and transactions. His premature death from disease contracted in the course of his duty, adds another to the long list of medical men who have fallen victims to the risks inherent to their profession.

### SCIENTIFIC RESEARCH.

IN the course of his recent Faraday Lecture on Liebig's Contributions to Experimental Research, Dr. Hofmann especially pointed out that Liebig's first experiments on alcohol, and the action of chlorine upon it, led to the discovery of chloral and chloroform, two compounds now in continual use for the alleviation of human suffering; an illustration of the practical advantages ever following the pursuit of truth. Of the former compound, in 1868, probably there was not a kilogramme in existence in the whole world; now the factories of Berlin alone produce 100 kilogrammes daily. The object of the investigation of alcohol was to elucidate the constitution of the compound, and gave rise to a long protracted contest between Dumas and Boulley, on the one hand, who considered ether and alcohol to be hydrates of olefiant gas, and Liebig, on the other, who regarded them as derivatives of a radical to which he gave the name of ethyl. It ended in a signal victory for Liebig, and an universal adoption of his theory.

### EXAMINATION PAPERS.

AT Bow Street police-court on Saturday, Samuel Cowap was charged on remand before Mr. Flowers with inciting George Austin to steal an examination paper of the Pharmaceutical Society from Messrs. Stevens and Richardson, printers, of Great Queen Street. The prisoner, who was a chemist's assistant, had obtained the paper to make sure of passing the examination for which he had been studying a long while. Mr. Straight, who appeared for the prosecution for the Pharmaceutical Society, said that at first it was thought the prisoner had been acting under the advice of some third person who made it a profession to pass people through such examinations. This, however, had turned out to be not the case. The prisoner—up to that time a most respectable man—had doubtless succumbed to the temptation of making sure of his examination. Under these circumstances, Mr. Straight had advised his clients to ask the magistrate's permission to withdraw from the case; but, at the same time, he wished the public to understand, that should such conduct be repeated, the offender would be prosecuted and brought to conviction and punishment if possible. Mr. Flowers said he quite agreed that this was an exceptional case. He believed himself, that if the prisoner had had the pluck to go through his examination without trying to cheat he would have passed. Taking into consideration all that had been urged, he should offer no objection to the charge being withdrawn. The prisoner was therefore discharged.

### INCREASE OF LUNACY.

AT a recent meeting of the Surrey magistrates, the question of erecting a new building for the accommodation of the increasing number of lunatics was considered. The cost of the building was estimated at £15,000. It was urged that this would not only be desirable on the score of economy, but also on the ground of humanity; and the prospect is held out of affording for the insane both better care and more frequent cures. The Committee of the Brookwood Asylum, in their annual report, adverted to the injustice and impropriety of mixing ex-criminal lunatics with the harmless patients in country asylums, and they invited the attention of the Court to the desirability of representing to the Government the propriety of making some arrangements whereby the inmates of asylums might be relieved from this hardship. Ultimately, it was resolved to refer the whole question relating to the county lunatics to a Committee.

### A SUCCESSFUL BAZAAR.

THE Manchester Children's Hospital Bazaar came to a close on Saturday. The stall presided over by Mr. Bradbury, and given by the proprietors of *Punch*, realised nearly £1,500, 2,500 tickets of half a guinea each being sold for the Book Art Union. Mr. John Tenniel was present, and presided at the Art Union. The expenses will be subscribed for; and £20,000 will go to the charity clear, and a debt of £1,900 be paid in addition.

### KING'S COLLEGE HOSPITAL.

ON Wednesday, the 14th instant, the anniversary dinner in aid of the funds of King's College Hospital was held in King's College. His Royal Highness the Duke of Cambridge occupied the chair. There was a large gathering. The usual loyal toasts were given and responded to. In giving the toast of the evening, His Royal Highness said that King's College Hospital was an institution which did an immense amount of good. It was found that the present number of beds (172) was quite inadequate to the real necessities of the hospital; and the Committee were very anxious to increase the number, but were prevented from want of funds. The number of in-patients last year was 1,754, while the out-patients numbered 3,179. There was a large number of out-patients, because the poor patients felt that they could only secure first-rate medical advice by attending at a hospital. The out-patient department, then, could not be regarded as altogether useless. At present, there was no desire to make any change in it; but it was very desirable to increase the accommodation for in-patients. The Committee had had to expend £2,500 lately in much needed repairs and in sanitary improvements. The annual expenditure of the hospital was over £12,000, and of this only £1,600 was from any other source than subscriptions. Donations were good, but variable; and the grant from the Hospital Sunday Fund was only to be regarded as a windfall. It was very desirable, then, that the hospital should receive that support which would not only enable it to continue its present usefulness, but even to enlarge its sphere of utility. The subscriptions during the evening amounted to £1,300.

### THE FOOD AND DRUGS BILL.

DR. SEDGWICK SAUNDERS, the Medical Officer of Health for the City of London, has prepared an elaborate report on the Food and Drugs Bill, which has been ordered to be printed and circulated among the members of the Common Council. This Bill he conceived to have been drawn more in the interest of the trader than of the public, the clauses affecting the former for the benefit of the latter being almost nugatory in their application. He thought a standard of purity should be fixed, as well as rules defining the mode of analysis.

### UNQUALIFIED GUARDIANS.

KEIGHLEY is unfortunate in suffering at the present time from an epidemic of small-pox; it is remarkable in possessing a board of guardians who, in the face of this epidemic, obstinately refuse to carry out the Vaccination Act by the prosecution of those who neglect to vaccinate their children. Having been threatened by the Local Government Board with a *mandamus* to perform the duties which devolve upon them under that Act, these Guardians seem only to have been filled with the desire to become martyrs to what they regard as a piece of mischievous and obnoxious legislation. The attitude which the Guardians of Keighley have taken up has become so notorious, that for the time being the Antivaccination League have made the town their head-quarters; public meetings have been held, at which the usual mendacious statements have been made as to the general deterioration of health which results from vaccination, and the futility of its effect as a protection from small-pox. The entertainment at these meetings usually includes the edifying spectacle of the burning of the Vaccination Act. In the meantime, small-pox continues to prevail, and the efforts of the Medical Officer of Health, Mr. M. H. Hilles, to stamp out the disease, are to a considerable extent neutralised by the attitude of the Guardians, and the consequent strengthening of the antivaccination party. Mr. Hilles, in a letter to the *Keighley News* of the 3rd instant, publishes some statistics of the present small-pox epidemic in Keighley, which, if facts were appreciated at their proper value, would bring conviction of the value of vaccination even to the mind of an antivaccinator. During the three months ending March 31st last, there were 36 deaths from small-pox in Keighley; only 6 were of vaccinated persons, two having broken-down constitutions; 24 occurred among unvaccinated persons; and 6 were cases of doubtful vaccination. Among those attacked with the disease, the average percentage of deaths to cases during the three months was 4.6 among the vaccinated, 60.6 among the unvaccinated, and 31.9 among the doubtful cases. Only one unvaccinated adult attacked has recovered, whereas the whole of twenty-seven vaccinated adults recovered from the disease. The medical officer points out in his letter the direct misstatements and garbled statistics bearing upon this epidemic which appear in the antivaccination organ the *Vindicator*, which, he says, would scarcely be worth noticing except that they are sure to be reproduced on another occasion by these unscrupulous agitators. The action of the Local Government Board with reference to the Keighley Guardians is anxiously looked for. Is the threatened *mandamus* to end with the threat?

### THE TREATMENT OF ANEURISM BY FLEXION.

THE annual report of the Leicester Infirmary for the year 1874 contains some interesting statistics with reference to the administration of anæsthetics. It appears that 208 patients were submitted to their influence; in 199 instances, the agent used was chloroform; in 6, ether; and in 3, chloroform followed by ether. Many of those who were anæsthetised were patients who had met with accidents, and chloroform was used, not only to allay pain, but also for the safer and more perfect reduction and adjustment of dislocations and fractures. In no case was there any untoward result. We also observe the record of a case of popliteal aneurism cured by forcible flexion in six hours and a half—the shortest space of time recorded in a case of this kind to our knowledge. The rapidity of the cure in this instance is, however, almost equalled by a case of popliteal aneurism cured by forcible flexion by M. Verneuil in eleven hours, by sittings of half an hour at a time. The particulars of this case are reported by Mr. Holmes in an article on Verneuil on the Treatment of Aneurism, published in the *London Medical Record* of March 24th.

### LARGE DOSES AND POTENT DRUGS.

AT a meeting of the Richmond Academy of Medicine (February 4th), reported in the *Virginia Medical Monthly*, Dr. R. T. Coleman presented the report of the committee appointed to confer with the Committee of the Richmond Pharmaceutical Association relative to the suggestions of the latter Association. The committee recommended (1) that the letters *p. c.* (*præter consuetudinem*) be written by the physician on the left of, and on the same line with, the name of any potent ingredient, when purposely prescribed in doses larger than those ordinarily used; (2) that members of both Societies shall use every proper means to stop the sale of such drugs as opium, chloral, etc., except upon competent medical authority, and that the legislature be memorialised to make proper enactments to effect the object in view; (3) that since the drachm (ʒ) and ounce (℥) symbols are sometimes fatally confounded because of their strongly marked similarity, when hastily or carelessly written, the Greek capital delta, Δ (the first letter of the word δραχμα), be hereafter used instead of the present sign; and (4) that the apothecary is not at liberty to reveal to the patient the components of a physician's prescription written in technical language. Mr. J. Blair, President of the Richmond Pharmaceutical Association, was invited to participate in the discussion. He said that in Germany the physician was required to affix a caution mark opposite the name of any powerful drug prescribed in unusual doses. The adoption of such a sign would relieve the apothecary of much embarrassment. Dr. M. L. James suggested that the letters be enclosed in brackets, thus [p. c.]. On vote, the first recommendation was adopted. The second recommendation was also adopted. Drs. McCaw, Coleman, and Parker were appointed committee to memorialise the Legislature. Regarding the third recommendation, Mr. Blair advocated it as the most important part of the report. He thought that if these suggestions should be adopted by this Society and the Pharmaceutical Association, they would probably be accepted after a time by the National Medical and Pharmaceutical Associations, and thus they might be adopted generally throughout the United States. After some discussion, this recommendation was rejected by a majority vote. The fourth recommendation was concurred in.

### SUCCESSFUL RESUSCITATION FROM CHLOROFORM NARCOSIS BY NÉLATON'S METHOD.

DR. CHARLES WM. COVERNTON, of Simcoe, Ontario, records a case in the *Canada Lancet* of March 1st. Chloroform was administered to a lad aged nine, to facilitate suture of a wound of the hand.

"On asking for a pin to fasten the terminal end of the bandage, Mrs. G., on handing one to me, dropped the sponge; and, to my horror, I discovered there was no evidences of breathing, and no pulse at the temple or wrist. The boy was lying on a sofa, so it was only the work of an instant to place his head on the floor, and direct my son to hold his legs in the perpendicular position. An elder brother, sitting by a window, was directed to throw it open; cold water at hand was dashed on the face, and fortunately without difficulty I was enabled to grasp and keep protruded the tongue with the thumb and finger of my left hand; with my right, I made pressure alternately on the thorax and abdomen, whilst Mrs. G. quietly and intelligently elevated and depressed the arms, settling to the work as coolly as if she had been a member of the staff of the Royal Humane Society for years, neither by word nor sign giving evidence of trepidation. On such alarming emergencies, it is difficult rightly to estimate the lapse of time, but certainly the most wretched quarter of an hour I ever experienced appeared to elapse before there was the least appearance of animation. My son's estimate was over twenty minutes. The first attempt at inspiration was of the feeblest, gradually succeeded by more vigorous ones; vomiting then ensued. In attempting to slightly turn and elevate the head, so as to guard against the vomited matter that filled his mouth regurgitating into the trachea, I lost my hold of the tongue, and the jaws instantly closed like a vice; all attempts at opening them failed, and again I feared the case would prove hopeless. To my inexpressible relief, another faint attempt at vomiting occurred with complete relaxation of the jaws; the tongue was instantly again grasped, and held firm until the breathing was completely established, the pulse was perceptible, and slight coloration of lips and face returned. For another five minutes, he was kept inverted, the nostrils cleared of vomited matter, and friction of the chest with a dry towel employed; he was then replaced on the sofa, made reclining at an acute angle by placing one end on a chair, and in a few minutes we became jubilant. The boy opened his eyes, moved his head to one side, and fell into a calm sleep; this continued for more than an hour, when he awoke conscious. There is little doubt in my mind that, if artificial respiration in the horizontal position had been solely relied on, our efforts would have proved futile."

### UNSKILFUL DENTISTRY.

A CHEETHAM dentist was sued at the Salford County Court on the 12th instant by one of his patients, who sought to recover compensation for injuries caused by "the negligent and unskilful extraction of a tooth". After hearing evidence, the judge held that the defendant had not displayed reasonable skill, and awarded the plaintiff £20 damages.

### OPIUM-POISONING IN AN INFANT THROUGH BREAST-MILK.

AN instructive case is recorded by Dr. F. Hawthorn in a recent number of the *New Orleans Medical and Surgical Journal*. On January 7th, a lady, wife of a physician, was operated on, at 12 noon, by Dr. T. G. Richardson. Two hours before the operation, she took twenty-five drops of Battley's sedative solution; at 2 P.M. the same quantity; and at 8 P.M. a grain of opium in pill. Her infant—a healthy boy seven weeks old—was during the whole day restless and fretful, except when imperfectly sleeping. At 12 P.M. he took the breast, and afterwards slept soundly for six hours, when he awoke and sucked a very little. After this, he continued sound asleep through the day; and at 2 P.M. his breathing was noticed to be somewhat diminished in frequency, shallow, and jerking. At 10 P.M. Dr. Hawthorn saw him, and found the pupils much contracted, the breathing very shallow and jerking, and very irregular, though not much reduced in frequency: he could only be roused with much difficulty. Coffee was given by the mouth and rectum, and he was exposed to the air at the window. He appeared to be much improved at the end of an hour; but an hour afterwards his breathing became arrested for some time, and he was apparently dead. After this he revived, and at 2 o'clock next morning was out of danger. Dr. Hawthorn regards the case as presenting two points of interest: 1, opium-poisoning through the agency of breast-milk; 2, the long duration of the symptoms (twenty-six hours).

### THE JEFFERSON MEDICAL COLLEGE, PHILADELPHIA.

THE annual commencement of the Jefferson Medical College was held on March 11th, when the degree of Doctor of Medicine was conferred on 170 graduates. Among them was one Englishman, Mr. Charles M. Thompson, who had also the honour of receiving the Toner Medal for "the best Thesis based on original experiments, observations, and researches". The medal was presented by the founder himself, Dr. Toner of Washington. On the same occasion, the Alumni Association presented to the College a portrait of Professor Samuel D. Gross. On making the presentation on behalf of the Association, Dr. W. B. Atkinson recited the more important events of Dr. Gross's career, and paid a high tribute to his personal and professional qualities.

### TELEGRAPH WRITERS' CRAMP.

AT the meeting of the Paris Société de Biologie on March 20th, M. Onimus stated that he had seen two cases of an affection analogous to writers' cramp, and which is not uncommon in telegraph clerks, especially those who use Morse's instrument. They themselves call it the telegraphic complaint, and it may henceforth be designated as telegraph clerks' cramp. The affection begins by some stiffness in the manipulation of letters in which the strokes and dots are disposed in a certain way. By degrees, all manipulation becomes impossible; the patient then tries to make use of the thumb, then of the wrist; but movement becomes impossible, and is accompanied by incoordinate motions. The best means of avoiding this affection is to change the instrument, and to replace the Morse telegraph by Hughes's. In England the malady is said to be unknown.

## SCOTLAND.

A CONSIDERABLE number of cases of fever, chiefly typhus and typhoid, are stated to exist in Greenock. The authorities are taking precautionary steps to prevent the spread of the disease.

THE Bazaar at Glasgow for the Hospital for Incurables, realised altogether, after being open for seven days, the sum of £13,900; and as £14,000 had been subscribed previous to the bazaar, the total sum available will be close on £28,000.

MR. JAMES DEWAR, demonstrator of Chemistry in the University of Edinburgh, and formerly assistant to Professors Tait and Lyon Play-elected to the Jacksonian Professorship of Chemistry at Cambridge.

ALTHOUGH much has been done for the purification of the North Esk, the impurities which find their way into the stream are still considerable. Some time ago a plan was suggested by Mr. H. Stewart, C.E., for thoroughly preserving the river from pollution, by conveying the refuse from the paper-mills in a large pipe, which would be laid in the valley of the Esk, and be connected with all the mills, and would discharge into the sea near Musselburgh. Another plan which has been mooted is the precipitation process, which has been tried with some success in one large mill at Lasswade. Messrs. Hawksley, C.E., and Leslie, C.E., and Dr. Falconer King, chemist, Edinburgh, have been appointed, by the parties interested, to survey the Esk, and report on the feasibility of Mr. Stewart's scheme from the engineering and chemical point of view. Supposing the engineering difficulty of laying the pipe to the sea to be solved, it will require to be determined whether the effluent waters, with their impurities, will not corrode ordinary pipes. The investigation is likely to last some time.

### THE BLIND IN EDINBURGH.

FOR some time past, a project has been on foot for the amalgamation of the Gayfield Square School for Blind Children with the Edinburgh Blind Asylum. A formal agreement has been at length drawn up, and the arrangement will take effect as soon as the buildings in progress can be completed. The Gayfield Square institution has been engaged in educating blind children for the past forty years, and now musters thirty-four inmates and six day scholars. There has been no falling off in the number of applicants during the past two years, as it was expected there would be, now that the School Boards are chargeable with the education of the blind; and it has long been evident to the directors that it is desirable to afford the pupils some industrial training in addition to the purely educational help previously given, in order to fit them for gaining admission, at the age of fifteen, to the Blind Asylum. With this view, and with the prospect of a saving in working expenses, an arrangement has at length been come to, by which the asylum directors take over the thirty-four children at present boarded on the school premises, at the same time acquiring such property and funds as the directors of the school have at their disposal. In order to provide accommodation for the new inmates, the asylum managers have commenced building the remaining wing of their house at West Craigmillar, a portion of the work which had for the time been left in abeyance. It is expected that the new asylum, which is to cost about £15,000, will be completed in the course of the present season, and that, at the beginning of next year, the female blind, at present in a house in Nicholson Street, and the school children, will be removed thither. In connection with this change, it is intended to devote increased attention in the asylum to musical education, as it is thought that, when there are children to deal with, special musical aptitude will be earlier discovered, and means can then be taken to give them such a musical training as will enable them, as tuners or organists, to earn a comfortable livelihood.

### THE EDINBURGH DEAF AND DUMB INSTITUTION.

THE annual meeting of the subscribers of the Edinburgh Deaf and Dumb Institution took place last week in the schoolroom of the institution. From the sixty-fifth annual report, it appeared that, during the past twelve months, 13 pupils had left and 10 had been admitted, and that the number at present in the institution was 56, being 4 less than at the same time last year. Of these, 33 were boys and 23 girls. The report further stated, with regard to the health of the pupils, that in the month of December there had been five cases of scarlet fever, and during the year there had been one death from obstruction of the windpipe; but, at present, all the pupils were in excellent health. It was also reported, that the following legacies have been received during the past year: £1,000 from Mr. Grindlay, £289:9:6 from Mr. D. Nisbet, £100 from Mr. Dewar, and other smaller sums. The progress made by the deaf-mutes in all branches of knowledge in which it was possible to instruct them was very satisfactory.

### PHYSIOLOGICAL ACTION OF LIGHT.

AT the last meeting of the Royal Society of Edinburgh, Mr. James Dewar read the second part of a paper by Dr. McKendrick and himself "On the Physiological Action of Light". In this communication were detailed the physiological effects of various coloured rays, namely, those of the solar spectrum, and those produced by polarised light, the result being that the electrical effect registered by the galvanometer was greatest for the rays which appear to us most luminous. Experiments on the relation of the brain to electrical action also showed that the current was sometimes greater and sometimes less than that of the normal nerve. Experiments made with the view to determine the electro-motive force, by a very exact method, were described, and lastly there were given the results obtained in the registration of minute intervals of time, which showed that the production of luminous impressions required, in the case of the eye of the frog, .310 of a second. The apparatus employed in conducting these experiments Mr. Dewar characterised as new, and of a very delicate and refined nature. In the course of the evening, Professor Kelland, who was in the chair, introduced Captain Nares, late of the Challenger Expedition, and now chief of the Arctic expedition. The captain said that the richest stores of the Challenger expedition were the deep sea fisheries; and from the seas lying above clay bottoms, they had got two or three hundred new species, many of which must be identical with geological specimens.

### THE RAINFALL.

THE rainfall during March was very much below the average, except the east and south-east of Scotland. In these regions, the general deficit is marked by a heavy fall during the night of the 8th, accompanied by south-westerly gales. Over the remainder of the kingdom, the continuance of dry northerly and easterly winds has been very remarkable, and, as a result, we find that on our south-western coasts only about one-third of the average fall has been recorded, while in the south-east of England a still smaller proportion has been measured.

## IRELAND.

A CONVERSAZIONE was held at the Royal College of Surgeons of Ireland, on Thursday the 15th instant.

DURING the first quarter of the year, the births registered in Dublin amounted to 2,404, and the deaths to 2,700; being an increase in the births of 316, and of 562 in the deaths, over that of the preceding quarter.

### BELFAST LYING-IN HOSPITAL.

THE annual report of this most admirable institution has been issued, and from it we find that, during the past year, the number of patients admitted was 174; and that there were 175 births, one case of twins, and eleven still born, whilst, out of the 174 admitted, but two died. The report draws attention to an important point in connection with the hospital, namely, that nurses are admitted in succession for training, on payment of a fee, and allowed to remain for six months' residence in the institution.

### THE LATE DR. JAMES SAWYER.

THIS gentleman, who was formerly Professor of Midwifery in the Royal College of Surgeons, but lately resigned in consequence of ill-health, died at his residence near Dublin, on the 12th instant. He was one of the Masters of the Coombe Lying-in Hospital, Dublin, and had formerly a considerable midwifery practice.

### MEATH HOSPITAL, DUBLIN.

AT a meeting of the standing committee of this hospital held on Monday, the 12th instant, it was unanimously resolved: "That this committee, having heard of the resignation of Dr. Stokes, desire to place on record an expression of their sense of the inestimable benefits conferred by him on the hospital during his long service in it, and of their regret at the severance of his official connection with it."

### STIMULANTS IN WORKHOUSES.

DURING the year ending March last, there were consumed in the Cork Workhouse, 726 gallons of wine, 219 gallons of whiskey, 4,766 gallons of porter, and 212 bottles of brandy, at a cost of £685 15s. 7d. The number of inmates on Saturday, March 27th, was 2,231, of whom 1,058 were "patients", and the return of stimulants for that period that they consumed was 1,046 glasses of wine, 411 of whiskey, and 705½ pints of porter, whilst the supply of meat was 2,078 lbs., and of eggs 1,990! Comment is superfluous; but it may be said that although this state of things may make the inmates very comfortable, it must be excessively disagreeable for the ratepayers.

## ASSOCIATION INTELLIGENCE.

### SOUTH HANTS DISTRICT: SOUTHERN BRANCH.

THE next ordinary meeting will be held at the Red Lion Hotel, Fareham, on Tuesday, April 20th, at 4.45 P.M.

Notice has been received of the following communications:

1. Dr. MANLEY: The Diagnosis of Insanity.
2. Mr. G. H. CASE: A Case of Polypus of the Rectum.

Dinner will be provided at 6.15 P.M., charge 6s., exclusive of wine. Members intending to be present, are requested to communicate with Dr. Case, Fareham, on or before April 17th.

J. WARD COUSINS, *Hon. Sec.*

### NORTH OF ENGLAND BRANCH.

THE Spring Meeting of the above Branch will be held at the Assembly Rooms, Bath Terrace, Tynemouth, on Thursday, April 29th, at two P.M. The following papers have been promised:

1. On the Treatment of Habitual Drunkards. By Dr. Eastwood.
2. On the Pathology of Catarrhal Pneumonia. By Dr. Macdonald.
3. A case of Extrauterine Fœtation. By Dr. Byrom Bramwell.
4. A case of Extrauterine Fœtation. By James Wilson, Esq.
5. A case of supposed Renal Calculus. By Anthony Bell, Esq.

Gentlemen who are desirous of reading papers, exhibiting pathological specimens, or making other communications, are requested to communicate with the secretary, at their earliest convenience. Dinner at the Bath Hotel, Tynemouth, at four P.M. Tickets, 7s. 6d., exclusive of wine. G. H. PHILIPSON, M.D., *Honorary Secretary.*

Newcastle-upon-Tyne, April 3rd, 1875.

### MIDLAND BRANCH.

A QUARTERLY meeting will be held at Lincoln on Wednesday, May 5th. Members desirous of reading papers are requested to communicate at once with C. HARRISON, M.D., *Hon. Sec.*

Lincoln, April 11th, 1875.

### BORDER COUNTIES BRANCH.

THE spring meeting of the Branch will be held at Carlisle on May 12th, 1875. President, Dr. Green, Kendal; President-elect, Dr. W. A. F. Browne, Dumfries. Gentlemen intending to read papers, or be present at the dinner, are requested to give notice to the Secretaries.

HENRY BARNES, M.D. } *Hon.*
J. SMITH, M.D. } *Secs.*

Carlisle, April 13th, 1875.

PRESENTATION.—The staff of the British Equitable Assurance Company on the 9th instant presented to Mr. Thomas Carr Jackson, M.R.C.S., a valuable service of plate, in recognition of twenty years of professional service. The managing director of the Company (W. S. Gover, Esq.), in making the presentation, stated that Mr. Jackson had been professionally connected with the Company from its commencement, and that it would be difficult to overestimate his great industry and incredible painstaking. His labours had been submitted to the most severe tests with uniformly satisfactory results; and it only remained for him (Mr. Gover) to present the testimonial, and express an earnest wish that the happiness, usefulness, and valuable services of Mr. Jackson might be long continued. Mr. Jackson thanked the meeting.

TESTIMONIAL.—In recognition of the services of Mr. A. G. Roper of Croydon, in behalf of the Croydon General Hospital, to which institute Mr. Roper is the Honorary Secretary, a number of the inhabitants subscribed to a testimonial, which took the form of a rosewood oblique grand pianoforte, with music cabinet, a silver tea- and coffee-service, with tray and salver, a handsome drawing-room clock, and vases to match. The salver contained the following inscription. "This salver, with a tea- and coffee-service and tray, was presented to A. G. Roper, Esq., F.R.C.S., by the friends of the Croydon General Hospital, in acknowledgment of invaluable services rendered by him as Honorary Secretary to that institution. March 11th, 1875."

# REPORTS OF SOCIETIES.

## OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, APRIL 7TH, 1875.

W. O. PRIESTLEY, M.D., F.R.C.P., President, in the Chair.

### ON THE RELATION OF PUERPERAL FEVER TO THE INFECTIVE DISEASES AND PYÆMIA.

AT a very full meeting of the Society, Mr. SPENCER WELLS opened the discussion previously announced by an Address, which will be found printed at page 501.

DR. LEISHMAN (Glasgow): In availing myself of the opportunity which the courteous invitation has permitted to me of taking part in this discussion—for I presume there can be little doubt that the remarks of to-night will more or less take the form of a discussion—I am a little taken aback in your having selected me as the first speaker after the distinguished essayist of this evening. I confess, however, that I have a peculiar satisfaction in being able to speak to-night on this subject. I may say I have in some measure a personal satisfaction in speaking, upon various grounds. I think I shall have the support and sympathy of every person present whose duty it has been to teach the subject of obstetrics, and still more, perhaps, I may have the support of those who have had occasion to write upon this particular department of obstetrics, when I say that, when in their lectures they approach the subject of puerperal fever, they have felt that they were approaching a subject with which they were in a great measure incompetent to deal. It is not for me to explain, nor would I presume for a moment to indicate, the reasons of this in all their bearings; but I can well understand, and from experience I can assert, that the difference of opinion which has at all times existed on this subject has been the main reason of this confusion. I have a strong personal feeling in regard to this subject, because I have, to some limited extent, disseminated views which I now feel to have been erroneous; and I am, therefore, glad to have this opportunity, before such a distinguished body of my fellow practitioners, of disclaiming, and in a sense abjuring, certain errors which I have had some share in disseminating among the juniors of the profession. I have regretted every day since I wrote on the subject that I had not more thoroughly investigated the evidence of the pyæmic source of puerperal fever; for the more I have done so, the more convinced have I become that, in a large proportion at all events of these cases, there is strong evidence to lead us to believe that they have their origin in pyæmic or septicæmic infection. I am not prepared to go the length which I believe many writers in Germany and some in this country have gone, in supposing that we are permitted to accept this pyæmic theory as the solution of all our difficulties; that by admitting pyæmia, or septicæmia, or ichorrhæmia, or whatever you choose to call it, as the cause of puerperal fever, we get rid of all our difficulties; and that for what we have hitherto considered *chaos*, we may in future read *cosmos*. I do not believe that it is so; for there are points of difficulty which must arise in the mind of every man of experience which have yet to be solved. I admit, and I should like to admit with all possible emphasis on an occasion like the present, that I believe the pyæmic or septicæmic origin of many cases of puerperal fever has been fully and thoroughly established; but I am not at all sure that this will account for all the cases that come before us in practice. There are cases in which a patient in the puerperal state unfortunately becomes the subject of diseases of specific origin. I may mention as an illustration scarlatina. A patient becomes infected with the specific poison of scarlatina. There is nothing in practice which we dread so much, and the result unfortunately proves that our dread is well founded. But, in the later history of such cases, I have had a difficulty in discovering any difference between the cases which we may suppose to have a specific origin and those which have proceeded from a specific poison. Again, there is another class of cases in which it would appear as if the original symptoms were more those of a local inflammation, be it metritis or peritonitis, localised or general; and in all these instances, whatever the initiatory symptoms may have been, in so far as my experience enables me to form an opinion, I have again a difficulty in separating those cases, as far as the final symptoms are concerned, from those in which puerperal fever is dependent on pyæmia or septicæmia. These I take the liberty of presenting to the Society merely as the difficulties which have suggested themselves to my mind, having naturally, and as a matter of necessity, had the subject under consideration for a long time. I well know that in what I have written on the subject I have stated views which I am not prepared to support; I therefore began by frankly withdrawing something of what I had previously written; and perhaps what I now state may enable those members of the Society, if there be any such, who have done me the honour of perusing what I have published, to correct these views. There are other points which suggest difficulties. We have frequently been informed that these diseases are likely to be engendered by decomposing animal matters, from whatever source the decomposition may originally arise. It has been very commonly asserted, and rules in fact have been framed, bearing upon the question in those countries more particularly in which puerperal fever is most common, that students who dissect are liable to convey this infection. I have not the slightest idea of calling in question the accuracy of this assertion; but what I should like to point out is this, that if this were so certain and so frequent a method of communicating the disease as some would suppose, we should have far more puerperal fever in the practice of students who dissect. Then, again, if we are to assume this question of pyæmia as identical with puerperal fever, we know what pyæmia is in a surgical hospital. I presume it was the prevalence of pyæmia in surgical hospitals which led the late Sir James Simpson to write his celebrated papers on hospitals. Pyæmia in a surgical hospital is a dreadful scourge. It may be conveyed by the surgeon; it may be conveyed by dressers, by nurses, by anybody; and beyond a doubt it may be conveyed, as Professor Lister has clearly shown, through the atmosphere. I consider that that is a point which now-a-days is demonstrated. Yet in surgical hospitals, pyæmia is not such a scourge as puerperal fever is in lying-in hospitals. If you have the disease once existing in a lying-in hospital, you have it communicated with a frequency, with a fearful fatality in point of result, which it is appalling to contemplate; so much so, indeed, that I think I scarcely exaggerate matters when I say that, in some continental towns, the condition of a woman entering a lying-in hospital for attendance and care during the puerperal period, is something like this: that she must be content to incur the risk of a patient who takes typhus fever in the discharge of this purely physiological function. Now, this identity of pyæmia and septicæmia with puerperal fever may be established within certain limits, or it may not; but it appears to me that there is an intensity in the infection, that there is a peculiarity in the conditions, or there may be (as has often been said) in the woman in the puerperal state, a peculiar condition, which renders her specially liable to impressions about which we know very little, that may account for all this. These are points which, in connection with those that have been formulated so kindly and ably for us by Mr. Spencer Wells, it appears to me should be taken under the consideration of the Society. I am unwilling to take up the time of the Society longer. There are many points on which I should like to speak; but I should be sorry to carry the forbearance of the Society even to the limits in point of time which you have laid down. I cannot, however, sit down without congratulating the Society as a body on the fact that this important subject, perhaps one of the most important of the present day, has been in this prominent manner brought under the notice of the Society, in the temperate and dispassionate manner that it has been to-night, rather inviting discussion than stating broad and distinct views with which we must agree, or from which we must be prepared absolutely to dissent. And I would almost venture to predict that the result of the discussion which has been inaugurated to-night, arguing from the interest which it seems to have awakened in all quarters, will be a result which will be for good, for abiding good, in the future history of obstetrics.

DR. NEWMAN (Stamford): In rising to speak, I may say that I meet the requirements of your courteous invitation in two respects. I am a country practitioner, and I have come from some distance—I cannot say with the express object of being present to-night—but, at all events, I am glad that the opportunity should offer itself to me of listening to the discussion this evening, on a subject of so much importance to us all. You will pardon me if, in speaking on the matter, I may seem to speak too egotistically. I simply say that, after some twenty years of tolerably hard country work, first in a village, then in a country town, in general practice and hospital practice, I have come to certain conclusions which may or may not be correct, and which I should have a difficulty in following out one by one, giving you the arguments that have brought me to those conclusions. In taking the propositions which Mr. Spencer Wells has formulated for us this evening, I may say, in the first instance, that I should hold strongly that there is no such thing as a definite puerperal fever, so called. In the next place, I should say, with equal decision, that in a large number of cases of puerperal fever—I have traced it in my own personal experience, and have known it in the practice of other gentlemen with whom I happen to have been associated—there has been a distant, it may be yet a definite, link in the occurrence of possible transmission to the patient of some definite infecting poison. I cannot give a much more striking instance of it than this. Some years ago, I saw a lady who was exceedingly ill with puerperal fever. Two days after my visit, she died. The opportunity was afforded me of close inquiry, I might almost say exhaustive inquiry, into the history of the few days or few weeks that preceded her delivery. It turned out that there had been a visit paid by her to the house of a neighbour in the same village, and a child in the house was at that moment suffering from scarlet fever. She knew nothing of it: she simply knew that the child was ill. She paid no attention to it, and, until the inquiry was pushed as closely as it could be, there had been no idea in the mind of the patient, or in the mind of the medical attendant (for he came from a distance), or of any one connected with her, that that could have been the cause of the disease that led to the fatal issue. I should take that simply as a type, and say that my impression is that, in a large number of instances, of some of which I have notes, and of some none, the condition in question has its origin in direct or indirect communication with some infective process. There is another set of cases—and I am again drawing on my memory for a very clear one that I happen to have seen—where I believe that a local inflammatory mischief may unquestionably kill, by its production of a definite pyæmic condition, as certainly as it would kill in the instance of a surgical operation followed by pyæmia. I was asked some time ago to see a woman, who had been suffering for two months. She was supposed to have been three or four or five months pregnant, and she had been suffering for two months from a certain amount of hæmorrhage. She had lost so much blood, and her general condition was so bad, that one felt that the only thing to offer her a reasonable chance was at once to empty the uterus. This was done by her own attendant at my suggestion, in the first instance by the dilatation of the os uteri, then by manual removal of the fœtus or ovum, and the secundines. Within three days, she had rigor; and when I saw her subsequently she had all the symptoms of pyæmia. She had an abscess in the shoulder-joint, an abscess in the wrist, and not a few collections of matter in different portions of the body. That again I should take as a type of another set of cases, where I believe a morbid process, which we are satisfied to call puerperal fever for want of a better term, had its origin in a direct local lesion. That lesion may have been produced by enforced dilatation, and the forcible removal of the retained material; but still there the condition was. I have further to say—and here I am referring to what has fallen from the preceding speaker—that one has very much to bear in mind that even in our present state, with fairly cared-for houses and the rest, there is not uncommonly such a condition of sewer-air permeating the houses, that the general state of a parturient woman before her delivery is below par; hence the greater tendency on her part to absorb—if I may use the word—infective material, however it may be presented to her. I would further add that there can be very little question that the activity of the vital processes would certainly seem to be associated from the very earliest condition of pregnancy to its close,—that the history of every pregnant woman must be understood by a no far-fetched analogy, to have a material influence upon the question before us. Given a woman in whom all the processes, nervous, vital, circulatory, mental, if you like, are materially excited or altered in their condition of reasonable health; and I should maintain that in that phase alone we have much to look for in the way of an explanation of the reasons why poisons that run a different course, or at all events a slower course, under more ordinary states of everyday life, run, when they have to deal with a parturient woman, a course of far more severity and far greater rapidity, and, unhappily, far greater fatality. One more remark, and I have done. It seems that one should take into consideration, at all events that one should not hastily dismiss, the mental conditions which not uncommonly associate themselves with pregnancy. On this ground it happened to me some years ago to tabulate—I never did anything more than tabulate—a certain number of cases of puerperal fever that had occurred to my own knowledge. I think I may say that in a good number of them there were, at all events, the elements of distinct mental disturbance. I do not refer to mental disturbance in the sense of insanity, but in the sense of distressing circumstances, of the condition of pregnancy being a result of seduction, and many other reasons which will occur to gentlemen present. These do unquestionably seem to me to play a material part, at all events, in predisposing the system to the virulent development of septic poisons, however they happen to be introduced. I have to apologise to the Society for the very imperfect manner in which I have spoken. I began by saying that I would simply give my own personal impressions. I ask the Fellows to be good enough to accept them, and to give to them the very small value that they actually possess. I had no intention, when I thought of coming to the Society, to join in any way in the discussion; and I may almost say that, if I had not had a direct personal invitation, I should hardly have dared to do so.

DR. BRAXTON HICKS: I presume that by the discussion in which we are engaged we shall not be able to clear up all the ambiguities and uncertainties with which this subject is surrounded. I take it that the principal advantage of such meetings is that the current opinion of observers may be brought out, and thus a certain impetus is given to the progress of knowledge, which would not have taken place, had each speaker waited to mature his opinions. Hence it follows that opinions expressed under such circumstances have more or less the disadvantage of imperfection, though it may be that the hints thrown out by the various speakers will stimulate thought in others, and, indeed, in themselves. The difficulties of this subject have been somewhat retarded by two means. First, most of the older observations were made in hospitals, and thus, if we admit that the disease is contagious, the character of the cases in each epidemic is similar. Thus, some have said puerperal fever was erysipelas, diphtheria, etc. Another retardation arose from the very means by which information was obtained; namely, from the *post mortem* room. For, according as one appearance was more prominent, so it was considered the essence of the complaint; thus peritonitis, enteritis, phlebitis, etc., were considered the real disease, instead of being looked to as effects. Not that I would underrate the value of these investigations, carried on as they were at much personal risk, but to point out that these opinions prevented the observer from looking in the real direction, namely, to the clinical facts, derived not only from hospital, but from all the variable conditions of home attendance. However, the general *post mortem* appearances having now been ascertained and well known, it is to the clinical study of the disease that I would now urge the attention of obstetricians, leaving the inquiry as the exact nature of the poison as a separate one, simultaneously carried on, but still separately. By this means we shall proceed with more distinctness of purpose. I have already, in a paper called a "Contribution to the Knowledge of Puerperal Diseases", endeavoured to show the clinical aspect of the conditions classed under the general head of "Puerperal Fever", taken from the various circumstances of home attendance in all classes of the community. I would not again detain the attention of this Society, by alluding to the facts there shown, did I not consider them to have a great bearing on the subject of the paper of this evening, and that from further inquiries, the results there set forth may be taken as a fair average of practice as seen in consulting practice. There is no doubt that they represent the severer cases; but I must here point out an error into which many fall in estimating the extent of the influence of circumstances on the puerperal woman by the death-rate. It is not by the death-rate we can judge; I should say, broadly, that where one dies, three or more are retarded in their recovery by either a more or less mild state of fever, or by the secondary effects well known to us as cellulitis, phlegmasia, etc. Not till these also are calculated, can we recognise fully any influence brought to bear on the puerperal woman. Now, the cases brought forward in that paper were those of simple labour: I did not include any about which I had made no inquiry as to the surroundings, either those which existed before or after. I found that, out of 89, 68 had been connected in some kind or another with animal poisons, more than three-fourths. Of these 68, more than half, namely 37, had been connected with scarlatina in one way or another. Amongst the remainder, erysipelas, diphtheria, and offensive state of the discharges were prominent; in the remaining 21 I could trace no definite history in regard to zymotic diseases; but it would be difficult to say how many might not have been influenced by them, seeing it is hard to tell in many cases of zymotic diseases whence the source of infection had come. Some undoubtedly had been exposed to mental depression or excitement, were in low condition of health, or otherwise in conditions not favourable to recovery from any great disturbance. But of the first class it may be asked, Are these really cases of puerperal fever? Are they not properly cases of puerperal scarlatina, diphtheria, erysipelas, and so on? Let us, then, for the moment exclude them; though in doing so we are excluding three-fourths of what have been received as cases of puerperal fever; at any rate, with the exception of the well marked scarlatina cases. Let us examine the remaining 21. Shall we exclude or include those of them which have been brought on by sudden mental disturbances, as fright, annoyance, and anxiety? They probably amount to a fourth. If we exclude them, we shall be excluding cases like those which have been called "puerperal fever"; and yet, unless these influences generate the fever, we must exclude them. Again, four of the 15 left were ill before labour set in, and these can scarcely be looked upon as cases of puerperal fever. Some of the yet remaining 11 possibly may have had an influence from a zymotic disease, as I have already hinted. Some were of traumatic origin, not toxæmic; and, allowing three for these, we reduce the total of unexplained origin to eight. Now, I would ask, Where is the proof of the existence of a separate entity such as is ordinarily understood by puerperal fever? and close upon this result, I maintain, will be arrived at if you take any hundred of cases. But when you come to examine the symptoms belonging to the various classes, you will find that they all belong to the same class; and if you, as I did for a moment, exclude those cases influenced by zymotic diseases, you are met by this difficulty: that those without any specific symptom, as rash, etc., showed symptoms most typical of the so-called puerperal fever; that the specific symptoms were in all grades of proportions in the several cases; and that, generally speaking, the less the specific signs showed themselves, the more tendency there was to malignancy. This fact is well shown in hospitals where, erysipelas being the primary cause, the disease which followed would be more like to malignant puerperal fever, and less like erysipelas. In the paper alluded to, many cases may be found showing this. I may venture to repeat one. A woman was taken with the most malignant form of puerperal fever, and died about the third day. I could find no history of scarlet fever previously; but, in a few days, two of her children had malignant scarlet fever and died. Since my paper, I saw the following case: a lady had been delivered twelve hours, when feverish symptoms commenced; a pile already inflamed became very tender and painful; from this part a blush spread, something like erythema, but without any defined edge, and spread over her back. About the third day, arthritic pains and swelling commenced, with delirium; these symptoms increased in intensity, and she died in great agony on the fifth day. As the symptoms began so soon after delivery, I could not help suspecting that it had its origin from without, as the symptoms arising from decomposing secretions commence from the third to the fifth day. I could not find that she had been exposed to any exanthem. The medical man had not seen a case for two or three months. The nurse was apparently free. I, however, told the medical man I thought he would have evidence in the children. In about a week, the eldest child had scarlet fever, and rapidly died. The second was then attacked, and shortly died. Subsequently the baby was attacked, but recovered. In neither case was there any specific sign of scarlatina. Numerous cases I have seen where scarlatina was in the house, and the mother had puerperal fever without any rash. In some of the other cases where there are signs of a zymotic disease, yet they would have been overlooked had not care been taken, so masked were they by the general condition. But some have rejoined, "I have attended cases of scarlatina and delivered women constantly, and that without ill results". I would answer, Even so. But this is no proof that the influence of scarlatina is not detrimental. It is not every woman that is exposed to scarlatina who contracts it; on the contrary, most have already had it, and thus are less liable to catch it. It would be but few married women who would be susceptible to it. It would be an interesting point to know whether those are seriously affected by scarlatina who have had it in former years. I have not sufficient information as yet. But, as I have said before, the death-rate must not be the criterion of influence. We must watch the patient for a month. It is seldom but what we shall find a bad getting-up in one who has been exposed to scarlatina just before or during her labour. An apparent contradiction to the influence of scarlatina has been instanced by the fact that sometimes, during an epidemic of scarlatina in a town, the lying-in hospital is free from puerperal fever. This is no proof. The only proof reliable is to be able to say that frequently cases of scarlatina have been introduced into lying-in wards, and no ill effect followed. The same answer applies to erysipelas. But there is another point which cannot be left out of consideration, viz., that violent mental emotions also are followed by symptoms precisely similar to those which follow zymotic influence, or the existence of putrid discharges. In fact, looking over the whole cases, we are, at least at present, unable to distinguish as a class the one from the other, excepting where the specific symptoms are superadded. To what conclusions, therefore, are we led? In some cases, no doubt, some other medium must be added, such as decomposing "sepsis", or the living bacteria, or some material which, mixing with the discharges in the uterine cavity, are absorbed into the system. It is difficult, in our present state of knowledge, to assign the proper value of this influence. That decomposing matter does cause these symptoms can readily be proved, but whether it acts through living or decomposing material, there is no evidence sufficient to permit us to argue. One thing seems to militate against the notion that it is the bacteria which, in many cases, accompany the absorption of offensive discharges; namely, that if we wash out the uterus, the symptoms very rapidly subside; in twenty-four hours I have seen them pass mainly off. If living growths were going on, one would scarcely expect so rapid a subsidence. Whatever may be the exact nature of the poison, in our present knowledge I do not consider we are justified in basing any line of practice upon it; certainly not in allowing our clinical inquiries to receive any bias. That the puerperal woman is, by means of these various factors, brought into a state which we recognise as blood deterioration or disturbance, so that either she dies rapidly, or that, if this event be postponed, the processes required for repair after labour are so perverted as to be accompanied by inflammation extending to the peritoneum, or producing effusions which often tend to suppuration; or to the uterine veins, producing plastic plugging and its consequences; or the blood assumes a tendency to coagulate, and thus fibrinous deposits form in the vessels; in fact, to all the secondary troubles well known to us all, as the results of the primary blood disturbance, but considered formerly as the principal condition. Such is the liability of the puerperal women to these deteriorating influences, that I think we may generally trace nearly every ill getting-up to some depressing or disturbing influence, if we take the trouble to trace it. Whether the blood-conditions set up in the puerperal woman are similar to the so-called pyæmia, such as is observed in men and non-pregnant women, is not quite certain. That they seem to differ rather in intensity than in quality, I think is generally admitted. We can readily understand the intensification when we consider the altered condition of the blood in pregnant women, and the ease with which the nervous system is perturbed; intensified by the large surface which is exposed, and the greater facilities for absorption which exist in the anatomy of the uterus, compared with the conditions found in the male. The position of the question appears to me this: admitting that various circumstances can set up a malignant fever in the puerperal woman, has this fever so set up a permanent character capable of being communicated to other pregnant women? Looking to the cases as they occur in hospitals, there seems some reason to think there may be such a condition. Looking to private practice, one would also say so too, did we not see that apparently, when it spread to non-puerperal persons, it became reconverted to the zymotic form from which it had sprung. No doubt many difficulties attend this point of the inquiry; and to it attention should be particularly directed. However, without going so far as this, one may fairly say that a zymotic disease, if not modified in its true nature, is altered as to the usual character of the symptoms, assuming more the kind which have been generally called "malignant" in the non-puerperal person; and this tendency to change its character is more noticeable the nearer the patient has approached the full term of pregnancy; whether this depends on the changed condition of the system, or the greater patency of the lymph spaces and veins, so as to increase the quantity absorbed, is not very clear. Seeing the many sources of contagion that surround all of us, I think that the notion that the aggregation of a number of puerperal cases can set up, *ab initio*, a puerperal fever has no resting place. The aggregation unquestionably increases the number of chances of the introduction of some zymotic disease, while the exposure of a number to the disease will necessarily increase the number of persons affected. All aggregations do this. The same rule applies to surgical wards, with regard to erysipelas. While, therefore, I agree that aggregation tends to spread the disease, I am doubtful whether it sets it up, if cleanliness be carried out properly. But when once an exanthem has been introduced, then its eradication is by no means easy; and the constant recurrence of cases, without complete purification, may fairly, to my mind, justify many of the remarks on what was called, perhaps not quite correctly, "Hospitalism". There is only one other point to which I wish to allude: this is respecting the contagious nature of the conditions grouped together as puerperal fever. That the majority are contagious to puerperal women I have no doubt; whether all are so, I am uncertain. I am inclined to think that those forms derived from the zymotic diseases are the most so; those from the self-generated kinds the least so. Some few seem not at all contagious. I remember two students attending a woman with puerperal fever for some days; during this time, they attended some twenty cases of midwifery. None of these were ill afterwards. A second instance occurred. Before the nature of the case had been made out, upwards of twenty were attended without ill result. However, I wish I could say this of all. I have had lists not unfrequently given me by practitioners, where the effects from a smaller series were very differently shown, and yet I saw, a short time since, a most malignant form coming on apparently from mental distress. A coachman's wife, just after labour, heard that her husband had to leave his place. She was much affected, became violently maniacal for a few hours, and then subsided into the usual condition of malignant puerperal fever, of which she died in a few days. The medical man attending her told me he had to attend another in a day or two afterwards, and she died in a rapid manner. But, surrounded as we all are by contagium, it is very difficult to say how far any case is free from zymotic influence.

Mr. JONATHAN HUTCHINSON: I, of course, have nothing to do with obstetrics, or with puerperal fever, but I believe that the subject is one which has its analogies in general surgical practice, and one of the most interesting points in Mr. Spencer Wells's address was the manner in which he traced that analogy. If I correctly understood his views, he seemed to place puerperal fever almost exactly in the position in which we place the several kinds of maladies from which our patients suffer after operations. He would say that there is no such thing as a specific poison which can produce any fever that should be known as "puerperal fever," but that a number of maladies induced by various causes have been grouped together under that name, and I thought that he very ably classified these according to the several causes which produced them. I hope the time will come when he will extend his unwillingness to use such a vague term as "puerperal fever" to a term which, I think, he accidentally used—"surgical fever". For, if puerperal fever be absurd, I contend that surgical fever still more leads us aside from the consideration of the true causes of the malady. If I may be permitted, I should like to say a few words on the great importance of attempting to define as precisely as we can the terms we use. I think we should much more easily get to conclusions, and find a much greater unanimity of opinion, if we did take these several terms, septicæmia, erysipelas, specific disease, specific fevers, and try to attach to them some definite meanings. Although it may seem presumptuous, I will state what my own opinions upon these subjects are, with great deference to the Society, and hoping to hear my views criticised and set right, if they seem to be erroneous. I will say, with regard to erysipelas, that it is a disease which is of great importance in reference to puerperal fever, since we have the most of proof concerning it that the contagion from it is one which is potent in the induction of the local inflammation, which produces puerperal fever. I express, in the most unqualified terms, my belief that erysipelas is not a specific fever, that it is only a local form of inflammation, that this local form of inflammation may vary in intensity, may vary in duration, may be induced by many different causes, may undoubtedly be produced by contagion from the secretions of an erysipelatous patient, but may also be produced by other causes; and that the pyrexial symptoms and general disturbance are secondary to the local inflammation, and are proportionate to the local erysipelatous action that exists. I have expressed this opinion on many occasions. It is the opinion, I believe, originally stated by Mr. Higginbottom of Nottingham, and I regret that the majority of our systematic works still, without defending the position of erysipelas to rank as a specific disease, still so define it. Authorities still assert respecting it, that it has a stage of incubation, and this I wish definitely to deny. It has a stage of development; certainly there is, it is true, a day or two during which the patient may be ill before the redness appears; the disease wants a little time to develope, but there is no true stage of incubation. When we know that it arises from contagion it will develope in a day or two of the virus being applied, within twenty-four hours, and that is fatal to its claim to rank as a disease due to a specific poison. Then we never see it prevail symmetrically in the two halves of the body, as it certainly would do if it were due to the introduction of a specific poison, which would develope in the blood in the same manner, as we know the specific poisons of small-pox, scarlet fever, and measles do. I assert next that erysipelas may be checked at any stage; that appropriate treatment will stop it at a very early stage in a manner which would be utterly impossible if you were dealing with a specific fever. Let me add, that this will apply to the next stages of those forms of inflammation of the uterus, which is due to erysipelatous contagion, that they are not to be ranked as specific fevers, but as things which may be put an end to by appropriate treatment at an early stage. Dr. Braxton Hicks has just insisted, no doubt as the result of practical experience, on the importance of washing out the uterus; so that the thing is curable, and does not run through any definite stages. Having made this assertion respecting erysipelas, that it is to be defined as a local inflammation, which has special peculiarities that are capable of pretty easy definition, but having no true analogy to specific fevers, I must attempt to give some meaning to the term septicæmia. Now, for that we have two meanings afloat in the professional mind. One is that it is due to some poison which is introduced into the patient's blood from without; that the poison then grows, spreads, germinates in the blood, and produces the symptoms. Now, what I would like to suggest is this, that the term septicæmia ought to be applied to the results of poisoning of blood induced by the inflammation of the patient's own tissues. I admit that every now and then in connection with a "poisoned" wound the phenomena of septicæmia follow. To illustrate what I mean, I will mention two cases. I had to amputate the finger of a professional friend on account of gangrene, the result of acute inflammation, owing to a "poisoned wound". He had scratched his finger on a piece of carious bone, in an operation on the hip-joint. Acute inflammation followed, which passed into gangrene, and I had to remove the finger at the metacarpal joint. He was very ill at the time. This might be called septicæmia, the finger having been poisoned and inflamed. My own belief is that the character of the poison which was introduced was of little or no importance; that there was something special in the state of the patient's health, perhaps something a little irritating in the secretion. The gangrene was the result of inflammation, and the constitutional symptoms were the result of the blood circulating through the finger, and back again from a portion of tissue which had passed into gangrene. I once amputated a foot on account of gangrene in a case in which I knew that the man's femoral artery was obliterated. The gangrene was continually spreading, and we were obliged to remove the part. Fearing gangrene, and knowing that there was no femoral artery, I amputated just below the knee. The leg was in a perfect state of health in that part; but within twenty-four hours of the amputation, in connection, no doubt, with a deficient supply of blood, the stump passed into gangrene, which spread rapidly to the thigh; it all became dusky, and the patient was sick; the pulse rose to 160; he was feverish, had a dry tongue, and in fact, was in a condition evidencing acute septicæmia. He was being poisoned, according to the way in which I would like to use this term, by the absorption of fluids from his gangrenous limb. The blood was going through it, and back again, and thus every time the body became contaminated by the circulation; and the man would have died if we had not adopted other measures. Believing that the gangrene was the source of poisoning, I amputated again, at once, below the hip-joint, high up, at a part where the circulation was better. He was extremely ill at the time, but, contrary to my expectation, he made a good recovery. I quote the case as proving that the removal of the source of the poison was efficient in removing the septicæmic symptoms. I may also mention the case of a gentleman who had insured his life in the Accidental Insurance Office. He had slipped in the street, and dislocated his thumb (a compound dislocation), and he died some six or eight days afterwards, with symptoms of septicæmia, vomiting, a rapid pulse, dry tongue, shivering. His hand was passing into a state of gangrene. There was a long legal dispute as to whether he died of the accident, or of something in connection with his general health. I mention this case in connection with the others, as an illustration of what I believe, that it was gangrene of the hand that poisoned the patient. I mentioned just now the case of a medical man who poisoned his finger, in whom gangrene followed, and some of the symptoms of septicæmic poisoning. I wanted to confute the prevalent idea that some morbid matter is taken into the blood from without in every case in which septicæmic symptoms are present, and that that matter is the cause of the symptoms. The next case in which I had to remove a finger, was one almost exactly analogous. It was the case of a poor seamstress who had no poisoned wound whatever. A prick of a needle on the finger had led to gangrene, and she had a similar train of symptoms. We very often get symptoms of septicæmia in cases in which there has been no possibility of their being produced by morbid poison; and it yet is quite impossible to distinguish between the cases in which gangrene follows an injury in a more or less unhealthy person without any introduction of morbid poison, and the cases in which inflammation follows when there has been some possible introduction of a small amount of such poison. I admit the influence of morbid matter as an irritant in setting up inflammation; but what I wish to hint is, that I believe the stage of gangrenous inflammation of the part is an essential stage of septicæmia, and that it is quite possible for pyæmia to occur without any local poison introduced from without whatever. So much, then, for septicæmia. I think we should do well to keep it apart from the term pyæmia, and to believe that in septicæmia there is no phlebitis. In reference to the far more important subject of pyæmia, I think we should give a little more attention to the opinions of our forefathers; and I believe that no one could get more information on this subject from any papers by modern writers than from the original paper which drew attention to the subject, by Mr. Arnott, written some forty-five years ago. Next in importance to the paper of Mr. Arnott, I rank the papers of Dr. Robert Lee: a series of admirable essays on puerperal fever, a perfect mine of correct information upon that subject. If we studied those papers better (in the *Medico-Chirurgical Transactions*) I feel certain that we should not have afloat the very erroneous opinions respecting pyæmia, which have gained admission into some of our most important text-books, very much to the regret of many. The great heresy that at present prevails respecting pyæmia (at least, according to my belief), is, that it is possible for pyæmia to be caused by the introduction of a specific poison from without into the blood. I no more believe this, than I believe that septicæmia is so caused. Pyæmia, I hold, is produced by an inflammation of the patient's own tissues. What we call pyæmia, in more typical cases, is due to phlebitis. The old-fashioned notion is quite true, that it is a poisoning of blood by inflammation of the veins. I regretted that Mr. Spencer Wells was a little vague upon that point. He spoke of coagulation of the blood, and the breaking-up of the coagula. Now, in spite of experimentors upon the lower animals telling us of the difficulty of making the veins inflame, I hold that any one who goes into the *post mortem* room and examines the veins in cases of pyæmia, will have no doubt that the veins do inflame. Nor am I in the least confuted by the assertion that we have cases of so-called phlebitis without pyæmia; that in cases of coagulation of blood in veins (varicose veins for instance) we do not fear pyæmia, that yet in such cases we do not fear pyæmia. Of course, we do not. The things are totally different; but that there is a suppurative and gangrenous phlebitis in which the veins become full of pus, in which puro-lymph adheres to the ulcerated lining membranes of the veins, I hold to be thoroughly established by the records of surgery, and by daily experience. It is not the breaking down of the blood clot; it is the ulcerative and suppurative inflammation of the vein itself. I could produce illustrations to-night, showing this in various parts in the most typical cases of pyæmia. I do not say that the term pyæmia is to be restricted to these cases. I think it is quite possible that there are other cases in which multiple abscesses are formed, in which there is no phlebitis; but, I believe, we shall proceed on a safe basis of classification if we at any rate accept these most definite forms of pyæmia, which are due to inflammation of the veins as by far the most important group in connection with the disease under discussion.

Dr. RICHARDSON: The view I would start with in regard to puerperal fever rests with the condition of the woman after delivery. She is at that time physiologically in a peculiar position. First, her blood is in a peculiar condition. That colloidal fluid which, separated in a solid form, we call fibrin, is sometimes in excess, from three to six or seven, and (as I once found on a direct analysis) eight parts in a thousand; so that the blood is at this moment in a trembling equilibrium, ready on the slightest possible disturbance to precipitate it. Then there is a diminution of salts in the blood, again a condition favourable to the precipitation of the colloidal fibrin. Then this woman has been for a time supplying to the child a mass of blood from her own body which has now stopped, so that practically she is in the condition of a person who has lost a limb, a considerable portion of the body. Then she is in a nervous condition, she has been supplying from her own potential energy that element which has been shown in the movements of the fœtus, and now that has stopped, and she is suffering from that nervous reaction which comes on when that motion is suddenly arrested; she is, therefore, in the exact condition for a series of changes, which must necessarily be febrile in character; and I think we must bear in mind this position of women physiologically, before we enter upon the subject at all. To these facts we must add those which we have reason to learn in regard to hereditary qualities. We must accept the fact that there are a considerable number of women who are hereditarily predisposed to particular diseases, and, I think, we cannot except puerperal fever from this position. Then we come to consider the woman in this state, and we ask the series of questions which Mr. Spencer Wells has placed before us. Taking these questions one by one, I should say that, from experiment as well as observation, I should be unable to declare that there was any such thing as a special poison belonging to the puerperal state, or a special poison creating puerperal fever. It is quite true that, puerperal fever once started, there is a poison formed which will apparently communicate the disease; but there are certain varied forms of this poison, though, perhaps, all these poisons have one common meaning if we could look at them fully; but there are so many poisons derived from other sources, which seem to have the power of producing the disease, that we cannot look upon this special poison as we do on the poison of small-pox or scarlet fever; neither can we say, in respect of this first question, that there are such local lesions as would lead us in the dissecting room in any case to say, this was a case of puerperal fever, as we should say, this was a case of scarlet fever, or of typhoid, or of typhus fever. In fact, I recollect making a *post mortem* examination some years ago, in a case of what was called puerperal fever, on a lady of some distinction in the metropolis. There were four eminent members of the profession present, and they were none of them agreed on this very point; one said it was a simple case of peritonitis. We then began to discuss whether, supposing this case was going before a jury, and we had to give our opinions, we could formulate in any way a series of pathological changes, which would indicate the cause of death as due to puerperal fever. Or to put it in another way, supposing one of our Fellows had said, "This is a case of puerperal fever; will you make a *post mortem* examination?" would any of us know precisely what we were going to find as distinguishing that diagnosis? I should give a negative answer, therefore, to the question of Mr. Wells, both as regards the special poison and as regards the special characteristic pathology of the disease. In regard to the second question, as to whether any or all of the forms of puerperal fever may be referred to an attack of infective continued fever, as scarlet fever, and so on, I should also offer that a negative. Under the term puerperal fever, as I have been obliged to recognise it, from being frequently summoned to see cases which are so called, I should say that I have seen four distinct forms of fever which clearly may bear this name. For instance, there is the pure, simple surgical fever, as we may call it, following upon the delivery of the child. I presume there is no such thing (at any rate the exceptions are very rare) as a case of delivery which is not followed by some slight febrile state; that is necessitated by the changed physiological conditions, by the increased tension of the vessels which must occur from the removal of so much blood in the uterine circulation, and by the irritation that has occurred in the breast previous to the secretion of milk. There is always this simple surgical fever similar to that which occurs after a surgeon has removed a limb; this, in fact, is a fever of resistance, as I have called it in a paper that I have written on the subject. Now I am bound to say that I have seen some cases of so-called puerperal fever which were nothing more than exaggerated forms of this fever, which it may be has become exceedingly severe, in which we have had true inflammatory fever, and apparent indications of danger from that source; nay, in one case I have seen a fatal result from the formation of a plug of fibrine in the heart. In that case there was a simple rise of temperature of 4 degs. following the confinement, then a sudden collapse. An exceedingly rich blood, rich in fibrin, had been so modified by that simple rise in temperature, and by the increased friction of the blood passing through the heart, that a deposition of fibrin had taken place in the auricula of the right auricle, that had increased, layers of fibrin had been laid down, layer upon layer, as in aneurism, and ultimately a complete bag of fibrin was formed; there was an extension of that into the pulmonary artery, a loosening of the whole, and then death; yet no trace of the disease in any part of the patient, not in the uterus, not in any organ of the body, except that there was an incidental plugging up of the right side of the heart. We see such cases occurring in simple instances of pneumonia and some other forms of trifling inflammatory diseases. An attack of erysipelas, with a slight blush in the leg, I have known to terminate in a few hours in death in the same way. Then I have seen another form of puerperal fever (many will recall similar cases) of what may be called a remittent character, with slight symptoms or extreme symptoms of jaundice; twice I have seen this coming on with high fever in the puerperal state. In a case in the neighbourhood of London this occurred. It was a pure case of bilious remittent fever, occurring in a neighbourhood where there was no puerperal fever about, and ending fatally in a few hours, with all the conditions of yellow fever. I have seen cases ending fatally with this remittent bilious character pertaining to them in other instances. Then there is another class of cases, such as Mr. Hutchinson referred to, where there is a true introduction into the body of the patient of matter derived probably from the uterine sinuses, and where we get one of the true distinctive forms of septicæmic poisoning—a form in which the material becomes dark, and death takes place from deficient oxidation, and a form where there is a separation of fibrin coming on rapidly, and terminating by stopping the circulation of the blood through the right side of the heart. These cases seem to me to be of that class, mentioned by many speakers here, where there has been some local injury, the exposure of cellular tissue, the rupture or exposure of a vein, the formation of a modified secretion, the absorption of that, and death from what Mr. Hutchinson correctly called poisoning immediately from the patient herself. Then, lastly, there is another source of puerperal cases, where, without doubt, a poison appears to be carried into the body from without; and here comes the singular part of this poisoning, that the poison may seem to belong to any one of the poisonous diseases, so long as it reaches the patient, and that it may not be in the strict sense of the word, so far as we know, a poisonous secretion at all—it is poisonous in the individual sense, but not poisonous as coming from any person who has been poisoned. We have instances of scarlet fever, apparently provoking the puerperal condition in this way; we have instances of erysipelas, and I can adduce examples of all kinds. We have examples of poison derived from other puerperal cases, and we have that extraordinary instance, recorded with great faithfulness and honesty by Mr. Huntley of Jarrow-on-Tyne, where he shows, by a series of conclusive arguments, that a secretion from his own hand was the cause, three times successively, after intervals of several months' practice, of conveying poisonous matter to patients, and so inducing puerperal fever. These are true cases of septicæmic puerperal fever, where we must assume that the poisonous matter is carried from the hand, or by some other channel, into the uterine surface, where it meets with a favourable reception for absorption, and so is conveyed into the body, producing all these phenomena which we have experimentally induced by inoculation. With regard to this second question, I should say that there is no special form of puerperal fever, no one particular type of the disease, which we can say bears that name, but that there are several varied forms of the disease terminating much in the same way, but having distinct characteristics; that some are contagious, some not contagious; that some spring from what you may call a natural condition of the patient, others from an injury of the patient, others from the introduction of morbid material. This again bears on the third question, "If all cases of contagious and infectious disease which occur under other conditions than that of child-birth are set aside, does there remain any such disease as puerperal fever?" To that I should answer that, barring that natural febrile state which follows upon confinement, as surgical fever follows upon injury, there is no such thing as puerperal fever, and in that I should agree with Dr. Braxton Hicks. As regards the fourth question put forward by Mr. Spencer Wells, the means of preventing the spread of the disease, I have nothing to add to what was said by Dr. Braxton Hicks as to the effect of washing, and the general measure of removing the source of poison and isolating the patient. Then I am brought to the fifth question, relating to the presence of bacteria and allied organic forms in the puerperal state; that, of course, only relates to the pure septicæmous condition, the last of puerperal fevers to which I have drawn attention. On this matter, as is well-known to most of you, I have held for many years—more than twenty-five years—to the purely physical side of the question, and my opinion is in no way changed by the various views which have been more recently announced as to the effect of organic germs and bacteria in the production of these diseases. I am at this moment still more firmly adherent to the physical view, from my recent researches, which have shown me the probable mode of action of these septicæmous poisons, that they all act after the manner of those inorganic bodies, such as black oxide of platinum, manganese, and other bodies of that class, and, in infinitely minute quantities, have the power of eliminating oxygen from the blood, and preventing combination of oxygen with the blood. I take it, that the whole of these poisons act in that simple physical manner, and that, as regards the presence of organic germs and bacteria, they are matters of coincidence; that, where the conditions are favourable for those organic forms to grow and multiply, there they grow and multiply, but that this is entirely coincident; that is to say, the further development of the organic form which can be perceived has no more to do with the production of the disease, than the presence of the maggot in the decomposing meat has to do with the decomposition of that meat. To put the point in a simple way, I remember a point in my child-life which will place the position well before the Society. There is a time in country districts, which is well-known, when sheep fall in the field; they may not be dead, but they are found to be infested by carrion crows, which sometimes injure them severely, picking out their eyes, and doing them a deal of mischief. In my school-days, I remember that we had a debate, whether the fall of the sheep was due or not to the presence of these carrion crows. They certainly did a deal of mischief, and my school-fellows would go out with stones and sticks to drive them away; others thought that it was the heaviness of the fleece that caused the sheep to fall, and we used to put the sheep straight on their legs, to run about again. Now it seems just the same physical cause at work producing the falling down of a woman with this disease from the influence of septicæmous poisoning, and these products which are found are coincidences, beautiful pieces of natural history, influences which, perhaps, are not directly favourable to the progress of cure when once they are developed, but they are purely matters of natural history, removed altogether from the true action of septicæmous poison. I have but a few other remarks to make. My impression is, that in the course of time, we shall arrive at the discovery of certain agents which will immediately stop the action of septicæmous poisons, by their direct physical effect upon the blood, and their influences in holding oxygen in combination with the blood. I have recently referred, in another society, to the effect of quinine in this respect; but that is a bungling crude method of dealing with an agent that will act in such proportions as the ten-thousandth or the hundred-thousandth part of a grain, so as to produce disturbance within the organism. So, dealing with this matter of antiseptics, I should say that, if antiseptics, as they are called, that is bodies which prevent putrefaction, are advanced as a means of curing these particular diseases arising from septicæmous poisons, their action is not because they are antiseptics (because other agents which are not antiseptics possess a similar property) but for the simple reason that they act on a given principle, and many of them act altogether in accord physically, and I might almost add chemically, in neutralising the specific action of these poisonous agents; I mean, antiseptics do not act by destroying germs or organic forms, but they act definitely, by interfering with the poisonous action of the septicæmous material which produces the fatal disease. I predict that in ten years hence, in this Society, we shall see a means of preventing these diseases from septicæmous poisonings as clearly as we now see the means of producing them, by the introduction of these poisons in the form of inoculated matter in small-pox by vaccination.

The discussion was adjourned.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, APRIL 13TH, 1875.

SIR JAMES PAGET, Bart., D.C.L., LL.D., F.R.S., President, in the Chair.

### ON THE PREVALENCE AND SEVERITY OF SYPHILIS AMONG THE TROOPS QUARTERED IN LONDON, AS COMPARED WITH THE RARITY OF THE DISEASE AMONG THE SOLDIERS IN THE GARRISONS OF PARIS AND BRUSSELS; FROM OBSERVATIONS, THE RESULT OF A PERSONAL INVESTIGATION MADE DURING THE AUTUMN OF 1874. BY WILLIAM ACTON, M.R.C.S.

THE author commenced by stating that, on returning to England after the completion of his medical studies in Paris, he was forcibly struck with the severity and the numbers of cases of syphilis in an *unprotected*[*] city like London, as contrasted with a *protected*[†] city like Paris. In the year 1846, and again in 1860, he brought the subject before the Society, and called the attention of the profession to the fact, that whereas the French and Belgian troops seldom suffered from venereal affections, the British soldier was affected with this contagious disease in the proportion of 181 per 1,000, or one in every five men. During the autumn of 1874, he determined to again visit the continent, and judge for himself what was the present condition of syphilis among the French and Belgian population; so that on his return he might be able to again make a comparison between the three cities, and judge what influence continental police regulations had had in checking, preventing, or stamping out this contagious disease. Before proceeding to the more immediate purport of the paper, the author begged the indulgence of the Fellows, while he ventured to remind them of some of the great general laws which regulate syphilis, and with which hospital surgeons no doubt were familiar. 1. *Syphilis is a very wide spread affection* in England, both among male and female adults; rendering inefficient large numbers of our troops, as shown in the last army returns, where it is stated that, in the year 1873 (the last report published), primary syphilis in the unprotected districts was still so prevalent as to be 123 per 1,000 *per annum*. 2. *As regarded the severity of the Disease:* the author thought the complaint less severe than formerly. The authorities in the city hospitals in this respect agree with him, and attribute this to the efficacy of the Contagious Diseases Acts at present in operation at Greenwich and Woolwich, a source formerly of much long-shore frightful disfiguration. The in-patients of the non-government side of the Lock Hospital, as he showed later in his paper, demonstrate that syphilis in women is still a very serious complaint. 3. *That primary syphilis is a highly contagious affection* no one can doubt. The laws which it follows are now clearly known; and experience has shown that for its extension, dissemination, or outbreak, absolute contact is necessary. This being avoided, the disease is under our control, as the primary manifestations cannot be communicated through the air, or by the usual vehicles of infection. Another grand feature of the complaint is that it never (at least in the present day) arises *de novo;* unlike some other epidemics, this affection, syphilis, is traceable to communication from some person previously affected. 4. *Syphilis can be prevented and stamped out.* Mr. Acton stated that, if he carried his hearers with him in the acceptance of the previous propositions, they must agree with him that the best way of prevention consists in offering men who have exposed themselves to infection a ready means of ablution; and the army authorities have now done this. The next broad principle is, as speedily as possible to destroy the local focus of contagion, so as to prevent extension of the disease, and to warn the male patient against infecting others. The institution of hospitals, free or otherwise, where the already infected may at once apply, is another valid and important means of prevention. Experience in all countries has determined that the mere treatment of these women as out-patients is a vain delusion. What we require is, that by segregating prostitutes as soon as diseased, we should at once prevent them contaminating others. To do this effectually, legislative measures have been necessary, and the women must not be allowed to leave the hospital till entirely cured. The author showed that wherever this has been done, it has succeeded without exception, in all countries and with all classes. Those who are sceptical on this assertion, are referred by the author to the instances of Hong Kong and Dartmouth, where the disease has been reduced to a minimum. Having made these preliminary observations, the author proceeded to describe his continental experience. The first city he visited was Brussels. In his search after syphilis, he attended the wards of the Military Hospital. There were only three cases of syphilis among the private soldiers, and among the non-commissioned officers he saw only two instances of men recovering from primary syphilis, and these were out of a body of troops amounting to 3,500 men. There were only nine women confined in hospital in consequence of venereal disease; showing that in Brussels the police regulations have nearly stamped out the disease. Proceeding to Paris, Mr. Acton, in visiting the French Military Hospitals, could only discover six cases of primary disease, and eight cases of secondary syphilis, 14 cases in all, among the 3841 men forming the garrison of Paris. The author then described the disease among the females, and showed that syphilitic affections are very slight among the women who avowedly give themselves up to prostitution; and attributed the decrease to the police regulations. Mr. Acton gave a table showing that, in the St. Lazare Hospital, he could only find 23 cases of primary disease out of 202 patients confined in this institution, which is specially given up to women, under the surveillance of the police. This small number, however, would have been sufficient to have inoculated the garrison of Paris, had they been allowed to remain at large. Mr. Acton called attention to the fact that medical men in Paris assert that the British traveller, like the English sailor in French harbours, is the source of much of the syphilis to be met with in France; and that the disease would ere now have been stamped out had it not been that England and other unprotected countries are constantly flooding France with fresh cases of primary contagious disease, interfering much with its sanitary *cordon.* Returning to London, Mr. Acton personally attended the Hospital of the Foot Guards. Here he found disease in proportions for which he was unprepared; there were 24 cases of primary disease among 408 single men in the 2nd Battalion of Coldstream Guards quartered in London. In the 1st Battalion of the Scots Fusilier Guards, Mr. Acton was shown 25 cases of severe forms of syphilis among 505 unmarried men. To obviate the objection that these comparisons were founded on insufficient data, Mr. Acton gave a table extending over twelve months, in which were shown the syphilitic affections of upwards of 3,000 men in the Foot Guards quartered in London. One-fifth of the whole, or one man in five, was affected with primary syphilis during the last year (1874); and he contended that, as there were five battalions of Foot Guards quartered in London, it might therefore be stated that one out of these battalions suffered from primary syphilis. Now, judging from the experience of private practice, this battalion of sick, composed of 600 men, must have been incapacitated from duty for at least six weeks or two months. It was almost equally certain that 164 of these men had relapses of secondary symptoms further incapacitating them for duty for another two months at least; during which time they must necessarily have taken mercury, leaving the constitutions of the men very much debilitated, and liable to relapses during the subsequent years. Mr. Acton then went on to compare the syphilitic affections of the Foot Guards with those found in French soldiers quartered in Paris, and showed that a single battalion of 500 men in London presents more disease than the 3,841 troops composing the French garrison. The author next called attention to the severity and frequency of the disease among the women in London, as compared with those in Paris, and considered that one-half of the London prostitutes were diseased; whereas of those in the protected districts, and under the Contagious Diseases Acts, only about eight per cent. were found affected at the periodical examinations. Mr. Acton next compared the garrison of Woolwich, which is under the Acts, and where the women are taken care of, and showed the comparative paucity of disease there. It appears that during the years 1871-2-3, 1,085 cases of primary syphilis only were treated in hospital, out of a garrison of 18,250 men. This showed that only one man is affected out of seventeen soldiers in a protected district like Woolwich, instead of one man in six, as in London; and, from a table given, it appeared probable that had the protection offered at Woolwich been afforded by the outlying districts, only one man in thirty-four would have been subject to contract syphilis, as at least one-half of the cases of syphilis were contracted out of the district, bringing it to something like the small proportions witnessed in Paris. In concluding, the author remarked that, when he read his last paper on this subject before the Society, he could only recommend the supervision of prostitutes as an experiment, backed as it then was only by the experience of the Continent. Now he could speak of this as an accomplished fact, and one that, as he had shown, had succeeded in a sanitary point of view beyond the expectations of its supporters.

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[*] The term "unprotected district" is meant to include the principal cities of the United Kingdom, where women can practise prostitution in any public thoroughfare, at any hour of the day or night, without hindrance, and inveigle men to their homes; and this, too, under the very eyes of the authorities, who are powerless to interfere, unless the solicitation be to the annoyance of any passenger or householder, who must in that case accompany the police to the station to charge the woman with the offence, which is rarely or never done. Should the authorities have credible evidence that the woman so conducting herself is suffering from a contagious disease which she may communicate to others having relations with her, they cannot in any way interfere to prevent it. This woman, when unable any longer (in consequence of the severity of her disease) to follow her miserable calling, has no other resource (prostitution failing) to procure her a livelihood than to fall back on the foul wards of a workhouse.

[†] A "protected district" is one where, if a woman, instead of continuing wholly or in part to gain an honest livelihood, walks the streets soliciting different men, and consequently comes under the cognisance of the police as being a common prostitute, the British Legislature has determined that in certain garrison-towns such a woman, after being repeatedly warned, and still persisting in a life of prostitution, shall submit to a medical examination on the ground that, should she be diseased, she would communicate a contagious complaint to those having relations with her. It is further enacted that, if the woman be found diseased, she shall be at once sent to hospital, and not allowed to leave till she is, in the opinion of the surgeon, perfectly cured. If then desirous of abandoning her evil courses, the girl is relieved from further surveillance, and will be sent to her friends at the government's expense. If, on the other hand, a common woman, on being discharged from hospital, and released altogether from the operation of the Acts, return to a protected district, and be again found by the police acting as a public prostitute, she must again be registered. In every case the authorities wish it to be clearly understood, that they do not sanction or authorise prostitution; they only watch over it, from their anxiety to prevent its worst evils, and to ameliorate the condition of the women and check disease.

Dr. DRYSDALE thanked Mr. Acton for the manner in which he had brought the subject forward. When he (Mr. Acton) first stated his views in 1860, they met with much opposition; but he had steadily adhered to them, and had now put the matter in a shape capable of discussion. Dr. Drysdale would confine his remarks to the experience of the regulations of prostitution in foreign countries. The question of preserving soldiers from syphilis was a very different one from that of keeping off the disease from the general population. The pay of soldiers was low, and they were hence obliged to be contented with the lower class of women, who were naturally massed together, and, therefore, were capable of being looked after; and Mr. Acton had proved his point with regard to the immunity of the troops in Belgium and Paris, both in 1860 and in 1874. But when men had higher wages than soldiers, and were able to make their choice, it became impossible to examine in the same way the women with whom they consorted. He formerly believed with Mr. Acton, that there was much less venereal disease in protected countries than in London. While studying in Paris, he had seen a great deal of old tertiary syphilis under M. Nélaton. In 1867, he again visited Paris, for the purpose of inquiring into the frequency of syphilis, hoping at the time to find that Mr. Acton's ideas were correct. On the contrary, there was apparently more syphilis in Paris than in London; and M. Le Fort, who had knowledge of the state of venereal disease in both cities, agreed in this. M. Jeannel of Bordeaux, in a recent work, stated his belief that there was more syphilis in Paris than in London. M. Diday, in 1874, also acknowledged the failure of police regulations; and other authorities in Paris made similar statements. Mr. Acton had said that he found the troops in Brussels free from syphilis, but the disease was not stamped out in that city. In a lecture delivered last year, M. Thiry alluded to the numerous and severe cases in his wards. He (Dr. Drysdale) thought, therefore, Mr. Acton rather sanguine as to the stamping out of syphilis. The French system was confessed by French authors to be a failure; and it was curious that attempts should be made to introduce it in England and in the United States.

Dr. BIRKBECK NEVINS had entered on the inquiry with the expectation of finding that good results had been produced by the Contagious Diseases Acts; but, on perusing the report of the Royal Commission, he found no evidence of a diminution of the disease in 1870 as compared with 1866. Before the Acts came into operation, gonorrhœa in the army had diminished by one-twelfth; but now the amount of this disease was higher than before the Acts were in operation, and the last return stated it was higher in the protected than in the unprotected districts. Dr. Balfour had admitted that the Contagious Diseases Acts were a failure as regarded gonorrhœa. In the Navy, also, gonorrhœa was much more prevalent in the protected stations; in the home and Mediterranean stations it had more than doubled since 1866. As to venereal disease, he would first speak of constitutional syphilis. Before the Acts, from 1861 to 1866, there was a fall of one-fourth of the whole amount in the Army; but since the Acts, there was an increase of one-twelfth above the previous amount. There had been a fall in the amount of primary cases since the Acts had been in operation; but a comparison of the numbers from various towns would give the following results. In Devonport and Plymouth, the average annual fall per 1,000 was, before the Acts, 10.8, after, 7; in Portsmouth, before, 15, after, 10; Chatham and Sheerness, both before and since, 4; in Woolwich, before, 18, since, 3½; at Aldershot, before, 7, since, 3.6; at the Curragh, before, 10, since, 11; at Shorncliffe, before, 9, since, 6; at Dover, before, 8, since, 11; at Maidstone, before, 60, since, 21; while in London the fall had been reduced from 96 to 40. In Winchester and Canterbury the fluctuations were so great that no conclusions could be drawn. Colchester alone showed a remarkable improvement, the average fall per 1,000 having increased from 28 to 55. In the Navy, there was no station with so little improvement in this respect as the home station. In the Mediterranean, since the Acts came into operation, the number of primary venereal sores had doubled. In the unprotected stations, the sores were cured more rapidly. Among the constantly sick from syphilis, there was a fall of one-third previously to the Acts; but since the Acts the fall per 1,000 had been from 6½ to 5½. The number of men invalided for secondary syphilis had risen since 1866 one-twelfth in the Army, and one-fifth in the Navy. Venereal disease had increased 17 per cent. in the regulated districts since 1866, and the deaths were just doubled.

Inspector-General LAWSON would make some remarks on Dr. Nevins's statistics. It was a feature in his address that he had compared single years—1866 and 1872; and he had not shown that any reduction would have taken place, if the Acts had not been in force. It would be seen, on examining the curve of disease from 1860, that there was a diminution in the frequency of venereal sores down to 1866, while after that there was an increase, with fluctuations, in unprotected stations. No conclusion could be come to as to the course of venereal decrease, unless it were studied where not interfered with by the Acts. Dr. Nevins had compared a minimum with a maximum year; but no inference could be drawn from such a comparison. Again, as to particular stations, many were not aware that most remarkable variations occurred at the same stations in contiguous barracks. Having occasion to inquire into the frequency of disease in the infantry at Aldershot, he had, in examining the middle block, found that a regiment had had 42½ per 1000 of venereal sores; and that others, one on each side of it, had 84 and 124 per 1000 respectively. He then examined three regiments in the North Camp, in which the numbers per 1000 were 23, 59, and 114 respectively. All this was in the same place and at the same time. There were, therefore, circumstances affecting the spread of venereal disease which were not yet known; and no conclusion could be drawn from examinations of single masses of men. Dr. Nevins said that secondary syphilis had become more frequent lately; but he drew a different conclusion from the returns. There had been a change of nomenclature, which Dr. Nevins had perhaps overlooked. Before 1869, secondary syphilis was returned under three heads: secondary syphilis, syphilitic iritis, and syphilitic cachexia. It was necessary to take several years together, in order to arrive at a conclusion. In five years before the Acts, in 374,000 men (being an annual average of 74,800), the rate of secondary disease was 34 per 1000; while in five years (1866 to 1872), since the passing of the Acts, the annual rate in 380,000 men (76,000 *per annum*) was 25 per 1000. Secondary syphilis varied from year to year; and, in years when the number of cases of primary syphilis was small, that of secondary syphilis was also small. With regard to discharges from the army on account of syphilitic disease, there was a difficulty to some extent, arising from the fact that, up to 1863, the discharges on account of syphilis were not recorded separately from those on account of other diseases. But, taking the two periods of five years 1863-67 and 1868-72, the discharges *per annum* were in the first of these periods 13.4, and in the second 13 per 1,000; the latter period including two years in which a great reduction was made in the army. In considering the question of the number of men under treatment, Dr. Nevins had again compared 1866 with a subsequent year, without noticing the intermediate period. The average daily number of cases of primary syphilis in hospital in 1866 was 6.35; in 1869, in places not under the Acts, it was 9. Of secondary syphilis, in places under the Acts, the average daily number under treatment in 1867 was 6.95 per 1000; in 1873, it was 4.33. From the beginning of April 1868, medical officers in charge of troops had had to make returns of the cases of venereal disease not originating in the localities in which they were located. These numbers had now accumulated, and, at Aldershot, the average of of primary sores from 1868 to 1871 was 66.8 per 1000, but of these 19 cases per 1000 were from places beyond the district, leaving an average of 47.8; which, taking into account the men on furlough, and making allowance for the men who contracted disease at Aldershot, but left before coming under treatment, would probably be raised to, at most, about 50. The same was probably the case at all the stations under the Acts. Before the Acts, the average of gonorrhœa at Aldershot had been 95 per 1000: but it had now fallen to about 75.

Mr. HOLMES, as probably the only member of the Commission on the Contagious Diseases Acts who was present at the meeting, would make some remarks. It had been said by Dr. Nevins that the Commission had reported that there was no evidence that periodical examinations had diminished the amount of disease. He admitted this; the statement was made, because at the time there was not sufficient material on which evidence could be founded. The portion of the report referred to, however, was not approved by a minority of the Committee, including all the medical members except Dr. Bridges and Mr. Holmes Coote, who were in favour of voluntary action. Hence, this part of the report was of no value, being founded not on evidence, but on want of evidence. As to the general question, it would be seen that Dr. Nevins's figures afforded no foundation for annual averages; they only showed fluctuations, but no law could be deduced from them. What had weight with the Commission was not so much mere figures, as the evidence of medical men of the army and navy and of others, as to the good effect of the Acts. There was evidence given that the Act had reduced the frequency of venereal disease and mitigated its type. This had more weight than figures, notwithstanding that the figures were as strong as could be expected considering the short period during which the Acts had been in operation and the interfering causes. In referring to the Commission, it should not be forgotten that the Act was continued by its advice, and that it recommended Parliament to to show the same vigour in the matter as had formerly been shown with regard to vaccination.

Mr. R. B. CARTER said that Dr. Balfour had been spoken of as if he were opposed to the Acts. When the *Victor Emmanuel* hospital-ship visited Southampton, he (Mr. Carter) had had occasion to visit the ship, and had had a conversation with Dr. Balfour, who had expressed his opinion of the high utility of the Acts, from his observation of the good which they had done. If Dr. Nevins's observations proved anything, they were an endeavour to show that there had been an increase of venereal disease since the Acts had come into operation. But was it consistent with common sense to admit this? The question to be decided was, whether they diminished disease sufficiently to make it worth while to keep them in force.

Dr. DE CHAUMONT referred to the diagram published by Dr. Nevins in the BRITISH MEDICAL JOURNAL for March 27th, and remarked that it would be seen that after 1866, when the Acts came into operation, there was a fall both in syphilis and in gonorrhœa as compared with the period before the Acts. He also showed diagrams, in which were given curves representing the strength of the Royal Engineers and the cases of disease, showing that in the unprotected period the cases of disease bore a much greater proportion to the strength than afterwards. Here, in the unprotected period, the curve of admission was above the line of strength; in the protected period, it was below, and fell in a diminishing ratio. As to the intensity of the disease, a German surgeon had expressed his surprise at the number and severity of the cases at Netley, remarking that there was nothing like it in Berlin.

Mr. T. BOND made some remarks on the statistics of the Westminster Lock Hospital.

Surgeon-Major HUTTON remembered seeing a large number of cases of venereal disease at Plymouth in 1860. Since the Act had been in operation, he had found only three or four cases on inquiring at Dover.

## CLINICAL SOCIETY OF LONDON.

FRIDAY, APRIL 9TH, 1875.

SIR WILLIAM JENNER, Bart., M.D., D.C.L., F.R.S., President, in the Chair.

*Disseminated Cerebro-spinal Sclerosis.*—Dr. BUZZARD exhibited a patient suffering from this disease. The man, a house-painter, aged 33, but looking many years older, was wheeled in a chair to the upper part of the room, and beside him was placed another man affected with paralysis agitans; and Dr. Buzzard then proceeded to compare the symptoms by which the two diseases, often confounded, could be distinguished. The patient with sclerosis, whilst seated and with his limbs in repose, showed no signs of tremor in any of his muscles; whilst in the other man there were constant rhythmical movements, which could be seen even at a distance, and his hands maintained the position characteristic of paralysis agitans, the thumb being applied to the forefinger, as in taking a pinch of snuff or rolling a cigarette. The head of the latter patient was projected stiffly forwards; the chin of the former rested easily upon the upper part of the chest, for the reason that an effort to hold the head upright caused violent agitation of the muscles at the back of the neck. Asked to rise, the patient with disseminated sclerosis made at first several ineffectual efforts, his whole body being thrown into violent tremors, the feet being lifted from the ground when evidently he wished to stand upon them; and he attained at last the standing position, and took a few steps only with the help of an attendant. The patient with paralysis agitans rose without increase of tremors, and walked easily, but with a hurrying gait, the body bent forward. In answering questions, the articulation of the patient with sclerosis was observed to be greatly embarrassed, the words being clipped and uttered in jerks, syllables being often repeated three or four times, so that it was very difficult to comprehend him. The patients were then removed, and Dr. Buzzard gave some details of the case of cerebro-spinal sclerosis. The man had ordinarily enjoyed good health; but, about two years ago, he was attacked with shakings of the arms and legs, only when he wished to move them. These increased, and, after six months, he had to give up work, but remained able to walk until six months ago. For the first six or eight months of his illness, he suffered only from the shakings; but then he began to have attacks of giddiness, with difficulty of articulation, and found that he could not read many lines without confusion in the type. At the same time, he began to experience numbness in the lower extremities, which still continued. The giddiness he had not felt for the last three or four months. At present, there was some, but not much, deficiency of power in all four limbs. There was slight dulness of sensibility in his lower extremities, but no impairment of the functions of the bladder or rectum, and no loss of sexual power; nor was there loss of muscular sense. He did not suffer from flying pains, like those of locomotor ataxy, but he was subject to pain at the top of the head occasionally. The sense of smell was intact, the sight somewhat enfeebled. There was no paralysis of the third, fourth, sixth, seventh, and eighth nerves. The action of the masticatory muscles was a little irregular, and there was tremulousness of the tongue. His wife thought him as intelligent as ever; but, as he could not speak, except with difficulty, or read without embarrassment, or rise to his feet without help, he passed his time in a chair, doing nothing, and his face wore an aspect of hebetude. If he took a newspaper, he would read perhaps twenty lines fairly, but then he became confused, skipped several lines, or returned to one already read, and was forced to give over. The ophthalmoscope showed dark greyness of the optic discs, the vessels proportionate, and not tortuous; the outlines of the discs not sharply defined. In his remarks, Dr. Buzzard mentioned that, although the anatomical characters of this disease had been pictured by Cruveilhier nearly forty years ago, and about the same time by Carswell in this country, and although since that time many cases of the affection had been recorded by Türck, Frerichs, Valentiner, Hasse, Niemeyer, and Leyden, it was certainly to Dr. Charcot of Paris that the credit was due of differentiating the disease from other forms of paralysis, and especially from paralysis agitans. This had been done during the last few years, and the diagnosis had been made so clear, that it was almost impossible to understand the cause of any confusion in the two disorders, whose pathology, he might add, differed completely. Whilst the symptoms in disseminated cerebro-spinal sclerosis were always dependent upon the presence of scattered patches of indurated and condensed connective tissue throughout the brain and spinal cord, there was no constant lesion to be found in those who died with paralysis agitans. Dr. Buzzard added, that he did not bring forward the case as a pathological curiosity, but with the hope that, the more widely diffused was the knowledge of the peculiar features of the disease, the more likely it would be that valuable information would be gleaned as to its earlier stages. In hospital practice, it was only seen when confirmed, and then it was too late to treat it with any hope of success.

Dr. Buzzard said, in reply to a question from the President, that as the patient had had to do with lead, and had a blue line on his gums, iodide of potassium was being given to him, not, however, with much hope that it would do good. A trial was also, he added, being made of the Russian needle-bath, which had appeared to be of some service in a case of the kind.

*Unusual Case of Lead-Poisoning.*—Dr. Dowse read the clinical notes of a case of chronic paralysis, upon which suddenly supervened diffuse general paralysis. The paralysis was not confined solely to the motor centres, but extended to the general encephalic mass. He prefaced the case by remarking, that the action of lead upon the various centres must at all times be replete with interest for many reasons. In some instances, it influenced trophic nerves, and gave rise to subacute inflammation of joints. In others, the abdominal plexuses were solely involved. Again, certain spinal nerve-centres were alone affected; while, lastly and most rarely, the encephalic functions were materially disturbed. The patient, of obscure family history, was 26 years of age, and by trade a painter. He had suffered from painters' colic upon several occasions, but otherwise his health had generally been good. When admitted into the Central London Sick Asylum, he gave one the idea of a man suffering from progressive insane paralysis in its later stage. The intellect was obtused and confused, and, although he tried to answer questions, he failed. The eyes were dull and hazy; the arms and forearms were partially raised, and the hands dropped listlessly at the wrists. He could not raise the legs from the ground without great effort. There was partial suppression and absolute retention of urine, which was highly albuminous, of gravity 1020. The clinical details were minutely described up to the man's death, which took place four days after he came under Dr. Dowse's care. The temperature at the time of death was 110 deg. Fahr. At the *post mortem* examination, it was stated, in connection with the brain, that the straight sinus was occluded by a well organised and adherent clot, and that there was subarachnoid hæmorrhage over the left parietal and occipital lobes. The microscopical examination of the cord and medulla gave evidence of degeneration of the grey matter, as well as abundant miliary sclerosis of the lateral and anterior columns. Upon chemical examination, the substance of the brain and cord was found to contain about $\frac{1}{250}$th of a grain of lead in each drachm.

Dr. Dowse stated, in reply to the President, that the flexor muscles were not analysed; they might or might not have contained lead.—Dr. Thorowgood inquired if anything special were noticed with regard to the intestine; it had been said, on the one hand, to be dilated, and, on the other hand, to be spasmodically contracted.—Dr. Dowse replied, that both the intestines and the solar plexus had been examined, but that nothing particular had been noticed with regard to either.—Dr. Buzzard remarked that lead was used as a styptic remedy, and yet this man, who was fully under its influence, actually died from hæmorrhage.—Dr. Southey inquired whether any special microscopical change was found about the vessels of the brain.—Dr. Dowse said the man's preliminary symptoms were those of lead-palsy; he died actually from suppression of urine and extravasation of blood on the hemispheres. The large vessels of the brain were not atheromatous. The hæmorrhage was beneath the pia mater rather than subarachnoid. There was no history of addiction to alcoholic liquids. The kidneys were simply congested; their capsules were easily torn from the cortices. There was a purple condition of the kidneys, as is seen in acute inflammation before desquamation is arrived at. It seemed to be a case of chronic lead-poisoning; but Dr. Dowse was sorry the condition of the vessels of the brain was not more thoroughly examined.

*Intracranial Aneurism, diagnosed during Life, in which Spontaneous Cure occurred, and the Patient lived eight years.* — Mr. Jonathan Hutchinson read notes of the case. The patient, Mrs. S., first came under his care in March 1861. She was then 40, thin, and extremely pale. For ten years or more, she had been subject to bad headaches. A year before coming under care, these became much worse, and were attended by severe throbbing in one temple, which sometimes lasted two or three days, and by a "beating under the ears". About the same time, her left eyelid drooped, and vision became dim in that eye. These symptoms persisted, and caused her to seek advice. On admission, there were on the left side complete paralysis of the external rectus, incomplete paralysis of the recti supplied by the third nerve and of the levator palpebræ; the papillary sphincter and ciliary muscle were paralysed; the superior oblique was perfect. The dilator of the iris (vaso motor) was probably paralysed on her admission, and certainly was so a fortnight later, when she also had some loss of sensation of the left side of her forehead. There was no reason to suspect syphilis. An intracranial *bruit* was heard on auscultation of the head. A few months later, all branches of the third nerve became completely paralysed, the fourth still remaining perfect. There was now some implication of all the sensory divisions of the fifth nerve, but none of its branches were completely paralysed. The facial nerve remained perfect. She remained during the succeeding ten years in much the same state, suffering at times from very severe internal headache, and, during the early part of the time, from throbbing. The fundus of the eye was healthy throughout; the other eye and orbital nerves were healthy. Aneurism of the internal carotid was diagnosed confidently by Mr. Hutchinson early in the case, and ligature of the carotid artery proposed, but deferred at the patient's urgent wish, expressed in consequence of a less confident opinion having been given by a colleague. The chief question was between aneurism and pulsating tumour. After this, the throbbing slowly subsided, the paralysis remaining; health improved somewhat, and the question of operation was abandoned. Vision of the eye remained tolerably good. In February 1871, Mr. Hutchinson found a large pulsating tumour in the abdomen, which was confidently diagnosed as aneurismal; it was then of about six months' duration. Its early progress had been accompanied by pain in the abdomen, pain in the left leg, constipation, and inability to take food. For some weeks, she was nourished solely by enemata. Death occurred early in May 1872, she having had a large abscess in the left iliac fossa in connection with disease of bone from pressure of the aneurism. At the necropsy, a solid aneurismal tumour, of the size and shape of a bantam's egg, was found to occupy the inner part of the left middle fossa of the skull. The internal carotid passed along its inner side, and a well defined smooth-edged aperture, as large as a No. 6 catheter, opened from the outer wall of the vessel into the sac. The distal branches of the artery were pervious. The optic nerve was in close apposition with the tumour, but it exhibited no evidence of compression. The Casserian ganglion was situated directly beneath the tumour, and flattened by it. The motor nerves of the eyeball were lost on the wall of the aneurism. The aneurism was nearly solid; the opening admitted a probe only an eighth of an inch; its wall was in great part calcified. A large dissecting aneurism of the aorta was found extending from the commencement of the thoracic part to the bifurcation of the abdominal portion.—In reference to the propriety of operation, Mr. Hutchinson added that he thought its proposal had been quite justified by the group of symptoms present—the throbbing in the head, the *bruit*, the paralysis of the several nerves in succession—without other assigned cause. On the whole, although the patient had survived so long, he thought it was a matter of regret that the operation had not been done, as the tumour would probably have been arrested at an earlier stage, and more completely. He urged also that it should be remembered that, during the first part of the case, there was from day to day considerable risk of bursting of the sac. He mentioned another case, which had been under his observation once only, in which a lady from the country, who had some symptoms of aneurism of the internal carotid, was seized with giddiness whilst sitting in church, and died before she could get to the door, the necropsy revealing a ruptured aneurism.

Mr. Carter inquired whether any observations had been made with regard to the channel through which the blood escaped from the eye. Was there any enlargement of the cavernous sinus, or of the veinlets in connection with the facial vein? Was there any compensatory development elsewhere?—The President asked whether, in the second case which had been mentioned, there was any ptosis.—Mr. Hutchinson said there was paralysis of the sixth nerve; but he did not think she had ptosis. A case had been recorded in which there was ptosis, and in which, when apoplexy occurred, there was immediate loss of ptosis. As the *post mortem* examination was done at the patient's own house, there was no opportuity of testing the condition of the orbital and other neighbouring veins by injections. He did not doubt the circulation was principally conducted by the veins passing over the margin of the orbit to join the facial vein. An anatomist as able as Mr. Hilton had expressed his belief that the ophthalmic vein did not chiefly empty itself by the cavernous sinus. This case, at any rate, showed that in this woman the collateral circulation through neighbouring veins was as great as that by the cavernous sinus. The fundus of the eye was healthy throughout.

*Three Cases of Pyæmia and one of Acute General Miliary Tuberculosis, complicated with Pyæmia, caused in the three former cases by Acute Suppuration; in the latter, by Chronic Inflammation and Caseous Deposit in the Middle Ear.*—Dr. Hermann Weber communicated these four cases.—Case i. A girl, aged 6, was, on the fifth day of scarlet fever, seized with severe pain in the left ear, rupture of the tympani on the sixth, severe rigor, with high fever (almost 107 deg. Fahr.), on the eighth day, followed by other rigors on subsequent days, abscesses on different parts of the body, pericarditis and pleuritis, and death on the fifteenth day from the beginning of the affection of the ear. The *post mortem* examination showed the left tympanum filled with pus, the phenomena of thrombosis in the small veins near the tympanum and in the left jugular vein; those of fresh endocarditis and pericarditis, and pleuritis; abscess in the liver, and embolic infarctus in the spleen.—Case ii.—A boy, aged 7, had, on the eighth day of a diphtheritic sore-throat, violent pains in the left ear, followed, on the tenth, by rupture of the tympanic membrane, and profuse purulent discharge. Rigors set in, with high degrees of pyrexia (up to 107.3 deg. Fahr), on the eleventh day, and recurred at irregular intervals during three weeks, with almost normal temperatures between the attacks. Abscesses formed in several joints and at different parts of the surface of the body. The treatment consisted in large doses of quinine; viz., from 60 to 110 grains in twenty-four hours, port wine, and nourishing food. The recovery was slow, but perfect.—Case iii.—A young man, aged 21, had much pain in the right ear already on the fifth day of a feverish sore-throat; this was rapidly followed by rupture of the tympanum and profuse purulent discharge; and, two days later, by an attack of rigor, with high fever and profuse perspiration. Several such attacks occurred during the succeeding fortnight, separated by intervals of but slightly raised temperature. Abscesses formed in the mastoid region, and on different parts of the body; and there was also a slight endocardial affection. Gradually, however, the rigors became less severe, the discharges from the ear ceased, and the deafness, which had been complete on the affected side, disappeared. The treatment consisted in large doses of quinine (eighty grains per day), with iodide of potassium (twenty grains per day); in the local application of diluted carbolic acid, and in port wine and nourishing food.—Case iv.—A formerly healthy boy, aged 10, began to complain, about twelve days after an ordinary sore-throat, of pain in the right ear, with deafness on that side. The prominent and yellowish appearance of the tympanic membrane, as seen about three weeks later, led to the suggestion of perforation of the membrane, which suggestion, however, was not acted upon. About three months after the occurrence of the original sore-throat, the symptoms of acute miliary tuberculosis of the lungs manifested themselves, and were rapidly followed by those of tubercular meningitis. The *post mortem* examination exhibited the phenomena of general acute tuberculosis of the lungs, the pleura, the pericardium, peritoneum, and of the cerebral and spinal meninges; and, in addition, several pyæmic abscesses in the liver. The right tympanic cavity was filled with so-called caseous matter; the tympanic membrane was thickened and yellowish, the petrous bone and mastoid cells being normal. Dr. Hermann Weber remarked, that the points in common to all four cases was, that inflammatory affections in the region of the tonsils and fauces had led through the Eustachian tube to inflammatory affections of the middle ear, and to subsequent infection of the whole system; but that there was this remarkable difference, that the general infection caused in three cases by the acute inflammation and suppuration was pyæmia, while that caused by the chronic inflammation leading to caseous deposit or metamorphosed pus was acute miliary tuberculosis, with only some traces of pyæmia in the liver. He was inclined to think that, if the general infection in this latter case had occurred at an earlier period of the disease—viz., before the pus had been transformed—the result would have been pyæmia, as in the other three cases, and that possibly the pyæmic abscesses in the liver had been formed at that earlier period alluded to.

Dr. Hilton Fagge remarked that, in regard to Dr. Weber's fourth case, there did appear to him to be a third view, to which he himself would incline; viz., that the caseous deposit in the ear and the general miliary tuberculosis were disconnected. He gave reasons and quoted cases in support of his opinion. In a child, six months old, which which died of miliary tuberculosis, the general disease could hardly have been due to any pre-existent change. In another case, in which there was a large caseous mass in the brain, the tuberculosis in the lungs was not spread equally through the lungs, but was found in greatest quantity at the apex, whence it gradually diminished in intensity towards the lower lobes. This opinion of the non-infection of tubercle in the human subject was so heretical at the present day, that, in regard to cancer, he would remark that he held with the modern view of dissemination, and that those are true secondary deposits which are found in the lungs, liver, etc. Yet there is surely such a thing as diffusion without infection: thus psoriasis, with a few chronic patches on the knee, may suddenly break out all over a patient; the same with molluscum fibrosum. Dr. Weber's case was too rare an event for one to suppose that general tuberculosis usually depended upon local mischief.—The President said he had seen about ten days before a patient with sore-throat and a few diphtheritic patches, in whom a discharge from the ear had occurred, followed by pyæmia. He must agree with Dr. Fagge in the view that the reasons for crediting the infection of tuberculosis were insufficient. Neither did he think the arguments recently put forward in favour of the secondary infection of cancer carried the day; in his opinion, the two sides were so evenly matched, that one might be doubtful which side had the advantage.—Dr. Weber confessed that, in many instances of tuberculosis, he had been unable to find the primary deposit; Virchow also said the same thing. But, in so very many cases, an old affection did precede the outbreak of acute miliary tuberculosis, that the latter seemed to be dependent upon it. Pyæmia was often caused by a focus of pus; and yet how many foci of pus there were in which pyæmia did not supervene.

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Testimonial.—On March 26th, a testimonial was presented to Dr. W. M. Mackenzie of Kelso by a number of his friends and patients. The handsome sum of £570 was subscribed; and, on the day mentioned, the Chairman of the Committee, Mr. Tait of Laryrigg, presented Dr. Mackenzie with an elegant mantel timepiece and a cheque for the balance of the amount subscribed. The timepiece bears the following inscription. "Presented to W. Mackenzie, Esq., M.D., Kelso, with five hundred guineas, by his friends and patients, on the completion of his twenty-fifth year as a medical practitioner in Kelso and neighbourhood, in testimony of the high estimation in which his professional and public services during that long period are held, as well as the regard and kindly feeling entertained for him by them. March 26th, 1875."

At the anniversary court of the governors of the Newcastle-on-Tyne Infirmary, the Mayor in the Chair, Dr. Frederick Page, late senior house-surgeon, was presented with a beautifully illuminated address in gilt frame.

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# CORRESPONDENCE.

## CONTAGIOUS DISEASES ACTS.

SIR,—I regret to have to trespass on your space again, to offer some remarks on the reply of Dr. Nevins, of the 5th instant, to Dr. Parkes, Mr. Ffolliott, and myself. Had my contribution to the *Medical Times and Gazette* been published in the BRITISH MEDICAL JOURNAL, this would not have been required, as I should have left your readers to draw their own conclusions after having the evidence on both sides before them; but, as your paper will be in the hands of many who have no opportunity of perusing the other, this communication becomes necessary.

Dr. Nevins has expressed his anxiety, on more occasions than one, to depend on official returns only, to insure accuracy in his data; and everyone desirous of dealing with the question in the true spirit of investigation will agree with him in the importance of having the materials he is to work on as trustworthy as possible; but, in addition to the mere numerical records of cases, expect them to embrace references to the views or explanations of others. In my communication to the *Medical Times and Gazette*, the passages in Dr. Nevins's statement commented on were transcribed at length; yet in his reply of the 5th instant, he says "the bulk of that criticism is occupied upon the following paragraph of my 'statement'. Such, then, is the nature of the error," etc. Now, the paragraph here referred to does not appear in the article in the *Medical Times and Gazette*, and does not convey to anyone, who has not seen that article, an adequate idea of the question raised, or of the weight of the evidence in support of it. As, however, we are informed that "the battle is now being fought upon other grounds than the fallaciousness or otherwise of a particular process, it is not necessary to pursue this particular subject in this correspondence," I will leave it for the consideration of your readers.

Dr. Nevins then assigns four objections to classing the fourteen subjected stations together and the fourteen unsubjected, and then comparing them as if they corresponded in every respect, except that one set is under the Act and the other is not, to which he complains I did not reply. It will be obvious, I think, to anyone accustomed to deal with the statistics of disease, who peruses my paper, that this needed no reply; but, as Dr. Nevins thinks otherwise, I will endeavour to meet his wishes.

The first objection is: "The stations differ so widely from one another that, for all other health purposes, Dr. Balfour divides them into eight separate classes in the Army Report, because they cannot be classed together." Dr. Balfour assigns the following as his reason for making the classification in question. "The number of men at many of the stations is so small that it would be obviously incorrect to draw conclusions as to the influence of the locality in inducing sickness from the results of so limited a period as a year. With a view to obtain data less liable to objection, we have classed a number of the stations together into the following groups" (Statistical Report for Army for 1860, p. 6). This clearly shows that the grouping was not made on the ground of well recognised differences among the stations, which prevented their being classed together, but in a tentative spirit, to ascertain from the aggregate of several years' observations of small bodies of men, under somewhat similar external conditions, whether they were influenced by these, and, if so, what conclusion the results would justify: a very different position indeed from that assumed by Dr. Nevins. In 1870, when, from the abolition of the depôt battalions, the stations in group seven, where these had been quartered, were occupied by other troops, that was struck out, and Dr. Balfour redistributed the stations among the first, second, fourth, and eighth groups of the previous classification, to which they bore the greatest affinity.

Dr. Nevins's second opposition is: "The ratio of disease has been so widely different from the first in different stations as to make it impossible to compare them together; for example, 81 per 1,000 in Aldershot, and 126 per 1,000 in Dublin in 1866, before the Act was in force." There is no reason why the ratio at Aldershot should not be compared with that at Dublin, provided there be no attempt to draw conclusions from the premises which they do not support. We have the ratio per 1,000 of admissions into hospital for primary venereal sores at Aldershot and Dublin from 1864 to 1872 as follows.

| Years | 1864 | 1865 | 1866 | 1867 | 1868 | 1869 | 1870 | 1871 | 1872 |
|---|---|---|---|---|---|---|---|---|---|
| Aldershot | 105 | 100 | 81 | 81 | 77 | 63 | 67 | 65 | 62 |
| Dublin | 179 | 150 | 126 | 129 | 139 | 180 | 128 | 117 | 165 |

These two stations have different ratios of admissions it is true, but both show a marked decline from 1864 to 1866; in 1867, the first came under the Act, and, thereafter, the admissions continue to decline with slight fluctuations; while the second, not having this measure applied, shows an increase in 1867, and in 1869 has as many admissions as in 1864, after which they decline to 1871, but increase largely again in 1872. These facts show that at Dublin the disease fluctuated considerably, presenting minima in 1866 and in 1871; while at Aldershot, where preventive measures were had recourse to after the minimum of 1866, instead of rising, as at Dublin, the new cases fell; and the natural inference is that this was the result of these measures limiting the spread of the disease. It is true no statistician would like to base his conclusions on a single instance, such as the above, but would avail himself of all the evidence within his reach bearing on the same point, to corroborate it or otherwise; but, if he found it all lead to the same conclusion, as is the case with that from the fourteen stations under, and the fourteen which have never been under, the Act, he would require evidence, very different from any Dr. Nevins has yet afforded, to satisfy him that he was in error.

Dr. Nevins's third objection is "the variable amount of disease in the large manufacturing towns which are all 'not' under the Act, compared with the military towns which are 'under the Act,' is shown by the extreme fluctuations of disease in one class of towns (up a hundred one year and down a hundred the next), compared with the other, long before the Act was passed—a characteristic difference which still continues, and makes comparison impossible." We have returns for Manchester from 1860, for Preston from 1861, and for Sheffield from 1864, but the primary sores are not indicated separately before 1864, the return previously including every form of venereal affection. Taking the primary sores from 1864 onwards, the greatest rise at Manchester in any year was 85 per 1,000 in 1867, the fall the following year being 62; at Preston the greatest rise was also 85 per 1,000 in 1869, the fall the ensuing year 58; and at Sheffield the greatest rise was 57 per 1,000 in 1867, the fall next year being 56. It is to be observed that from 1864 to 1872 the mean annual force in Manchester was only 995, in Preston 878, and in Sheffield 707; and if we refer to military towns, with a mean annual strength of 1,000 or less, we find at Maidstone, in 1867, a rise of 104 per 1,000 in the primary venereal sores, with a fall of 120 in 1868; at Windsor a rise of 78 per 1,000 in 1868, and a fall of 43 in 1869; at Fermoy, in 1869, a rise of 69 per 1,000, and a fall next year of 27; at Limerick, in 1870, a rise of 82 per 1,000, and the following year a fall of 79; while the fluctuations from year to year at these stations are not less marked than in the manufacturing towns. There is no ground, therefore, for Dr. Nevins's belief that the fluctuations are greater in the manufacturing than in the military towns, where equally small bodies of troops are quartered, and the reply to his objection is a passage he quotes with approval from my communication to the *Medical Times*, viz., "no weight can be attached to the ratios of attacks for single years at small stations, when the whole or the greater part of the force employed may have belonged to a single regiment."

The fourth objection is that "the large ratio of fall in disease in the military towns, with the small fall in the manufacturing towns years before the Act was passed, showed the existence of some agency in the one set of places which did not operate in the other, quite independently of the Act, which was not in existence, and made subsequently comparison impossible. The continued reduction of disease is attributed by the opponents of the Acts to a continuance of causes operating before, whilst the advocates of the Acts claim the whole of the difference as the result of the Acts; as if there had been no substantial reduction in disease, and no notable difference in amount between the manufacturing and military towns before the Act was passed." It is admitted that primary, venereal sores decreased among the troops serving in this country from 131.8 per 1,000 in 1860, to 80.2 in 1866, but in 1867 they increased again at the stations where their progress was not interfered with by the operation of the Act; after some fluctuation they showed a second minimum in 1871, but presented a sharp rise again in 1873. As already stated, the details for different stations are not available before 1864, but from that year to 1873 the course of the disease is shown, for the fourteen stations which have now been under the Act in the following table, in which Manchester, Preston, and Sheffield are grouped together, and the remaining eleven stations by themselves. (*See* next page.)

It will be observed that the mean strength at the manufacturing towns was 2,580, while at the eleven other stations it was more than six times greater. This is an important fact to bear in mind, as it is found that, by aggregating a number of smaller stations, unusual prevalence of the disease at any one or more becomes neutralised by deviations in the opposite direction at others, and the resulting ratios per 1,000 are more regular, and give a much better and more trustworthy view to its progress. It has been already mentioned that the prevalence of primary sores declined from 1860 to 1866, and the last column in the above table shows this minimum distinctly, followed by a considerable rise in 1867, and by a further one in 1869, after which it fell to the second minimum in 1871; there was a large increase again in 1872. If the column for the three manufacturing towns be taken, the minima of 1866 and 1871, with the rises in the ratio in 1867, 1869, and 1872 are equally distinct, as at the other eleven stations, though from the smaller strength at the former their fluctuations are more pronounced. The mean amount of diseases in the two groups, however, is much the same, being 108.5 per 1,000 in the manufacturing towns, against 113.1 in the eleven other stations. It is obvious, therefore, that the question of the influences which caused these variations in the frequency of the disease in the manufacturing towns, was not confined to them, but was experienced at many other places, both in this country and Ireland, and, in fact, it was apparent at nearly every one of the twenty-eight military stations, for which we have the detailed returns, up to the time of each coming under the provisions of the Act. This fact is directly opposed to the contention of the opponents of the Act, that the causes operating to reduce the frequency of the disease from 1860 to 1866 continued in force thereafter, and led to the reduction at the stations under the Act, for the evidence is to the effect that the disease became much more frequent all over the country, and the only places where its development was checked was the stations actually under the restrictions imposed by the Act. Apologising for the length to which these remarks have extended, I am yours,

ROBERT LAWSON, Inspector-General.

London, March 26th, 1875.

| Years | Manchester, Preston, and Sheffield | | Eleven other Stations not under the Act. | | Ratio per 1,000 of mean strength | |
|---|---|---|---|---|---|---|
| | Strength | Primary Venereal Sores | Strength | Primary Venereal Sores | Manchester, etc. | Eleven other towns. |
| 1864 | 2,384 | 216 | 17,603 | 2,239 | 90.6 | 127.2 |
| 1865 | 2,676 | 273 | 16,806 | 1,883 | 102.0 | 112.0 |
| 1866 | 2,255 | 202 | 17,580 | 1,743 | 89.6 | 99.1 |
| 1867 | 2,886 | 404 | 17,703 | 1,968 | 140.0 | 111.2 |
| 1868 | 2,826 | 295 | 16,660 | 1,835 | 104.4 | 110.1 |
| 1869 | 2,432 | 390 | 15,307 | 1,883 | 160.4 | 123.0 |
| 1870 | 2,331 | 228 | 15,521 | 1,794 | 97.8 | 115.6 |
| 1871 | 2,779 | 240 | 17,178 | 1,625 | 86.4 | 94.6 |
| 1872 | 2,665 | 274 | 17,295 | 2,183 | 103.2 | 126.2 |
| Sums | 23,224 | 2,522 | 151,653 | 17,153 | | |
| Average | 2,580 | 280 | 16,850 | 1,906 | 108.5 | 113.1 |

SIR,—Mr. Ffolliott has discovered an error in my supposing that the seven months in his table meant seven months at Aldershot, instead of part only of that time being there and part in Colchester. It is the consciousness of my own liability to mistake in figures, and the many illustrations we have had of this liability in others, which has made me so urgent that only published and authenticated statistics should be used in this controversy; whilst the advocates of the Acts have, with scarcely an exception, confined themselves to unpublished and unauthenticated statistics, which it is impossible to check as Mr. Ffolliott has just checked mine. But, although he is entitled to score one in thus detecting my error, he has not in the slightest degree touched the real question at issue. Dr. Parkes contended that twice the amount of syphilis in Parkhurst as in Portsmouth proved incontestably that the difference was solely owing to the absence of the Acts in Parkhurst. I replied, that both Colchester and Aldershot were under the Acts, and yet Mr. Ffolliott's regiment had far more than twice as much disease in one place as in the other, and therefore the absence of the Acts was not the cause of the difference in Dr. Parkes's case. It does not injure this argument to reply, that Mr. Ffolliott's regiment was in the same place all the time; for, if it had twice as much disease in one year as in another in the same place, and under the Acts all the time, it shows that the presence of the Acts does not prevent increase of disease in Colchester, or the absence of the Acts cause it in Parkhurst. This point Mr. Ffolliott's last letter leaves quite untouched.

His quotations about the *Excellent*, with which I was previously well acquainted, simply prove that the Acts, which have been in operation in Portsmouth for ten years, do not prevent the influx of diseased *men* there, and therefore an increase of disease amongst women, who repay it to another set of men; and that the "protection" the men require is that of their own self-control and abstinence from evil, and not that of a Contagious Diseases Act. If any proof of this be desired, we have only to turn to the Army Statistics for London, which show that the amount of syphilis is habitually from two to five times as much among the Foot Guards as in the Household Cavalry, though both are equally without "protection", and are equally exposed to temptation and danger.

I do not understand the last paragraph of Mr. Ffolliott's letter; for it is Dr. Balfour's returns that I have referred to throughout, and called upon the advocates of the Acts to refer to, instead of their own picked and unauthentic statistics. If Mr. Ffolliott had taken the trouble to read my reply to Mr. Lawson, he would have seen why the opponents of the Acts object to Dr. Balfour's clubbing together the fourteen stations under the Acts, and the fourteen not under them, in the table to which he alludes. And those objections have not yet been answered.

I am, sir, faithfully yours, J. BIRKBECK NEVINS, M.D.

Liverpool, March 31st, 1875.

P.S.—In his letter of April 3rd, Dr. Parkes does not add to his former arguments in favour of his Chatham regiment, and I have nothing to add myself. The profession has now the arguments on both sides, and must form its own judgment. I must, however, allude to his objection to my omitting the year 1874 from my diagram, on account of the new Army Regulations. He says:—"Neither he (Dr. Nevins) nor I, nor any other man, knows with certainty whether the new regulation of 1873 had any effect; and there is, therefore, no evidence on which this year can be excluded." Dr. Parkes himself, in his original letter, suggested the doubt that this new regulation threw upon the figures for 1874, and I could not anticipate after that he would claim the reduction in 1874 as clearly belonging to the Acts. I may further refer him to a leaded article in the BRITISH MEDICAL JOURNAL of November 22nd, 1873, page 610, headed "Army Medical Grievances", in which the following occurs; the article being evidently written by a well informed man. "One word, in conclusion, on the operation of the new regulations for hospital stoppages at Aldershot. Venereal diseases have fallen greatly in number, but the druggists' shops are crowded with soldiers applying for treatment, whilst the cases taken into hospital are frequently far advanced. . . . So that it is evident we can no longer place any faith either in statistics regarding the amount of syphilis, or in reports on the working of the Contagious Diseases Acts in our military stations." On this point also, the profession has now the opinion on both sides, and will judge whether the fall in the Chatham regiment in 1874 ought to have been included in the diagram or not.

SIR,—This garrison town is under the Contagious Diseases Acts. The strength of the 10th Brigade Royal Artillery, stationed here, is 650; deduct, however, 68 for men married with, and 60 for men married without, leave, and there will remain 522 single men. Since January 1st, there have been but six cases of gonorrhœa which were contracted here, and only one of primary syphilis, which, however, was contracted in Ireland; so that there has actually been not one case of primary syphilis, contracted in the place, admitted into hospital, out of a body of over 500 men, during a period of fifteen weeks.

Comment is not required; but, by way of contrast, I will relate what occurred to a company of artillery 1855, which was then stationed here. The strength was about 100; 36 were in hospital at one time with venereal complaints, and consequently so reduced the number of men fit for duty, that another company was ordered from Falmouth to take up the duties.—I am, sir, yours faithfully, E. J. HOPWOOD, Surgeon-Major, R.A.

Devonport, April 14th, 1875.

## DR. SANDERSON'S SPEECH ON THE GERM-THEORY OF DISEASE.

SIR,—I hope that no one interested in the discussion concerning disease-germs will allow himself to be prejudiced against my views by the remarks made by Dr. Sanderson, at least until Dr. Sanderson shall have more fully explained the objection he characterises as "insurmountable", and an opportunity shall have been afforded me of replying.

Great authorities named by Dr. Sanderson, if pressed for an opinion concerning a germ-theory, would, according to him, "shrug their shoulders", and in this way, I suppose, annihilate the theory in particular, and make an end of the persons who entertained it. The members of the Pathological Society, however, "ought not to shrug their shoulders" in the presence of a few of the "facts" advanced by Dr. Sanderson.

For my part, I object entirely to scientific questions being settled by shrugging of shoulders; but, if I were a great scientific authority, and allowed myself to indulge in the exercise of that privilege, I should shrug my shoulders very much at some of the "facts" mentioned by Dr. Sanderson, more at some of the conclusions he has deduced, and most of all at the coolness displayed by him and a few other scientific authorities in ignoring or in authoritatively disposing of the scientific work and conclusions of other Englishmen whose scientific position is not inferior to their own. I am, sir, your obedient servant,

London, April 12th, 1875. LIONEL S. BEALE.

## THE EXAMINATION IN ARTS AT THE APOTHECARIES' HALL.

SIR,—On Friday and Saturday, January 29th and 30th last, the usual examination in arts was held at the Apothecaries' Hall. At the top of the first-class of the pass-list was placed Charles Matthias Lamb, and his certificate was shortly afterwards sent him in the ordinary course.

The Society of Apothecaries afterwards received information which led them to believe that Charles Matthias Lamb was not present himself on either of the days of the examination in question, and that he was, in fact, personated by some one else who answered the examination paper for him.

I communicated the suspicions of the Society to Charles Matthias Lamb accordingly, and required him at once to deliver up the certificate, which had been, as the Society believed, improperly obtained, so that the same might be cancelled. The certificate was returned to me the next day. The suspicions entertained by the Society having been hereby confirmed, it seems to be their imperative duty towards the members of the medical profession in general, and the students in particular, that these facts should be most generally known and widely circulated.—Your obedient servant, R. H. ROBERTSON,

Secretary to the Court of Examiners in Arts.

Apothecaries' Hall, London, E.C., April 13th, 1875.

## MORTALITY OF CHILDREN.

SIR,—I notice in your number of April 3rd, a paragraph to the effect "that the mortality of children is highest in hot weather in Australia". I do not think we are to conclude that it must necessarily be the case in our country, for our temperature now reaches the height given at Melbourne in January last.

It may be interesting for you to know that in February I had to record an unprecedented mortality rate of 33.3 per 1,000, and this occurring in a rural district. The number of deaths amounted to 130; and out of this number, 52 were children under 12 months, and 79 under 5 years; the percentage, therefore, of children under one year, would be 40 on the total deaths, and 60.7 per cent. on children under 5 years. These averages are considerably above any that I have had to chronicle in warm or any other season of the year.

For comparison, I should be glad if you could obtain the percentage of Dr. Mitchell's cases, and also up to what year does he designate "children".—I am, yours truly, E. R. MORGAN,

Medical Officer of Health, etc.

Neath, Glamorganshire, April 7th, 1875.

# MEDICO-PARLIAMENTARY.

*HOUSE OF COMMONS.—Thursday, April 8th.*

*Proposed Fever Hospital.*—Captain RITCHIE presented a petition, signed by 10,688 persons, praying that permission should not be granted for the erection of the proposed fever hospital at Hampstead.

*Loans for Artisans' Dwellings.*—The CHANCELLOR of the EXCHEQUER informed Sir S. Waterlow that the Public Works Loan Commissioners had lent or promised the whole of the £250,000 which they were authorised to deal with by the Act of 1866. The Government intended shortly to introduce a Bill for the purpose of raising more money for the commissioners for the erection of dwellings for the labouring classes, and for other objects.

*The Pollution of Rivers.*—Mr. SCLATER-BOOTH, in reply to Mr. Kay-Shuttleworth, said he hoped to be able next week to introduce the Bill for the prevention of the pollution of rivers.

*Monday, April 12th.*

*Artisans' Dwellings Bill.*—In the committee on the Artisans' Dwellings Bill, clause 7, which relates to the duty of the local authority in carrying schemes when confirmed into execution, occupied several hours. The point chiefly discussed was the imperfect obligation on the local authority to go forward with its scheme.—Mr. FAWCETT, who spoke repeatedly on the topic, insisted that there was nothing in the clause to compel a local authority to build up after it had pulled down, and Sir SYDNEY WATERLOW proposed an addition to the clause, which would have given to the confirming authority power to compel the local authority to go on. He was supported by Mr. DODSON and Mr. TORRENS, who assured the House that overcrowding could not be checked by pulling down streets, and warned the Home Secretary that "Haussmanising Paris had led to the Commune".—Mr. CROSS opposed the proposal, expressing perfect confidence that the confirming authority had already sufficient power to compel the local authorities to go through with their schemes. On a division, the amendment was negatived by 137 to 48.—Mr. FAWCETT subsequently returned to the point, and proposed that, if at the end of three years the local authorities be unable to let the uncleared plots, the obligations imposed by the Act shall cease and determine.—Mr. CROSS opposed the amendment, declaring that Mr. Fawcett's aim was to convert the Bill into a Towns Improvement Bill, which was not the intention of the Government.—Mr. KAY-SHUTTLEWORTH also opposed the amendment, and on a division, it was negatived by 211 to 43. Clauses up to 13 were agreed to without debate. On clause 13, which relates to the acquisition of lands, Mr. JACKSON was anxious to substitute the Lands Clauses Consolidation Act for the machinery of the clauses, but this last was so decidedly preferred by Mr. Gibson, Mr. Herschell, and others, that Mr. Jackson withdrew his amendment. At clause 15 the further progress of the Bill was adjourned.

*Wednesday, April 14th.*

*Medical Acts Amendment (College of Surgeons) Bill.*—This Bill passed the second reading.

# MILITARY AND NAVAL MEDICAL SERVICES.

MOVEMENTS OF ARMY MEDICAL OFFICERS.—Surgeon G. Atkinson, Army Medical Department, has joined at Aldershot, and is ordered to do duty with the second Station Hospital until further orders.—Surgeon H. Scott has been attached for duty to the Station Hospital, Phœnix Park, until further orders.—Surgeons F. A. L'Estrange and F. Johnson have been ordered from Gort and Dunmore to Dublin for duty till further orders.—Surgeon-Major T. Murray, in medical charge of the 10th Regiment Madras N.I., is allowed furlough to Europe for two years from date of departure.—The following orders are confirmed in the Bengal Medical Service. The Allahabad Divisional Order, dated February 16th, 1875, directing Surgeon W. E. Battersby, M.B., to make over medical charge of the 1st Bengal Cavalry to Surgeon A. Deane, of the 35th N.I., and proceed without delay to Rawul Pindee, reporting himself for duty to the deputy surgeon-general, Indian Medical Department, of that circle. Gwalior District Order, dated February 12th, 1875, directing Surgeon G. C. Hall, 17th N.I., to proceed to Jhansee to relieve Surgeon H. J. Linton of the medical charge of the 24th N.I. Allahabad Brigade Order, dated 17th February, 1875, directing Surgeon T. J. Gallwey, M.D., and F. S. Young, M.B., recently arrived from England on first tour of service in India, to remain on general duty at that station until further orders.

RETIREMENTS.—After a service of forty-years, Surgeon-General J. C. Brown, C.B., head of the Bengal Medical Department, will accept retirement at the end of the year. He has been surgeon-general since November 1870, and was appointed an honorary surgeon to her Majesty, September 6th, 1861. The latter appointment will be retained on his retirement.—Surgeons-Major H. Wakefield and H. J. Gane, Bombay Medical Service, are about to retire. Surgeon-Major Wakefield joined the service on February 14th, 1855, and was promoted surgeon-major February 14th, 1867. Dr. Gane was appointed assistant-surgeon March 20th, 1853, and became surgeon-major March 20th, 1873.

OBITUARY.—Inspector-General A. S. Macdonell, on the half-pay list, died suddenly a few days ago at his residence in Bath, at the age of 70. The deceased officer became a hospital assistant, November 15th, 1827; assistant-surgeon, July 29th, 1830; surgeon, December 2nd, 1842; staff-surgeon, March 28th, 1854; deputy inspector-general, February 1st, 1855; and honorary inspector-general on the half-pay list, June 1st, 1859. He served with the 80th Regiment at the Sutlej campaign of 1845-46, including the battle of Moodkee, Ferozeshah, and Sobraon (medal and two clasps). He was also in the Crimea from September 17th, 1854, and received medal and clasps, 4th class of the Medjidie and Turkish medal. An inquest was held on the body. The only evidence taken was that of Miss Saunders, an adopted daughter, who stated that the deceased died in her presence. He had been an invalid for several years from rheumatic gout, but his death was altogether unexpected. Deceased had not taken medical advice for two years, and did not think himself seriously ill. Just previously to his death, he complained of pain in the chest. A verdict of death from natural causes was returned.

## THE DUTIES OF ARMY MEDICAL OFFICERS.

WE receive from time to time letters from army medical officers, complaining of the amount of the duties which they are called upon to perform. Individual medical officers have charges which until lately were divided between two or more medical officers. The official returns they have to prepare are numberless. Leave to quit their posts, even for a day, cannot be obtained, as there are no medical officers available, so they are informed, to take their places during their absence. Hence it is inferred that the department is shorthanded, notwithstanding the statement of the Secretary of War, that there are no vacancies in it. If we do not bring these complaints separately to notice, it is because we feel how impossible it is for them to be sifted and dealt with satisfactorily in the pages of the JOURNAL. When we turn to an Army List, we see the names of 940 medical officers in the Medical Department, and among this large number we know that variations from sickness, death, retirements on temporary and permanent half-pay, and other casual occurrences, must be constantly happening to disturb existing arrangements. It is for the Director-General of the department to make the best distribution of the officers he can, and also to arrange for casualties as they occur, so that the duties may be as fittingly and fairly divided as practicable; and we must trust that he does so to the best of his judgment and ability. We are bound to suppose that, if the department were in his opinion shorthanded, if the duties appeared to him to press unduly on the medical officers under his direction, he would represent the necessity for an increase of the numbers in the department to the responsible minister. The Secretary of State for War must be advised on this subject by the Director-General of the medical service of the army; and, when he states in the House of Commons that there are no vacancies in the Army Medical Department, it must be taken for granted he states so on information supplied to him that the numbers required for its working are complete.

We wish we could see signs of a satisfactory settlement of the more general sources of discontent in the Army Medical Service. A military cotemporary, in an article on the subject, while admitting the existence of much discontent among the medical officers, has lately stated that there never was known a time when they were not discontented. But surely, if discontent be so marked in one particular branch of the army, and if this discontent be not confined to the officers of this or that period in it, the presumption is, that there must be some solid grounds for it. But we maintain that there was no general discontent in the department until the articles of the Royal Warrant of 1858 had been gravely tampered with. When rights and privileges which were distinctly conferred in that warrant were found to be systematically ignored, at first on secret instructions, and were subsequently openly withdrawn by published orders and warrants, general discontent was naturally engendered, and no wonder it has never ceased since. Would the combatant officers of the army have rested content had a Royal warrant affecting their interests been similarly tampered with? The writer of the article above referred to seeks to show the groundlessness of the prevailing discontent in the Army Medical Department, by comparing the pay and allowances of young medical officers in the army with the salaries of assistants to civil medical practitioners and of the surgeons to county infirmaries and workhouses. When the circumstances, risks, and responsibilities of the two sets of medical practitioners resemble each other more closely than they do at present, we may think it worth while to discuss the question of their relative remunerations; but, until they do, we can only suppose that our cotemporary, by setting up such an argument, feels, and cannot help exposing, the weakness of the position he has taken upon himself to maintain.

# PUBLIC HEALTH
AND
# POOR-LAW MEDICAL SERVICES.

THE guardians of the Axbridge Union have increased the salary of Dr. Thomas McClure, medical officer of No. 2 district from £30 to £50 per annum, and fees.

## REPORTS OF MEDICAL OFFICERS OF HEALTH.

LOUTH.—Scarlatina which, during the past year was so prevalent in various parts of the kingdom, was also epidemic in the Louth Union, and, according to Dr. Domenichetti's report, still continued in a fatal form at the early part of the present year. A good deal of it was imported from other districts, especially from Great Grimsby, and it was spread into the various villages of the district. In several instances, under the influence of isolation and of disinfection, the latter being carried out on a proper system from thirty central stations, the disease was prevented from spreading, but the difficulty of arresting such a disease in the absence of hospital accommodation, leads Dr. Domenichetti strongly to advocate the establishment of cottage hospitals. There is at present a good deal of overcrowding, which tends so strongly to the further spread of zymotic diseases, but special instances are recorded in which owners of property have shown promptitude in building new cottages on receiving an intimation from the sanitary authority as to its necessity. With regard to the general disposal of filth, Dr. Domenichetti speaks strongly in favour of the ash-closet, which he considers preferable to any other form in villages; and, with a view of dealing with the liquid refuse, he has rather opposed schemes of drainage, but has encouraged the plan of dealing with each house separately, by the construction of tanks, having means of overflow into the gardens. The tanks require constant supervision; but, when they receive proper attention, they are stated to be suitable for districts in which isolated houses preponderate.

TAUNTON.—In the rural portion of this district, there has been amelioration in the general sanitary conditions, but many evils still remain to be dealt with. The privies are a source of nuisance, their contents percolate into adjoining wells, and if there be a stream near at hand, it also is sure to be polluted. The question of the overcrowding of cottages, which is referred to in almost every report which comes under our notice, and which is evidently one of the greatest and the most prominent sanitary evils of the present day, is dealt with by Dr. Alford; but the remedy is stated to be difficult, for the alternative in many cases seems to lie between an overcrowded and dilapidated dwelling on the one hand, and the workhouse on the other. The difficulty which there has been hitherto of procuring means of isolation is in course of removal by the joint action which has been determined on between the urban and the rural districts of Taunton, in the construction of a hospital, and it is to be hoped that in connection with it both a mortuary and proper disinfecting apparatus will be provided. In the town of Taunton, sanitary improvements have also been effected, the sewage which previously poured itself at several points into the river Tone, has now been brought to one point, with the object of dealing with it either by precipitation, irrigation, or filtration. Additional means of sewer ventilation are also being provided; but it is evident that the new ventilators require more frequent supervision, to prevent them from being blocked up by road detritus, and hence rendered altogether useless. One very great evil, however, remains in Taunton, for a considerable number of the population still derive their water supply from surface wells, a source of supply which is utterly unsuited to urban populations. The consequence is that the water is seriously contaminated, and so thoroughly is the soil surrounding some of the wells contaminated with filth, that in some instances, after these have been pumped out and cleansed, the fresh supply has been found to be as bad as, if not worse than was the first. There is a wholesome public water supply in the town, but it is to be regretted that it is not delivered on the constant system.

PORTSMOUTH.—Mr. Turner's report on the sanitary condition of the borough of Portsmouth during the past year has, like its predecessor, been prepared with considerable care. The death-rate has been 20.8 per 1,000, which is somewhat higher than that which obtained last year, but which is decidedly below the average for the towns of England. Portsmouth still claims the right to maintain its boast of having a low general death-rate, and if Mr. Turner's statistics, which tend to show that the comparatively small mortality is not due to the number of soldiers and sailors in the town, are accepted, the claim must be allowed. In his opinion, the remunerative occupation which between 5,000 and 6,000 people find in the healthy and well-regulated workshops of the dockyard, and also the comparatively warm and equitable temperature of the town, have most to do in maintaining health and reducing the death-rate. Great care is stated to be taken against the spread of infectious diseases in the town. The medical officer of health receives returns of sickness from the poor law medical officers, and the School Board forward him the names of all sick absentees, a plan which has often been of the greatest advantage in preventing such diseases as measles and scarlet fever from spreading in the schools. But there are no proper means for isolating the sick of infectious diseases in Portsmouth, and Mr. Turner considers that the escape of the town from any epidemic has to a great extent been due to good fortune. Thus, when scarlet fever appeared last year, it happened first to attack the children of soldiers in the Eastney Barracks, and although there were in all 58 patients, yet owing to the existence of an infectious disease hospital in the barracks, the further spread of the disease was prevented. As a further example of what such institutions can do, the case of Rugby is adverted to. In that town small-pox was fatally prevalent last year, and a wooden hospital was constructed as quickly as circumstances would allow; it was completed in fourteen days, and thirty patients were admitted. Here the outbreak ceased, and although the cost of the hospital was about £2,000, yet, as Mr. Turner points out, the epidemic of small-pox in Portsmouth in 1872 was far more costly. Besides which, Rugby now possesses the means of staying future epidemics. The report next deals with the water supply, which is by no means so satisfactory as it might be made, and it particularly urges the necessity of a continuous supply. The present supply is very intermittent, and experiments have shown that during the periods of intermission, the suction from without is such that basins of water held at the mouth of open taps are at once emptied of their contents. The water supply is also often drawn from water-closet, cisterns, and there are facilities for the suction of foul air into the pipes. A chapter is next given to the sewage of the town, and the necessity for the provision of ample means of sewer ventilation, and for enforcing compliance with the existing bye-laws, as to the proper and efficient trapping ol house connections, is specially referred to. A number of tables, explanatory of the prevailing mortality, and well-coloured diagrams, showing the meteorological conditions of the past year, are appended.

## THE WATER-SUPPLY OF THE CITY OF LONDON.

THE recent startling report of Dr. Sedgwick Saunders upon the condition of the water-supply in the courts and alleys of the City has, to the credit of the City Commissioner of Sewers, been promptly acted on. At a meeting held at the Guildhall, March 31st, it was proposed by Mr. J. T. Badford that the erection of the stand-pipes, ordered by the Commissioners in November last, but subsequently postponed, be forthwith proceeded with. It was pointed out by Mr. Haywood, the engineer, that the total cost of the stand-pipes would not exceed £1,475, and it was also stated that the New River Company had promised not to charge anything for the additional supply, and further, that the cost of maintaining the stand-pipes would be trivial. Some discussion and explanation took place as to the cause of the delay that had arisen in carrying out this reform. It appears that the Gas and Water Committee of the City Corporation have for some time been considering the advisability of erecting hydrants throughout the city, in order to secure better protection against fire, and it appeared probable that the provision of stand-pipes would form part of their scheme. The proposal of Mr. Badford met with general and cordial support, and was, in the end, unanimously adopted, orders being given for the immediate execution of the work. It would be well indeed if all sanitary authorities were as prompt and unanimous in acting upon the reports of their health officers as were the City Commissioners of Sewers on this occasion.

## PAYMENT OF UNION MEDICAL OFFICERS.

A CORRESPONDENT writes to us: "At the present time, when the necessaries of life have become more expensive, and the value of money much less than it used to be, it would be well if medical men everywhere would do as the profession in Gravesend and Milton have done, in order to obtain for the Union Medical Officers an increase in the amount of salary they are receiving. In this town there are two districts, one of Gravesend and the other of Milton, each with its own medical officer taking charge of it, and of those patients in the house who belong to and are sent in from their respective districts. This arrangement has met with the approval of the local government inspectors, who think it likely to prevent the uncomfortable feeling which sometimes exists when the officers having the charge of the in- and out-patients are not the same; the out-door surgeon being, it is thought, likely to try to get rid of troublesome cases by sending them into the house, and the in-door surgeon being as anxious to keep them out. For the whole of these duties here, they each received the magnificent sum of £70 *per annum*. On the resignation of one of these gentlemen, the whole profession of the two districts sent in a memorial to the guardians, expressing their feeling that the sum of £100 *per annum* was but a moderate amount to be given for the duty in each district with its share of the house, and declining to come forward as candidates at a less salary. If there were the same *esprit de corps* in every Union, the profession would not be disgraced by the paltry salaries that are offered, as it is now. The guardians, however, in the first instance, advertised it at the old rate, and received but one application, which they, for some reason or other, did not accept. They then issued another advertisement, with the offer of an additional £15, making the salaries £85 each, and found a more acceptable applicant, whom they elected. A copy of the memorial was sent to this gentleman, with a postscript, in which he was informed that, if he accepted office on terms which the medical men within the district of the Union had one and all rejected, he could hardly expect, when he came among them, to have the right hand of fellowship held out to him by a body of gentlemen, one of whom would doubtless accept the office if the terms were such as they had considered fair and reasonable. He then, to his honour be it told, immediately withdrew, and left the guardians again to their own resources. These gentlemen were very angry, and with loud outcries of 'Trades Unionism', etc., appointed the first applicant, who accepted the appointment, but, after a few weeks sent in his resignation, and left it again unfilled. It is to be hoped that they will find the profession as united without the Union as it has proved itself within it, and that no medical man will come forward as a candidate for an office which a local practitioner would accept if a salary which is thought a reasonable and fair one, but by no means excessive, were conceded."

## POOR-LAW MEDICAL APPOINTMENTS.

LYALL, W. L., M.D., appointed Parochial Medical Officer and Public Vaccinator for the Parish of Campsie, Stirlingshire, *vice* A. T. Wilson, L.F.P.S.G., resigned.

WELSH, Joseph, F.F.P.S.Glasg., appointed Medical Officer and Public Vaccinator for the Brampton Brian District of the Knighton Union, Radnorshire, *vice* H. O. Brown, M.R.C.S.Eng.

WHEATCROFT, S. H., Esq., appointed Medical Officer for the Sixth District of the Easington Union, *vice* E. A. Piggott, Esq., resigned.

WOOKEY, J., M.R.C.S., appointed Medical Officer to the First District of the Hatfield Union.

# MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in anatomy and physiology at a meeting of the Court of Examiners on the 9th inst., and, when eligible, will be admitted to the pass-examination:

Messrs. Robert F. Cumming, William L. Heath, J. N. Legge Paulley, George O. Mead, Thomas E. P. Prideaux, and Henry F. Steele, students of St. Bartholomew's Hospital; Thomas C. Nugent, John Poland, Jeremiah Reader, George Mackern, and George A. Wright, of Guy's Hospital; Herbert Blaxland, George C. Henderson, Charles E. Beevor, and Howard Cane, of University College; Charles G. Dalton, William A. Berridge, and Thomas W. Richardson, of the London Hospital; Edward Keen, D. George Allen, and George Walker, of St. George's Hospital; George H. D. Gimlette, and Herbert U. Smith, of St. Thomas's Hospital; William J. W. Proffitt, and John Gabe, of the Middlesex Hospital; Johnson Symington, of the Edinburgh School; Samuel E. Martin, of the Belfast School; Daniel Colquhoun, of the Charing Cross Hospital; John B. Coumbe, of St. Mary's Hospital; Thomas F. H. Smith, of King's College; and Charles C. Lapage, B.A.Cantab., of the Leeds School.

The following gentlemen passed on the 12th inst.:

Messrs. Edmund J. Thompson, Boyd B. Joll, Joseph E. Bullock, Francis A. Jeans, and John D. Evans, of University College; George A. Madin, Thomas E. Hayward, Thomas B. Carlyon, John F. Duncan, and David A. Hughes, of St. Bartholomew's Hospital; William A. S. Walsh, Charles W. Gay, and William R. White, of King's College: John M. Grimmer, and Herbert H. Tidswell, of St. George's Hospital; William H. Battle, and Richard F. Bell, of St. Thomas's Hospital; Robert S. Wainwright, and Owen Bowen, of Guy's Hospital; William C. S. Bennett, and Charles W. Sharples, of the Middlesex Hospital; George Eliot, of the Westminster Hospital; Arthur Greenwood, of the Charing Cross Hospital; Arthur B. Prowse, of St. Mary's Hospital; and Harold L. Palmer, of the London Hospital.

Out of the 180 candidates examined, 35 having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their anatomical and physiological studies for three months. The General Medical Council having nominated Dr. Fleming of Glasgow, and Dr. Barton of Dublin, to visit and report on the examinations, these gentlemen were in attendance all day on Monday, and took copious notes.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, April 8th, 1875.

Bernays, Herbert Leopold, H.M. Dockyard, Chatham.
Brent, Mortimer John De, Marischal Road, Lee.
Briggs, Harry Buchan, Oncombe House, Horncastle.
Coles, John William, Camberwell New Road.
Donohoo, Thomas Bradford, Blackfriars Road.
Sandiford, Robert Trotman, New Ormond Street, Bedford Row.
Twining, Alfred Hughes, Walthamstow, Essex.

The following gentlemen also on the same day passed their primary professional examination.

Cundell, George Richard, St. Mary's Hospital.
Davis, Frederick Howard, St. Bartholomew's Hospital.
Mathias, James, St. Bartholomew's Hospital.
Moore, Charles Arthur, St. Bartholomew's Hospital.
Smith, Rowland Dunn, London Hospital.

## MEDICAL VACANCIES.

THE following vacancies are announced:—

ABINGDON UNION—Medical Officer for the Workhouse. Salary, £45 per annum.—Medical Officer for No. 2 District. Salary, £115 per annum. Applications on or before the 24th instant.

BARTON-UPON-IRWELL UNION—Medical Officer for the Cadishead District. Salary, £25 per annum.

BETHLEM HOSPITAL—Two Resident Medical Students.

BOLTON UNION—Medical Officer for the Horwich District. Salary, £30 per annum.

BRADFORD INFIRMARY AND DISPENSARY—Physician. Applications to be sent on or before June 12th.

BRADFORD MEDICAL AID ASSOCIATION OF FRIENDLY SOCIETIES—Surgeon. Salary, £200 per annum, with fees, house, gas, etc. Applications on or before the 21st instant, to Mr. W. B. Cawthra, 18, Newington Street, City Road, Bradford.

BURTON-ON-TRENT UNION—Medical Officer for the Etwall District. Salary, £70 per annum. Applications on or before the 19th instant.

CHELTENHAM GENERAL HOSPITAL AND DISPENSARY—Honorary Medical Officer at the Branch Dispensary. Applications on or before the 17th instant.

DOVER HOSPITAL AND DISPENSARY—Resident Medical Officer—Salary, £90 per annum, with furnished apartments, coals, light, and attendance. Applications on or before the 20th instant.

DOVER UNION—Medical Officer for the St. Mary's District and the Workhouse. Salary, £180 per annum.

DROITWICH UNION—Medical Officer for the Droitwich Rural and Urban Sanitary Districts. Salary, £150. Applications on or before the 20th instant.

DUNDEE ROYAL INFIRMARY—Resident Medical Superintendent. Salary, £200 per annum, with board, lodging, and washing. Applications on or before the 21st instant.

GRAVESEND AND MILTON UNION—Medical Officer for the Milton District. Salary, £70.

HARDINGSTONE UNION—Medical Officer for the Brafield District. Salary, £45 per annum. Applications on or before the 17th instant.

HULL BOROUGH ASYLUM—Resident Medical Superintendent. Salary, £350, with coals, gas, washing, and vegetables. Applications on or before the 24th instant.

KENT AND CANTERBURY HOSPITAL—Assistant House-Surgeon and Dispenser. Salary, £50 per annum, with board, lodging, and washing. Applications on or before the 30th instant.

KILCHRENAN AND DALARICH, Parish of—Salary, £80 per annum. Applications, on or before May 1st, to the Chairman of the Local Board.

LIVERPOOL DISPENSARIES—Assistant Resident House-Surgeon. Salary, £108 per annum, with furnished apartments, coals, gas, and attendance. Applications on or before the 28th instant.

MILFORD UNION, co. Donegal—Medical Officer for the Ramelton Dispensary District. Salary, £100 per annum, and fees.

NEWBURY UNION—Medical Officer for the Fifth District.

NEWMARKET UNION—Medical Officer for Nos. 1 and 3 Districts. Salary, £85 per annum.

ROYAL INFIRMARY FOR WOMEN and CHILDREN, Waterloo Bridge Road—Physician.

ROYAL LONDON OPHTHALMIC HOSPITAL—Clinical Assistants and Ophthalmic Dressers. Applications on or before the 27th instant.

ST. GEORGE'S AND ST. JAMES'S DISPENSARY—Accoucheur and Surgeon. Applications on the 29th instant.

SALFORD AND PENDLETON ROYAL HOSPITAL—District Surgeon. Salary, £80 per annum, with board and lodging. Applications on or before the 21st instant.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY—Assistant House-Surgeon. Salary. £65 per annum, with board, lodging, and washing.

SLIGO UNION—Medical Officer to the Workhouse. Salary, £100 per annum, and £10 as Sanitary Officer. Applications on or before the 20th instant.

STOURBRIDGE RURAL AND URBAN SANITARY DISTRICT—Medical Officer of Health—Salary, £50 per annum. Applications on or before the 24th instant.

TORBAY INFIRMARY—House-Surgeon. Salary, £100 per annum, with board and lodging.

TORONTO ASYLUM, Canada—Medical Superintendent. Salary, £411 per annum, with furnished apartments, fuel, light, and furnished table for family. Applications on or before May 15th.

WEST DERBY UNION—Medical Officer for the Walton Workhouse.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL—House-Surgeon. Salary, £100 per annum, with board, washing, and furnished apartments. Applications on or before May 3rd.

## MEDICAL APPOINTMENTS.

*Names marked with an asterisk are those of Members of the Association.*

SHAPTER, Lewis, B.A., M.B.Cantab., appointed Consulting Physician to the Wonford House Hospital for the Insane, near Exeter, *vice* Thomas Shapter, M.D., resigned.

SHEWEN, Alfred, M.D., appointed Physician to the Farringdon Dispensary.

SMITH, Winckworth T., M.R.C.S.Eng., appointed House-Surgeon to the Clinical Hospital and Dispensary for Children, Manchester, *vice* W. J. Sinclair, M.B., resigned.

*SPARKS, Edward I., M.B., M.R.C.P., appointed Physician to the Royal Infirmary for Children and Women, Waterloo Bridge Road, *vice* J. Williams, M.D., M.R.C.P., resigned.

THOMAS, Jabez, L.R.C.P.Ed., appointed Surgeon to the Swansea Hospital, *vice* A. Davies, M.R.C.S.Eng., resigned.

THOMPSON, Edward C., M.B., appointed Surgeon to the County Tyrone Infirmary, *vice* Henry Thompson, M.D., resigned.

THORNLEY, John G., M.D., appointed Physician's Assistant to the Bristol General Hospital, *vice* F. G. Stevens, M.R.C.S.Eng., resigned.

## OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY ......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.

FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

## MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Dr. Pedler, "On the Pneumatograph"; Dr. Richardson, F.R.S, "A further Report on the Treatment *in extremis* of Cases of Fibrinous Separation within the Heart and Great Vessels".

TUESDAY.—Pathological Society of London, 8.30 P.M. Adjourned Debate on the Germ-Theory of Disease; being a Discussion of the Relation of Bacteria and Allied Organisms to Virulent Inflammations and Specific Contagious Fevers.

FRIDAY.—Clinical Society of London, 8.30 P.M. Dr. Gustavus Fritsche of Poland (communicated by Dr. Tilbury Fox), "Case of Fibroma, weighing 35 lbs., successfully removed"; Mr. T. Smith, "Disordered Nerve-Function in an Infant": Mr. R. W. Parkes, "Case of Scald of the Glottis, with deposit of False Membrane in the Pharynx, Larynx, and Bronchi"; Dr. T. Henry Green, "Acute Fatty Degeneration of the Heart".—Quekett Microscopical Club, 8 P.M. Dr. Daniel Moore, "Remarks on *Bucephalus Haimeanus* and an allied unnamed Form".

## NOTICES TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

INQUIRER (Bristol) states the clinical fact without any of the characteristic details, especially those of temperature, duration of the disease, and anatomical characters. In the present form, his question cannot properly be answered. Any answer would be a mere guess.

### SPINA BIFIDA.

SIR,—As cases of spina bifida generally prove fatal at an early period of life, it may not be uninteresting to mention that I knew a case in the poorhouse at Zürich, shown me by my friend the late Dr. Berger in 1838, where the patient had attained the age of twenty-five years. I have never met with any record of such longevity. I think Sir Astley Cooper mentions a boy aged fourteen, in whom the tumour burst whilst bowling his hoop. In the case I mention, there was total paralysis of the lower extremities, a large tumour in the lumbar region, and cretinism. I often regretted my inability to make a sketch of the patient; and as then photography was not, I lost the opportunity of placing on record an immense number of valuable cases that came under my notice at a time when German literature was comparatively unknown. Albert Kölliker, whose name is known throughout the world, had just at my persuasion commenced his studies in physiology.—Your humble servant,

HENRY P. DRUMMOND, M.D.

Ipswich, April 1875.

AJAX.—John Rawson, who died in 1819, and to whose memory a tablet is raised in the parish church of Ecclesfield, Yorkshire, and described as a Fellow of the Royal College of Surgeons, could not have obtained that title from the London College, as the first batch was only made in December 1843; moreover, in searching the old list of members from 1800 to 1819, the year of his death, the name does not appear as holding the membership at that College.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

### Army Medical Reform.

SIR,—I do not usually take any notice of literary assassins who throw mud from behind the protection of a *nom de plume*; but if your correspondent "Statistic" had taken the trouble to read my pamphlet, he would have found at page 19, which precedes what he elegantly styles my "statistical vagaries", the following important reservation: "If, however, the data on which the calculation is made be correct"—a qualification which was necessary, as the data were furnished to me by others. It is fortunate, however, for the cause of army medical reform, that the money cost of promotion at twelve years is immaterial to the main question at issue, as "Statistic" will find that promotion at twelve years is not asked for, as it would be useless to expect it; but promotion at fifteen years is hoped for at page 42.—Truly yours, EDWARD HAMILTON.

120, Stephen's Green, April 7th, 1875.

P.S.—I think that, in attacking two individuals who have given their names fearlessly to the public, "Statistic" should have had the manliness to give his own.

### The Case of Mr. Hugh Rees of Llanberis.

SIR,—I have been expecting to see some notice taken of the case of Mr. Hugh Rees of Llanberis, referred to in your issue of March the 27th. It seems to me that it would be but a proper and deserved appreciation of his conduct in resigning the post of surgeon to the Dinorwin Quarry, in consequence of a bone-setter being appointed to act in conjunction with him, if a subscription was started, and a purse presented to him by the profession. The sum collected would, perhaps, be most inadequate as a pecuniary recompense for the loss of a salary of £500 *per annum*, but I am sure Mr. Rees would be gratified by this mark of esteem from his professional brethren. I should be glad to give a small donation.

Yours faithfully, W. PUGIN THORNTON.

Devonshire Street, Portland Place, April 11th, 1875.

CREMATION (Torquay).—From the accounts of various travellers, the wealthy Chinese are burnt with great pomp, and their monuments are most curious and expensive.

### Coroners' Inquests.

SIR,—In the late unfortunate discussion relative to the duties of coroners, which appeared in the JOURNAL a few weeks back, I noticed a paragraph, drawing attention to the disparity in the percentage of inquests held in Hull and London, and expressing a desire to know why Hull held such a low percentage in comparison with other towns. As this low percentage of inquest would no doubt (if not explained) be made use of against those who conscientiously fulfil the duties for which they are paid, I beg to place before you a few facts, which will throw some light on our low rate, and show that ours is not exactly a model to be taken, but rather a system to avoid.

About two months ago, I brought the subject of the careless manner in which accidental deaths were passed over by our coroner before the Branch here; and, in support of the subject, brought forward the following cases as having occurred in my own practice within two years.

1. Mr. C., an engine-driver, aged 40, according to his wife's statement, never had a day's illness in his life. He left his work at midnight, and went to bed without any complaints as to his health. His wife awoke about 2 A.M., and found him dead by her side. I gave no certificate, and no inquest was held.

2. Mrs. H.'s child was found dead in bed. The child went to bed in good health. I gave no certificate; no inquest was held.

3. Mr. D., a man in lodgings, went to bed, suffering only from a cold, and was found dead in bed. I gave no certificate; no inquest was held.

4. Mr. W., a miller, got up at 6 A.M., apparently in his usual health, went into the mills, but soon returned, and shouted from the foot of the stairs, "I am dying!" Before his wife got down to him, life was extinct. In this case, a daughter had been sent to the asylum about a month before, and amongst the facts certified as showing her mental unsoundness were—"She had placed soap in her mother's beef-tea"; "she had placed liniment in her father's tea"; and, "she was constantly threatening to take their lives". About a fortnight before her father's death, she came out of the asylum, and, two or three days after his death, we had to send her back to the asylum, on account of her increased threatenings and violence towards her mother. In this case, as in the others, the coroner gave a paper to the registrar (without any consultation with the medical man), saying he was satisfied as to the cause of death.

At the time I brought the subject forward, Mr. Atkinson, of this town, also mentioned to me several like cases which had occurred to him, on which no inquest or inquiry was held.

It is, perhaps, well we should remember that part of a coroner's duties is as much to distribute censure on those through whose careless oversight deaths are caused, as to convict of crime; and I think he fulfils his duties as properly in preventing careless handling of human lives, as in bringing criminals to justice. Regretting censure, which was ill-bestowed, on the new coroner for Middlesex,

I remain, yours truly, W. HOLDER.

Hull, April 6th, 1875.

⁂ The subject is one of much public importance. It would be interesting to have the experiences of other medical men, as to instances in which the want of medical knowledge of a coroner has led to errors or omissions of importance; and, on the other hand, illustrations of the value of medical knowledge by the coroner, in tracing the causes of disease and death. The object of the coroner's court is not to prove guilt against any.

A MEDICAL ARTIST.—The late Mr. Clift, F.R.S., the first Conservator of the Hunterian Museum, states in his diary (one as interesting to the members of the profession as that of Mr. Pepys to the general public), "of the Cartoon representing King Henry VIII presenting the Charter of Incorporation to the Company of Barber-Surgeons", that "the principal figure is very highly finished; several of the heads have been painted separately and inlaid in the back-ground. It is esteemed to be the original from which the picture in the hall of the Barber-Surgeons' Company, Monkwell Street, Cheapside, was painted by Hans Holbein. His initials and the date are upon the panel between the windows on the right hand side of this picture near the top. These became visible when the picture was cleaned in 1819." The more correct term would be monogram, thus HH, a double H, for Hans Holbein. Perhaps this explanation may assist in clearing up your doubts; if not, inquire of Mr. Stone, of the College of Surgeons, who purchased, at the sale of his effects, the diary and interesting correspondence of the late Mr. Clift.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

### The Action of Alcohol.

I VENTURE to ask for a corner of your JOURNAL in which to defend myself, and the more fully explain my views on the action of alcohol. In the first place, it appears that I am at issue with many members of the profession respecting the terms stimulant and narcotic. I contend that they are different in their actions, whether given in small, medium, or heavy doses; but others say that the finale of heavy doses of stimulant agents is narcotism. To this conclusion I demur. I have a friend very ill. Feeling extremely anxious respecting the case, I watch by the bedside night and day. I allow no sleep to my eyes, nor slumber to my eyelids—the excitement and the power of the will enable me for some time to sustain the continuous watching, until at length Nature is exhausted, and I sink overpowered with sleep. Such, I maintain, is not narcotism, or if it be, it is induced by the carbonic acid naturally present in the blood acting upon the exhausted frame. Now, mark the action of a true narcotic. I give opium; it does not stimulate the nerve-power away, but, so to speak, chains it down. The patient sleeps, not because the nerve-power is exhausted, but because it is narcotised. The nerve-power is still present, and only needs a stimulus to call it forth; hence, when a person is poisoned by opium, a cure can be effected provided the victim can be kept awake. Again, in narcosis from chloroform, the nerve-power is still there, as proved by the patient shouting when the knife is inserted in tender parts, and by the rapid recovery to consciousness after the chloroform is discontinued. This difference distinguishes the two classes of agents; the one induces stupefaction by exhausting, the other stupefies by directly narcotising the nerve-power. In your review of my essay on the subject, the reviewer draws my attention to the fact that a small current of galvanism increases the irritability of a nerve, that a stronger decreases it, and that a still stronger destroys its irritability, or *narcotises*. But does not this statement imply contradiction? Galvanism is a powerful stimulating agent, and while weak currents will induce the flow of nervo-electricity along any given nerve, and thus call into play the function of the part supplied by such nerve, stronger currents will exhaust or render powerless for a time, while very severe currents will completely exhaust and paralyse. Where the narcotism is, I fail to see. The nerve is powerless, because of the severe stimulation to which it has been subjected. Had it been narcotised, the currents could have been again induced by the galvanism. I think it will now be evident what I mean when I say that alcohol is a stimulant in all its doses. It stimulates to exhaustion, and when the system is exhausted, the carbonic acid present narcotises. Drunkenness does not set in until the person is exhausted. Those with iron constitutions may drink very heavily before they get drunk, while those who have often debauched find that less and less affects them, because they have less strength or nerve-power left for resistance. Others, again, graduate the amount, the habit slowly growing on them, until in time the nerves seem as though they would not respond—such appear to be always at their cups, but never to get drunk.

A battery will generate an amount of electricity in a given time. The quantity will depend upon the strength of the battery (number of plates), and the rapidity with which the currents are induced, while the wear and tear will bear ratio to the amount of electricity produced. Such is the case with the brain. It is a definite organ of limited capacity. It generates nervo-electricity sufficient to sustain life, to keep in action the involuntary functions, and to allow an amount for the voluntary. The whole body is in direct communication with the brain, and its vitality is sustained and supported by it. Being of limited capacity, only a certain amount of nervo-electricity can be generated in a given time, hence agents which use this up more rapidly than it is generated would in time make life untenable. This, however, is remedied by natural narcotism, induced by the carbonic acid present in the blood. This is proved thus: Dr. Parkes found that in the Ashantee war, when rum was administered, the mean ratio of the pulse in the twenty-four hours was the same as when it was not administered. It is also a well-known fact that people cannot perform the same amount of work on alcohol as on milk, or even water. Were alcohol a narcotic, the stimulus of the work ought to call the powers into play. True, after long habitual narcosis, the brain becomes impaired, and the system generally relaxed; but in the case of alcohol, a single debauch produces exhaustion. Again, carbonic acid is a narcotic; hence if an amount narcotise a strong person, will not a less amount narcotise a weaker one, and will not a still smaller amount narcotise an exhausted one? I fail to see what is to prevent such an issue. All the conditions necessary are present, the exhausted frame, the wasted nerve-power, and the carbonic acid in the blood. As to the action of alcohol, I am aware that physiologists believe that alcohol paralyses the sympathetic nerves, and that thus the cerebro-spinal exert their power uncurbed. If they are paralysed, it must be occasioned by exhaustion or physical change. It cannot be exhaustion, as it is instantaneous, and there are no signs of action on the sympathetic, as seen under the microscope. The vessels do not at first contract, as would be the case if the sympathetic were stimulated, but they *immediately dilate*. It cannot be from physical change, inasmuch as the paralysis would continue as long as, and even longer, than the presence of the alcohol. If the sympathetic were paralysed in the presence of the alcohol, the cerebro-spinal would keep up their power unchecked, and the result be fatal palpitation of the heart, and congestion of all the viscera. In your issue of the 20th, you note the discovery, by Continental physiologists, of vaso-dilator nerves, traceable to the cerebro-spinal, going to prove the truth of what I say, that all agents which act upon the cerebro-spinal stimulate, while those which act upon the sympathetic narcotise.—I am, Sir, yours truly,

THOMAS P. LUCAS, M.R.C.S.Eng., L.S.A., L.R.C.P.Ed.

A MAGNETINE.—Notwithstanding statements to the contrary, the pamphlet on *Magnetine*, with the name of Dr. Soutter, M.R.C.S.Eng., is still extensively circulated. Three copies lately sent to two correspondents are before us. Write to Mr. Trimmer, Secretary of the Royal College of Surgeons.

H. S.—Pope Clement VII, it is stated, sank under the baneful effluvia of a torch that was carried before him. The Italian ladies delight in the disgusting aroma of rue, which, according to their notions, dispels the *cattiva aria*. Perhaps they fancy it possesses those salutary qualities to which Ovid alludes:

"Utilius summas acuentes lumina rutas,
Et quidquid veneri corpora nostra negat."

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, twelve o'clock.

M.D. (Oxford).—When the celebrated Radcliffe went to Hanau to attend Lord Albemarle, he received £1,200 from the King, with 400 guineas from his patient, besides a valuable diamond ring. He died very rich, and amongst his legacies was one of £500 *per annum* for the amelioration of the diet of St. Bartholomew's Hospital.

A STUDENT.—Our advertising columns will give you the information.

### Prevention of Quacks.

SIR,—I am tempted by the sensible letter of Dr. Crisp of Chelsea, with which I cordially agree, to go another step in advance, and earnestly recommend to the consideration of the profession generally the propriety of providing some official organisation whose special object would be the prosecution and punishment by law of those quacks and pretenders to medical knowledge throughout the country, whose assumption of professional titles, to which they have not the slightest right whatever, tends to lower the dignity of our profession in the eyes of an undiscriminating public. I pass by, sir, in alluding to those people, the pecuniary loss entailed by them on our profession, and also the misery often experienced by many of their unfortunate patients, though they are well worthy of consideration. Of the latter kind I could furnish examples in my own practice of the evil influence of these persons in private families—of the wife made doubtful of the faithfulness of her husband, when she herself suffers only from leucorrhœa, and of the husband also doubting the wife whan he suffers from balanitis, contracted from the leucorrhœal wife, which was easily cured under proper treatment. There is a delicacy, and I believe it to be a false one, among us in taking the personal responsibility of prosecuting in these cases, and in deference to it I would suggest the consideration of my proposition. We number 30,000 in our profession in the United Kingdom; in our own Association we number between 6,000 and 7,000; surely we ought to be strong enough to look to our interests as well as those of the general public. The latter would soon recognise it. We are, and have been for a long period, working hard for the better sanitation of the country. Must we neglect the treatment of an ulcer which permeates through the vital and social relations of society. One of my professional brethren here has suggested as a plan of meeting in some measure our requirements, the appointment of consulting medical law officers, who should be specially retained, and who should receive a certain proportion of our annual payment, either from the parent or from the branch Associations, or from both. There should be a sum sufficient to make it worth the while of those gentlemen to devote themselves to the study of the subject, and they should be entitled to all costs in cases of conviction. If sufficient funds be available, there might be one such person in each large town in the United Kingdom, *i.e.*, for England, in Liverpool, Manchester, Birmingham, Leeds, Bristol, Newcastle, London, etc.; for Scotland, in Edinburgh, Glasgow, Aberdeen; for Ireland, in Dublin, Cork, Belfast; or only one for each country. These however, sir, are matters of detail. The subject has been mentioned to one of the leading members of the Council of the British Medical Association in the north of England, who promised to bring it under the notice of the Council; but so far, nothing has come from it. If the attention of the British Medical Association be drawn to this subject by my letter, my object will have been attained.—I am, etc., D. A. O'SULLIVAN.

Oak Mount, Burnley, Lancashire, March 13th, 1875.

DELTA.—We think that, in the absence of any agreement to the contrary, our correspondent may accept the invitation of his friends and commence practice in the town; but that he should carefully avoid and strongly resist all attempts to increase his practice by the transference of any of his late principal's patients to him.

### On the Influence of Temperature on Childbirth.

SIR,—I have said that the subject is not understood. If the reader have any doubt on this point, let him consult the latest authority, Dr. Leishman, who, in his most praiseworthy and painstaking work, published only a few months ago, states that his "object has been to furnish to students and practitioners a complete system of the midwifery of the present day"; and this, judging by the highly favourable opinions everywhere expressed, he appears to have accomplished in a very satisfactory manner. In that work, which is replete with information respecting the mechanism of labour, the reader will fail to discover anything corresponding to the doctrines which you have permitted me to publish in the pages of your JOURNAL. In the chapter headed "Uterine Inertia and Precipitate Labour", the author begins by saying that "in no two cases of labour is the course of the process precisely similar, although the vast majority are *from first to last perfectly normal*". Then occurs the following illustrative passage, in which the reader will be sorely puzzled to discover any expression of a rule—any normality whatever. It is a case of *lucus a non*, in fact. "Nothing is more familiar to the accoucheur than the sudden and unlooked for changes which occur in the course of an ordinary case. In one instance, the tardy and inefficient progress which has characterised it during many tedious hours, gives place, *without any obvious reason*, to efficient and even violent action, which brings the act to a precipitate termination: while in another, the safe and steady progress, which has led us confidently to anticipate a speedy issue of the case, is provokingly interrupted by a failure of expulsive power, and that, too, not unfrequently when the second stage of labour is nearly at an end. Such occurrences as these are generally of no great importance."

One would certainly suppose that, both theoretically and practically, it would be a matter of the very highest importance to ascertain, if possible, what are the essential dynamic conditions of rapid and tedious labour. One would suppose, too, that in the volume above quoted, the influence of temperature, whether as regards the prevention or alleviation of the somewhat unsatisfactory (though, according to Dr. Leishman, "perfectly normal") state of affairs would be amply discussed. Nothing of the kind. All that is therein written having any bearing on the subject is comprised in the following sentence. "Climate and season exercise an influence which, though far from uniform, is sometimes obvious, the relaxing effect of a high temperature in those instances enfeebling the nervous and muscular tone; and it has even been stated that the result of long residence in the tropics has a permanently enervating effect, which may be manifested subsequently in temperate latitudes." Not a word is said, be it observed, respecting the all-powerful influence of warmth in promoting easy, safe, and speedy parturition; not a word, either, about the paralysing effect of cold. Before the author publishes another edition of his work, let him pay a visit to the Swiss mountains, and let him inquire into the difficulties and dangers which everywhere beset parturient women as a necessary consequence of the continually depressing influence of cold. There, in many places, he will find the inhabitants wringing their hands, and declaring in piteous accents that at such times everything always goes wrong.

The reader will not have forgotten the interesting case mentioned in a previous letter, where, at one *coup*, the whole process of parturition was happily brought to a close. Dr. Leishman has nothing to relate on this aspect of the question; he only enlarges "on the accidents which may accrue in labours which are too rapid". Indeed, the subjects of painful and precipitate labour are so inextricably blended in his book, that one would never suppose (unless otherwise informed) that a precipitate labour could, by any possibility, be easy and safe. He speaks, for example, of cases where, "although the parts are relaxed, the child may be forced through the passage with a rapidity which is truly appalling". Here, curiously enough, we witness a remnant of the old superstitious fear of a too rapid delivery, which led of necessity to the absurd and mischievous (though time-honoured) practice of "supporting the perinæum"—a practice which, in another part of his book, Dr. Leishman very properly condemns.—I am, etc., M.D.

Harlesden, N.W.

PETROS.—This is the epitaph; see Wadd's *Nugæ Canoræ*.

" Jerusalem's curse is not fulfilled in me,
For here a Stone upon a Stone you see."

L.R.C.P.—It is said that Sir Theodore Mayerne took lessons from Sir Walter Raleigh in medicine.

### Artificial Limbs.

A HOG with an artificial leg, says the *Farmer*, must be a touching and picturesque object. The cow-catcher at Dunleith took off the hind leg of Mr. Smith's hog, and his benevolent owner made a wooden succedaneum, and strapped it to the stump. The creature shows its gratitude by accumulating fat with great rapidity, the only drawback being that when killing and curing time comes, one of the hams will have no handle.

M. B. M. ASSOCIATION.— In Edinburgh, about the latter end of July or beginning of August, full particulars will be duly announced.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Croydon Chronicle; The Newcastle Daily Journal; The Derby and Chesterfield Reporter; The Hampshire Telegraph; The Newton Directory; The Hereford Times; The Hackney Express; The Liverpool Mercury; The Glasgow Herald; The Birmingham Daily Post; Saunders' News Letter; The Sheffield Daily Telegraph; The Bath Argus; The Berkshire Chronicle; The Cork Constitution; The Exeter and Plymouth Gazette; The Merthyr Express; The Glasgow News; The Standard; The Folkestone Express; The Sunderland and Durham County Herald; The San Francisco News Letter and Californian Advertiser; The Western Gazette; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Mr. Lennox Browne, London; Mr. Fairlie Clarke, London; Mr. P. C. Hepworth, London; Mr. H. Sewill, London; Mr. P. Cunliffe Owen, London; Dr. A. Harkin, Belfast; Mr. J. Stannier, Folkestone; Dr. R. Bowles, Folkestone; Mr. W. E. Alston, Shorncliffe; Dr. Ogle, Derby; Dr. J. William, Penygroes; Mr. A. Iveson, Hull; Dr. Pavy, London; Mr. W. Holder, Hull; Dr. A. Harvey, Aberdeen; Dr. Nicol, Llandudno; Mr. R. A. Clarke, Farnworth; Mr. W. Hammond, Nuneaton; Mr. J. Gay, London; Dr. Harvey, Llandudno; Dr. Saunders, Exeter; Mr. E. C. Baber, London; Mr. J. Ingpen, London; Mr. John Moir, Bristol; Mr. J. Ashburton Thompson, London; Dr. Williams, London; Dr. G. F. Elliott, Hull; Our Edinburgh Correspondent; Dr. L. Marsh, London; Mrs. Theobald, Leicester; Dr. C. E. Reeves, Exeter; Mr. R. Coffin, Valetta; Staff-Surgeon M. A. Coates, British Columbia; Surgeon-Major E. J. Hopwood, Devonport; Dr. T. Griffiths, Sheffield; Mr. L. S. Shackles, Hull; Mr. W. Stewart, Barnsley; Dr. A. Hill Hassall, Ventnor; Dr. Henry Barnes, Carlisle; Dr. J. Fayrer, London; Mr. D. B. Balding, Royston; Mr. James Inwards, London; Mr. R. Lawson, London; Dr. A. L. Galabin, London; Mr. Alfred Shewen, London; Dr. Welch, London; Dr. J. M. Bryan, Northampton; The Secretary of the Statistical Society of London; Dr. Nicholson, Portsmouth; Mr. E. W. Braybrook, London; Dr. E. I. Sparks, London; Mr. J. C. Sargeant, London; Dr. Lionel Beale, London; Dr. J. Vinen, London; Mr. John Ewens, Cerne-Abbas; Mr. Daniel O'Sullivan, Burnley; Our Dublin Correspondent; Dr. Mathew Hinchliffe, Dewsbury; Mr. Poole, London; Dr. G. Lorimer, Buxton; Dr. W. A. Corfield, London; Dr. W. L. Trench, Liverpool; Sir J. C. Burrows, Brighton; Mr. Footner, Curragh; Mr. Fagge, Hythe; Mr. H. Smith, West Brighton; Mr. Rose, Monaghan; Surgeon W. E. Alston, Shorncliffe; Dr. G. Fearon, London; Mr. G. Y. Graham, Stockport; Dr. R. Lucas, Dalkeith; Mr. J. W. Baker, Derby; Dr. C. Parsons, Dover; Dr. Sawyer, Birmingham; Mr. G. Okell, Winsford; Mr. Southam, Pendleton; Mr. Fowler, Bath; Mr. Gibson, Daventry; Dr. Barnes, Carlisle; Mr. T. E. Jones, Wrexham; Dr. J. Coats, Glasgow; Dr. T. Smith, Cheltenham; Dr. W. Finlay, London; Dr. Waters, Chester; Dr. Harrison, Lincoln; Dr. Philipson, Newcastle; Dr. Macdonald, Somerton; Mr. A. Morton, Glasgow; Dr. F. Oppert, Berlin; Dr. L. W. Marshall, Nottingham; Dr. A. B. Steele, Liverpool; Dr. Wade, Birmingham; Dr. Waters, Liverpool; Mr. Dolman, Derby; Mr. J. Murphy, Liverpool; etc.

## BOOKS, ETC., RECEIVED.

Sir Charles Bell and Sir James Young Simpson: a Biographical Study. By Sampson Gamgee, F.R.S.E. Birmingham: White and Pike. 1875.

# AN ADDRESS

## DELIVERED TO THE FELLOWS OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON,

*March 22nd*, 1875.

By SIR GEORGE BURROWS, Bart., M.D., F.R.S.,
Physician in Ordinary to the Queen; President of the College; etc.

Gentlemen,—One of my most distinguished predecessors in the office I have the honour to hold—Sir Thomas Watson—instituted the practice of giving a summary of the occurrences which had transpired during the official year; and, feeling convinced of the value of the precedent established by him, I shall venture upon this, as upon former occasions, to detain you with a few remarks.

The events of the past year have been fewer than usual, and many of them related to mere matters of routine, and are hardly worthy of being adverted to, while others are of more or less importance and of interest to the Fellows, and deserving of some further notice. Some of these, then, I shall touch upon very lightly, while upon others I shall deem it my duty to offer you more or less extended remarks, in order that they may not so immediately pass from your consideration and remembrance.

We may regard the occurrences of the past year from two points of view, according as they affect us in relation to the world around us, or as they concern our own material interests and reputation.

Our communications with the different Public Departments of the Government have been fewer this than in any preceding year in which I have had the honour of holding office. We have received two communications from the Secretary of State for India respecting the treatment of leprosy with Gurjun oil; and, if the reports of the efficacy of this remedy be confirmed by subsequent investigations, an important step will have been gained in the treatment of this horrible and intractable disease. Another letter from the India Office related to the fevers and other diseases which might be expected to become epidemic after the failure of the rice crop in Bengal and during the subsequent famine, the horrors of which were so greatly mitigated and controlled by the untiring energy and perseverance of the Governor-General, Lord Northbrook, and the officials of the Government at Calcutta. All these documents were laid before the Fellows, and suitable replies were transmitted to Lord Salisbury, the Secretary of State for India.

A letter was received from the Registrar-General's office, submitting for the consideration and approval of your President a new form of certificate of the cause of death, to be filled up by all legally qualified medical practitioners who have been in attendance upon patients whose illnesses have terminated fatally. The new certificate does not materially differ from that which has long been in use. While it imposes some increased responsibility upon the medical attendant, it also allows him to make qualified statements upon points on which he has had no certain personal knowledge.

The more complete and accurate registration of the causes of death is of such essential interest and value in a densely populated and highly civilised nation like our own, that the members of the medical profession, with their usual disinterestedness, would hardly offer any captious objections to an improved form of certificate of the causes of death, although it might occasion some additional trouble.

Her Majesty's Commissioners of the International Exhibitions held in this country have presented to the College a medal, in acknowledgment of the services rendered by the Fellows towards the arrangement and enriching of certain departments of these exhibitions.

Ever since I have been connected with the College, and long before, it has been the established practice at our general meetings not to travel from that which relates to medical science and our profession generally into the wide field of politics and general legislation. Any subject which concerns the government or improvement of the education of the profession, or which affects the status or interests of certain branches of the profession, has always been considered a legitimate and proper subject for the consideration, discussion, and active interference on the part of the College, so as to procure for it proper attention by the Executive Government or the legislature.

A subject of deep and pressing social interest—one affecting the health and moral tone of a large portion of our fellow-countrymen—was introduced to the notice of the Fellows, at a general meeting, by our late much lamented colleague Dr. Anstie. I advert to the unwholesome state of the dwellings of the labouring population from overcrowding in London and many other large towns.

I know that by many Fellows of the College it was felt that, in entering upon this subject, and presenting a memorial to the Government, inviting them to take this matter into their early consideration for legislation, we were transgressing the course of action usually pursued by the College. Admitting the correctness of this criticism, I confess to have warmly sympathised with Dr. Anstie and others upon that occasion, and to have given him my countenance and support in the resolution the College eventually adopted.

Considering how highly the College Memorial was approved by the principal organs of public opinion, and how much it has strengthened the Home Secretary in his attempted legislation to remove this great social scandal, and cause of disease and immorality, I hope the dissentient Fellows on that occasion may have become more reconciled to the somewhat unusual course then adopted.

At the close of the last year, a communication was received from the Shropshire Ethical Branch of the British Medical Association, enclosing a proposed tariff regulating the fees in that locality of surgeon-apothecaries, or general practitioners, as they are familiarly called. This document did not require any particular notice by this College, because it related exclusively to the pecuniary recompense for medical and surgical services rendered by members of a different order in the profession than our own. But this document, and others similar to it which have emanated from other sources, are indications that the profession, as a body, are becoming dissatisfied with the present arrangements for remuneration of services rendered to the public.

Several Fellows of the College have called my attention to the present unsatisfactory scale of remuneration to physicians practising in this metropolis, and have forcibly pointed out that the fee which was deemed a sufficient honorarium a century ago by no means adequately compensates the modern physician for the additional time and skill devoted to patients residing in distant parts of this vast town. In former times, it was seldom that a physician's practice extended beyond a circle of which the radius was a mile, the centre being his own home; and, if patients resided beyond that circle, the physician was almost sure to receive an extra fee. Now, it is well known that, from the enormous distance to which the town has extended in all directions, the London physician may be called to patients residing in fashionable regions, at a distance of two miles or more from his home-centre; and yet, unless some previous arrangement have been made, no extra fee is offered by patients, and can rarely be asked for without giving rise to unpleasant explanations. All who have given any attentive thought to this subject must be aware that it is not only the greater distances which the physician is compelled to traverse, but also the diminished value of money, which renders the long established conventional fee a much smaller remuneration to physicians of the present day than that always obtained by physicians of one or two generations before our own.

The greatly advanced rent of houses in suitable localities, the increased expense of carriage and horses, the rise in the wages of servants, and the augmentation in the other expenses of living, place the physician of the present day at a great pecuniary disadvantage compared with his predecessors of a past generation. While the price in money of nearly all that is required in the establishment of a metropolitan physician has steadily and greatly advanced, his services are still estimated by the same fee that was offered him when that money was worth far beyond its present value. How is this anomaly and social hardship to be remedied? I have long and frequently thought over this perplexing question, but I confess have not been able to lay down any principle which can be strictly carried out in the solution of the difficulty.

The long-established customary fee to the physician is an honorarium, and long may it continue to be so. The College have never laid down any fixed regulations as to the amount of honorarium to be expected by the consulting physician; and I would not presume to advise the Fellows to deviate from that principle. But I think I have brought under your consideration many reasons why the senior and leading members of our order should endeavour to impress upon the community the reasonable expectations of physicians to be more liberally treated in the recognition of their professional services, when distance or other circumstances cause an extra demand on their time. It has appeared to me right in the interests of our order that this delicate question should be ventilated, although I cannot presume to indicate the best course to be pursued to remedy this increasing injustice.

Just before the last autumnal vacation, a letter was received from the Society of Apothecaries, informing the College that they had obtained an Act of Parliament enabling the Society to confer with and co-operate with the other medical authorities of the kingdom in the formation of a Conjoint Board of Examination for medical and surgical diplomas in England and Wales. Soon after the receipt of this letter, our College passed a resolution expressive of a desire that the Society should take part in the completion of the scheme already prepared, and should appoint four representatives to act with representatives of the other medical authorities in the committee called the Committee of Reference.

I feel that it must have appeared strange, and taken the Fellows by surprise, when it was announced to them that one of the medical corporations has only recently signified that it is willing and able to take part in the formation of a Conjoint Board for the examination of all who desire to be registered in England and Wales as legally qualified medical practitioners under the Medical Act of 1858. Considering how frequently this question has been brought under your consideration during the past six years, and how you have at successive periods given your sanction to the proposed scheme, as well as to the regulations for the preliminary and professional examinations under the scheme, you may reasonably require some explanation of what is implied at this advanced period of the negotiations by this last communication from the Society of Apothecaries.

I must now apologise for trespassing further upon your time and patience in bringing under your notice certain events, in order that I may vindicate your representatives in the Committee of Reference, and others who have been engaged in carrying out your various resolutions in reference to the formation of a Conjoint Examining Board, from any misrepresentations in statements, or remissness in the performance of the onerous duties assigned to them.

So long ago as October, 1869, the College received a communication from the General Medical Council, inviting the College to consider whether the time had not arrived for establishing a Conjoint Examining Board in each of the three kingdoms; whereupon, after due deliberation, this College resolved that a Committee of Fellows be appointed to confer with the Universities and Medical Corporations of England, and, if deemed advisable, with those of Scotland and Ireland, for the purpose of framing a scheme to carry into effect the suggestion of the General Medical Council.

Letters of invitation to the four English Universities, to the Royal College of Surgeons and Society of Apothecaries, to confer with our College, were then issued. As a result, several conferences were held at this College and at the College of Surgeons between deputations of the three medical corporations, and a draft scheme was prepared. To parts of this scheme the Society of Apothecaries objected, upon the ground of the proposed plan of appointing the examiners; but the draft scheme was nevertheless laid before the two Colleges, and circulated among the English Universities.

For some months in the spring and summer of 1870 all meetings to promote the conjoint examination scheme were suspended, in consequence of the introduction of a Bill into Parliament by the Lord President of the Privy Council; but, when it was made known that this Bill was withdrawn, this College again invited the College of Surgeons to a renewal of the conferences to carry out the conjoint scheme already agreed upon, or any other plan which might seem more desirable for the formation of a Conjoint Board for the examination of all candidates for licenses to practise medicine, surgery, and midwifery.

Numerous meetings of deputations from the College of Surgeons, the Society of Apothecaries, and from this College, took place in the winter of 1870-71, and in the ensuing spring. About this latter period, the delegates from the Society of Apothecaries intimated that their legal advisers had informed them that the provisions of the Act of 1815 (commonly called the Apothecaries' Act) debarred them from taking part in the scheme propounded by the two Royal Colleges, and they withdrew from all further conference.

This scheme, drawn up by the representatives of the two Royal Colleges, was laid before their respective governing bodies, and approved by them, and was then forwarded for the acceptance of the four English Universities. All the Universities intimated their assent and concurrence in the scheme.

This scheme for the formation of a Conjoint Examining Board was then transmitted to the General Medical Council in the spring of 1872, and obtained the sanction of that body, as required by the nineteenth clause of the Medical Act of 1858. Everything seemed to promise that this important national measure would now be carried into operation under suitable regulations drawn up by a committee for approval by the several co-operating medical authorities of the kingdom.

Unfortunately, an unexpected difficulty arose to interfere with the carrying out this scheme to completion. The University of London discovered that their Senate had exceeded the powers granted under charter of incorporation, in giving their unrestricted assent to all parts of this scheme of conjoint examination. But the Senate, having been fully convinced that this plan for a conjoint examination by all the medical authorities promised to be highly beneficial to the public, although it placed some restrictions upon their own powers, sought for and obtained an Act of Parliament which enabled them loyally to act up to their previous decision, and to take their share in the formation of the Board for a conjoint examination. A committee, called the Committee of Reference, composed of delegates from the four English Universities, and the Royal Colleges of Surgeons and Physicians, now assembled and during the years 1872, 1873, and 1874, met many times (in all, I believe, thirty-five times), and drew up regulations to carry into effect the principles of the conjoint scheme.

The Committee of Reference made four successive reports upon preliminary and professional education, drawn up with the most scrupulous care, and submitted them to the co-operating medical authorities. These reports were laid before you and approved by the College, and notice was given that all candidates must, after a certain specified date, conform to such regulations.

All formidable obstacles to the formation of a Conjoint Board of Examination for England and Wales appeared to have been surmounted, and there was a fair prospect that all the protracted discussions and deliberations had been brought to a favourable issue. A fresh difficulty, however, one so utterly unexpected that no one who had been engaged in this anxious and tedious business could have anticipated it, now presented itself. The Council of the Royal College of Surgeons, which had, with our College, originated, elaborated, and promulgated for acceptance by other medical bodies this scheme for the conjoint examination, now discovered that they had agreed to proposals which their present charter would not allow them to carry into operation. Although many eminent members of the Council of the College of Surgeons had, during a period of five years, been engaged with Fellows of this College and others in preparing this measure, and had, I believe, fortified themselves by legal opinions, still this fundamental objection to their concurrence in the conjoint scheme had not been foreseen by them.

The further progress, therefore, of this great national measure in the preparation of which so much thought, labour, and time had been generously bestowed, is now suspended, and the issue is dependent upon the course which may be adopted by the Council of the Royal College of Surgeons. Following the examples of the University of London and the Society of Apothecaries, which bodies found themselves embarrassed by analogous difficulties, the Council of the College of Surgeons are seeking an enabling Act of Parliament which will give them the power to carry out, if they may think fit, the scheme which they originated and prepared in conjunction with the Universities and ourselves.

Should the Council of the College of Surgeons find themselves unable to surmount their present difficulty, there is every probability that any scheme for the formation of a Conjoint Examining Board by the voluntary co-operation of the Royal Colleges and other medical authorities will be impracticable, and that this long expected and much required modification of the existing system must be brought about by some enactment of the legislature. This latter course is, I need hardly say, most undesirable, as it will impair the prestige of the medical authorities and interfere with the independence and self-government of the profession. Although the medical profession, as a profession, may suffer from this failure of co-operation on the part of the recognised authorities, the public would still obtain by enactment of the legislature a guarantee that every legally qualified medical practitioner (come from whresoever he may) had passed a full, sufficient, and impartial examination into his professional attainments.

I now turn from an account of the intercourse we have held with the Government and other public bodies, and invite you to a review of the state of affairs in our own College.

The statistics of the College, small in numbers as compared with the other two medical corporations, are nevertheless interesting to ourselves; and I hope my statement may appear encouraging and satisfactory to you.

We have elected during the past year fourteen new Fellows, and have lost five by death, viz., Dr. Anstie, Dr. McLennan, Dr. H. Sandwith, Dr. Edward Smith, and Dr. Beattie. Our present number of Fellows amounts to 289.

Twenty-two new members have been admitted, and nine have died, viz., Dr. F. Bird, Dr. Downing, Dr. C. J. Fox, Dr. Alexander Halley, Dr. Lankester, Sir Alexander Nisbett, Dr. J. H. Simpson, Dr. F. B. White, and Dr. W. B. Wilmot. There are now 497 members on the list. No less than 85 licentiates have been admitted; and taking into account those gentlemen who have not been able to satisfy the examiners, there have been nearly 100 candidates for admission into this order. Seven licentiates have died during the year, and the number of licentiates actually on the list amounts to no less than 921.

This steadily increasing number of licentiates manifests how highly the College license is estimated, and how wisely the College acted some years since in extending their connection and influence through such a large section of the profession.

In addition to the classes on the College roll, which I have already enumerated, there still remain 147 names in the old orders of licentiates and extra licentiates.

I may thus, then, sum up the total number, more or less closely connected with our body, and who are affiliated to the College :—

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|---|---|
| Fellows ... ... ... ... ... ... ... | 289 |
| Members ... ... ... ... ... ... ... | 497 |
| Licentiates ... ... ... ... ... ... ... | 921 |
| Extra licentiates and old licentiates ... ... | 147 |
| Grand total ... ... ... ... | 1,854 |

If, then, we have so largely increased the numbers attached to this College, and who afford us a broader basis of support, we must also remember that we have multiplied our responsibilities and obligations towards the profession. We can never again attempt to wrap ourselves up in proud isolation, and rest contented with the prestige of former days. The Fellows of the College must, by their learning, their scientific attainments, and their honourable bearing, uphold the social status of the profession, and march forward in the van of those who are labouring to extend the boundaries of medical science, and to sustain our art upon more stable foundations.

I must no longer refrain from reminding you of an occurrence connected with the internal affairs of the College during the past year, which will become part, and a gratifying part, of the history of our institution. The treasurer reported to us, at one of our general meetings, that the fabric of the College was in a rapid state of decay, from the disintegrating effects of the London atmosphere upon the stonework of the building, and that there was a necessity for immediate repairs. This serious intelligence was accompanied by the information that he had no collegiate funds available for the required repairs.

Some spirited Fellows of the College, I mean Fellows having a strong *esprit de corps*, worthy successors of those who so largely contributed out of their private means to the building of the College about half a century since, proposed that the required funds should be raised by voluntary subscriptions among the Fellows. This proposal was cheerfully adopted, and in the course of a short time a subscription was announced, amounting to a sum between eleven and twelve hundred pounds. This amount has proved more than adequate for the requisite repairs. A small committee was appointed to co-operate with the treasurer in superintending the restoration of the College, and I think all must admit that a most satisfactory result has been obtained.

The handsome and much improved external appearance of the building will, I think, be further enhanced by glazing the College windows with plate-glass; and I trust that funds may yet be forthcoming to add to the ornaments of the northern façade by placing in the niches on each side and under the portico statues of three of our most illustrious predecessors.

The College have extended their hospitality more largely this year than is their wont. Nearly ten years had elapsed since the Fellows had given a public entertainment in their College Hall, and invited to their table men distinguished in the Legislature, in the Church, in the law, in science, literature, and art. The day selected for the banquet—Midsummer-day—was unfortunate, inasmuch as several other great public entertainments were given on the same day, and we were thus deprived of the presence of many distinguished persons, who would otherwise have been among the number of our guests. Her Majesty's ball at Buckingham Palace on the same evening also broke up our party earlier than we could have desired. I have reason to believe that our guests were hospitably and handsomely entertained, and that the banquet gave general satisfaction.

The evening *conversazione* given by the Fellows enabled us to receive within our College a much more numerous and diversified company, composed of members of our own profession and of many other learned and scientific societies. Our thanks are largely due to the Committee of Fellows who undertook the onerous task of arranging everything for our *soirée*, and I trust we may congratulate ourselves that our efforts to render the evening meeting both sociable and entertaining were attended with success.

I will not repeat, what I have upon former occasions expressed to you more in detail, my reasons for believing that the position of this College in relation to the surrounding world is much improved by these acts of hospitality and social intercourse.

The usual series of lectures have been delivered, and I think nobody could have listened to the discourses of the Croonian and Lumleian lecturers without feeling that most valuable and original additions to medical knowledge were made known to us, and that the reputation of the College was honourably sustained by our lecturers.

The office of Harveian orator was last year held by Dr. West, who gratified his numerous audience, composed of the Fellows and a large number of visitors, by the delivery of an oration composed in pure and classical English, and containing, as the result of extended research, most interesting details of the inner life of Harvey and his fellow-students at Padua.

I have, as your President, attended nearly all the meetings of the Trusts, in which I hold a place *ex officio*. At the meetings of the trustees of the British Museum, of the Hunterian Museum, and of the Tancred Charities, nothing has transpired worthy of being brought under your especial notice. Neither have I been called upon to exercise the privilege of the President of the Royal College of Physicians of voting for the appointment of certain professors at the Universities of Oxford and Cambridge, no vacancies having occurred during the past year.

Our treasurer, at the appointed time, submitted the books containing the College accounts to the inspection of the Fellows, and he had the satisfaction of assuring them that their financial affairs were in a more prosperous state than they have been upon some former occasions.

It is well known to you that the income of this College is small, considering the position it holds among the national institutions of the country. We may hope and expect that, if it should be called upon to perform yet more extended duties towards the profession, the performance of those duties may place increased means at the disposal of the College. This additional income would give the College the power of doing what is greatly required; first, to add largely to our library, and make it at least an useful library of reference for all classes connected with the College; and, secondly, to enable us to offer some more suitable stipends to our lecturers, and, if possible, devote some sum annually to the encouragement of original researches in medical science.

If we look to our steadily increasing numbers, and to a more satisfactory pecuniary balance, and if we regard the loyalty and *esprit de corps* prevailing among the Fellows, we may confidently trust that, as we are willing, so we shall be able to render additional services to the public and the profession, and to maintain the reputation and high character which this College has enjoyed for more than three centuries.

## INTERNAL ADMINISTRATION OF TAR IN PSORIASIS.

In the British Medical Journal of April 10th, 1875, I observe, under the above heading, the results of Mr. Balmanno Squire's trials of tar internally in cases of psoriasis; and the conclusion to which he has arrived is summed up in the following sentence: "I can only offer my experiment to him (Dr. Ringer), in the hope that he may think it worth while to repeat it, and report whether or not I am correct in my conclusion that tar taken internally has no effect in curing psoriasis." Having given this medicine very extensively in cases of psoriasis for a good many years, I am bound to say that the results of my experience are strangely at variance with those of Mr. Squire; indeed, I have come to regard it in the light of one of the most valuable remedies we possess in the treatment of that disease. And it is not merely in mild cases that it does good, for it has, in my hands, frequently yielded the most satisfactory results in very obstinate cases after long courses of arsenic and many other orthodox remedies had been tried in vain. Perhaps it may be that the dose and mode of administration of the tar may have something to do with the difference in the results obtained by Mr. Squire and myself; and, therefore, it may be well to state that I generally begin with two minims three times a day in a teaspoonful of treacle, and gradually increase the dose, if necessary, to half a teaspoonful, or even more. The small dose is advisable at first, as in some persons the medicine cannot be tolerated, and produces derangement of the digestive organs, fever, and a bright red rash upon the skin.

I can testify also to the virtues of this remedy in catarrh of the bronchial tubes, as pointed out by Dr. Ringer, and in chronic affections of the mucous membranes generally; and I conclude with the remark that it is very singular how such a valuable remedy, which seems in earlier days to have been highly esteemed, should, as an internal medicine, have fallen into such disrepute in our own time.

T. M'Call Anderson, M.D., Glasgow.

# ABSTRACT OF THE LUMLEIAN LECTURES
ON
# LIFE, AND ON VITAL ACTION IN HEALTH AND DISEASE.

*Delivered at the Royal College of Physicians, London.*

By LIONEL S. BEALE, M.B., F.R.S.,
Physician to King's College Hospital.

## Lecture II.

In his second lecture, Dr. Beale remarked that water must be very intimately associated with the particles of living matter. These cannot be regarded as dry solids suspended and moving freely in water; for every particle is composed of smaller particles in constant motion.

The most minute living particle consists of multitudes of living centres, and we may imagine lifeless particles forming among these and coming within their sphere; but it is not possible to conceive how atoms of particles of lifeless pabulum can of themselves separate and then become rearranged and acquire living powers. There must be a transference of power from the living to the non-living; and to this capacity of making alive there seems to be no limit; there is no loss on the part of the previously living particle by the repetition of the process. This, Dr. Beale believed, is the nature of the changes in the minute particles of bioplasm in all conditions—from the bacterium to man, in health and in disease.

New centres of living matter, such as nuclei and nucleoli, appear in pre-existing living matter; a second series may appear in the first, a third in the second, and so on; and the formative power of these series and of the bioplasts resulting from their division may be different. The centres from which matter inherits vital properties must be very minute—hundreds of times more minute than the smallest particle visible with a power of 5000 diameters; and they must be larger or heavier than the ultimate atoms of the component non-metallic element. It is absurd to speak of a *living atom*, and also of *dead* atoms of carbon, oxygen, or hydrogen: every particle of living matter must be composed of several elements, perhaps of multitudes of atoms of several different elements.

But it is not merely the power of moving from centres, of progressive movement, of transforming pabulum, of forming new and peculiar chemical compounds, that is acquired, but powers far more wonderful than these, by virtue of which the living matter produces living particles, generation after generation, from which definite organisms and definite and very different tissues in each single organism result. These powers are peculiar to the living world, and there are no forces, no behaviour of non-living matter, which can be said in any way to resemble them, or to exhibit the most distant analogy to them.

The time required for the transmission of powers from living matter to that which descends from it varies greatly. One particle may require weeks or months to acquire its full powers; another only a few days. The influence of temperature, food, and external conditions, is uniform only in the case of the same species. What the organism is, depends far more on what the organism was that produced it than on its food. The pabulum of tissues of complex animals is undoubtedly peculiar, and must be prepared before it is taken up; but how is it prepared? The bioplasm of the tissues selects pabulum from the blood, which is itself formed by bioplasm. Living matter takes up pabulum of the proper kind and grows, at last becoming formed matter, which constitutes the pabulum of other bioplasms, and this occurs several times before food becomes converted into tissues. If this conversion into living matter can be explained, or can be carried out in the laboratory, let it be done.

By admitting vital power, I am able to explain results without attributing metabolic influences to cell-walls, cell-contents, intercellular substance, walls of vessels, and other textures, which in reality are passive. I need not assume hypothetical actions and differentiations, or attribute to some hypothetical force, said to be akin to aggregation and crystallisation, phenomena which have not the faintest analogy with those processes; nor have I need to assume governing powers of which the mind cannot conceive, or matter-guiding forces acting in some unexplained way through all sorts of matter. Vitality acts in living centres upon matter only infinitely near the centre. This is all that is demanded by the terms of my hypothesis.

Dr. Beale then proceeded to speak of the conjectures advanced concerning the origin of life. The term "evolution", now supposed to solve the difficulty, has had at least two meanings. Some have restricted it to the living world; others have maintained that it should include not only the evolution of living from living forms, but the formation of the living out of the non-living. In support of the hypothesis of evolution in the latter of these two senses, facts are wanting, and the arguments adduced in its favour cannot have much weight. If evolution be restricted to the living world, the origin of the first living thing has still to be accounted for. With reference to this origin of the first living matter, several not improbable suggestions present themselves; in all of which, however, it is assumed that the change from the non-living to the living was sudden and abrupt, and not gradual. 1. We may conceive that one form of living matter was produced direct from the non-living, and that from this all future living was evolved. 2. We may prefer to imagine that more than one form of life originated from the non-living at or about the same time. 3. We might conceive that several different kinds of bioplasm originated in the beginning of an epoch of life, from which all life of that epoch was derived; new forms originating anew in the next epoch, the results of evolution from the first gradually dying out as those of the second epoch increased and became dominant. As life-epoch succeeded epoch, new forms of bioplasm may have appeared as old forms of life died out. These by no means exhaust the list of reasonable hypotheses concerning the origin of life.

Facts and arguments render it much more probable that the passage from the non-living to the living is sudden and abrupt, than that there is a gradual transition or scarcely perceptible gradation from one state to the other. This inference, however, is in opposition to the views of many authorities, and is opposed to the clearly expressed opinion of one of the greatest discoverers and most acute thinkers of the time, who maintains that the conversion of physical into vital modes of force is continually taking place.

Dr. Beale then proceeded to criticise the doctrine of spontaneous generation. The more accurately investigation is carried out, the more improbable does it appear that any living form should be derived from the non-living. I cannot, Dr. Beale said, but feel surprised that at this time many good reasoners should decide in favour of the *de novo* origin of bacteria. The modern advocate of abiogenesis should be skilled not only in explaining facts, but in explaining facts away. The fact that bacteria-germs exist in all parts of the higher organisms, in the most internal parts as well as upon the surface of man's body, is to be accounted for by their spontaneous origin! Although millions are to be found about the mouth and upon the surface, and it can be shown that it is easy enough for them to get from the outside amongst the tissues within, we are asked to believe that those inside originated there direct from the non-living, or, as an alternative proposition, that they were derived, not from parental bacteria, but by transmutation from some of the constituents of the tissues. What is required to settle the question of abiogenesis is well devised experiment. No resuscitation of old arguments and doubtful facts will avail anything in the absence of new experiments. The only view of spontaneous generation at all tenable is, that such minute organisms as bacteria are the only ones that can be formed anew, and that these alone, at any time in the world's history, sprang direct from the non-living. That multitudes do now spring from pre-existing forms is absolutely certain, for the process can be seen. Whether some spring direct from the non-living, is the question. Those that are supposed to be formed anew are very like those that have had a progenitor; and from those supposed to have been produced anew, forms exactly like those derived from undoubtedly pre-existing forms result. It cannot be pretended that new forms of existence are produced anew. No matter how the conditions are varied, the living forms supposed to result resemble known living forms, and give rise to forms of the same kind. The question of the origin of bacteria can only be determined by experiment; for the assumed *de novo* origin is contrary to what goes on through the whole kingdom of Nature. As regards the validity and reliability of the most recent experiments for and against the doctrine, I offer no opinion. If the formation of a bacterium-germ direct from non-living matter be possible, three very remarkable series of changes, as it seems to me, will have to be brought about. Whether any means will ever be discovered of effecting these changes, is most doubtful. First, the atoms of the non-living substances must be separated from their combinations. Secondly, the atoms will have to be rearranged to constitute groups of which the organic matter is made up. Thirdly, the groups of atoms must be made to live. What facts known render it likely that air, rarefied or condensed, or pressure of any degree or of any special kind, or any degree of heat, or light, or any conceivable modification of physical or chemical conditions, would, at the same time, account for the pulling asunder and joining together of atoms, and for the conference of new and peculiar powers of growth, of movement, of division, and of the formation of new substances? It is not easy to conceive, in the imagination, the several steps which result in the formation of a living bacterium even from *organic matter*.

Commenting next on the absolute distinction between the living and the non-living, Dr. Beale said that reference had been made to facts and arguments which seem to justify the conclusion, that there are certain phenomena characteristic of all living matter, and which are included under the terms *nutrition, growth, formation, multiplication*—which are not physical, and which cannot be explained by physical law. These are *purely vital actions*, and ought to be placed by themselves in a class or category distinct from that of physical phenomena. No non-living bodies present phenomena which can be fairly said to correspond to, or to be comparable with, these. The vital actions of living beings are exclusively confined to the bioplasm or living matter. When this becomes converted into any kind of formed material, or when it suddenly dies, physical and chemical changes ensue which we are able to investigate.

There is yet another consideration to be advanced in favour of the doctrine of the absolute difference between living and non-living matter. In the non-living world every change is dependent upon, or is a consequence of, anterior change; and must, in its turn, lead to consequential changes. A real cause is not conceivable in the physical world, but I do not know upon what data the same could be affirmed with respect to the living world. Consider how the simplest vital action is to be accounted for. For instance, let us inquire what was the condition of the moving matter of a common amœba at a given spot just before the visible movement occurred. Who shall prove the nature of the antecedent to which the movement of the particles is a consequent? And who will demonstrate that the movement immediately following was a direct consequence of that which had been observed? In considering the nutrition and growth of the simplest living organism, such as the yeast-corpuscle, may we not conceive physico-chemical forces to be at work there to any extent imaginable, and yet fail to gain anything approaching to an adequate explanation of the facts discerned? Let it be admitted that in nutrition electro-chemical changes play an important, perhaps an absolutely essential, part. But will these or any other physical conditions account for the formation of the matter of the "cell-wall", or the increase of the bioplasm within?

Behind all the physical and chemical actions in living beings are the changes in the bioplasm by which alone the physical actions are rendered possible and their continuance provided for. Within every centre of every one of the thousands of minute molecules of living matter constituting every particle is a more central centre in which the matter is a degree nearer the point where it began to live, and where new powers were first communicated to it. The *cause* must be, so to say, very central; and in living matter the direction of the action of the forces is from, and not towards, centres. That forces in the environment react upon the force or power acting from the centre may be fully admitted; but that these are the *cause* of central activity, is clearly untenable. The central action is absolutely essential, and the difference between the matter in the centre, and the matter in the environment, is absolute.

The phenomena which I have described as characteristic of every kind of living matter in nature, and which are known only in connection with living matter, I must ask you to regard as purely *vital actions* due to the operation of a force or power capable of controlling matter and its forces, but neither originating in them, nor formed by or from them, nor capable of being converted into them—a power which we cannot isolate or physically examine, but the effects of the action of which we may study.

The next point adverted to was the construction of the body by bioplasm. After some preliminary remarks, in which the lecturer further criticised the doctrine of evolution, he proceeded to consider in outline the changes which occur when bioplasm, manifesting its wonderful developmental powers, at last gives rise to the formation of tissue.

The earliest state of matter, in every kind of development, is that of bioplasm, derived from pre-existing bioplasm. The masses of living matter absorb nutriment, and the whole increases in bulk. So far, the only indication of formed material is afforded by the presence of a little soft transparent mucus-like matter, without any indications of any definite structure, accumulated around each mass of bioplasm. During the development of tissue, bioplasm-masses, embedded in their soft matter, continue to divide and subdivide. As development advances, there may be discerned amongst the bioplasts, here and there, one which undergoes more active change than the rest. This, in fact, becomes a new centre, from which growth proceeds, while the neighbouring bioplasts remain passive for a time, and some gradually waste. Soon, by division and subdivision, a collection, composed of a new series of bioplasts, results. Many such collections are formed, being separated from one another by the altered bioplasm particles of the previous generation, and their imperfectly developed formed material. Thus result the first indications of the structures and organs in the embryo at a very early period of development. The process is repeated many times, probably ere the first traces of actual structure with capacity to act are to be detected. Nay, the tissue which is at last formed, and which acts, exhibits structure, but this first tissue is only temporary, and differs in its characters from the permanent texture which is at length formed. Thus, the first muscular tissue which is produced in the mammalian embryo only lasts for a short time, and it is entirely replaced by a form of contractile tissue, which differs materially from it in structural arrangement and in mode of growth. The formation of cartilage, bone, nerve-tissue, glandular and other organs, illustrates the same fact.

But formed material results from changes in bioplasm. The production of formed material may be studied in the early development of any of the tissues, and, in many of them, at any period of life. In all cases, the newest formed material is that which is nearest to the living matter. This formed material is pushed out, and a more recent formation occupies the space between it and the bioplasm. Gradually the formed material loses water, becomes firmer, and slowly undergoes other alterations, until it assumes its characteristic form and begins to fulfil its proper function. In some cases the bioplasm actually moves onwards, leaving the formed material, which it has produced, behind it. This phenomenon occurs in certain forms of yellow elastic tissue and muscle.

However long a period may elapse before the formed matter assumes its characteristic peculiarities and becomes functionally active, its characters, its properties, and its chemical composition mainly depend upon the changes which occurred just at the moment it ceased to be bioplasm, the time when they assumed the condition of formed material. If we desire to discover the true cause of the formation of tissue, we must search for it in the bioplasm ere formation occurs. According to my idea, there is something operating in each kind of bioplasm which in fact determines the kind, by virtue of which the living matter must grow and must produce formed material of a certain character, if only it be supplied with pabulum, and be placed under certain conditions. This something is, I believe, a power or force which the bioplasm has derived from pre-existing bioplasm. Conditions may indeed modify the action of this power within certain limits, or may prevent its action altogether; but that the action results from the power, and ought not to be attributed to the conditions, is obvious from the fact that one form of bioplasm exposed to the conditions favourable to the developmental phenomena belonging to another kind, will not be so influenced as to exhibit these.

The characters of previous generations are indelibly stamped upon every individual belonging to each generation, and these inherited characters can be transmitted by the bioplasm only. Those peculiarities of external form, and of external and internal structure and action, in which one species differs from all others, must also be attributed to the vital phenomena of the bioplasm. In like manner the power of origination, and handing down of newly acquired properties and characters, is limited to bioplasm. Bioplasm is the agent concerned in the transmission of all hereditary structural peculiarities. There is nothing in the non-living world that presents any analogy with this marvellous power of inheriting from predecessors definite characters, and transmitting them to those that succeed. All will accept Mr. Darwin's conclusion, that, whenever variation occurs, the cause of variation must be attributed to something in the "nature or constitution of the organism",—or, as I venture to think, we may say with still greater accuracy, to something in the nature or constitution of the bioplasm from which the organism is developed. This cause of variation must, as it seems to me, be very closely related to the cause of the formation of tissue by bioplasm, and is in its nature *vital*—not *physical*.

The early changes in development require a considerable *time* for their completion, but the laws by which varying rates of growth in different living forms are governed or determined have not been discovered. Although wonderfully little pabulum is taken up, and but a small quantity of matter undergoes change, phenomena of paramount importance proceed, and time is very necessary for the completion of these early changes in all organisms, and especially, of course, in those that are complex. In vegetable organisms, the time that must elapse between the completion of the formation of the seed and its germination varies very much, as also the periods of time during which the seeds of different plants will retain their vitality, and this must depend upon inherent properties of the bioplasm. So also, with respect to the periodical rests from growth, the greatest individual differences are noticed. Inherent vital peculiarities also manifest themselves in cases in which a moderate rise of temperature is far more damaging to the vital phenomena of the normal bioplasm than a corresponding fall. If the average temperature be a little above or below that which is adapted for the growth and development of certain creatures, the organism soon begins to suffer; and many tissues, although they may be formed, never attain the most perfect construction possible, or their highest functional activity, and probably they begin to deteriorate long before those of corresponding organisms which are developed under the particular conditions suited to their special vital phenomena. Is there not something very remarkable in the fact of the existence of powers or properties in the several kinds of bioplasm, by virtue of which, each seems to grow and flourish only within its own particular range of temperature? We cannot even lay it down as a law that a low temperature is necessarily destructive of vital action, for there are organisms which flourish at or below the freezing point of water. In short, the various forms of bioplasm have their individual peculiarities and characteristics, which they inherit, and may transmit, and which are not to be accounted for by physics, and which seem in truth to belong to their constitution. Conditions which are life to some forms of bioplasm are death to others.

Some are content to be assured that peculiarities from time to time originate, and that their fortunate possessors gain thereby great advantage, so that they are enabled to overcome their less fortunate brethren, and even to utterly exterminate them. Being the fittest to live, the few soon predominate. Bioplasm, with the newly acquired properties, transmits the peculiarities to that which descends, until bioplasm, capable of producing an organism still more fit, somehow results. The organisms derived from this then prevail, and enjoy the advantage of living and continuing the race. So the experiment is supposed to proceed.

## ON THE ACTIONS OF PICROTOXINE, AND THE ANTAGONISM BETWEEN PICROTOXINE AND CHLORAL HYDRATE.

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(*Concluded from page* 507.)

To give greater completeness to the inquiry into the antagonism between picrotoxine and chloral-hydrate, it was judged advisable to test its existence in another class of animals besides rabbits and guinea-pigs. A few cats were, therefore, obtained, and to two of them picrotoxine alone was administered, in order to ascertain its unmodified effects.

*Experiment* LXXXIX.—Cat, weighing 4 lbs. 13 oz. The cardiac pulsations were 120, and its respirations 36 per minute. Under the skin of its back, one-sixteenth of a grain of picrotoxine was injected, at 12.10 P.M. An almost immediate effect was observed. At 12.15, the respirations were 48 per minute, and much fuller and deeper; there were incessant licking of the lips and slight shakings of the head. At 12.17, saliva was dropping from the mouth, and there were dulness and stupidity. At 12.19, the flow of saliva was very large, and the eyes were being constantly opened and closed. At 12.21, the blinking of the eyes continued, and there were restless movements of the ears, while the animal was dull, and not readily roused. At 12.23, the saliva, which at first dropped from the mouth, had become so viscid that it hung in long wreaths, reaching from the lips to the table on which the animal sat, blinking both eyes vigorously. At 12.25, the bowels acted freely; the respirations were at the rate of 180 per minute. At 12.27, there were slight twitchings of the eyelids, ears, and cheeks, most pronounced on the left side. At 12.29, these twitchings continued, and were more severe, while enormous quantities of viscid saliva flowed from the mouth. At 12.31, there were occasional violent startings of the head; the animal was more easily alarmed, and any loud noise caused the ears to be drawn back and flattened. The respirations remained at 180 per minute. At 12.33, the slight twitchings of the eyelids, nose, and ears were continuous, while, every thirty or forty seconds, there were more general and severe startings. Saliva still flowed in excessive quantities, and the pupils were dilated. At 12.35, the severe startings recurred every thirty seconds, and were seen to consist in a sudden movement, forwards and downwards, of the head, with stretchings of the neck, and in raising of the shoulders. The movement altogether recalled that which is made by a cat when voraciously chewing and swallowing a rather large morsel. At the same time that the head was pushed forwards, the ears were drawn backwards and downwards. Intermediate between the more violent movements, slight twitching, particularly in the eyelids, causing blinking, continued. The animal remained in a sitting position, and was drowsy; its pupils were widely dilated, and saliva still dribbled copiously from its mouth. At 12.40, no change had taken place; but, at 12.50, there were twitchings of the left fore-paw which was first stretched out, then raised in the air, and subjected to clonic spasms; respirations 138. At 1.5, the twitchings were less incessant and severe, and, at 1.15, they ceased altogether. At 1.20, the flow of saliva was much diminished, and the animal was more lively and able to move about, the respirations being then 60 per minute. At 2.15, the animal was in all respects recovered.

*Experiment* XC.—A large cat, weighing 6 lbs., had one-fourth of a grain of picrotoxine injected at 2.20 P.M. An instantaneous effect was noticed; the animal was restless, and in two minutes saliva began to drop from the mouth. At 2.24, there was loud mewing, and the head began to shake. At 2.25, there was emprosthotonos; the head was drawn down, until the forehead was pushed against the table, and the back arched upwards, while there were violent general startings. At 2.26, after several attacks of emprosthotonos, the animal tumbled on its side, when its head was suddenly drawn backwards, and its pupils were dilated to their widest possible extent. The fore limbs were stretched out, and the toes and claws were expanded, but the hind limbs were drawn up and remained in a flexed position. There was violent working of the mouth which was surrounded with foam, as well as twitching of the nose, eyelids, and ears. There were also severe spasms of the fore limbs. Several times the animal endeavoured to get on to its feet, but was unable to do so. At 3.32, the head was drawn down between the legs, and the back was arched upwards, the fore limbs were semiflexed, and the toes and claws folded in; the ears, eyelids and brows were in constant movement, the tongue was being constantly protruded and drawn back into the mouth, and it, as well as the lips and mucous membrane of the mouth, had a livid colour. The pupils were contracted to mere slits, and the animal was apparently unconscious. At 3.36, the clonic spasms were interrupted for a little, when the pupils at once dilated, but, at 3.38, they recurred, and then the pupils became once more contracted. From this time, however, the clonic spasms were much less severe. At 3.42, there were constant slight twitchings of the upper lip, eyelids, ears, head, and paws, with low moaning sounds. At 3.47, there were momentary intervals between the discharges, and in these intervals the pupils dilated slightly, always contracting again with each fresh discharge. At 2.50, the animal died, when the pupils at once dilated widely.

The action of picrotoxine upon the cat, as exhibited in these experiments, did not seem to be very dissimilar to its action upon rabbits and guinea-pigs. Increase of the salivary secretion and of the peristalsis of the bowels, hurried respiration, tonic and clonic spasms, with coma, were all included in its effects. One of its effects, however, that upon the pupil, was more distinctly manifested than in the other animals named. It first enlarged and then diminished the size of the visual aperture, and it should be noted that the dilatation was synchronous with opisthotonos, the contraction with clonic spasms. I have remarked that in cats, in which the movements of the iris are very easily observed, toxic agents invariarbly induce contraction of the pupil contemporaneously with clonic spasms and dilatation of the pupils with tonic spasms. The phenomena of absinthe, strychnia, and opium-poisoning in cats, will afford verification of this statement. Sometimes, during clonic spasm, the pupils may be seen contracting with each discharge, and dilating during each interval; so that, if the discharges succeed each other very rapidly, the irides have an oscillatory motion. I think I should be justified in saying, that the dilator muscle of the iris ought to be grouped with the extensor muscles, which are generally predominant in action in acute tonic spasms, and its sphincter with the flexor muscles, which predominate during clonic spasms.

The similarity which was demonstrated to exist between the effects of picrotoxine as seen in the cat and those observed in the rabbit and guinea-pig, gave good grounds for anticipating that chloral-hydrate would control those effects as conspicuously in the former as it did in the latter animals. No misgivings of the result were, therefore, entertained when the following experiment was undertaken.

*Experiment* XCI.—Cat, weighing 5½ lbs. At 2.54 P.M., one-fourth of a grain of picrotoxine and twenty grains of chloral-hydrate were simultaneously injected. At 3.7, the animal was restless and uttering low cries. At 3.13, it was drowsy, and mewing occasionally. At 3.15, there was a severe fit, in which the fore legs were spread out and the head was shaken, the ears being folded backwards, while there were also violent general startings. At 3.20, the cat died suddenly without any further convulsions.

The termination of this experiment was unexpected and somewhat perplexing. It suggested a doubt whether chloral-hydrate was at all antagonistic to picrotoxine in the cat, for, when they were given together, the cat died just as soon as when the same dose of picrotoxine was given alone. On reflexion, however, the theory was adopted that chloral-hydrate exerts its effects upon the cat more slowly than it does upon the rabbit, while picrotoxine acts upon the cat more rapidly than upon the rabbit, and that accordingly the fatal action of picrotoxine might have expended itself before the saving action of chloral-hydrate came into play. If that were so, it was probable that the same was the case with reference to strychnia, and so the next experiment was instituted to settle that important point.

*Experiment* XCII.—A large cat, weighing 5 lbs. 6 oz., had one-fiftieth of a grain of strychnia and twenty grains of chloral-hydrate injected simultaneously. In three minutes, its ears were strongly drawn backwards, and it was startled by the slightest noise or movement. In four minutes, there was sudden opisthotonos, the head was drawn back, the pupils dilated, the limbs extended. Tonic spasms lasted for five minutes, when death occurred, just nine minutes subsequently to the injection.

Here was evidence that chloral-hydrate is practically as inefficacious in counteracting strychnia as it is in counteracting picrotoxine in the cat. And here also was confirmation of the view that its inefficacy in counteracting picrotoxine ought to be attributed to the comparative tardiness with which it asserts its influence over the nervous centres in that animal. To obtain conclusive proof or disproof of that hypothesis, chloral-hydrate was next administered by itself to a cat, and its effects were narrowly watched.

*Experiment* XCIII.—A cat, weighing 6 lbs., had twenty-five grains of chloral-hydrate administered by hypodermic injection. No change was noticed in it for twenty minutes after the injection, when it became restless, and at the same time rather unsteady in its movements, staggering a little when it walked about. In thirty minutes, after violent retching and vomiting, it was decidedly restless and unsteady, swaying about when walking, chiefly, as far as could be judged, owing to impairment of power in the hind quarters. The cardiac impulses were 120 per minute, and feeble in character, and the respirations were 52 per minute. The pupils were of an average size. In fifty minutes, it was still awake and very restless, lying down for a few seconds, and then staggering about the room purposelessly. When attempting to walk, it would cross its fore-feet, reel from side to side, stop and endeavour to steady itself, then stagger onwards, tumble over on its side, and regain its feet after much floundering. Its hind legs were very deficient in power, and frequently gave way under it. Its breathing was laboured, and its heart's action very feeble and irregular. It was somewhat drowsy, and whenever it sat down, manifested a tendency to drop off to sleep. In one hour, it had brief snatches of sleep, broken by frequent movements and low cries. Its heart's action was imperceptible, and its respirations were 69 per minute and irregular. In an hour and ten minutes, it was again awake, and staggering about more unsteadily than ever, and dragging its hind-legs after it. The hind-legs, however, as well as the tail, retained undiminished sensibility. In an hour and a half, it was lying on its side deeply asleep, sometimes, however, starting, and subject to attacks of general shivering. The heart's action was a mere flutter, and the respirations were 42 per minute, and frequently interrupted. In two hours, it was lying on its side sleeping quietly. When its tail was pinched, it would emit thirty or forty low monotonous cries in succession. In three hours, it was still more deeply asleep. It lay with its tongue protruding from its mouth, and did not move or cry out when its ears or whiskers were touched, or when its tail was pinched. There were occasional shiverings; its muscles were flaccid; its respirations 40 per minute. In this state it continued for thirty-six hours after the injection, when it died. During the whole of these thirty-six hours its bowels did not act, nor was its bladder evacuated.

*Experiment* XCIV.—A cat, weighing 7 lbs., had forty grains of chloral-hydrate administered by hypodermic injection. It was restless for one hour, during which time it vomited and had several attacks of retching, and at the end of which it fell into a deep sleep. Its respirations became gradually slower; it uttered from time to time low growls resembling those of a tiger. In three hours, however, it was deeply asleep, and could not be roused. For fifty-six hours it remained in this deep sleep, and at the end of that time it died, having been several times fed by a tube passed down the œsophagus. Throughout the whole of that protracted sleep, or trance, it passed no urine, nor was there any evacuation from its bowels. On examination of the body, it was found that all the vessels of the skin and all the subcutaneous vessels were engorged with blood; but that the intracranial sinuses were empty, while the brain itself was very anæmic. There was, however, a patch of hyperæmia over the cervical portion of the spinal cord. The left side of the heart contained dark fluid blood, and the right side contained, in addition to this, some membranous clots. The lungs were highly congested, and œdematous, and the bladder was distended with urine.

These experiments confirmed the opinion which had been formed that chloral is much slower in its action upon cats than upon rabbits, and they revealed some other important facts in connection with its action upon the latter animal. They showed, for instance, that in cats, as in dogs, chloral induces a stage of excitement or intoxication with impairment of muscular co-ordination prior to the stage of sopor, that it induces sleep, passing into coma, in which all the bodily functions are retarded or are arrested, and that its effects may be protracted to an extraordinary extent. One other important fact they also disclosed, and that was that the fatal dose of chloral-hydrate in cats is small when compared with that in rabbits. These and some other experiments not here recorded with reference to the fatal dose of chloral-hydrate have led me to deduce a general law, that the energy of the action of that drug is in exact proportion to the development of the cerebral hemispheres. The minimum fatal dose may, I think, be taken as a measure of the energy of action. Now, when the cerebral hemispheres are small and simple in structure and arrangement, a very large dose of chloral-hydrate in proportion to body-weight is required to cause death. But, when they are large, complex, and highly differentiated, a comparatively small dose will ensure that result. In the rabbit, the brain of which is almost smooth, the minimum fatal dose is not less than twelve grains to the pound of body-weight. In the cat, the brain of which is considerably convoluted, the minimum fatal dose is five grains to the pound of body-weight; and in the human subject, in whom the brain is supremely rich in gyri and grey matter, the minimum fatal dose is a little over one grain per pound of body-weight. In microcephalic idiots, again, I have noticed that a proportionately larger dose of chloral-hydrate is requisite to induce its physiological effects than in persons with fully developed brains. But, while the energy of chloral-hydrate appears to be in relation to cerebral development, there are other conditions, which I am not prepared to specify, which determine the rapidity or slowness with which its effects are established in different animals, and also the duration of these effects. This, however, seems to be the general rule, that, where its effects are slowly established, they are long sustained, and that, where they are rapidly established, they are more transitory.

If the supposition were correct, that the failure of chloral-hydrate to antagonise picrotoxine and strychnia in the cat in the experiments above described was due to the comparative slowness of its action, it followed that, when time was given for the establishment of its action before the administration of the picrotoxine or strychnia, the antagonism would become sufficiently apparent. To test this point, the next experiments were performed.

*Experiment* XCV.—Cat weighing 5 lbs. 8 oz. At 3.32, twenty grains of chloral-hydrate were injected; and ten minutes later, at 3.42, when the animal was still awake and lively, one-tenth of a grain of picrotoxine was injected. At 3.50, there were retching, vomiting, rapid and irregular breathing. At 3.56, there was emprosthotonos. The head was drawn down between the legs, while the ears and eyelids were twitched. At 3.59, there was a sharp attack of clonic spasms; and at 4 P.M. the animal died suddenly and unexpectedly.

*Experiment* XCVI.—Cat weighing 5 lbs. 12 oz. At 1.37 P.M., twenty grains of chloral-hydrate were injected; and an hour afterwards, at 4.17, when the animal lay upon its side in a sleep from which it could readily be roused, one-tenth of a grain of picrotoxine was injected. At 4.25, the breathing was hurried and irregular, and the heart's action intermittent. At 4.40, there was violent retching. At 4.50, the heart's action was imperceptible; and at 5.10 death took place, no spasm of any kind having occurred.

A new light was thrown upon the subject by these experiments, making it evident that, while picrotoxine and chloral are antagonistic to each other in cats in certain directions, in others again they are in fatal harmony. It became evident that chloral does oppose and nullify the action of picrotoxine upon the motor centres, but that it combines with picrotoxine to arrest the action of the heart, and so hastens death. In Experiment XCVI, the cat died without having suffered from any convulsive action; and in Experiment XCV, it died after an amount of convulsive action by no means adequate to account for death by exhaustion of the nerve-centres. On reverting again to Experiment CXIII, it was remarked that in it the cat died actually more speedily than it would have done had the picrotoxine been given to it alone, and after only one convulsive seizure; whereas the same dose of picrotoxine given alone would in the same time have induced numerous seizures. In all these experiments, death was due, not to the immediate effects of the picrotoxine, nor to the immediate effects of the chloral, but to the combined action of both. It depended, not upon exhaustion following violent discharges of nerve-force, not upon profound coma, but upon a sudden failure in cardiac power.

The effects of chloral upon the cat are exceedingly like those of chloroform, only more protracted; and among them, therefore, is a weakening or paralysing effect upon the heart through its special vasomotor nerves and ganglia. Then, on the other hand, among the effects of picrotoxine upon the cat, is a retarding influence on the heart and prolongation of its diastole through increased inhibitory power exerted by the vagi. If, then, the paralysing influence of chloral is exerted on the heart contemporaneously with the inhibitory influence of picrotoxine, we can readily understand why syncope and death should ensue, and why practically no antagonism exists between them, although chloral-hydrate mitigates the cerebral irritability brought on by picrotoxine, and although picrotoxine restricts the depth of the hyponotism brought on by chloral.

The danger of the conjoined action of chloral-hydrate and picrotoxine on the heart is greatest during the earlier stages of the action of the former, when some degree of excitement is present; and so trial was made of the effect of picrotoxine when given to a cat that had passed altogether through the period of chloral excitement into deep chloral sleep.

*Experiment* XCVII.—A cat weighing 5 lbs. 2 oz. had twenty grains of chloral-hydrate hypodermically injected at 11.45 A.M. At 1.45, it was deeply asleep, after much restlessness alternating with drowsiness; and then one-sixteenth of a grain of picrotoxine was injected at 1.50. Its sleep was disturbed; there were movements of the paws and tail, and general quiverings. At 2 P.M., however, its sleep was again calm and profound. Throughout the afternoon, it had alternate periods of sleep and wakefulness. During the latter, it got up and staggered about as if drunk, its pupils being widely dilated. During the former, it lay upon its side, its head being bent down, and its back arched in a distinctly emprosthotonic attitude. Whenever it was moved out of this position, it forthwith, without waking, resumed it. At 9 P.M., its sleep was continuous, and there were no spontaneous movements. It remained in a deep uninterrupted sleep for two days and three nights, when it began to recover itself. In a few hours more, it was quite well. Throughout its long sleep, its bowels did not act, nor did it void urine. When its tail was pinched, it did not flinch. Milk was frequently administered to it, and it was kept warm.

The description of further investigations which have been undertaken, but which are not yet complete, with the purpose of ascertaining the effects of the combined administration of picrotoxine, chloral, and atropine, picrotoxine, chloral, and digitalis, and picrotoxine, chloral, and alcohol, must be reserved for a future contribution to these pages, in which it is hoped that the effects may also be recorded of the continuous administration for long periods of small non-fatal doses of picrotoxine to animals. If, as has been repeatedly alleged, cocculus Indicus is extensively employed by dishonest brewers to impart bitterness and inebriating qualities to the pernicious liquids which they sell as beer, it is certainly eminently desirable that we should accurately ascertain the effects upon health of such a dietetic counterfeit; and this can only be satisfactorily done by watching the effects upon animals of minute and frequently repeated doses of the suspected adulteration. In the meantime, however, we are not without indications of the evils wrought by such deleterious additions to a popular beverage. When giving evidence before the Select Committee of the House of Commons on Habitual Drunkards in 1872, I suggested that perhaps the greater prevalence of epilepsy in England than in Scotland was to be ascribed, partly at least, to the preponderance of beer-drinking and to the adulteration of beer by cocculus Indicus in the former country. Further observations have only tended to strengthen my belief in the theory which I then broached. Large quantities of Levant nuts are imported annually into this country, and the difficulty is to find any destination but the brewer's vat for these importations. But the action of these Levant nuts upon those who partake of them or of their active principle is to set up an unstable condition of the nervous centres, which eventuates in paroxysmal discharges analogous to, if not identical with, epileptic fits. If, then, we find that beer is adulterated with cocculus Indicus, that cocculus Indicus is adequate to the production of epileptic conditions, and that beer-drinking and epilepsy are generally in proportion to each other in their prevalence in the population, there are good grounds for holding that the adulteration of beer is responsible for much of the epilepsy by which this country is now so grievously afflicted.

And there are still other inquiries in relation to picrotoxine which remain to be made. Its therapeutic properties ought to receive attention. Many years ago, Sir Robert Christison pointed out that the actions of this agent in medicinal doses were deserving of investigation; but the hint which he then gave has not yet been acted on. Now, however, we know that picrotoxine is a powerful stimulant to certain nervous centres; and we have therefore reason to hope that it will prove useful in some diseased conditions in which symptoms of diminution of function in these nervous centres are apparent.

The following general conclusions seem to be fairly established by the investigations which have been described in the foregoing paper.

1. Chloral-hydrate is physiologically antagonistic to picrotoxine in rabbits and guinea-pigs, and will, when administered in a suitable and proportionate dose, save life after a fatal dose of picrotoxine.

2. The antagonism of chloral-hydrate to picrotoxine in rabbits and guinea-pigs may be exerted so as to save life, even when it is not administered until fifteen or twenty minutes after the fatal dose of picrotoxine.

3. The antagonism of chloral-hydrate to picrotoxine is subject to two limitations: *a*. That the dose of picrotoxine may be so large as to kill before the chloral-hydrate has time to operate; *b*. That the dose of picrotoxine may be so large that nothing short of a poisonous dose of chloral-hydrate would avail to counteract it.

4. Picrotoxine is to a very limited extent antagonistic to chloral-hydrate in rabbits and guinea-pigs, by mitigating the hypnotic effects of the latter upon the brain and higher nervous centres, which it stimulates to activity.

5. The minimum fatal dose of chloral-hydrate in the rabbit is twelve grains to each pound of body-weight.

6. Practically no antagonism exists between picrotoxine and chloral-hydrate in the cat, nor between strychnia and chloral-hydrate.

7. Picrotoxine and chloral-hydrate, when administered simultaneously to the cat, cause death by stopping the action of the heart, and not by any destructive or exhausting action upon the supreme nervous centres.

8. Chloral-hydrate causes in the cat excitement and restlessness, with motor defects prior to the state of sopor, and its effects upon that animal are protracted to an extraordinary extent.

9. The energy of the action of chloral-hydrate, as measured by its minimum fatal dose, is in proportion to the development of the cerebral hemispheres.

In closing this paper, I have to express my gratitude to my colleague Dr. Lawson for much valuable assistance, in making some of the observations upon which it is founded.

## ON PUERPERAL FEVER.

By EDWARD JOHN TILT, M.D.

One good result of discussions like that on puerperal fever, now proceeding at the Obstetrical Society of London, is, that it brings to light valuable cases, like two that were published last week in this JOURNAL by Mr. Stewart of Barnsley. He truly remarked "that they were exceedingly interesting from their tendency to throw light upon the nature and production of puerperal septicæmia, as they show that the application of decomposing lochia alone to a recent scratch or wound has been sufficient of itself to produce gangrene of the part and death of the patient in the one case, and a very severe attack of phlegmonous erysipelas in the other, although no puerperal condition existed in either of the inoculated subjects. I think we may, therefore, draw the conclusion, that the passage of decomposing lochia over any abraded surface in the vaginal passage is sufficient to produce puerperal septicæmia without the importation of any other specific poison. In this manner, we may account for the disease attacking much more frequently primiparous cases, as the vagina and perinæum are much more likely to be slightly lacerated in those than in multiparæ".

All this is no doubt true, but it has been already pointed out; and the interest of the cases lies in the fact that they show the precise channel through which a woman frequently pours into her blood the poison secreted in her womb. The lymphatics surrounding the recent scratch of one woman, and the cut thumb of the other, took up the poison, passed it on to the lymphatics of the forearm, and they into the blood. What became of the inflamed lymphatics in one case is not said, but in the other they inflamed the surrounding cellular tissue. In exactly the same way, the lymphatics in and around a rent of the circular fibres of the internal os uteri, or of the cervix, on the "fourchette", often take up the poison that comes down from the puerperal womb, and transmit the poison to the pelvic lymphatics, that pour it into the blood. The contact of the poison with these lymphatics influences them in various degrees, and sometimes acutely inflames their surrounding cellular tissue. This is called pelvic cellulitis; but, when the same process occurs under the skin, as in one of the two cases, it goes by the name of phlegmonous lymphangitis. I said the passage of the puerperal ichor through the larger lymphatics caused various degrees of inflammation; and the error of Cruveilhier and the pathologists of his time was to suppose that puerperal fever could not be attributed to the lymphatics unless they contained pus. In my paper on lymphangitis in pelvic pathology, I have cited cases of puerperal fever in which the enlarged lymphatics were found to contain not pus, but a fetid brown fluid, similar to that found in the womb, containing a bit of putrid placenta. I have, moreover, shown that when filtered putrid lochial fluid is injected into the womb of recently delivered animals, this gives rise in all to the same typhoid symptoms; but, on opening the animals, it is found that sometimes the lymphatics contain pus, and at others a fetid sanious fluid like that found in the womb.

## SPINA BIFIDA.

By E. NOBLE SMITH, L.R.C.P.Lond.

Mr. Burton's communication upon this subject induces me to again express a doubt that a case of spina bifida, in which the cord communicates with the sac (*i.e.*, adheres extensively to the back of the sac), can be *cured* by an operation which causes the sac to contract and shrivel up. The success attending Dr. Morton's treatment seems, in a very great measure, due to the modifications which he has introduced. This fact I fully recognise, but I trust I may be allowed to express a doubt as to the spinal cord being connected with the sac in the manner shown in the diagrams given below, or in the preparation, a drawing of which accompanies Sir Astley Cooper's cases reported in the *Medico-Chirurgical Transactions.*

In answer to a former letter of mine, Dr. Morton observes (British Medical Journal, November 21st, 1874) that, as all his cases have been successful, he had not had an opportunity of making a *post mortem* examination of an injected case. Five consecutive cases treated according to Dr. Morton's plan recovered. A sixth is now reported, which has failed.

I now venture to analyse these five successful cases.

Case i (British Medical Journal, April 6th, 1872). *Spina bifida in a child two months old.*—"Its covering was thin, so that it was quite translucent; and at the child's birth it was about half its present size; moderate pressure upon it did not cause much inconvenience or suffering; and the child had never had convulsions, and seemed in all other respects quite healthy." It was cured by Dr. Morton's injection. In this case, there is no evidence of the cord communicating.

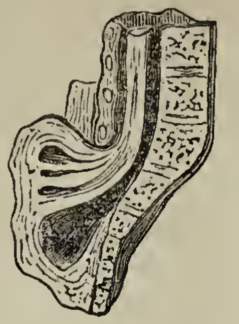
Case ii (British Medical Journal, June 15th, 1872). *Spina bifida in a child fourteen days old.*—Dr. Morton's assistant reports, that "the tumour was as large as a middle-sized orange, and cylindrical in shape. In some parts it was reddish, and at others bluish in tint. It was semi-transparent, and somewhat wrinkled on the surface. It became tense when the child cried. On looking through it, several striæ were seen passing over its internal surface." There is no proof that these striæ were nervous, and, as the child does not seem to have suffered at all from convulsions or paralysis, I think it is highly probable that they were only inflammatory adhesions. This opinion is strengthened by the fact that the tumour "at birth was small, but had increased in size", and that "some time ago it showed signs of ulceration, but these healed up, leaving thickened cicatrices of different colours". It was cured by Dr. Morton's injection.

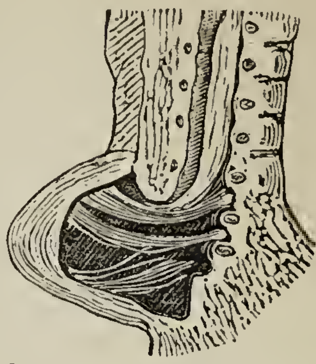
Case iii (British Medical Journal, April 26th, 1873).—Dr. Watt reports a case in which the spina bifida was a sessile semi-transparent flesh-coloured fluctuating tumour, as large as an ordinary sized hen's egg. It was extremely sensitive, and, "when viewed by transmitted light, cords were seen passing near the surface". There is much more evidence in this case in favour of the cord communicating to some extent with the sac, for the child moaned almost constantly. "Its legs dangled, and no voluntary attempt was made to move them", and "the sphincters seemed very weak". This tumour was injected with Dr. Morton's fluid, and the tumour contracted into "a cake of firm condensed tissue", *but* "the legs never moved together, but, when the soles were tickled, one or other leg was drawn up a short distance". There is no absolute proof, however, that the cord communicated with the sac, nor does there seem to have been a complete *cure.*

Case iv (British Medical Journal, January 31st, 1874). Reported by Dr. Watt.—The child made an excellent recovery after injection with Dr. Morton's fluid. The tumour "was very sensitive to the touch, became tense when the child cried, and palpation discovered a *perfectly fluid condition*", which is equivalent to stating that the cord did *not* communicate with the sac.

Case v (British Medical Journal, October 24th, 1874). Reported by Dr. Morton. In this case, the tumour was situated in the cervical region, and no evidence is given of the spinal cord being involved in the sac.

The accompanying cuts represent two preparations in the Museum of the College of Surgeons, of which Mr. Flower kindly allowed me to make drawings, and I cannot understand how such cases could be cured by making the tumour contract and shrivel up.





## ON JABORANDI.

By SYDNEY RINGER, M.D., Professor of Materia Medica and Therapeutics in University College, London; and
W. MURRELL, L.R.C.P.

Since a paper published in conjunction with Mr. Gould, the present writers have made ninety-four additional observations on the effects of jaborandi. The results, whilst confirming the previous statements, add a little to our knowledge of the action of this interesting drug. We gave the medicine sixty-eight times to patients, who took it at their own homes at bedtime. In fifty-nine instances, both perspiration and salivation occurred; in five, perspiration without salivation; in four, salivation without perspiration; thirteen complained of pain over the pubes, often very severe, with a strong desire to pass urine; thirty-one experienced pain in the head, often accompanied with giddiness and dulness.

On seventeen occasions, we gave the drug at nine o'clock in the morning, in a warm room, before a large fire. Of these cases, both perspiration and salivation occurred in eleven; in two, perspiration without salivation; in one, salivation without perspiration; three experienced pain over the pubes; six felt severe pain in the head; six nausea or sickness; and, in one instance, the drug caused a good deal of drowsiness; in four cases, the sight became affected; and finally, in three cases, the jaborandi produced no effect. On nine occasions, we gave the drug to patients who immediately left the hospital and returned home, during the late severe weather. Both perspiration and salivation occurred in eight cases; in three, pain over the pubes; in six, severe pain in the head; in four, nausea; in six, much sleepiness; and, in one instance, the drug produced no effect.

In by far the greater number of observations, both perspiration and salivation were profuse; but sometimes the perspiration or the salivation or both were only slight. The observations were repeated several times on certain individuals, and we found that the effects of the drug varied considerably, not only on different people, but even in the same person. Some yield with difficulty to the drug, and require a large dose, even ninety grains of the leaves. In others, whilst exciting considerable perspiration, it affects the salivary gland but little, or not at all; on the other hand, in some it excites profuse salivation, but scarcely affects the perspiration. In respect to its influence on the brain, the sight, the urinary organs, the effects of jaborandi are even still more uncertain.

As might be anticipated, cold, exposure, and food influence the effects of the drug. Thus it acts less freely on the skin of persons dressed or exposed to cold; moreover, when administered on a full stomach, the drug is more slowly absorbed, and its effects are less marked. In experimenting, therefore, on persons dressed or exposed to the cold, we were obliged to give a larger dose to get the desired effects. The pain over the pubes was often very severe, especially on two occasions, when it was felt across the navel and passed downwards along the penis, and down the urethra. With few exceptions, the pain subsided immediately on passing water. The headache was generally referred to the forehead over the eyes, though sometimes it involved the whole head, and on one occasion was limited to the left parietal region. The character of the pain was generally dull; most persons calling it a "weight over the eyes". In one case, it was paroxysmal. When the drug was given in the daytime, the pain lasted from half an hour to several hours. Giddiness and a stupid feeling were often associated with the headache. This effect on the head, we believe, has before not been noticed. On two occasions, where the headache and the pain over the pubes were very severe, so severe as to make men complain loudly, we injected hypodermically 1-100th of a grain of atropia, and in a few minutes the pain ceased, showing that probably the antagonism of jaborandi to atropia applies to the effects of these remedies on the head and bladder. To nine persons we gave a dose each night, varying from four to fourteen times successively, and found that the effects of the drug were undiminished by repetition. In all the foregoing experiments, we employed a tincture of jaborandi, a drachm of which corresponds to thirty grains of the drug; we gave two drachms of this tincture, and, on a few occasions, to persons who were dressed, three drachms.

We have carefully watched the effects of jaborandi on the circulation, and always find that it increases the frequency of the pulse, and, except when the pulse is frequent from fever, we have never seen this drug lessen the frequency of the beats. Mr. Langley finds that jaborandi reduces the frequency of the heart's action in animals; hence we must conclude that, in this respect, it affects man differently from animals. Mr. Langley expresses a caution against its use, owing to its depressing effect on the heart; but though, in our numerous experiments, the patient has sometimes become rather depressed, yet we have never witnessed, even after large doses, any very marked amount of weakness.

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# HISTORY AND MEANING OF THE TERMS DIPHTHERIA AND CROUP.

By SIR JOHN ROSE CORMACK, M.D., F.R.S.E.,
Physician to the Hertford British Hospital, Paris.

At page 507 of the JOURNAL for April 17th, Dr. William Cumming of Edinburgh begins a note on "Croup and Diphtheria" by thus expressing himself. "The question as to the identity of membranous croup and diphtheria is worthy of the attention it has recently received; but I confess I have some difficulty in understanding how the two diseases can be ranged under the same category." This sentence shows that the same words are at present being employed with different meanings in the discussion to which Dr. Cumming refers. I have read that discussion up to date, and it has appeared to me to derive much of its confusion from the controversialists not attaching the same meaning to the terms croup and diphtheria.

With Dr. Cumming, I hold that membranous croup and diphtheria are not identical; and yet I am not sure, from the drift of his letter, whether he accepts in their integrity the views now almost universally adopted by French physicians, clearly laid before the Pathological Society of London in 1865 by Dr. R. H. Semple, and which I have for many years considered true beyond even the possibility of doubt. My present object, however, is not to enter the lists as a controversialist, but simply to try to clear the field of debate by making a plain statement as to the history and signification of two words.

*Diphtheria* (with Bretonneau, Trousseau, Semple, George Johnson, and others) I look upon as a malady *sui generis*—as a contagious specific general disease. The leading characteristic of diphtheria is a specific exudation upon mucous surfaces, wounds, and cutaneous abrasions. This specific exudation constitutes the false membranes which we may meet with on the mucous membrane of the pharynx, larynx, trachea, nares, and vagina, as well as around wounds and on cutaneous abrasions. We often see the membrane form on the edges of the tracheotomist's incision in diphtheritic croup. The diagnosis between diphtheritic croup and the various kinds of non-diphtheritic membranous sore-throat (non-diphtheritic membranous croup), can frequently be established by applying a small blister to a convenient part of the body, such as the forearm. If the membranous sore-throat be a local manifestation of the general specific disease, that is, of diphtheria, then, and then only, the blistered surface will become covered with false membrane. Confluent herpes of the throat is often mistaken for diphtheritic sore-throat; and the success in the treatment of diphtheria, of which some British practitioners have lately boasted, can only be explained by their having had to do with throat herpes (*herpès guttural* of Gubler), or common membranous sore-throat (*angine couenneuse commune* of Trousseau). Cases of common membranous sore-throat, recovery from which is spontaneous, are often proclaimed as cases of diphtheritic sore-throat. Their differential diagnosis is, nevertheless, easy; but there are cases of confluent herpes of the throat which it is difficult by mere examination to distinguish from cases of diphtheritic sore-throat.

The sum of the whole matter is this: diphtheria is a specific disease, *sui generis*: an usual local manifestation of it is the formation of false membrane on the mucous surface of the larynx and trachea, constituting diphtheritic croup. The use of the prefix "diphtheritic" is necessary, so long as the word "croup" is retained, to prevent mistake as to the nature of the affection spoken of; without the explanatory prefix, the word croup is ambiguous, being often employed as a general designation of all membranous obstructions of the throat, and still farther extended by some to spasmodic laryngeal obstructions. The spasmodic croup of English authors is the *faux* croup of the French.

Confusion is apt to arise in the minds of uninitiated students of foreign medical literature when they begin to compare French and German authorities on diphtheria and croup. To avoid bewilderment, it is necessary to bear in mind that the physicians of France and Germany respectively attach absolutely different meanings to the words diphtheria and croup.

The great majority of French writers, considering the question from a purely clinical point of view, regard diphtheria as a disease which is general, specific, and contagious, specially characterised by the formation on the affected parts of false membranes, which, when removed, are reproduced, and which have a great tendency to extend to neighbouring parts, and to become more or less general. French writers designate all pseudo-membranous laryngeal affections by the name of croup; but some of them limit the use of the term croup to diphtheritic laryngeal membranous exudations.

German writers, on the other hand, adopt a purely anatomical division. Completely abandoning the original signification of the Scottish and Swedish word, by which was simply meant croupy or crowing respiration, they apply the term croupal to all affections which are characterised anatomically by the formation of a fibrinous exudation or superficial false membrane upon a subjacent mucous surface in a state of integrity; hence we find them speaking of croupal nephritis and croupal gastritis. They apply the term diphtheritic to deep or interstitial pseudo-membranous exudations, accompanied by infiltration and elimination of the parts subjacent to the false membrane. An example will make clear the essential difference between the German and French nomenclature. The term croupal pneumonia is generally employed in Germany to designate acute pneumonia with fibrinous exudation (*pneumonie aiguë, franche, avec exudation fibrineux*). Some German authors, looking to the pseudo-membranous and ulcerative character of dysentery, give it the name of intestinal diphtheria.

As to the unfortunate word croup, it would be well to expunge it from British scientific medicine, or be careful to employ it unambiguously, which can always be done by the use of a descriptive prefix such as diphtheritic, herpetic, spasmodic, etc.

The word croup was, I believe, first employed in scientific medical literature in 1765 by Dr. Francis Home of Edinburgh, in his *Inquiry into the Nature, Cause, and Cure of Croup*. Till then, it was only the popular term in Scotland and Sweden for stridulous breathing, for crowing or croupy respiration. An attentive perusal of the cases detailed by Dr. Home leads to the impression, that the epidemic described by him was an epidemic of diphtheria, and identical with that studied by Bretonneau at Tours in 1826, and described by him under the name which he created, diphtheria, from διφθέρα, a pellicle. It must always be remembered, however, that, although Bretonneau created the name and indicated the true pathology of the disease, his first work—*Recherches sur l'Inflammation spéciale du Tissu Muqueux, en particulier sur la Diphthérite*—published at Paris in 1826, was far from complete. It was, however, a grand unveiling of the truth, and the foundation of one of the most brilliant clinical inquiries which adorn the history of medicine.

The term croup was not vulgarised in France till the publication in 1809 of F. Ruette's translation of Home's *Inquiry*. In the same year, Ruette published at Paris a translation from the English of an account by Starr, in the *Philosophical Transactions* for 1750, of an epidemic *morbus strangulatorius* which he had observed in 1748 at Liskeard, in Cornwall. Ruette blames Home for intentionally omitting to mention the work of Starr. He says that perhaps there was nothing new but the name in Home's admirable description: "On pourra même reprocher à ce médecin (Home), d'ailleurs si recommandable, de n'avoir gardé silence sur Starr qu'âfin de nous persuader que la maladie dont il (Home) nous a donné une si belle description était nouvelle, ainsi qu'il le prétend; mais un examen plus approfondi nous convaincra peutêtre qu'elle n'a de nouveau que le nom qu'il lui a donné."

In concluding this notice of the history and meaning of the terms diphtheria and croup, I may add that, in the current medical literature of Italy and Spain, I find that croup and diphtheria are employed exactly as in France, with this occasional difference, that, in place of croup, the Italian writers often use the term laryngeal diphtheria.

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The guardians of the poor of the city of Exeter have raised the salary of the workhouse surgeon (Mr. J. Woodman) from £80 to £100 *per annum*.

# CLINICAL MEMORANDA.

## CROUP AND DIPHTHERIA.

THE short paper of Dr. Cumming of Edinburgh on Croup and Diphtheria is so interesting, that it is to be hoped he will publish *in extenso* some of the cases he has seen as illustrating these diseases, together with some of the *post mortem* examinations.

In the meantime, I must remark that I, for one, entirely agree with him in his diagnostic characters of diphtheria, with one exception, but that is a most important one; namely, the character of the false membrane. He says that it is "ash-grey, friable, in many cases almost pultaceous, and generally soft". Now, the very contrary characters have been displayed by all the false membranes in diphtheria seen by myself, as well as by Bretonneau, Trousseau, Guersant, Bouchut, and a number of other writers and observers, both on the Continent and in this country. They have all described the membrane of diphtheria as possessing the very characters which Dr. Cumming attributes to membranous croup; namely, that it is "firm, tough, tense, and of a light kid colour". It is not possible that the tubular cast of the windpipe, often voided or extracted entire during life, or discovered entire after death, in diphtheria, and often described, can be "friable, pultaceous, and soft".

R. H. SEMPLE, M.D.

## TEMPERATURE IN TYPHOID FEVER.

IN an address on the Etiology of Acute Specific Diseases, delivered before the Clinical Society of London, Sir W. Jenner controverts the statement of Wunderlich, that "we may exclude typhoid fever when between the fourth and sixth day in a child, or adult under middle age, the temperature does not reach 103.1 deg.", and says that he has found this law to have so many exceptions that, as a law, it cannot be said to exist. Of the correctness of this opinion I have no doubt. I have occasionally had typhoid cases in the Aberdeen Hospital, where about the sixth day the recorded temperature never reached 103 deg.; and when I was at first inclined to think that the clinical clerks were at fault, and had not allowed the thermometer to remain sufficiently long in the axilla.

But, in the spring of 1874, I attended in private practice three cases of typhoid fever in young adults, all occurring in one family. They were all well-marked cases, without complications, and their temperatures were taken very carefully night and morning; but in none of them during the first week did the temperature exceed 102.5 deg. In justice to Wunderlich, it must be admitted he says that "in this preeminently typical disease, not a single rule can be laid down which is not subject to exceptions, although these may, as regards some rules, be extremely rare".

There is no doubt, however, that Wunderlich considers the exceptions to this special rule as being extremely rare, while Sir W. Jenner's experience is just the reverse. It would be well if other observers would record their experiences.

J. W. F. SMITH-SHAND, M.D., Aberdeen.

## CASE OF PLEURITIC EFFUSION AND THORACENTESIS: RECOVERY.

FANNY H., aged 19, entered the New Hospital for Women as an outpatient, December 14th, 1874. Her family history was phthisical, two aunts having died of phthisis. She had had no acute illness; but had been ailing for four months, coughing and losing flesh, and getting very weak. Till within a day or two, she had been attending at another hospital for "consumption".

On examining her chest, I found the left side, back and front, absolutely dull; the respiratory sounds absent, except at the apex, and those puerile. The heart was displaced an inch to the right of the sternum. The left side of the chest was three-quarters of an inch larger than the right. The dyspnœa was not urgent; respirations were thirty per minute. Decubitus was on the left side, and sometimes on the back. The temperature at 2 P.M. was 101.6; after admission, it was found to be 102.8 at 9 P.M. The tongue was dry and glazed; the gums spongy, and the teeth covered with sordes. The bowels were much relaxed. She had no appetite. The catamenia were regular, but extremely scanty. She was admitted as an in-patient the next day, and three days later I performed thoracentesis with Dieulafoy's bottle-aspirator. Ten ounces of fluid were removed.

At the close of the operation the heart's impulse was felt to the left of the sternum. No attempt was made to remove all the fluid. The subsequent progress of the case was one of unbroken recovery. The remaining fluid was gradually, and not very slowly, absorbed; the symptoms of hectic disappeared, and the patient was discharged on February 22nd, 1875, in good health, with good respiratory sounds to the base of the left lung, with the heart in its normal position and with but very slight retraction of the left side.

The main interest of this case seemed to me to lie in the extremely unpromising character of its symptoms before the operation. It would, I think, be difficult to have a case of pleuritic effusion in which there was more reason for hesitating before deciding to operate. With a phthisical history and phthisical symptoms, with hectic and extreme general prostration on the one hand, there was on the other no such urgent dyspnœa as required the operation for immediate relief. The case seemed to be one in which not very much could reasonably be hoped from the operation of thoracentesis. The two considerations which decided me in favour of operating were these—the apparently sound state of the right lung, which was, to some extent, evidence against advanced disease in the left lung, and the possibility of the hectic being due to emphysema. Dr. Broadbent was kind enough to see the patient with me, and to give me the benefit of his assistance and advice at the operation and before it.

ELIZABETH GARRETT-ANDERSON, M.D.

# REPORTS
OF
# MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

## BETHLEM ROYAL HOSPITAL.

### PERITYPHLITIS ASSOCIATED WITH ACUTE MANIA.

(Under the care of Dr. W. RHYS WILLIAMS.)

[Reported by G. H. SAVAGE, M.D.]

F. W. W., aged 23, a clerk, with no family history of insanity, who had always enjoyed good health and been of temperate habits, was, seven weeks before admission, suddenly seized with violent pain in the abdomen, which, becoming worse, confined him to bed. Vomiting came on, which lasted for eight or nine days. His bowels were confined, and his abdomen became very much distended. The vomiting ceased and the swelling subsided, and he appeared to be getting better, but was noticed to be extremely weak. At this time, about eleven or twelve days after the onset of the attack, he became excited, would jump out of bed, and swear at his friends; he was so violent he had to be held in bed by two persons; he fancied persons wanted to murder him. On admission into Bethlem, he was extremely weak and had to be kept in bed; he was emotional and nervous. He had some exalted ideas, but these were very transient; he was extremely variable, and would talk in a rambling way for a time. There was a large, hard, inflamed mass over the cæcum; his bowels were confined; he had no vomiting. After a few days, he improved steadily in general health, but still he could not control himself. He said it was too much trouble to talk, or even to think, and that if he tried he became confused, and this excited him. In another week, he was up and about the ward, but still fidgety and unable to settle to any amusement or employment. A month after admission, his general health being re-established, he had a slight renewal of the inflammation of the cæcum, but this passed off, and he gradually convalesced, and was discharged well ten weeks after admission.

Mania following acute disease is not uncommon, and must generally be considered as caused by exhaustion. Such cases are generally excitable and irritable; the controlling power seems to be lost. During the past year, there have been at Bethlem some cases following scarlet fever, in which suspicion and irritability were the most marked symptoms. Very many cases of the most acute mania are found associated with great anæmia, and tonics rather than depressants are indicated. At Bethlem, there have been recently under treatment cases of mania of the most violent type following pneumonia and also menorrhagia. In such cases, the maniacal symptoms usually supervene a week or more after the height of the acute disease.

## GLASGOW WESTERN INFIRMARY.

### COLLOID CANCER OF OMENTUM.

(Under the care of Dr. FINLAYSON.)

[Reported by C. J. PLUMER, M.D.]

*Ascites, without Dropsy elsewhere; slight transient Jaundice eighteen months ago; Habits temperate; Consolidation of Apex of Left Lung with* *moist Râles; 268 oz. Bloody Serum Removed by Aspirator; Supervention of Deep Jaundice with Pale Stools; Second Tapping, allowing hard masses to be felt through abdominal walls; Severe Vomiting, Pain, and Prostration; Death. Sectio: Colloid Cancer of Peritoneum, chiefly of Omenta, pressing on Portal Vein and Common Bile-Duct; Numerous Stones in Gall-Bladder; old Atrophic Lesion of Left Lung, with considerable Emphysema. Remarks.*—Ann C., aged 37, was admitted into the Glasgow Western Infirmary on January 11th, 1875, complaining of swelling of the abdomen, with some pain in the right side, of six weeks' duration. She was the mother of nine children, and her health had generally been good till eighteen months ago, when she began to suffer from pain in the right lumbar region, with vomiting of food and of a dark bitter fluid; this was associated with a yellow discoloration of the skin and with general weakness. She was at that time treated in the Royal Infirmary for six weeks, and left much improved, and was confined of a healthy child at full term six months afterwards. After this, her health continued fairly good, although she was never so strong and healthy as before her illness; and had more or less pain in the right side. Seven weeks before her admission to the Western Infirmary, the urine became scanty, high coloured, and turbid, and in a few days the abdomen began to swell, and the pain shifted from the lumbar region to the margin of the ribs in the line of the right mamma. She had no vomiting at this time, but the bowels were obstinately costive; her appetite was bad, and she had lost flesh. The catamenia had not appeared since her last confinement, eleven months before. She complained, on admission, of a constant pain in the right side, with occasional severe exacerbations; the abdomen was found moderately distended with fluid in the peritoneum; the area of the hepatic dulness seemed rather less than normal; the urine was scanty (nine ounces in the twenty-four hours), specific gravity 1032, with a deposit of urates, but free from albumen. In the chest, there was some dulness at the base of both lungs behind, with diminished vocal resonance and fremitus. Subsequently (February 14th), there was noted a marked dulness under the left clavicle, with bronchial breathing and moist *râles*. There was no dropsy except of the abdomen, and the vaginal examination gave negative results.

Treatment by a variety of diuretics, etc., having failed, purgatives were tried, but with no better result. The distension increased, and vomiting became troublesome, the appetite became even worse, and emaciation became more marked. Two hundred and sixty-eight ounces of fluid were removed on February 19th by the aspirator; this was clear, but had a light red (blood) tint generally diffused through it; it was of specific gravity 1020, faintly alkaline in reaction, loaded with albumen, and showed under the microscope abundant blood-discs and a few exudation-corpuscles. Examined immediately after the tapping, the liver could be felt within the costal margin, and it was evident that it was not enlarged; no distinct tumour could be felt in the abdomen. The tapping gave temporary relief; the next day the urine was found to contain a considerable quantity of albumen, and pus and blood-corpuscles were found in the sediment. (This albuminuria was quite temporary.) The urine continued scanty, the bowels very costive, so that scammony or enemata were frequently required, and the vomiting persisted. On February 26th (seven days after the tapping), it was noted that the conjunctivæ and skin were slightly yellow; and on March 1st, decided jaundice was present, the fæces were pale, and the urine deeply tinged with bile. The patient now became worse; nearly everything was rejected by the stomach soon after it was swallowed, and severe pain in the middle of the back and about the epigastrium began to be complained of. The temperature, which since admission had seldom been much, if at all, above the normal, became elevated, and reached 100.6 deg., 101.2 deg., and even 102 deg. Fahr. The distension had increased so rapidly, that paracentesis was performed for the second time on March 14th, when 360 oz. of fluid were drawn off; this had the same characters as before, but, in addition, was highly tinged with bile. An examination of the abdomen immediately after this tapping, again showed that the liver was not at all enlarged; but an irregularity existed just below, and, to the right of the xiphoid cartilage, in the situation of the chief pain and tenderness complained of, numerous hard masses could be felt both above and below the umbilicus, but chiefly in the situation of the colon, and they suggested the notion of scybala in the bowel. No albumen appeared in the urine after this second tapping. From this time, the patient gradually sank, the jaundice remained intense, vomiting was persistent, and death occurred on March 27th, the pain and excessive languor complained of during the last few days of life being relieved by hypodermic injections of morphia.

*Necropsy.*—The abdomen contained a large quantity of fluid similar to that removed at the last tapping, but a considerable number of soft gelatinous masses of yellow colour came away with the fluid. The great omentum was found to be occupied by an immense mass of orange yellow colour, hard in some parts, very soft in others, and very irregular in its surface; the mass appeared at some points to be made up of small nodules, but for the most part these had coalesced with an indiscriminate growth; in some parts, the omentum was thus thickened to the extent of fully two inches; the omentum thus changed could be raised up from the bowels below, there being no adhesions. In addition, the lesser omentum, the mesentery, and the peritoneum generally, including the surface of the liver and certain coils of intestine, were the seat of innumerable gelatinous growths, in some parts isolated, in others coalescent. The parietal peritoneum was likewise thickened throughout, and presented the same yellow aspect as the omentum, with numerous spots of ecchymosis and small adherent clots of blood. The suspensory ligament of the liver was converted into a large mass resembling the thickened omentum; this corresponded in position with the site of the pain and the irregularity felt during life. The viscera, having been removed in a mass, were subsequently examined by Dr. Joseph Coats; he found the gall-bladder, towards its neck, to be the seat of a bulky tumour projecting into its calibre and completely obstructing the neck and the duct; the ductus communis was partially obstructed, but free towards the duodenum; the hepatic duct likewise was partially obstructed, but free towards the liver. The walls of the ducts were much infiltrated, and a yellow gelatinous material projected from their internal surface; they were also buried in a gelatinous mass. The gall-bladder was distended, and contained six large and about fifty small pale calculi. The liver was infiltrated with bile, and its tissue very soft, but the organ was not increased in size. The portal vein was distinctly compressed by the growth; but the vena cava seemed quite free from pressure. The stomach was normal. The lungs were slightly adherent generally, the left completely so at the apex; the tissue of this part was condensed and somewhat cheesy, and had a collapsed aspect, while large emphysematous patches existed at the margins. The heart, kidneys, and other organs presented nothing remarkable. Dr. Coats examined the growth microscopically, and found the typical characters of colloid cancer; he was of opinion that it had originated about the neck of the gall-bladder or its duct.

REMARKS BY DR. FINLAYSON.—This case was of peculiar interest, and presented considerable difficulties. The diagnosis was correctly made as regards, perhaps, the essential lesion, but, owing to the misinterpretation of one point, an important omission occurred. When the patient was first shown to the clinical class, the signs of peritoneal effusion were plain enough, and were easily verified by the students, and the probable causation—portal obstruction or chronic peritoneal disease—was then discussed. Cirrhosis of the liver seemed rather improbable, owing to the clear absence of intemperance in this woman's case; but some suspicion was thrown on the liver from the occurrence of slight jaundice about eighteen months ago, during her previous illness in the Royal Infirmary. On the other hand, some suspicion of chronic peritonitis, with effusion, arose from the existence of indubitable signs of consolidation at the apex of the left lung; this was associated with moist *râles*, but the absence of any serious febrile disturbance induced much hesitation in the diagnosis of tubercular disease in the chest and abdomen. When, from increased tension, tapping had to be performed, the bloody character of the fluid again suggested peritoneal disease, although in a case which I recorded lately in this JOURNAL (January 2nd, p. 10), a bloody exudation in the peritoneum was found in a typical case of cirrhosis of the liver. In a few days after the tapping, however, the occurrence of jaundice seemed to stamp the case as hepatic. Careful observation, made immediately after the tapping was completed, satisfied me that the liver was certainly not enlarged, and no tumour could be felt in the abdomen, except a cord-like thickening in the region of the gall-bladder; this was the only, or at least the chief, seat of pain throughout the case, and the dissection showed it to be due to a thickening of the suspensory ligament of the liver. The jaundice was evidently due to obstruction, and was much too deep to be explained on the theory of cirrhosis, but its persistence, and the rapid reaccumulation of the peritoneal fluid, seemed, in the absence of hepatic enlargement, to point pretty plainly to some tumour, probably cancerous, obstructing the portal vein, and by its extension leading to compression of the common bile-duct. Immediately after the second tapping, a new feature was developed in the remarkable sensation experienced on examining the abdomen. A large number of hard masses could be felt which were, so far, movable, and seemed to follow the course of the different parts of the colon; and, as the bowels had been very difficult to act on, and the motions had often contained many scybala, it was too hastily concluded that these hard bodies were intestinal accumulations. Accordingly, enemata and purgatives were administered, and they brought away some hard fæces; this further misled the diagnosis, for by this time the fluid had accumulated again so as to place the nodules and the intestines beyond reach. This sensation, however, was, no doubt, chiefly due to the cancerous masses found after death in the omentum; for, although some hard fæces existed in the bowels even at the *post mortem* examination, the cancerous nodules were particularly prominent in the omentum just at its edges, where it followed the course of the colon.

The two facts referred to as complicating and confusing the diagnosis—the previous occurrence of jaundice and the consolidation of the left lung at its apex—seemed to be, as it were, mere accidental coincidences; the previous attack of transient jaundice eighteen months ago rather militated against the cancerous theory of the present illness; the discovery at the dissection of numerous stones in the gall-bladder afforded a clue to the cause of the former attack. The occurrence of jaundice as a new symptom in a disease which seemed to be extending (as judged by the rapidity with which the fluid accumulated) could scarcely, it was thought, be due to a separate lesion; and the characteristic pain of hepatic colic was absent, so that this previous attack of jaundice was not allowed to influence the diagnosis. For similar reasons, the pulmonary lesion sank into insignificance, for diagnostic purposes, on the occurrence of jaundice, and on dissection it seemed to be a very old atrophic lesion not specially related in any way to the fatal illness.

# SELECTIONS FROM JOURNALS.

## PATHOLOGY.

PATHOLOGY OF THE SYMPATHETIC NERVE.—Pio Foa, in a memoir published at Bologna, describes the results of the researches made by him on the state of the cervical and semilunar sympathetic ganglia in one hundred and forty persons who had died of various diseases. Changes of very various natures were found, among which the most important were: simple atrophy from compression, or marasmus; atrophy with complete fibrous degeneration; simple hyperæmia or congestion, sometimes combined with sclerosis; accumulation of white corpuscles, amounting even to true suppuration; pigmento-fatty infiltration and degeneration; amyloid degeneration; and micrococci in the blood-vessels. In tuberculosis, the vessels of the ganglia were often dilated and overfilled with blood. Where tubercular disease of the abdominal organs predominated, the ganglia were anæmic and atrophied; and, where the course of the disease was very acute, the blood-vessels were crowded with white corpuscles. After inflammation of the lungs, and in cases of heart-disease, the ganglia were overloaded with blood and strongly pigmented; in leukæmic conditions (lymphatic leukæmia), the white corpuscles were present in abnormal quantity. Syphilis was accompanied with a remarkably copious development of connective tissue and by pigmentation of the cells; in profoundly cachectic states, there was amyloid degeneration of the vessels of the ganglia; in pellagra, the vessels were much dilated, and the cells were full of pigment and fat; and, in infectious diseases, there was an abundance of white corpusles in the stroma.—*Centralblatt für die Medicin. Wissenschaften*, March 20th.

## MEDICINE.

DEATH FROM PERFORATION OF THE APPENDIX CÆCI.—The following case is related by Dr. R. F. Noyes of Providence, Rhode Island. The patient, a male, aged 31, was taken with severe pain in the right iliac region. The tenderness and pain were augmented by pressure. He had previously eaten raisins. The constitutional symptoms were not marked; the bowels were confined. Dr. Noyes kept him under the influence of morphia; but the pulse became accelerated and the abdomen tympanitic. Sinapisms and turpentine stupes, and hypodermic injection of morphia to relieve the pain, were used from the first. When he began to sink, iced champagne and brandy were given freely, by mouth as long as possible, and then by rectum, and lastly hypodermically; but all was in vain. He had stercoraceous vomiting. He died from asthenia. Dr. Noyes made the diagnosis of peritonitis and accumulation of irritating material at the ileo-cæcal valve, but was agreed in by three physicians who saw this case with him. At the necropsy, plastic material was found upon the small intestines, causing adhesions here and there, but there were no bands producing occlusion of the bowels; there were pus and other fluid in the peritoneal cavity. In the appendix cæci was a mass of fæcal matter as large as a cherry-stone, in the centre of which was a raisin-seed. At the point of union of the appendix with the cæcum was a perforation of the bowel allowing the contents to escape into the peritoneal cavity. When the abdomen had become enormously distended with flatus, with the consent of the physicians and surgeons in consultation, Dr. Noyes plunged a needle 1⅓ *millimètres* in diameter into the transverse colon, and allowed the gas to escape, whereupon the abdomen became more flaccid, and the respirations fell from twenty-six to twenty in a minute.—*Detroit Review of Medicine*, January 1875.

## BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1875.

SUBSCRIPTIONS to the Association for 1875 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, APRIL 24TH, 1875.

## PUERPERAL INFECTION.

THERE are few diseases more important in the range of medicine or surgery, or more opportune for present discussion, than puerperal fever, whether we view it from a scientific point of view, or from its medico-legal bearings. The subject is one that has of late attracted much attention with the public and the profession, and will continue to do so for some time. The prosecution of two midwives lately for conveying the poison to parturient women, and the conviction in one case, has rendered the subject one of vital importance to general practitioners. As we pointed out at first, the doctrine of "manslaughter by infection", once formally accepted in the law courts, cannot be lightly dismissed. Time will prove whether the medical men in those two cases were wise in driving matters to extremes, and forcing on a prosecution. It cannot be expected that medical men will escape unscathed, and we should not be surprised to hear of medical men before long being similarly charged, and prosecutions instituted, either from conscientious motives on the part of the relatives, or else, we are ashamed to add, from motives of gaining money. In a case of which we were recently cognisant, the husband claimed a pecuniary consideration for alleged neglect of his wife, at a charity, on the day after death; his motives were apparent, and the claim failed. The majority of such cases will happen amongst the poor; and by the wide dissemination of cheap and sensational literature, these last cases are made known far and wide. Already we have had one correspondent writing, and strongly deprecating a recent inquest, on account of the injury inflicted upon him.

Puerperal fever seems to have been of late very prevalent over the country. We have heard of epidemics in various towns, chief amongst which we may mention Coventry, Wolverhampton, Oxford, Stockton-on-Tees, and in several districts in London; besides which, judging from letters which we have received, and have published, from time to time, under pseudonyms, such as Obstetricus Junior, etc., there are vague hints at similar conditions in other quarters, but the writers have been afraid to state their true names, on account of the injury likely to arise to their practice. Nor are the returns in the Registrar-General's report likely to give a correct idea as to the amount of puerperal fever throughout the country, as it is stated to be a well known fact, that some practitioners have such a dread of its becoming known that they have had any cases of this disease in their practice, that they return the causes of death under such headings as peritonitis, pyæmia, and septicæmia, to avoid attracting attention. It is but quite lately that a gentleman wrote to us, stating that in his own particular neighbourhood he was aware of not fewer than eight deaths from puerperal fever in the practice of one man; and yet, on searching the district records, not a single death from that cause could be found. This is not peculiar to England. The latest outbreak of puerperal fever that we have heard of is at Crewe, where it is stated the parish medical officers have lost no fewer than eleven cases, besides several more returned under the name of peritonitis and pyæmia, all within a period of three weeks. The case is creating great excitement in the neighbourhood, and much anxiety on the part of expectant mothers. We believe, however, there is a great deal of exaggeration in current statements.

The matter has been taken up by the Board of Guardians, and it is intended to petition the Local Government Board to send down an inspector to investigate the matter. The result of an investigation by the Local Board of Health is, however, to decline to ask for such inquiry. The reports, it is stated, are much exaggerated; and it is alleged that due precautions were taken from the first. The *Liverpool Courier*, in commenting upon this case, does not forget to remind the public that midwives have been lately tried for recklessness in conveying the poison to parturient women.

The discussion now taking place upon puerperal fever before the Obstetrical Society, upon a paper read by Mr. Spencer Wells, could not, therefore, have occurred at a more opportune time. The views expressed and the decisions come to will be read with the deepest interest by the profession, as there can be no doubt that, if medical men are to be prosecuted as midwives have been, the theories there propounded, and the conclusions arrived at, will not pass unheeded, either by prosecutors or by defendants.

In bringing the matter before the Society, Mr. Spencer Wells, in order to obtain some decisive opinion on the subject, reduced the substance of his paper into six categorical questions. This seems to have escaped the attention of the gentlemen who spoke at the last meeting; at least the majority omitted to answer Nos. 4 and 6, which were very practical questions. Dr. Leishman, who spoke first, disclaimed his recent published views on puerperal fever being a fever *sui generis*, and regretted he had not more thoroughly investigated the evidence of the pyæmic or septic origin of the disease; at the same time, he doubted whether it would be a solution of all the difficulties. Dr. Newman of Stamford disbelieved in a definite puerperal fever, as, in every case that had come to his notice, either directly or indirectly, he had been able to trace some distinct infecting poison as the cause. He laid great stress upon the mental condition, as predisposing the system to the development of septic poisons, however introduced. In a large proportion of his cases, these causes were in operation.

Dr. Braxton Hicks considered that the observations of the older writers, which were made principally in hospitals, tended to retard the investigation of the disease, and that it could best be studied clinically in the private homes of patients. He drew attention to his already published eighty-nine cases of puerperal fever, which showed a large proportion of them were connected with animal poisons; when the origin could be traced to a decomposing "sepsis", washing out the uterine cavity was of great value. The effect of the scarlatinal poison on the puerperal woman was not altogether to be measured by the mortality, as only one-third died; whereas the other two-thirds made bad gettings-up, from pelvic cellulitis or other uterine mischief retarding involution. Whether all forms of puerperal fever were contagious to the puerperal woman, he could not say; but he was certain that all were not so liable to be conveyed by the attendants. The zymotic fevers he considered the most infectious. Mr. Jonathan Hutchinson recapitulated his well-known views upon erysipelas and pyæmia, regarding them not as specific diseases, but as the effects of local forms of inflammation, the patient being poisoned by the results of inflammation of his own tissues; and he regarded puerperal fever as a similar condition. Dr. B. W. Richardson drew special attention to the peculiar physiological condition of women after delivery—how that the blood contained more fibrin, a diminution of the salts, tending to the formation of coagula on a slight rise of temperature. He divided puerperal fever into four forms: first, an exaggeration of simple surgical fever, or fever of "resistance", as he styled it, where a sudden rise of temperature causes coagulation of the fibrine in the right side of the heart; secondly, the bilious fever; thirdly, the autogenetic; and lastly, a puerperal fever arising from poison conveyed into the body from without, not, perhaps, a poisonous secretion at all—poisonous only in its individual sense, but not poisonous as coming from any person who has been poisoned. He believed that, before long, a means would be discovered which would effectually prevent septicæmous poisonings, as vaccination did small-pox. On the question of the value of antiseptics he had nothing to add to Dr. Braxton Hicks's suggestion of washing out the uterus.

In the further discussion that is to take place on the 5th of next month, we should like to hear more of the etiology of the disease, and the mode of its propagation, as also the precautions necessary to prevent its spreading. The individual experience of our readers, although perhaps limited to isolated cases, would be of immense importance, as in these cases there is greater likelihood of its origin being traced, and the means adopted for the prevention of spreading more clearly known. It would be very desirable to know the exact forms that are contagious, the mode of their propagation, and the laws that seem to regulate the dissemination of the poison; as also the best means to adopt to disinfect the propagation of the poison when it is conclusively known it is the purveyor of the disease. We invite communications from our readers.

Again, what length of quarantine is necessary, if any? how is that quarantine best carried out? what disinfectants are the best? and how is that exceedingly tenacious form of the poison to be eradicated? Does the poison become endemic in the dwelling of the attendants, clinging to the bedding and rooms like the fomites of scarlatina, and re-infecting the individual although his ordinary apparel is changed or thoroughly purified? or is it that the individual retains the poison within his system, and, in fact, is labouring under the influence of a most subtle poison, although apparently in the best of health?

We wait with interest the views of accoucheurs upon these and various other matters.

## VOTING AT THE MEDICAL BENEVOLENT COLLEGE.

The voting papers for the election of candidates for the benefits of the Royal Medical Benevolent College have been received this week. They contain a printed notice, to the effect that subscribers who wish to be freed from the annoyance of being canvassed should forward their names to the committee, with a view to their names being placed in a separate list. This may be taken as a first result of the largely signed memorial presented to the Council, praying them to relieve candidates from the hardship imposed upon themselves, their relatives, and friends, by the present method of electing by the voting system. We cannot, however, consider that this is any other than an illusory mode of meeting the question. It grants no real reform; it does nothing to secure justice to the most deserving candidates, or to improve the tribunal by which judgment is given in favour of any particular applicant, or against others whose necessities are more cogent, but whose friends are less influential, whose means are more wholly exhausted, or whose cunning in canvassing is less developed. Charity electioneering is one of the oddest and most anomalous forms of alms-seeking which has ever sprung up among us. It is a caricature of local self-government, which reproduces all the defects of that institution without any of its merits; it is a wild parody of charity which could never have existed, and could not now survive, but that it affords scope for some of the most common weaknesses and vanities of human nature, and is capable of being defended by the misapplication of platitudes which have a traditional attraction, and retain their influence even when they have lost their meaning.

If any one were to propose to a charitable person plainly that his bounty should be distributed—not to the most necessitous object of it, not to that case which most completely fulfilled all the conditions which it was intended to satisfy, not to the poorest offspring of the most helpless widow—but to the child of the most powerful, to the *protégé* of the most active canvasser, to the case pushed by those who had most friends and the largest purse, such a proposition would be rejected with scorn. If it were to be suggested that the best test of the wants of a widow or an orphan were that either she or her friends should spend, say, a hundred pounds in postage and printing, and several months in personal solicitations, no one would approve it, not even, we think, the Postmaster-General or the local printer, who alone benefit by it. If it were proposed that a candidate who "failed" at first, possibly because other cases were more deserving, should go on adding each year the votes he got on a previous occasion, on perhaps false representations, to those which he gets the following year on equally insufficient or incorrect statements, until at last accumulated expenditure and persistent mendicancy gain a prescriptive superiority over pressing necessity, this would be felt to be a mockery of reason and a falsification of charity. All these monstrous principles, however, are involved in the system of voting at charities. There is nothing to guide the voter except the statements of the candidates, who say what is most telling, and conceal what is most damaging to their canvassing. There is no impartial examination of their respective claims; barely any examination at all. Every card bears the names of certain more or less well-known friends, which seem to authenticate the existence of the person for whom aid is sought, and roughly the preliminary facts stated. That such authentication is not enough to prevent even the grossest fraud, was proved by the case of Dorrington, whose imposture at the Incurables Hospital was the subject of accidental exposure in the police-court. It is not apparently denied, and Mr. Manby is the authority for the statement, that a lady with an income of six hundred a year succeeded in obtaining election for one of her children at the Royal Medical Benevolent College, notwithstanding that the fact was not altogether unknown to members of the Council. But apart from cases of gross fraud, or of serious omission or misrepresentation, it is certain that the names appended to a card do not imply an impartial examination of all the facts. They imply only a friendly endorsement of *primâ facie* claims. Most often the husband was known during life, and the rest is taken to be true exactly as told, upon the faith of verbal statements. In any case, the examination is not comparative or judicial. There is nothing to guide the voter except the urgency of the application and the number of friends who write to him. Few men, perhaps, reserve their vote to the end. At least three-fourths of the votes are pledged early in the year on the application of friends.

What is the cost of a successful canvass of the governors of the College? It is variously estimated. One lady writes that, had it not been for the help of "an influential member of the Council", she could never have succeeded in getting her little boy into the College, although, she adds, "I spent more than £60 in the canvass, and am still paying it off to friends who lent me the money".

No one can for a moment doubt the extravagance, the inefficiency, of election by canvassing; the cost of time, money, and anxiety to candidates; and the certainty that wide connections and influential friends will carry the day over obscure but dire necessities. It is, indeed, a method which practically disfranchises want and suffering, and leaves the poll at the mercy of influence, wealth, and activity. A shade of responsibility rests upon every voter; but, when responsibility is divided into fractional thousandths, it is very little felt. The same man who would be scrupulous to fulfil most carefully the great trust devolved upon a committee of selection, feels little the responsibility of giving a six-thousandth vote at the request of a friend who is vaguely supposed to know the merits of a case, although he cannot know anything of its comparative claims.

The device of allowing the names of governors who object to be canvassed to be published in a separate list is a very imperfect and quite useless invention. It is a polite intimation on the part of the Council, which may be roughly paraphrased as saying, "You disapprove of the mode of selection; you see that it affords no test of necessities, and that it involves great waste and practical cruelty. Then clear your conscience by standing aside. We do not propose to alter the mode of selection; but you need take no part in it. Continue to subscribe, and let the evil of which you complain flourish in our hands." Is this reasonable or just? When the country complained of rotten boroughs and bribery at elections, what would have been thought of statesmen who said to the petitioners, "Very well; you do not like the way in which members of Parliament are elected, or that it is calculated to secure the best representatives of the people; then send in your names, and a list shall be formed, and you shall not vote at all; otherwise the same mode of election will be continued as before, and no doubt you will be satisfied"? That would have been a pretty sort of Reform Bill. It is, however, the reform which the Council of the Medical Benevolent College seriously propose.

We do not comprehend what are the reasons which prevent the Council of that noble charity from adopting the same method which has been long in successful operation, with universal approval, in two other medical benevolent societies: the Society for the Relief of the Widows and Orphans of Medical Men, and the British Medical Benevolent Fund. In each, the selection of candidates is made by a responsible Committee. It is so well made that we have never heard one word of complaint. The sole ground of objection to the reform lies, we believe, altogether outside the merits of the question. The annual canvass is considered to be a valuable advertisement for the charity at the expense of the candidates. This is, however, an advertisement which is unjust, expensive, and in every way objectionable. Just as men sometimes are impelled *propter vivendum vivendi perdere causas*, so charitable institutions which do that which is uncharitable and unjust, and make the efficient and merciful distribution of alms secondary to the gathering of more ample means for almsgiving, must be said to sacrifice the end to the means, and to inflict the wound which they are intended to heal. As a matter of fact, we believe that the theory that injustice of this kind is necessary to the success of an institution is a fallacy. Many great charities are supported in this country, and especially, we learn, also in Scotland, without any such machinery. At any rate, we may be sure that to rely upon a palpable act of injustice as a foundation of success is to build upon a quicksand. We earnestly hope that the Council will reconsider this subject; and that, just as medical men have approved free hospitals without the *quid pro quo* in the shape of letters, just as they have exposed the costly annoyance and degradation of canvassing for medical offices in hospitals and have in most places secured the substitution of a committee of selection, so they will speedily put an end to the extravagant, degrading, and inefficient system of electing scholars and pensioners at the Royal Medical Benevolent College by indiscriminate canvassing.

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A NEW ophthalmic hospital is to be erected in Sheffield, at a cost of £13,000.

SIR DUNCAN GIBB, we are sorry to hear, is seriously ill.

THE Prince of Wales has graciously consented to become patron to the West London Hospital.

THE Central Association of German Dental Surgeons will hold its fourteenth annual meeting at Freiburg in Breisgau, on August 2nd, 3rd, and 4th.

THE Academy of Sciences in Stockholm has formed a committee for the purpose of carrying out a proposal to erect a statue to the celebrated botanist Linnæus, to be unveiled on January 10th, 1878, the centenary anniversary of his death.

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THE Clerk of the Peace for Surrey has been instructed to acquaint the Boards of Guardians of the county that it is the intention of the magistrates to provide further accommodation for pauper lunatics, and a committee has been appointed to make the necessary arrangements for carrying their intention into effect.

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THE *Gazette des Hôpitaux* of Paris publishes a translation, by Dr. Darin, of the able report by Dr. Julius Althaus on modern medical electric and galvanic instruments, which appeared some time ago in the BRITISH MEDICAL JOURNAL, and which has since been reprinted as a pamphlet.

Among many good stories which must be put to the credit of Sir Dominic Corrigan, is one of a lunatic who used to complain of the difficulty which he had in keeping the peace between his two legs. One, he said, was Catholic, and the other Protestant; and they were always knocking each other about, especially when they should have been at rest in bed. Sir Dominic advised him to tie them up together, and so enforce their keeping the peace. Next morning, he inquired the result. His expedient had only made matters worse. They had resented the enforced proximity, and, said the unhappy man, "they nearly tore each other to pieces. They gave me no rest; and I had at last to unloose them, though I had promised you to give your plan at least one night's trial." Sir James Paget has tried Sir Dominic Corrigan's expedient in his last modification of the "conjoint scheme", and with no better success. To meet the tardily discovered difficulties of the College of Surgeons in carrying out the scheme so far as relates to the mode of electing examiners, he had proposed that the College of Surgeons should elect the surgical examiners, and the College of Physicians and Society of Apothecaries certain other of the examiners. This has, it seems, given great umbrage to some of the Fellows of the College of Physicians, who had always been a little shy of acting with the Society of Apothecaries, but resent very strongly being tied up with the Apothecaries as joint electors of examiners. In the very clear and accurate account which Sir George Burrows, in the course of the able address which we print in another column, has given of the negotiations for carrying out the conjoint scheme, he hints at the possibility of the scheme breaking down. If it do break down, the intervention of the Government will, as he points out, be a necessary and imminent means of cutting the knot; and, all other difficulties being settled, the precise cause of the break-down will be, we believe, this little difficulty about the mode of electing examiners. Such a knot seems hardly worthy of the sword of imperial power, and we are inclined to hope that the Colleges will still find means to untie it. The College of Physicians was, we believe, originally willing that each of the three bodies should separately elect a quota of examiners; and the fact that Sir James Paget has unwittingly tied together the College of Physicians and the Society of Apothecaries in a joint election need not, we imagine, form an insuperable bar to ultimate agreement.

The College of Surgeons' Bill for "enabling" them to take part in the conjoint scheme, introduced into the House of Commons by Sir John Lubbock, is, we believe, safe. The Government have assented to it, and it has passed its second reading. Mr. Stansfeld will, it is stated, however, insist that a clause shall be inserted providing that nothing in this Bill shall operate to deprive women of any right which they may already possess to require the College to admit them to examination for a surgical diploma. A similar proviso was inserted last year into the Apothecaries' Society's enabling Act; and it is understood that it will not be resisted in this case also. On the other hand, Mr. Cowper-Temple's Bill for registering the medical degrees of certain named foreign Universities when obtained by study and examination abroad by women, will be opposed by Government and by the profession, and will have, we consider, no chance of passing. The reasons given in favour of it are rather plausible than solid.

Apropos of the General Medical Council, we must express the hope that the supplementary visitations of examinations by the visitors appointed by the Medical Council will be brought to a satisfactory completion, in time to allow the reports to be prepared and circulated as long before the meeting of the Council this year as will enable them to be satisfactorily debated at that session.

The portion of Sir George Burrows's address which refers to the subject of improved professional remuneration will be read with a good deal of interest. He is led to the subject by a communication from the Shropshire Ethical Branch of the British Medical Association as to the subject of certain kinds of fees, which, he observes, especially concern "the surgeon apothecary or general practitioner". The general practitioner is now a person whose interests and duties very largely concern the College of Physicians, inasmuch as Sir G. Burrows congratulates the College that it now numbers 921 licentiates; and that, having licensed so large a body of general practitioners of surgery, obstetrics, and medicine, it can no longer afford to "wrap itself up in proud isolation". On this occasion, however, addressing the Fellows of the College, Sir George Burrows especially suggested to that class in the College that their fees might properly be expected to increase in proportion to the general elevation of price in the necessaries of life, and higher payment of professional and other services generally. So far as we can read between the lines of the observations of the President of the College of Physicians on the subject of fees, he probably meant to approve of the practice which is now becoming general, by which London physicians commonly charge two guineas instead of one for a first visit, where the case is one requiring some trouble in investigation. He apparently meant to endorse also a two or three guinea fee for visits to distant parts of this great metropolis. From Harley Street to Bow, for instance, or to Wandsworth and back, takes as long a time as to Harrow and back. The practice of half consultations by unpaid letters of medical inquiry is discountenanced by some physicians, but the rule of enclosing a guinea with such letters is not so generally enforced as to make it quite understood by patients to be an accepted custom. It would not have been dignified or prudent for a President of the College to enter into details or to do more than make tentative observations; but the result of what was said will, we conclude, make itself seen in the directions which we indicate.

The discussion ably and elaborately opened by Dr. Bastian at the Pathological Society on the pathological significance of bacteria was continued on Tuesday evening, and we report it fully. The main element of pathological interest, viz., whether bacteria are to be treated as cause or concomitant, and what is their real pathological meaning, has been a good deal lost sight of. The honours of last Tuesday's debate were with Dr. Maclagan of Dundee and Mr. Hutchinson, neither of whom have discussed categorically, however, the issues which Dr. Bastian had raised. If it be true, as is rumoured, that Sir William Jenner, Dr. Murchison, and Dr. Fayrer may be induced to take part in the debate, it would be a pity that it should be closed before they have been heard. Nor has Dr. Lionel Beale yet been heard, as might have been hoped and expected on such an occasion. Something like a regular inscription of names is desirable in these debates. If the debate should close prematurely, as was shadowed by Mr. De Morgan's suggestion that Dr. Bastian might possibly be asked at once to reply, the debate would be little short of a *fiasco*, and such a result would not be creditable to the Society.

Professor Stolz, Dean of the Faculty of Nancy, and Dr. Willemin, Inspecteur des Eaux at Vichy, are at present in London on a tour of inspection of our metropolitan medical establishments. The object in view is, we believe, to obtain certain data with reference to the installation of the medical institutions of that new university which has been transplanted from its former seat at Strasbourg.

The death of Mr. J. D. Hill reduces the present surgical staff of the Orthopædic Hospital in Oxford Street, we believe, to one member. Will any one come forward to fill the three vacancies which now exist? They are, it will be remembered, due to the signal ingratitude and discourtesy with which the Committee treated the two senior members of their staff. Hitherto, a striking example of *esprit de corps* has been exhibited by the unanimity with which these vacant appointments have been declined until some reparation has been made. In the public interest, we think, some graceful measure of conciliation by the Committee might now be adopted. It would not be difficult to indicate its proper character.

Nearly two hundred new members of the British Medical Association were again elected last week at the meeting in London of the Committee of Council. This very large number of new members are for the most part either resident in Scotland, or members of the Army and Navy Medical Services.

THE applications for election as members from army and navy medical officers have been very numerous during the last few months. In some cases, they have been forwarded in batches from home and foreign stations; and they are frequently accompanied with the most gratifying expressions of thanks for the valuable aid which the BRITISH MEDICAL JOURNAL and the Parliamentary Bills Committee of the British Medical Association have rendered in elucidating and bringing prominently under notice the grievances of military and naval medical officers, and in promoting their redress. This has for many years been one of the most useful and welcome of our duties; and, in joining the Association so numerously as they have done and are doing, the medical officers of the army and navy unite themselves to a professional body which heartily welcomes them and identifies their interests with its own.

THE Standing Committee of the Conference of Medical Officers of Health for Conjoined Districts has adopted an extensive series of amendments, which it suggests for parliamentary consideration in Committee on the Public Health Bill. The *Sanitary Record* has published a considerable series of suggested amendments from Dr. Bond, Mr. Chambers, Barrister-at-Law, Dr. Ashby, and other authorities. The Parliamentary Bills Committee of the British Medical Association will meet next week to consider these various amendments, and for other business.

A DEPUTATION from the Society for the Prevention of Cruelty to Animals recently inspected the arrangements at Guy's Hospital in connection with the class of Practical Physiology at the Medical School, and, we believe, expressed themselves as gratified and not a little surprised at the humane precautions adopted for the prevention of suffering to any animals which it is necessary to sacrifice for the purpose of medical instruction.

IN connection with the above visit, the story goes that the deputation were introduced to one of the medical officers while engaged in seeing patients. "With this portion of my victims", he observed, "you are not, I believe, interested; we will therefore, if you please, visit the animals."

THERE is a good deal of talk about the extreme silliness of an imposing article in the *Times* on the patent ventilators of a Mr. Tobin. Mr. Tobin's plan of ventilation differs only from other well-known systems, in its omission to provide outlet, and its failure to warm the incoming air, as is done by the corresponding but much better appliances of Captain Galton. The writer of the article seems to think that the application of the pressure of the atmosphere to ventilation, which is at least a hundred years old, is a discovery which makes Mr. Tobin comparable to Columbus. He gives an explanation of the *rationale* of the apparatus, which suggests that there is no such thing as diffusion of gases, or any necessity for outlet for foul air from an inhabited room. It is a mare's nest of the first water; and the ignorance of the writer is phenomenal, when regard is had to the place and nature of the article, and the grand air of superiority with which the advent of the "Columbus of ventilation" is announced.

WE are sorry that the secretary of the Buxton Hospital has not taken our critical remarks on the clinical appendix to the title of the hospital in good part. They were, however, intended to be useful. The meteorological reports are of unquestioned authenticity, and our compliments on the climate of Buxton are sincere. There are so few places in England that can be complimented on their climate, that this year especially any writer may be pardoned if a touch of irony seemed to follow his pen in writing about early thrushes and precocious buds of spring. Are we ever to have any spring in this sad metropolis?

WHILE the memory of these pleasant revelations of the equable temperature and early spring of Buxton are still fresh with us, we read of a phenomenon in Scotland of which we must frankly avow incredulity. A Scottish correspondent of the *Pall Mall Gazette* announces that the heat in the North of Scotland has been so intense this week, that several cases of sun-stroke have occurred. Sun-stroke in the North of Scotland, while we Southrons are still shivering in the wintry blast, is a malady that requires confirmation. If it be true, we shall all go north ward in search of the sun. The heat, however, cannot have been so very intense—not more, it seems, than 85 deg. What ill-advised Scot could manage to get up a sun-stroke at that temperature? Supposing that it be true, we fear the explanation must be that the sun suddenly appeared in a district where its rays have long been unfelt and unseen, and that the astonished inhabitants have suffered from some surprise rather than sun-stroke. However, if there be any sun-stroke to be had just now in the British Islands, there are a good many people who would like to have it.

### FLOWERS FOR THE SICK.

A PARAGRAPH in the *Times* a few weeks ago, appealing for presents of flowers for the Home of Industry, Spitalfields, and Mildmay Park, seems to have given some benevolent people the excellent idea of collecting spring and other flowers, and sending them to the hospitals for the patients. We believe a "Flower Mission" has been started with this view, which hails from Commercial Street, Spitalfields. Children are employed in their playtime to gather the flowers in the woods, fields, or gardens, as the case may be, and then the vicar of the parish sends them in hampers to the hospitals. Guy's has been the fortunate recipient of several hampers of flowers during the week, and the Home of Industry has sent one hundred bouquets, in flowerholders, tastefully surrounded by appropriate texts, for the patients. If the clergy will take the matter up warmly, "The Flower Mission" will be the means of cheering many a poor sufferer, and we hope all who have flowers to spare will send them to some one or more of the London hospitals. We assure our readers that a ward at Guy's Hospital, after the arrival of one of these hampers of flowers, was indeed a pleasant and cheering sight. The poor patients seemed to take a new lease of life from the freshness of the flowers, and bright, happy, contented faces were to be seen on all sides after their advent. Will anybody refuse to aid "The Flower Mission", or deny these poor sufferers, so cheaply purchased and yet so inestimably valued, a pleasure as a bunch of fresh, sweet, radiant flowers? We hope some will be sent for the sailors of the hospital at Greenwich.

### HYGIENIC EXHIBITION AT BRUSSELS.

AN international exhibition of instruments and apparatus for the preservation of life and health, will be held in Brussels from June to October. The articles exhibited will be arranged in the following classes: 1. Delivery from fire; 2. Apparatus for the prevention of accidents in travelling in streets, tramways, and railways; 3. Apparatus for diminishing danger and affording assistance in regard to water; 4. Aid in war; 5. Hygiene and public cleanliness; 6. Precautionary measures and apparatus for safety in industrial occupations; 7. Hygiene in private life; 8. Medicine, surgery, and pharmacy in their connection with the foregoing classes; 9. Regulations for the improvement of the condition of the working classes; 10. Hygiene and apparatus for preservation of life in their application to husbandry.

### THE SUNDERLAND INFIRMARY.

THE Sunderland newspapers have lately contained letters from two patients complaining of their treatment in the infirmary; and subsequently the letters were reproduced as advertisements. A subcommittee was at once appointed by the hospital authorities, and a minute and searching investigation was instituted into the matter. Their report was laid before a general committee, and the evidence proved that the charges were entirely without foundation. The newspaper account leads us to believe that some person in the town, who is hostile to the staff, had made use of some discontented patients—of whom there will always be some even at the best managed hospital—"to damage the institution or to serve some private motive of malice". But, instead of this, he has only succeeded in rallying the friends of the hospital around it, and bringing more clearly to light the efficient manner in which it is served by its medical officers, and in which the general management is conducted.

### OUT-PATIENT HOSPITAL REFORM.

We are glad to hear this most important subject is being investigated at the Westminster Hospital. The different members of the staff are being summoned to give evidence before a subcommittee. We anticipate, with much interest, the conclusions of that committee; as, from the fact of Mr. Hood, F.R.S., and we believe Sir Rutherford Alcock, G.C.B., being upon it, it may be certain the subject will receive the most careful and conscientious treatment.

### THE VITAL STATISTICS OF LONDON FOR 1874.

From the Annual Summary of the Registrar General for 1874, we gather the following information. The area of London is 78,080 acres, or 122 square miles; upon which resides a population estimated for the middle of the year 1874 at 3,400,701, of whom 1,591,692 were males, and 1,809,009 were females. The population of London resides at a mean elevation of 39 feet above Trinity high-water mark; the elevation varying from 11 feet below high-water mark in Plumstead Marshes, to 429 feet above high-water mark in Hampstead. At the census of 1871 there were within this area 417,767 inhabited houses, containing an average of 7.8 persons to a house. The annual rateable value of property (as assessed in 1871) equalled £19,996,786. In 1871, the density of the population was at the rate of 42 persons to an acre, 26,674 to a square mile. The annual rate of increase of population per cent. from 1851 to 1861 was 1.73; the rate between 1861 and 1871 was 1.50. The births registered in London in 1874 were 121,394; comprising 61.865 males and 59,529 females. Thus the annual rate of births per 1000 persons living was 35.7. The deaths during 1874 were 76,606; the deaths of males were 39,144, and of females 37,462. The annual rate of mortality per 1000 persons living was 22.5; amongst males it was 24.6, amongst females 20.7. The rate from the principal zymotic diseases was 3.3 The increase of the population since the preceding year was 44,544, as estimated by the steady rate of growth in previous years; and the excess of registered births over deaths in 1874 was 44,788, which the Registrar-General denominates a remarkable result. "London is now self-sufficing; it not only sustains its own numbers, but it provides an annual surplus equal to the population of a large city. It was not always so. In the year 1861 the increase of population was 45,000, while the excess of births over deaths was only 32,000. In the year 1851 the increase of population was 44,000, the excess of registered births over deaths was 23,000. In the year 1841 the increase was 36,000, the excess of births over deaths 12,000." In the year 1605, two hundred and sixty-nine years ago, the christenings in London were 6504, the burials 6392. The Registrar-General combats the notion that the Metropolis is a "drain" on the population of the country, or that like a great monster it devours its children. He shows that London can sustain its present increase by native births; and that what actually takes place, is a free influx of people born in the country, and an efflux of people born in London. "The great fact of the increase of children in London, shows the importance of providing adequate means for their education, including schools and playgrounds; for the athletic is only second to the moral training in importance. Now of 100 children born in London, rather more than 72 attain the school age of 3 years; and as 112,617 births were registered in 1871, no less than 81,242 children attained the school age in 1874; while of the 121,394 born in 1874, about 87,574 will attain the school age in 1877. The increase in three years will be some 6332." Increased school-accommodation from year to year will, therefore, be required for some time to come. The returns of deaths for 1874 were favourable; in fact, "the last three years show a marked reduction in the mortality of London, and imply an improvement of the health of the drained city. The annual mortality for the ten years, 1840-49, was 25.2; for the thirty-five years, 1840-74 it was 24.2; for the last three years, 1872-74, it was 22.2 Upon the population of 1874, this reduction in the mortality of three in 1000 implies a diminution of 10,200 deaths a year." The death-rate in twenty-one large towns of the United Kingdom in 1874 was 25.2 In only one town, Portsmouth, in which it stood at 20.4, was the death-rate lower than it was in London.

### THE INVENTOR OF THE LARYNGOSCOPE.

Most medical men are, we imagine, aware that, although more or less incomplete laryngoscopic examinations had previously been made in this country by the use of mirrors devised by Babington, Liston, Avery, and others, Signor Garcia, the well known professor of singing, was the first who brought laryngoscopy to a practical position, and who practised autolaryngoscopy with the result of publishing at the Royal Society excellent Physiological Observations on the Human Voice, containing a good account of the action of the vocal cord during inspiration and vocalisation. The observations of Garcia led to the further work of Türk and Czermak; and he must probably be considered as in no remote sense the principal author of the modern art of laryngoscopy—an unquestionably valuable resource in modern medicine and surgery. A committee has been formed, of which Lord Coleridge is chairman, and which includes many well-known names in science and art, and among the friends of both, for the purpose of raising a subscription with the object of presenting a testimonial to Signor Garcia, "in special recognition of his claims as the inventor of the laryngoscope, and also as a mark of the high estimation in which he is held by all classes". Mr. George Critchett is the treasurer, and Dr. Morell Mackenzie the honorary secretary, of the fund.

### EXECUTION OF AN ABORTIONER.

Alfred Heap, who was convicted of the murder of a young woman, at Manchester, by an unsuccessful attempt to procure abortion, was executed at Liverpool on the 19th instant. He had prepared a written confession, which he desired should be published, but it is understood to implicate other persons. He did not deny the offence, but stated that he had no intention of causing death. This execution is one for which there are, we believe, few precedents: it is, nevertheless, one of which the justice is incontestable. It is stated that in other countries the offence is common, and the fatal consequences are usually concealed or slurred over when any public inquiry takes place. When the medica gentleman who undertook part of the inquiry into the practice of baby-farming, conducted for the British Medical Journal a few years since, called upon one of the women who responded to our advertisement, she avowed the procuring of abortion to be part of her business in life, and showed her favourite implement suspended in the cupboard. It was nothing else than long iron wire. That traffic, as then conducted, was quashed by the revelations which were made in our columns; but the practice still exists apparently, and is carried on secretly by the most degraded and infamous persons. If we may trust what we read and hear of prevalent practices in other countries, the procuring of abortion is not yet there regarded with the detestation, or punished with the severity, which it merits.

### TRADE MIXTURES.

Referring to the proposed exception in the Government Bill for amending the Adulteration Act, which allows the sale of mixtures which are the subjects of patents, Dr. Cameron, the public analyst for Dublin, says: "A patent has been taken out for converting chicory-root into a form in which it simulates the appearance of coffee-berries; and, consequently, if the Bill become law, such spurious coffee-berries may be legally vended. Another patent has been taken out for the purpose of mixing coffee and chicory, and I am aware that the mixture has been largely sold under the name of patent coffee."

### THE FINANCES OF THE ASSOCIATION.

THE balance-sheet of the year has been presented and audited by the public accountants. The financial situation of the Association continues to improve. At the close of the year, every penny due was paid in cash, and there remains a handsome balance, as well as good assets. After paying everything, deducting two hundred and twenty-five pounds for grants, one hundred and fifty pounds for the expenses of incorporation and other legal charges, and writing off several hundred pounds from old arrears, there still remained a respectable profit balance. When it is remembered that the whole operations of the Association are conducted on the basis of a subscription which does not exceed two-thirds of an ordinary subscription to one of our medical contemporaries, the results achieved by that subscription will appear very satisfactory.

### THE JACKSONIAN PRIZE.

AT a meeting of the Council of the Royal College of Surgeons on the 15th instant, the committee, to whom it was referred, stated that neither of the essays sent in for the Jacksonian Prize exhibited sufficient merit, consequently there was no award. The subject, a thoroughly practical one, was "Tracheotomy, with particular reference to the causes of death after the operation, and the rules for rendering the operation more generally successful". The subject for the present year is "The Use of the Galvano-caustic in the removal of Morbid Growths". In order to prevent the occurrence of a similar mistake to that on the part of one of the competitors last Christmas, in sending in his essay at midnight, we understand that, in future, essays must be delivered before the office of the secretary closes, viz., five o'clock.

### CONTAGIOUS DISEASES ACTS.

THE report of Captain Harris, Assistant Police Commissioner, showing the operation of the statute last year, has been presented to Parliament and printed. The number of women who returned to their friends on an intimation as to their conduct was two hundred and fifty-four, and there were two hundred and six other women who were found in bad company, but who were not registered.

### NEW BOROUGH FEVER HOSPITAL FOR BIRMINGHAM.

ON the 13th instant, a new Fever Hospital and Convalescent Small-pox Ward, which are now ready for the reception of Birmingham patients, were inspected by the town councillors. These institutions have been erected at Birmingham Heath by the Sanitary Committee of the Town Council. The Fever Hospital consists of two wards, intended for male and female patients, each containing twenty beds; their capacity is sixty feet by twenty-one feet; they are separated by double wooden walls, with sawdust between, and they have gabled slate roofs. At the entrance of each ward are three apartments, a bath-room and lavatory, a room with a stop-sink, and an improved disinfecting earth-closet; all these are, however, cut off from the ward itself by a lobby with cross-ventilation. Each ward has a nurses' room at the opposite end, with a window having a view of the interior of the ward. The walls and ceiling are of varnished pine, which are easily cleaned, and can be quickly disinfected by revarnishing. The Convalescent Small-pox Ward contains twenty-four beds. At present there is no ward for fever convalescents, although the committee could easily convert a room, which is now used for stores, for that purpose if necessary. Including the buildings for nurses, stores, etc., the Birmingham Sanitary Committee possess on this site, belonging to the corporation, no less than ten separate buildings, more or less available for the isolation and treatment of infectious disease, including the Small-pox and Fever Hospitals, and the Convalescent Ward. A solid wall divides these premises from the grounds of the workhouse. Some planting and paving are to be carried out around the hospitals, in order to improve the prospect from the windows of the wards. Every endeavour is being made by the Sanitary Committee to impress upon the public mind that these hospitals are not pauper institutions, but are intended for all patients who, for the public good and the safety of their own families, can be induced to use them. Upon the successful removal of the prejudice which largely prevails against the use of such institutions, much of the usefulness of those new hospitals for infectious diseases in Birmingham depends.

### VIVISECTION.

THE *Athenæum* states what has long been known in the profession, that, in the event of any proposals for legislation with regard to vivisection being brought forward, Mr. Darwin, Professor Huxley, Dr. Sanderson, and other biologists of distinction, intend to petition Parliament on the subject. While they are anxious that any useless cruelty should be prevented, they are extremely desirous that no obstacles should be placed by the action of the legislature on research; and these views will be embodied in the petition. In these views every one will concur, ourselves and this Association most of all.

### THE LATE MR. TURNER OF MANCHESTER.

THE executors of the late Mr. Turner, the distinguished surgeon of Manchester, have presented to Owens College his medical and surgical museum, which had been bequeathed to them by the deceased gentleman for the purpose of presentation to some institution in Manchester. The donation will be characterised as "The Turner Collection".

### TOTAL ABSTINENCE.

AT the recent annual festival of the Lancashire and Cheshire Band of Hope Union, Sir Henry Thompson, who spoke at length, declared his belief in the principles held by those who formed that gathering. He considered that habitual, or, as it was usually called, moderate drinking, was a thing which people should avoid, if they wished to have a sound mind in a sound body. It is a somewhat remarkable fact, that many of the most hard-worked professional men in London are habitual abstainers from alcohol, and have been so for some years, on the basis of personal experience, and from the fact that they have found the use of alcohol to interfere with their physical health and mental activity.

### NORTH LONDON MEDICAL SOCIETY.

A MEETING of medical practitioners was held on Wednesday evening, April 14th, at the Athenæum, Camden Road, to confirm the proceedings of previous meetings held for the purpose of establishing the above Society. The ordinary meetings of this Society will be held at the Athenæum, on the second Wednesday in each month from October to May. It is proposed at these meetings to discuss short papers and records of cases. The following gentlemen were elected officers of the Society: *President*, W. B. Kesteven, Esq.; *Vice-President*, T. S. Dowse, M.D.; *Treasurer*, R. H. Hilliard, M.D.; *Secretary*, W. H. Kesteven, Esq.

### DEATH OF MR. EDWIN SERCOMBE.

WE regret to have to announce the death of Mr. Edwin Sercombe, which took place on Wednesday, the 14th inst., at 5 P.M. Eight days prior to this date, Mr. Sercombe caught cold; this was followed by inflammation of the lungs, and in a little more than a week he died. In addition to his usual medical adviser, Sir William Gull was called in, but their skill was unhappily of no avail. Mr. Sercombe occupied a very prominent position in the special branch of surgery which he practised, and held successively the post of committee secretary, and last year that of President, of the Odontological Society of Great Britain. His thoroughness and earnestness of purpose secured to him a large circle of professional and private friends, who will deeply regret his sudden removal from an extended sphere of usefulness in the prime of life.

### A VEXATIOUS CHARGE AGAINST A SURGEON.

LAST week, a case was tried at Liverpool, in which a man at Kirkdale brought an action against Mr. E. M. Sheldon, surgeon, to recover £2,000 damages for the loss of his wife, whose death it was alleged was caused by the negligence of the defendant. The plaintiff's wife was confined on January 16th last, Mr. Sheldon being in attendance. Two days later, an unfavourable change took place, and the patient complained of severe pain in her left side. She was seen from time to time by Mr. Sheldon and his assistant, and also on one occa- by Mr. Edis. But, notwithstanding the measures used by these gentlemen, she gradually sank, and died on the 24th. The woman who was in attendance upon the patient at the time of her delivery was not a "professed" midwife. She was unmarried, and had no experience in such cases. As complaints were made of the manner in which she nursed her patient during the first few days, she was dismissed, and a more experienced person called in. After the witnesses for the prosecution had been examined, his honour said, "I do not think there is any evidence of negligence, and I am prepared to nonsuit the plaintiff". And subsequently he reiterated the same opinion, adding, "The case had the appearance of a somewhat vexatious action, and there was not a shadow of pretence for it". By direction of the Court, a verdict was given for the defendant. Probably, those who are anxious to bring about the regular training and registration of midwives, will see in this case an argument in favour of their views.

### RECENT URBAN MORTALITY.

DURING last week, 5,996 births and 3,965 deaths were registered in London and twenty other large towns of the United Kingdom. The annual rate of mortality was 27. It was 24 in Edinburgh, 31 in Glasgow, and 28 in Dublin. The rates in the eighteen English towns, ranged in order, were as follows: Portsmouth, 18; Wolverhampton, 22; Leeds, 24; London, Birmingham, and Nottingham, 25; Sunderland, 26; Liverpool 27; Leicester, Sheffield, Bristol, Salford, and Hull, 28; Newcastle-on-Tyne, 30; Manchester, 31; Bradford, 33; and Oldham and Norwich, 35. The fatality from whooping-cough showed a general decline, but the deaths referred to scarlet fever were again excessive both in Bradford and Hull. In London, 2,591 births and 1,675 deaths were registered; the births exceeded the average by 201, the deaths by 96. The death-rate was 25. To the seven principal zymotic diseases 175 deaths were referred, which were 82 below the average, and equalled a rate of 2.7 per 1,000. The deaths referred to diseases of the respiratory organs were 462, and exceeded the average by 138; 267 resulted from bronchitis, and 130 from pneumonia, including 63 of children under five years of age. In outer London, the general death-rate was 18.2; the zymotic death-rate 1.6, against 25.4 and 2.7 respectively in inner London. The mean reading of the barometer at Greenwich was 30.09 in.; the mean temperature of the air 42.8 deg. or 3.4 deg. below the average. The general direction of the wind was E.N.E. No rain fell during the week.

## SCOTLAND.

MR. J. C. EWART, junior demonstrator of anatomy in the University of Edinburgh, has been appointed curator of the University College Museum, London.

AT the meeting of the Edinburgh University Court on the 12th instant, among other business, the court approved of arrangements sanctioned by the Senatus Academicus, under which Dr. Blair Cunyngham is to act for Professor Sanders, as examiner in pathology, along with Dr. Payne, the additional examiner in pathology.

### A PERMISSIVE VOTE.

THE town of Rothesay, in the Island of Bute, has come to the conclusion that there are too many public houses within its boundaries, and, in order to test the feeling of the people on the question, a plébiscite has recently been taken. The result is that 1,900 votes have been given for reduction, and 47 against reduction of the number of public-houses in the borough. The papers were signed only by persons who had reached the age of twenty-one years.

### THE CHAIR OF MIDWIFERY IN ABERDERN.

WE hear of several candidates for the chair of midwifery in the University of Aberdeen, vacant by the recent death of Dr. Andrew Inglis. Edinburgh has found three in the persons of Dr. William Stephenson, lecturer on Diseases of Children, and Physician to the Sick Children's Hospital; Dr. A. Milne, Secretary of the Obstetrical Society; and Dr. Coghill, extra-academical lecturer on Pathology; and we understand that two Aberdeen gentlemen are to stand. The chair is in the gift of the Crown.

### THE EDINBURGH HARVEIAN SOCIETY.

THE annual festival of the Harveian Society, an institution which has now nearly reached its centenary, was held on the 12th April, Harvey's birthday, and was, as it invariably is, one of the most pleasant and successful of Scottish social medical gatherings. An interesting and able address was read by Dr. Gillespie on Shakespeare, in his relation to medicine and physicians, after which the usual dinner took place, which was attended by a large number of the members of the society. Dr. Omond, in the absence of Dr. Irvine of Pitlochry, the president of the society, occupied the chair; and Dr. Matthews Duncan, the president elect, was croupier.

### THE ROYAL INFIRMARY OF EDINBURGH.

A PUBLIC meeting was recently convened by the Provost of Leith, for the purpose of obtaining additional subscriptions from Leith sources for the Royal Infirmary of Edinburgh. Statistics were read to the meeting showing that while the patients admitted from Edinburgh numbered 2,249, those from Leith were 240. The average sum subscribed by Edinburgh for each patient sent was, in 1872, £1 18s.; in 1873, £3; and in 1874 £3, while the amount subscribed from Leith for each patient sent was only £1 1s. 2d. in 1872, £1 4s. in 1873, and £1 8s. in 1874, Leith being thus considerably behind its larger neighbour, with respect to the amount subscribed. A committee was formed to carry out the objects of the meeting.

### SCOTCH METHOD OF DEALING WITH QUACKS.

AT the Glasgow Police Court, on the 14th instant, a man named James Perry, carrying on business as a doctor (?) in Buchanan Street, and a bill-poster named Arthur Gilmour, were each fined in the sum of £2 for having distributed obscene leaflets in Trongate. It is to be regretted that some such decided course of action were not adopted more generally on this side of the border.

## IRELAND.

### ROYAL DUBLIN SOCIETY: THE CHAIR OF CHEMISTRY.

ON Thursday week, Mr. Moss was elected to the Chair of Chemistry, vacant by the promotion of Professor Emerson Reynolds to the University professorship. We are sorry to say the appointment has caused considerable dissatisfaction among scientific men in Dublin. The names of all the candidates were referred to a committee of six scientific men to report upon, select three names, arranging them in the order of merit, and submit them to the Council. Three names were selected, as follows: First, Dr. Bell, a scientific chemist of considerable eminence, and a distinguished graduate of Dublin University; secondly, Mr. Tichbourne, a professional chemist of considerable standing, and for some years the director of the laboratories of the Apothecaries' Hall of Ireland; thirdly, Mr. Moss, a chemist in the employment of Messrs. Bimby and Draper, manufacturing chemists and druggists.

### SIR JOHN GRAY, M.D.

THE death of Sir John Gray is an event of considerable importance to the medical profession, especially in Ireland. Although Sir John Gray had not for many years practised in his profession, yet he always took a deep interest in the welfare of his professional brethren, and took an active and intelligent part in all public questions which affected their interests. It will be remembered how active Sir John was as a medical reformer; and that, at one time, he introduced into Parliament a Bill to amend the Medical Acts; he also took an active part in the Irish sanitary legislation of last year, and accompanied several deputations which waited on the Chief Secretary for Ireland in reference to the Bill. John Gray was the third son of John Gray of Clanmorris, in the county of Mayo. He was one of a numerous family, several of whom are well-known in the public services. He was educated at Trinity College, and took the degree of M.D. from the University of Dublin. In 1839, he married Miss Dwyer of Limerick. Dr. Gray settled in practice as a physician some time before his marriage, and continued an active member of the profession until, being attracted by the great political excitement in the days of O'Connell, he became an ardent admirer and constant companion of the "Liberator". Having always been a ready hand at the pen, he became, in 1841, the proprietor of the *Freeman's Journal*, the then, as now, leading journal of the Irish Liberal party. It is a remarkable fact in the history of the *Freeman* that it was established a hundred years previously by the celebrated Dr. Lucas, to which the medical profession of that day owed much. From this time forward, Dr. Gray continued a leading spirit in the troubled sea of Irish politics, taking an active part in the Repeal movement of 1848. Dr. Gray was the chairman of the Water-Works Committee of the Dublin Corporation; and to his great skill, industry, and ability, the services of the great Dublin water-works may be said to be altogether due. For the great services Dr. Gray had rendered the city of Dublin in respect of the water-works, the honour of knighthood was conferred upon him by Lord Carlisle, who was Lord Lieutenant of Ireland at the time when the works were constructed. In 1865, Sir John Gray was elected, without opposition, member for Kilkenny, which city he has since represented without ever being opposed. Although Sir John Gray was more a political than a medical character, yet we cannot refrain from expressing our deep regret at the loss the profession has sustained by the death of one of its few representatives. He was always foremost in the van of sanitary progress, and, although himself a member of the Dublin Corporation, gave great prominence in the columns of his journal to the great question of the sanitary condition of the city, and very recently employed a special commissioner to investigate the causes of the unhealthiness of Dublin. The reports upon this question in the *Freeman's Journal* are likely to be of great value when the sanitary improvement of Dublin is taken up in an earnest spirit by the authorities. We had hoped that Sir John Gray, who had been the leader in the only great sanitary improvement of Dublin, would have lived to see his ideas carried out to their fullest extent by the completion of a system of main drainage, and the general improvement of the habitations of the poor.

### BEGGAR'S BUSH BARRACKS.

On further inquiry, we are glad to learn that these barracks are undergoing a thorough sanitary overhauling, which is calculated to make them more healthy in future. The barracks have been empty for some time; all the drains have been opened, the traps repaired and renewed, and ventilating shafts constructed in every suitable locality. The closets in the officers' quarters have been thoroughly repaired, and the passages leading thereto fitted with permanent ventilators. Careful inquiry leads us to believe that any one of the four persons who died of enteric fever during last year, may have contracted the disease outside the barracks. The buildings must have been in an extremely unsanitary state previous to 1873, and, although improved, must have been in an unsatisfactory state until the improvements now in progress were undertaken.

### HEALTH OF DUBLIN: QUARTERLY REPORT.

The returns for the first quarter of the year show that the births registered amounted to 2,404, and the deaths to 2,700; the mortality being much in excess as regards the corresponding quarters of previous years. The deaths from zymotic diseases numbered 323, or 12 per cent. of the total deaths: 71 deaths resulted from scarlet fever; fever proved fatal in 77 instances, whilst croup and diarrhœa caused 29 deaths each. To convulsions 149 deaths were ascribed; bronchitis caused 686 deaths; pneumonia, 106; heart-disease, 128; phthisis, 313; hydrocephalus, 44; cancer, 25. Among the deaths, one man and three women were returned as being aged respectively 103, 102, 105, and 107 years.

## NEW BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

The new Thames Valley Branch of the British Medical Association has been recognised by the Committee of Council, and the laws approved. It commences with thirty-eight members—a number which is satisfactory, considering the limited area of the Branch. It will, no doubt, much increase as it becomes known, and if it be actively worked.

## THE RUMSEY TESTIMONIAL FUND.

At a meeting of the Committee held on Tuesday, April 20th, the following subscriptions were announced:—

| | £ | s. | d. |
|---|---|---|---|
| B. St. John Ackers, Esq. | 50 | 0 | 0 |
| Sneade Brown, Esq. | 26 | 5 | 0 |
| Cæsar H. Hawkins, Esq., F.R.S. | 21 | 0 | 0 |
| F. Sibson, Esq., M.D., F.R.S. | 10 | 10 | 0 |
| Sir James Paget, Bart., F.R.S. | 10 | 10 | 0 |
| J. Simon, Esq., F.R.S. | 10 | 10 | 0 |
| W. Farr, Esq., M.D., F.R.S. | 10 | 10 | 0 |
| Sir W. W. Gull, Bart., M.D., F.R.S. | 10 | 0 | 0 |
| Sir E. Lechmere, Bart. | 10 | 0 | 0 |
| W. A. Greenhill, Esq., M.D. | 10 | 0 | 0 |
| Geo. Buchanan, Esq., M.D. | 5 | 5 | 0 |
| Berkeley Hill, Esq, M.B., F.R.C.S. | 5 | 5 | 0 |
| Alfred Smee, Esq., F.R.S. | 5 | 5 | 0 |
| R. Rawlinson, Esq., C.B. | 5 | 5 | 0 |
| W. H. Michael, Esq. | 5 | 5 | 0 |
| W. H. Corfield, Esq, M.A., M.D. | 5 | 5 | 0 |
| W. Richardson Gardner, Esq., M.P. | 5 | 5 | 0 |
| Sir W. Jenner, Bart., M.D., K C.B. | 5 | 5 | 0 |
| E. C. Seaton, Esq., M.D. | 5 | 5 | 0 |
| A. Carpenter, Esq., M.D. | 5 | 5 | 0 |
| G. E. Paget, Esq., M.D., F.R.S. | 5 | 5 | 0 |
| A Grateful Friend | 5 | 0 | 0 |
| E. A. Parkes, Esq., M.D., F.R.S. | 5 | 0 | 0 |
| Lt.-Col. A. Rotton | 5 | 0 | 0 |
| R. Ceely, Esq., F.R.C.S. | 5 | 0 | 0 |
| C. O. Baylis, Esq., M.D. | 5 | 0 | 0 |
| Rt. Hon. Lyon Playfair, C.B., M.P, F.R.S. | 5 | 0 | 0 |
| Rt. Hon. Earl of Shaftesbury, K.G. | 5 | 0 | 0 |
| Rt. Hon. W. Cowper-Temple, M.P. | 5 | 0 | 0 |
| W. A. Guy, Esq., M.D., F.R.S. | 5 | 0 | 0 |
| Miss Nightingale | 3 | 3 | 0 |
| A. P. Stewart, Esq., M.D. | 3 | 3 | 0 |
| J. Liddle, Esq. | 2 | 2 | 0 |
| W. Clode, Esq. | 2 | 2 | 0 |
| James Lewis, Esq. | 1 | 1 | 0 |
| C. W. Johnson, Esq. | 1 | 1 | 0 |
| C. Lingen, Esq., M.D. | 1 | 1 | 0 |
| J. T. Clover, Esq., F.R.C.S. | 1 | 1 | 0 |
| Cheltenham:— | | | |
| J. Walker, Esq. | 25 | 0 | 0 |
| Dr. Kerr | 10 | 10 | 0 |
| Dr. Haviland | 10 | 10 | 0 |
| Baron de Ferrieres | 10 | 0 | 0 |
| Dr. Rooke | 5 | 5 | 0 |
| W. M. Tarett, Esq. | 5 | 0 | 0 |
| Dr. Williams | 5 | 5 | 0 |
| The Misses Cowell | 5 | 5 | 0 |
| Rev. W. W. Gedge | 5 | 0 | 0 |
| Rev. F. Poynder | 5 | 5 | 0 |
| Dr. Wilson | 5 | 5 | 0 |
| F. Longe, Esq. | 1 | 1 | 0 |
| Dr. Smith | 5 | 5 | 0 |
| Dr. F. A. Smith | 2 | 2 | 0 |
| J. Middleton, Esq. | 5 | 5 | 0 |
| Dr. College | 5 | 5 | 0 |
| B. Tristram, Esq. | 5 | 5 | 0 |
| Rev. Dr. Jex-Blake | 1 | 1 | 0 |
| W. H. Gwinnett, Esq. | 5 | 5 | 0 |
| Newcastle-upon-Tyne:— | | | |
| G. H. Philipson, Esq., M.A., M.D. | 5 | 5 | 0 |
| Birmingham:— | | | |
| Balthazar Foster, Esq., M.D. | 2 | 2 | 0 |
| Pye H. Chavasse, Esq., F.R.C.S. | 3 | 3 | 0 |
| Manchester:— | | | |
| Sir J. L. Bardsley, Knt., M.D. | 10 | 0 | 0 |
| E. Lund, Esq., F.R.C.S. | 5 | 0 | 0 |
| Bristol and Clifton:— | | | |
| J. S. Metford, Esq. | 0 | 5 | 0 |
| J. T. Caddy, M.D., R.N. | 0 | 10 | 0 |
| C. H. Fox, Esq., M.D. | 0 | 10 | 0 |
| J. T. Bridgman, Esq. | 1 | 1 | 0 |
| W. J. Fyffe, Esq., M.D. | 1 | 1 | 0 |
| E. C. Board, Esq. | 1 | 1 | 0 |
| Bath:— | | | |
| F. Mason, Esq. | 1 | 1 | 0 |
| J. S. Bartrum, Esq., F.R.C.S., J.P. | 1 | 1 | 0 |
| R. S. Fowler, Esq., F.R C.S. | 0 | 10 | 0 |
| Dublin:— | | | |
| Robert McDonnell, Esq., M.D., F.R.S. | 5 | 5 | 0 |
| John McDonnell, Esq., M.D. | 10 | 10 | 0 |

Subscriptions may be forwarded to Dr. Buchanan, New Government Offices, Whitehall; to the Honorary Secretary; or to Messrs. Robarts, Lubbock, and Co., Bankers, Lombard Street.

Cheques should be made payable to the "Rumsey Testimonial Fund or bearer", and crossed "Robarts, Lubbock, and Co."

Post-office Orders should be drawn on the Curzon Street Post-office, and forwarded to the Honorary Secretary, Dr. W. H. Corfield, 12, Bolton Row, Mayfair, W.

Memorial.—A handsome painted window has just been placed in the south aisle of St. Giles Church, Norwich, to the memory of the late J. Godwin Johnson, F.R.C.S., who died January 13th, 1874. The window is one of three lights, the subjects of which are: "Our Lord healing the lame man"; "Christ blessing little children"; and "The Parable of the Good Samaritan". This window is erected by his old pupils as a token of their love and esteem for him. Mr. Johnson practised for upwards of fifty years in Norwich, where he was universally respected and beloved.

# REPORTS OF SOCIETIES.

## PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, APRIL 20TH, 1875.

CAMPBELL DE MORGAN, F.R.C.S., F.R.S., Vice-President, in the Chair.

### THE GERM-THEORY OF DISEASE.

THE discussion on Dr. Bastian's paper on the Germ-Theory of disease was continued from the previous meeting.

DR. MACLAGAN (Dundee): Dr. Bastian has gone over so much ground in the very able paper with which he opened this discussion, that it is impossible for one speaker to deal with more than a part of it. I shall, therefore, confine my remarks, as far as possible, to the germ-theory, in its application to that class of diseases in which the property of contagiousness is most marked—the specific fevers. But, before entering on that subject, I should wish to make a few remarks regarding the general tenour of Dr. Bastian's paper. The first point to which I would refer is, that there crops up through all his essay the idea that supporters of the germ-theory must be panspermists, must be opponents of the doctrines of heterogenesis and archebiosis. As an advocate of the germ-theory, I entirely repudiate this position, and hold myself at liberty to recognise the competence of organisms to produce the phenomena of disease, without being bound down to the belief that they never originate *de novo*. The evolution-theory of life, and the germ-theory of disease, are distinct and separate questions, and neither need have its consideration hampered by the views which we hold regarding the other. The second point to which I would allude is an idea which pervades the whole of Dr. Bastian's paper, the idea, namely, that advocates of the germ-theory regard bacteria as bearing some causal relation to the phenomena of disease. The position is one which Dr. Bastian has created for the germ-theorists rather than they for themselves. I am not aware that any advocate of this theory has distinctly stated that bacteria cause the phenomena of disease. In Dr. Sanderson's report on the intimate pathology of contagion, from which Dr. Bastian quotes, it is said that all microzymes are not contagia, but "all contagia may be microzymes". Observe the "may". The question is only stated hypothetically, and its further elucidation is left for further research. That exactly expresses the position of the advocates of the germ-theory. They could not fail to see that there was a possible connection between the presence of bacteria and the occurrence of diseased processes, but that connection was never declared to be causal. If any advocate of the germ-theory ever thought that the connection was causal, he must now give up the idea; for, if the question is to be decided by evidence, we must acknowledge that Dr. Bastian has proved that no such relationship exists. I, for one, freely admit the justice of his claim to have established the position that bacteria are pathological products; but I do not, on that account, abandon the germ-theory. On the contrary, I regard some of the arguments which Dr. Bastian looks upon as fatal to that theory, as really affording to it valuable support. In that part of his paper which deals with virulent inflammations and their sequelæ, Dr. Bastian advances, "as sufficing to complete the discomfiture of the germ-theory", the fact "that the virulence of certain contagious mixtures diminishes in direct proportion to the increase of bacteria therein"; and when dealing with specific contagious diseases the same argument is repeated; "the virus of most of these contagious diseases, with which definite experiment has been made, is most potent in the fresh state, whilst its power very distinctly diminishes in intensity as organisms reveal their presence more abundantly therein". That is the argument which, Dr. Bastian says, "suffices to complete the discomfiture of the germ theory". Well, sir, I would take the liberty to put a totally different construction on this fact; to claim it as a friend, rather than regard it as a foe; and to look on it as evidence not against, but in favour of, the germ-theory. But what evidence have we of the existence of such protoplasm? I think not a little. According to the view which I take of this theory, the organisms which produce the phenomena of disease are not those which we see and describe as bacteria, but other and much more minute organisms. I think, indeed, it is still an open question, whether true disease-germs have ever been seen. Of their existence we judge by the phenomena to which they give rise, as I shall presently endeavour to show. Now, Dr. Bastian has shown us that the protoplasm of the tissues of epithelial cells and of an amœba undergoes bacterial degeneration; why may not the protoplasm of contagium-particles of disease-producing organisms do the same thing? Their composition is similar (albuminous), and they are endowed with no special powers by which, at least in the moist state, they can resist the ordinary tendency of organised material to undergo change. I believe that they do undergo such a change, and that the bacteria which are observed in contagious fluids are formed, in part at least, from the disintegrating elements of the organisms which give to these fluids their specific properties. This is why the virulence of these fluids diminishes in intensity as organisms appear more abundantly therein; and thus it is that Dr. Bastian's main argument against the germ-theory becomes an argument in its favour: the formation of bacteria from previously existing protoplasm being, on Dr. Bastian's own showing, more probable than archebiosis, or their formation from fluid. The germ theory, as I understand it, briefly is, that many diseases result from the propagation in the system of organised particles having no part or share in its normal economy. The question is essentially a pathological one, for the discussion of which the floor of a Pathological Society is a peculiarly fitting place. What we, as pathologists, have to do, is to take the phenomena of disease as they present themselves at the bedside of the patient, and in the *post mortem* room, and see whether the germ-theory is competent to explain the phenomena then and there observed. In this way let us take up the specific fevers. The predominant characteristic common to these is the occurrence of the febrile state, independently of local inflammatory mischief. I do not see how, on any physico-chemical theory, the whole of the individual phenomena which go to constitute the febrile state can be explained. I do see how they can be explained by the germ-theory. It is an acknowledged fact that in all the specific fevers the poison of each is reproduced to an enormous extent during the course of the disease to which it gives rise. Now if this *materies morbi* be, as the advocates of the germ-theory (with the exception of Dr. Beale) maintain, a foreign organism, it is evident that the large consumption of material, which must take place during the rapid formation of millions of such organisms, cannot fail to have a serious effect on the system in which they grow. Be they of animal or of vegetable nature, two things will be largely appropriated during their growth—nitrogen and water. That the propagation in the system of millions of organisms is competent to produce all the phenomena of idopathic fever, I have elsewhere endeavoured to show in some detail, and shall therefore now refer to it very briefly. The primary and essential phenomena of the febrile state are, increased consumption of nitrogen, increased consumption of water, commonly referred to as increased retention, preternatural heat, and increased rapidity of the circulation. The rapid development in the system of an organism, which acts like the tissues in consuming nitrogen and water, will give rise to the same phenomena as would result from a corresponding increase in tissue-formation. Thus it is that the contagium-particles act. They largely consume nitrogen, and thus cause the wasting of the nitrogenous tissues. They largely consume water, and thus cause the thirst, dry skin, scanty urine, and constipated bowels, which characterise the febrile state. It is in the minute structures of the tissues, rather than in the general circulation, that this growth takes place. They are formed in the same way, from the same materials, and at the same time as the tissues; the formation of their proplasm is, therefore, attended by the same evolution of heat, and the same increased rapidity of the circulation, which would result from a correspondingly increased growth of the protoplasm of the tissues. There is not one of the phenomena of the febrile state which may not thus be explained. But I pass from these, on which time forbids me to enter, to a brief consideration of one or two other characteristics of the specific fevers, viz., those which entitle them to the term specific. First, the phenomena of the febrile state are the common result of the propagation in the system of many different organisms, each of which, always and under all circumstances, gives rise to its own specific disease, and never to any other. From this we infer a specific difference, inherent in the contagium-particles. Secondly, we find that at the end of a definite period, seven, fourteen, or twenty-one days, as the case may be, the fever comes more or less abruptly to an end, while there is still in the system abundance of the material required for the organic growth of the germs. From this we infer that something more than merely nitrogen and water, something more than the bare material requisite for organic growth, is essential to their propagation. Thirdly, we find, as a rule, that the contagia of the specific fevers cannot be propagated more than once in the system. From this we infer that during their propagation something is used up which is not reproduced. Fourthly, we find that in most of the specific fevers there exists some peculiar symptom referable to disturbance or inflammatory action in this or that organ or tissue which imparts to the disease its specific characters, and distinguishes it from all others. Now, putting together these facts (and it is only by facts that theories should be formed), noting that each contagium is possessed of properties peculiar to itself; finding that something more than the elements essential to organic growth is requisite for the propagation of the contagium; and observing still further that what imparts to each of the specific fevers its distinctive features is not so much any peculiarity of the general symptoms as the existence of local complications of inflammatory mischief in this or that organ or tissue; observing all this, we cannot fail to see that there is probably some connection between this local complication and the specific properties of contagium. What is this connection? It is, I believe, in the organs and tissues whose affection imparts to each form of fever its special characters, and in them only, that the contagium-particles find something which is requisite to their fecundation and propagation as distinguished from their organic growth. For convenience sake, I shall call this something the second factor. For the production of the specific fevers, these two factors are necessary. The first is the contagium; the second that special localised substance or material which is essential to its fecundation and propagation. It is for the recognition of this second factor that I would specially plead. And so with vegetable parasites; each has its own favourite situation, beyond which it is not found. In asking you to recognise its existence, I place before you no vague hypothesis, but a properly welded theory based on a careful study of the facts with which we have to deal. But that is not its sole foundation. To accord to contagia the property of propagating themselves only in certain localities, is simply to endow them with characteristics which are common to all parasites. Nearly every parasite to which man and the lower animals is liable has its own special seat, out of which it cannot propagate itself. This one grows in the small intestine, that in the large; this one in muscle, that in liver; this one in brain, that in kidney. If the germs of any two diseases required the same second factor, the one would protect against the other; thus it is probably that vaccination protects against small-pox. Analogy, therefore, would lead us to accord a similar peculiarity to contagia. Any hesitation that we might have in doing so gives way when we find that, by simply according to them this property which is common to all parasites, we at once get a clue to the explanation of the specific differences of the diseases to which they give rise, and of the peculiarities which each presents. In small-pox this second factor has its seat in the skin; in scarlet fever in the skin and throat; in measles in the skin and mucous surfaces, or the respiratory passages; in typhoid fever in the intestinal glands. So long as any of this second factor remains, the first factor (the contagium) continues to propagate itself; as soon as it is exhausted, the propagation of the contagium ceases, and the febrile symptoms come speedily to an end. If the system into which the germs gain entrance contain little of the second factor, the resulting attack of disease will be slight; if much, it will be severe. If the second factor be widely distributed and readily got at, the disease, as in small-pox, will be very infectious; if confined to narrow limits, and reached with difficulty, as in typhoid fever, it will be slightly so. One word regarding the application of this theory to surgery and the treatment of wounds, with which Mr. Lister's name is associated. In injuries and surgical operations, the wound is the seat of the second factor. Without some solution of continuity, the germs which Mr. Lister seeks to exclude cannot be propagated. By means of antiseptics, says Mr. Lister, destroy any germs which may gain entrance to the wound at the time of its infliction, and by their continued and careful application prevent the entrance of others; and so you may prevent the occurrence of those grave accidents which frequently cause such havoc in surgical wards. That without antiseptic treatment wounds may heal up kindly and quickly, is no very potent argument against Mr. Lister's theory. The explanation of such an objection is the same as that which is given of the fact, that some persons may for a time be exposed to a notoriously infectious disease without contracting it. Mr. Lister does not say that a wound which is not treated antiseptically must go wrong; he only says that it is more likely to do so than one which is not so treated, just as the physician does not say that a man who spends some time in a typhus ward must take the disease: he only says he may do so. But the objection has been raised, If Mr. Lister's theory be true and his treatment sound, why are the results not perfect? Even in Mr. Lister's own hands they are not so; and I venture to say they never can be so, for direct contact is not the only way by which the germs may gain access to the wound; there is another mode of communication with it, namely, by the circulation, a means of communication which cannot be occluded. It follows from this that, with the most perfect application of Mr. Lister's treatment, a certain percentage of failure is inevitable—a percentage which might possibly be calculated with some approach to accuracy. The want of absolute success thus becomes an argument not against, but in favour of, Mr. Lister's germ-theory of the origin of the ailments against which he seeks to guard. Did time permit, I would apply this theory to the explanation of the phenomena of many diseases to which no reference has been made. I hope, however, that I have said enough to show that much may be said in favour of the germ-theory, and that the question may be studied from the pathological side with more advantage than is usually supposed. We judge of the existence of many things only by the effects which they produce. Just as the astronomer would err who refused to recognise the existence and influence of other celestial bodies than those which can be brought within range of his vision by the aid of the telescope, so I believe, though to a less extent, shall we, as pathologists, err if we fail to recognise the existence and influence of other organisms than those which can be seen by the aid of the microscope. Nature teems with organisms, of whose existence before the days of the microscope man had no conception. Who shall dare to say that the limits beyond which organised life is impossible have yet been reached? "There are more things in heaven and in earth than are dreamed of in our philosophy."

Dr. DOUGALL (Glasgow): Allow me, in the first place, to thank you for your courteous invitation to take part in this debate. My own opinions on this subject have been moulded from researches frequently the very opposite of those which formed the opinions of others; that is to say, while others have been more engaged studying the evolution or development and life-history of bacteria and their allies, I have been more employed in eliciting what might be inimical to their development and fatal to their vitality. I have made several thousands of experiments in determining the relative powers of different bodies in preventing the appearance of these organisms in the animal solutions. You have all, doubtless, studied the details of Drs. Bastian and Sanderson's ingenious experiments on this question, and I will give brief details of two of my own. The first is as regards the reaction of the nidus, in which bacteria live. These organisms will only exist in a neutral, faintly alkaline, or faintly acid environment. If an aqueous solution of blood-serum be put in two tubes, and a little acid added to one, so as to make it distinctly acid, it will be found that one soon swarms with bacteria, is turbid and fœtid, while the other with the acid is clear, odourless, and contains only torulæ, with one or more fungus-tufts, like thistle-down. The bacteria-fluid may not cease to respond to albumen-tests for nearly twelve months, while, *cæteris paribus*, the fungus-fluid may cease so to respond in about three months, indicating that the putrefactive and fermentive changes are expended. Now, judging from the negation of the albumen-tests, I submit we have here decomposition of animal matter without bacteria or vibriones. Some may say, "But you have organisms present, torulæ and mycelia. If you could show us an animal fluid, decomposing without any kind of organism in it, that would be more satisfactory." Very well; if to an aqueous solution of blood-serum, say of specific gravity 1.6, about one-eighth to one-tenth its bulk of liquor potassæ be added, a putrid odour is at once evolved, which soon ceases; and if the mixture be now freely exposed, without previous boiling, at the end of about two months, it gives no response to the tests for albumen. Decomposition has, therefore, been greatly accelerated, and is now completed. Throughout there is a total absence of bacteria, hence of turbidity, and almost no fœtor. It is well known that alkalies hasten the decomposition of organic matter. Now, in this case, as decomposition proceeds, the fluid is too caustic to allow of bacterial, or, indeed, of any life, while the absence of bad odour is the result of the consentaneous oxidation of the fœtid products with their evolution. But it may be said, "If you could show us an animal fluid containing bacteria, and yet not putrefying, that would be proof positive." To this I reply, that bacteria breed rapidly and luxuriantly in solutions of certain salts, ammonic tartrate, etc., which, of course, are incapable of putrescent decay; thus, I think, completing the proof that putrefaction may exist without bacteria, and bacteria without putrefaction. But if bacteria and their allies do not initiate the conditions associated with their presence, what does? It seems to me the physico-chemical theory interprets all the phenomena, alleged to be explained by the germ-theory, as fully in regard to facts, and more rationally as to hypothesis. If certain liquids, capable of nurturing bacteria, remain barren from the plugged, sealed, contorted, and bent necks of the vessels which contain them, it is obvious that if these contrivances exclude germs of bacteria, they must also exclude dead ferments; and if the mere touching of these liquids with a thread, a hair, a portion of fluid containing bacteria, or a short exposure to the atmosphere, render them fertile, it is manifest that both of what were before excluded are now introduced. Hence it does not follow that the subsequent changes in the fluids are initiated by supposed bacteria-germs any more than by minute particles of effete introgenous matter, while the appearance of organisms may be accounted for by archebiosis and heterogenesis. Of course, it is impossible to isolate germs which cannot be seen with the highest powers of the microscope from merely dead matter; but in two experiments with potash, to which I referred, where the fluid was freely ex posed without previous boiling, whatever determined putrefaction, it was certainly not bacteria-germs. It must, then, either have been floating particles of organic *débris*, or it must have originated spontaneously. The results of some of Dr. Bastian's experiments, however they may take away one's breath, are well worthy of serious study, though there is some difficulty in reconciling them with those of Dr. Sanderson, published in the Thirteenth Medical Report of the Privy Council. As some of these experiments of Dr. Bastian show that putrefaction may originate *de novo* under conditions precluding the possible presence of vitalised supposed bacteria-germs and of dead organic particles in their normal state, it follows that bacteria are as much mere products as are the fœtid gases of putrescent change. If the results obtained by Dr. Bastian be applied to the virulent inflammations, such as hospital gangrene, diphtheria, septicæmia, etc., it seems to me that bacteria have no causal connection with them, but are the pathological results of cessation or aberration of the chemical forces exercised by vital tissues. The source and nature of the infectious entities in these diseases is another matter to which I shall again allude. The hypothesis of Dr. Beale, that all the tissues of man and the higher animals are densely interpenetrated by undeveloped and indistinguishable germs of the lowest organisms, seems to me untenable, partly because these germs are indistinguishable, and consequently their existence is only inferred, while it is apparently ably confuted by numerous facts adduced by Drs. Bastian and Sanderson. The views held by my respected teacher Mr. Lister, that bacteria and their allies are the cause of putrefaction, and its sequelæ are, I think, shown to be erroneous by the three and only modes of accounting for the appearance of bacteria stated in the programme of this discussion. The fundamental arguments adduced by Mr. Lister in favour of his theory are, that putrefaction is always accompanied by organisms; that, if these be destroyed by chemical agents, putrefaction ceases; that Pasteur's flask experiments on this point prove that these organisms or their germs are contained in the air; and that if an atmosphere of carbolic acid or some such body be kept around a surgical lesion, and the wound itself impregnated with it, these are rendered inert, and thus putrefaction and its attendant exigencies are averted. Now, it does not seem to me that the arresting or preventing of putrefaction by a chemical body is the effect of its toxic action solely or associated on contiguous organisms (and I may here remark that there are bodies far more fatal to bacteria, etc., than carbolic acid). It is obvious that the soil or pabulum on which they are thriving or would thrive is affected as well. Hence, its decomposition may be arrested or prevented (how is another question), so that the bacteria die not only from being poisoned, but also from being starved. What arrests putrefaction (in decaying matter, of course) prevents it in fresh matter, and *vice versâ*. Hence, the action of the arrestant is that of the preventive, and if that of the preventive, it follows that putrescent and putrescible soils are antiseptic independently of any alleged toxic action on concomitant or contiguous organisms. It has also been stated that carbolic acid prevents pyæmia. If it be so, then there is a strong probability that the pyæmic poison is engendered in the tissues, the application of the acid to the lesion preventing its formation. For, as I have repeatedly found that carbolic acid mixed in large proportion with vaccine lymph, also that highly concentrated carbolic vapour, allowed to act on lymph for thirty-six hours, does not annul, and seems to preserve its infective powers, I infer that, if once pyæmic poison be generated, carbolic acid will in like manner not annul, but probably rather preserve, and so disseminate it. A surgeon in a large hospital recently informed me that pyæmia had been very prevalent in the wards of some of his colleagues who use carbolic acid, while in his wards, where no carbolic acid is used, there was no case of the disease. As regards the applicability of the "germ-theory" to typhoid, cholera, small-pox, etc., I think Dr. Richardson gave this theory its quictus about four years ago at the London Medical Society, inasmuch as he said that, if germs be ready to reproduce with the rapidity of reproduction assigned to them, and possess the persistency of life which they are said to possess, it is a wonder that either man or beast are alive, or that the world is not depopulated. The able epitome of existing knowledge of the presence of organisms in contagious and infectious diseases recently published by Dr. Sanderson is unquestionably most valuable, and will undoubtedly prove a permanent contribution to zymotological literature; but I think the presence of these organisms in these diseases may be explained by the physico-chemical-theory. They may be a *de novo* pathological result of a *de novo* disease. It is remarkable that, of the four diseases mentioned by Dr. Sanderson, only one, relapsing fever, is epidemic in the human subject. Dr. Murchison, in his splendid monograph on *Continued Fevers*, has a very able article headed "Spontaneous Generation of Fever", which I advise you to read. He seems to think that this relapsing fever arises *de novo*, and that these organisms are simply the pathological products of the fever. It does not appear to me that a case, say of small-pox, may always be traced to a previous case, that small-pox does not arise *de novo*, because the conditions under which it originated may have ceased to exist, while those under which it disseminates still prevail. I would apply that reasoning to all other diseases. In conclusion, I believe we shall never cope successfully with communicable diseases till we recognise and practise in their entirety the views that all contagious and infectious viruses have arisen, may arise, and that several of them daily are arising spontaneously, both in and out of the body: in the body, from some unknown perversion of the secretions induced in many ways, but chiefly by prolonged violation of the laws of health: out of the body, from some chemical synthesis, about which we know nothing of the atoms of effete nitrogenous matter, and which, taken into the system, affect the secretions as if the poison had arisen there, or so as to make arise; also that contagia are comparatively easily annihilated by thorough exposure to, and dilution with, atmospheric oxygen, independent of other artificial means, especially acid disinfection, etc. These views account for the apparent persistency of communicable diseases, and for the explosions and quiescence of epidemics, more naturally than by considering zymotic poisons vitalised self-reproductive entities endued with supernatural powers of resistance to atmospheric and other agencies—powers not possessed, so far as I am aware, by the ova of any motile organism. They also harmonise with Dr. Sanderson's objections to Dr. Beale's views, that disease-germs consist of portions of degraded bioplasm, which, as Dr. Sanderson, I think correctly, observes, "of all perishable things, is the most perishable". But they differ from the views both of Sanderson and Beale in not regarding contagious units as vitalised entities, but simply as fragments of dead organic matter, whose elementary particles are in some occult state of chemical union, and capable of imparting their condition to other bodies susceptible of the same change. I think we have a good example of this process in the propagation of typhoid contagion by milk. Under certain insanitary and morbid states intimately correlated, certain specific viruses are evolved, and for a time the forces of destruction may equal those of evolution; but, should they be less, the accumulated effects culminate in an epidemic till the balance is restored; because people are then up in arms, and sanitation and and the forces of destruction for a time preponderate. Far be it from me to undervalue in the least patient and silent research into the remotest regions of the minute pathology of contagion, still I cannot but think that those who refer the complicated phenomenon of specific diseases exclusively to bacteria and their allies, discarding antecedent conditions, of which these organisms are far more likely a harmless effect, will not so soon be gratified at seeing the fruits of their labours in a diminished zymotic mortality as those who hold the opposite opinion.

Dr. Crisp: Rather than the time should be lost, I take the opportunity of rising to say a few words, and I shall confine myself chiefly to the diseases of lower animals. I have often said, at this Society, that students will be obliged to commence with the lower forms of organisation, and work upwards from them. One of the first speakers in this discussion reminded us that we should not imitate the example of the French Academy, but confine ourselves to facts. Now, what are facts? I am an old man now, and I have lived long enough to come to the conclusion that Cullen did a great many years ago, that there are more false facts than false theories; and probably those who hereafter read this discussion will say that it is a confirmation of the statement I have made. I will now confine myself to a few simple facts—for such they really are—as regards the appearance of bacteria in the lower animals. I was the first in this country, some thirty years ago, to direct the attention of the profession to splenic apoplexy. It was never described by any English author; and the cases were all denominated "splenitis" by the veterinary profession. I had a great many opportunities of examining this disease, and I saw many cases of this kind where animals, say thirty or forty oxen, had been turned into a pasture where they quickly got into a plethoric condition, and twenty of them were found dead in one or two days. The same remark applies also to sheep. That is a fact that there can be no question about. I believe that splenic apoplexy might be produced in this way. And what do we find? Generally speaking, the spleen is enlarged and full of blood. I have shown at this Society a portion of an ox-spleen weighing twenty-five or thirty pounds; and in all these cases we found the blood filled with bacteria. So with the whole class of diseases denominated charbon. Davaine, who has not received sufficient attention in connection with this matter, thirty-five years ago began his experiments; and, as I reminded Dr. Sanderson when he brought forward his paper on pyæmia, he appeared to be ignorant of those experiments; he inoculated rabbits with the blood of sheep that had died of this disease, and he went on killing rabbits within a given time, almost to the hour; he inoculated fourteen or fifteen in succession, and they all died within a certain time. In all those cases, bacteria were found, and without bacteria being present he could not produce these fatal results. In the last volume of our *Transactions*, I have described that disease, which was so fatal to poultry in Ireland. I there found these bacteria. The fowls were in excellent condition, and (as I have known in my own poultry-yard) they died in four hours. Only last week, I had a hen that died in that way. I gave a part of her flesh and intestines to a duck, which died in thirty hours. The blood was filled with bacteria. Then comes the important question—and upon this everything hinges—are these bacteria the cause or the consequence? I confess I am rather disposed to agree with the opinion of the last speaker, that there is some chemical change produced in the blood which occasions these low organisms. We have, I think, no proof, at present, that what is called the germ-theory of disease is founded upon fact. That is the conclusion I have come to; and I think that hereafter it will be found that we must modify our views very much respecting this matter. I might mention other diseases in the lower animals, new diseases that have been introduced during the last few years, such as pleuropneumonia, and the foot-and-mouth disease; but, in my researches, I have not been able to find the same organisms in these diseases that I have found in splenic apoplexy and other allied diseases. I think we might at present argue night after night, and come to no definite or practical conclusion. Such is my impression. But I think the subject is well worthy the investigation especially of young men who are ardent and enthusiastic; and I have no doubt that, before many years, this matter, which is now so mysterious and doubtful, will be definite and pretty certain.

Dr. BURDON SANDERSON: Permit me to say a word in explanation with reference to the statement just made by Dr. Crisp as to M. Davaine's discovery. If I had not properly studied the history of the investigation of splenic apoplexy at the time Dr. Crisp refers to, he certainly has not studied it up to the present moment, for the disease and its relations to new organisms of the particular kind which we have under our consideration, particularly the fact of the existence of organisms in the blood of living animals affected with splenic fever, were referred to by Polander, also by Professor Braun of Dorpat, several years before the first papers of M. Davaine and other French observers made their appearance.

Dr. CRISP: I did not say that Davaine was the discoverer, but that his experiments were of a more practical character. I mentioned this especially, because it is the fashion now to ignore everything that is French, and admire everything that comes from Germany.

Mr. JONATHAN HUTCHINSON: I did not come here to take part in the discussion, because I believe it was the wish of the Society that it should rather be confined to those who have investigated the subject by experiment, and especially by aid of the microscope, and I have no facts of that character to adduce; but, if there be no gentlemen present who desires to speak to that part of the subject, I should like to make a few observations on the general question. And what I should like chiefly to say is this, that I think we are not doing wisely in speaking concerning the contagia of the specialised forms of inflammation at the same time and in the same manner as we speak of the contagia of the specific fevers; and I would submit to the Society whether it would not be better that we should keep these two subjects wholly distinct. I might mention the very able speech of Dr. Maclagan this evening in illustration of my meaning. Dr. Maclagan commenced by saying that he should justify the germ-theory chiefly or solely in reference to the contagia which produce specific fevers. I was extremely interested in the first three-fourths of his speech, which concerned that subject; and I may say that my mind went entirely with his arguments that the specific fevers are specific; that their phenomena and their chemical history prove that they are specific; that they run a definite course, protecting the organism afterwards; that they breed true, which is the test of specificity; that they seem to require that the germs which have produced them in one individual shall be applied; and that they are producible by no other means. And I think that Dr. Maclagan is quite correct in his inference which he wished us to accept, that it is very probable that these diseases arise from something which is very properly termed a germ—a germ in the sense of a seed; just as we might sow a definite crop in the ground, and should know that we could not get the crop unless we sowed the definite seeds. So far as specific fever goes, I quite join in the belief, although founded, *à priori*, on conjecture, with Dr. Sanderson, with Dr. Maclagan, and with those who believe in the germ-theories; but I was disappointed when Dr. Maclagan concluded his speech by seeming to imply that the arguments which support the germ-theory for the specific fevers, support also the germ-theory for the origin of the contagious forms of inflammation; and I suppose that the contagious forms of inflammation are what are meant by "virulent forms of inflammation", in the terms in which the discussion is introduced. I do not know any other way in which "virulent" can receive a scientific definition. I should be glad if some more carefully defined word had been used, because in surgery and in clinical practice we really do not know how the term "virulent" ought to be applied. I really do not know what Dr. Bastian meant when he used that expression. Now it does seem to me that there are *à priori* reasons for separating the contagious forms of inflammation most definitely, and very widely from specific fevers; and I must repeat what I have said, that I think it is unwise to discuss them in the same manner as if they were at all comparable. My impression would be that the facts which apply to specific fevers do not apply in the least to the contagious forms of inflammation; and I think we shall have to find some other theory to account for the contagiousness—for every one will admit the contagiousness of certain forms of inflammation—quite apart, I repeat, from specific fevers. We have had very ably placed before us the two rival theories, the germ-theory on the one hand, and the physico-chemical theory on the other; the one supported by Dr. Richardson many years ago, and very ably advocated by him since,—applied by him, I believe, not only to the contagious forms of inflammation, but also to the specific fevers. Now, I must say (as, indeed, I have already said), that to my mind the evidence adduced by him, and adduced by the gentleman who has spoken ably this evening in favour of the theory, does not seem to me very satisfactory. I think the germ-theory applies better to the class of facts which we recognise respecting specific fevers, than does any theory on a chemical basis. We should have to suppose something so very special in the chemical products which produces them; and it is less easy, I think, for a man to accept that theory than it is to accept the theory that it is due to something to which the term "germ" is applicable. But if you come to such contagions as that in which gonorrhœa or gonorrhœal ophthalmia, or erysipelas originates, by which an inflammation not only spreads from one individual to another, but from part to part of the patients' tissues in which it begins, a good instance would be the spreading of erysipelas in a patient's tissues, or the spreading of gonorrhœa along mucous surface affected by it. I say I do not think I am then confined to these two theories. I do not think it is necessary to consider only whether this individual has received some zymotic poison, some vegetable germ which is spreading in the way that yeast grows in fluids, and which is inducing this inflammation from without, or that he has some physico-chemical poison which is causing these results. My impression is, that there is yet another theory which deserves consideration, side by side with these two, and I am not sure that I have heard it alluded to in this discussion. It is this, that the products of inflammation themselves may be the means of contagion; contagion by continuity in the patient's own tissues, contagion through the patient's vascular channels, it may be to somewhat distant parts, or a contagion, if the conditions favour such a transplantation of them, to another individual. Hence I should be inclined to think that a surgeon in the premicroscopic age who was cognisant of the facts of the spreading of erysipelas, and gonorrhœa, and what we term porrigo of the skin, an important form of skin-disease, in which it appears that the disease is purely local, and spreads by the contagion of the elements produced by the inflammation, I say, I think a surgeon, without the aid of the microscope, and knowing nothing of bacteria, nothing of vegetable germs, would think that he found no satisfactory explanation of the phenomena which were submitted to him in believing that the products of inflammation themselves were the source of contagion, that it was the cells themselves which did it, that the living pus-cells which grew in the patients' tissues caused the inflammatory process to spread in those tissues, and that it was quite competent for these cells, when transferred to another individual, to produce this result, provided they were living; for I do not advocate the doctrine of pus being contagious in the sense in which you would believe, that you might take pus out of an abscess and get contagion. The pus in the abscess would be utterly dead pus, undergoing decomposition, already become fatty, and of which there was no hope that it could again grow. If you wish to illustrate the doctrine of pus-contagion, you must take the pus at the earliest period of its production. It is obvious that I am using the term pus in a rather wide sense as including most of the fatty products of inflammation, and my conjecture would be that these products are themselves the source of contagion. Now, against the idea that there is any contagion derived from without, any germ-contagion which would account for the production of such a disease as gonorrhœa or gonorrhœal ophthalmia, I submit the fact that we have various degrees of them, varying degrees of severity, and I would illustrate this by referring to the fact that those who are conversant with the practice of inoculating the eye in order to produce artificially gonorrhœal inflammation of the conjunctivæ—which is sometimes done to cure gonorrhœal lids—well know that they can produce severe inflammation or slight inflammation of almost any degree of severity they wish, by selecting the kind of pus which shall act as the contagium. Now, if the inflammation were due to germs, it seems to me that it would be very improbable that these germs should be modified in their character at each stage of inflammation. That germs are derived *ab extra*—a germ in the sense of a pus-cell—I, of course, admit; but I think we ought to draw a strong distinction between a germ which can be got only without the body, and a germ in the sense of a cell—part of the patient's organism, the produce of his tissues. I do not say it is easy to account for the different degrees of severity of gonorrhœal ophthalmia, erysipelas, and phagedæna, which all admittedly vary in degree, and generally in the ratio of the severity of the disease in the patient from whom the contagion is derived. I say it is very difficult to suppose that these are due to specific germs existing without the body, while it is tolerably easy to account for them on the theory I suggest, that they are due to the contagium of living cell-material supplied entirely by inflammatory processes, deranged processes of nutrition, which go by the name of inflammation, in the patient's own tissues. I think that any one who should incline to investigate the theory of pus-contagion, would believe that it is a general law that almost all cell-elements arising in connection with inflammation in the patient's own body are, under favouring conditions, contagious, and that they produce in the recipient a disease of the same type, that is, differing in type, as gonorrhœal inflammation, as erysipelatous inflammation, as porriginous inflammation, as diphtheritic inflammation do in the recipient. I think he would incline also to accept another doctrine, that it is necessary for cells to be produced by a tissue, similar to that in which they are to be transplanted; that gonorrheal pus, for instance, manifests its potency, as regards contagion, very differently according to the mucous membrane to which it is applied; not all mucous membrane can grow it. The pus produced by the skin appears to grow only on the skin, or, at any rate, it is with great difficulty that it produces any inflammation on a different kind of tissue. I have no doubt that there would be a great number of other circumstances that would regulate and modify the various results which we see in connection with these processes of pus-contagion, such as the age of the patient, the precise character and state of his health, and so forth. But these had in view, I think we should be able fairly to explain most of the phenomena which we meet with in practice, in reference to the contagious forms of inflammation. So much, then, as to the arguments for this doctrine. Then as regards its application in practice, it will be seen, if this theory be correct, we shall fall back from the modern doctrine of the antiseptic treatment of wounds, to the old doctrine of the antiphlogistic treatment; and, it is my strong conviction, that this is what in the end we shall come to, and I do not think that, when a wound secretes pus and inflames, and what you hope are adhesions break down, that is due to any putrefaction of fluids which have been effused. I believe it is due to something which would be much more correctly denominated inflammatory action, and that the decomposition which is undoubtedly a character afterwards, and which is perhaps an important element in keeping up and aggravating the inflammation, a matter which it is very suitable the surgeon should attend to afterwards, is not the primary thing; that it is the inflammation which produces certain products that undergo putrefaction, and not the putrefaction which first sets up the inflammatory action. I believe one might mention a great many facts which would very much favour the view that it is not the introduction of any germs from without which prevents the primary union of wounds, but that it is rather inflammatory action, and that the inflammatory action may originate in very various causes, in mechanical causes, bruised edges of the wound favouring the occurrence of this inflammation, and in other cases, very important indeed in surgical practice, especially in large hospitals, in the contagion of wounds. But then again I refer to my theory, that it is pus-contagion and not the contagion of germs. In proportion to the number of suppurating wounds in any hospital where operations are performed, in proportion to the number of wounds which are suppurating unhealthily, in proportion to the number of wounds which in the least incline towards erysipelatous suppuration, or erysipelatous inflammation, or phagedenic inflammation, will be the disappointment of the surgeon in having good results as regards his operations, because then it is obvious that opportunities for the transference of cells which have originated the inflammation, and which are capable of originating it again in any second recipient, are common about the hospital, getting as they do on the hands of the operator, or his assistants, dressers, spongers, and the like. Hence the presence of what are called hospital diseases. Hence also the explanation of the remarkable success attending the practice of surgeons who are paying special attention to the subject. As soon as a man gets any degree of success, as soon as he diminishes the number of suppurating wounds that he has in his wards, the old saying applies, "To him that hath, shall be given". It is manifest that the chance of contagion is diminished, and then he gets remarkable success, such as that which attended Mr. Callender at St. Bartholomew's Hospital, Mr. Lister of Edinburgh, and several who have practised ovariotomy, carefully abstaining from the treatment of other cases which would expose their hands to the contagion of purulent secretions. I think some very interesting facts might be got as regards the success of measures adopted on this hypothesis. I believe I have myself had as good results from the systematic adoption of remedies calculated to repress inflammatory action as any that I have read or seen in the hands of those who attempt to prevent putrefaction. I have seen, for instance, and I have no doubt that many surgeons could relate similar cases—a wounded knee-joint healed as satisfactorily, without a trace of inflammation, under the systematic application of ice, blisters over the whole joint, and the use of cold water with a view of repressing inflammation. I would also, in conclusion, explain part of the results which those who use antiseptic remedies have obtained, on the theory that the action of these so-called antiseptics is not at all limited to the prevention of putrefaction. We all know that the preparations of tar, carbolic acid, and creasote, are useful in repressing ordinary cell-growth. Those who have used carbolic acid in application to wounds on the antiseptic theory will be familiar with disappointment on the opposite side. They may prevent the wound from inflaming, it is true; they also prevent it from healing owing to the potency of the carbolic acid preventing cell-growth. My impression is, that the chief success, is due to this; that they do not so much prevent decomposition, which I hold to be unimportant and secondary. It is very important to be attended to, if decomposition have occurred; but not very important as regards endeavouring to prevent it. If you prevent inflammation, if you prevent the accumulation of inflammatory products in the wound, there will be nothing then to decompose. I believe the washing with a solution of carbolic acid, saturating all the cells in the neighbourhood of the wound, is a very efficient means of preventing inflammatory action, and preventing the origin of cells, which would tend to spread inflammation to other parts of the wound, and possibly subsequently be the means of contagion to other patients of the same kind. My main object in speaking is rather to say that it would be wise to discuss without any wish to prejudge the question these two classes of disease as quite distinct, and that we shall certainly get into error if we confuse the contagious inflammations which are non-specific—more or less special, but certainly not specific in the sense of being always alike—with specific fevers.

Mr. Knowsley Thornton: I should like to make a few remarks in the few minutes which remain, looking at the question in connection with the subject which Mr. Hutchinson has just brought up. I had put down a few observations which I hoped to make in connection with this germ-theory of disease; but I felt considerable difficulty in doing so, because Dr. Bastian's paper seemed to me to have shut out to a great extent the question which I had more particularly studied; namely, the germ-theory of fermentation and putrefaction in connection with surgery. It seems to me, as other speakers have said, and as I also understood Mr. Hutchinson to say, that the subjects should be kept more distinctly apart; and we can hardly deal with the question in connection with surgery, so preponderating has been the subject of the germ-theory of disease in the discussion; but Mr. Hutchinson has made some remarks on the antiseptic system to which I should like briefly to refer in connection with the antiphlogistic system. Similar views have lately been brought forward by Professor Billroth, who states his belief that there is a substance of a phlogistic zymoid form in tissues which he seems to think to be the product of inflammation, and that there is also probably, a substance formed, a septic zymoid which is the cause of septic diseases such as septicæmia, pyæmia, etc. Then he goes on to say that he thinks there is very likely some close connection between these two substances, or that they may even be identical. There are one or two points which any one who has seen many antiseptic cases must regard as a conclusive argument against such a view. Taking any ordinary wound treated antiseptically from the first with the care that one who has the germ-theory at heart will give it, and taking the precautions that Mr. Lister himself would take to prevent what he believes to be potent causes of putrefaction in the wounds, (and here I think one must speak of germs as distinguished from living organisms, bacteria floating in the atmosphere) when you have this wound so treated, Lister has taught that you may have in the wound, from errors of detail and management, putrid suppuration. You may have also another form of suppuration, inflammation going on even to suppuration, through neglecting certain common surgical precautions, getting tension from serous fluid accumulating in the wound—this tension passing on to inflammation, and the inflammation passing on to suppuration, and still this suppuration is not putrid. You may have again another form of inflammation passing on to suppuration from the direct action of the antiseptic substance you use. As, for instance, if carbolic acid dressings are too strong next the wound, they will first inflame the wound, and then that inflammation will pass on to suppuration; but in neither of these cases does one find any bacteria or any putridity. Putting the two things together it seems to me, if we look at the question from this view, that it is destructive to Billroth's idea of these two substances being identical, because if we have such a condition as this—a condition of tensive suppuration in a wound treated antiseptically, and the matter so accumulated is let out by incision, and care taken that it is all let out; that it shall have free escape—that any oozing that takes place afterwards, or any fresh matter that is formed shall have free escape, we shall have no further accumulation; it just acts as an abscess acts under antiseptic treatment. If you let out the pus, if the antiseptic treatment be perfect, you will have no more pus, you will have serum, but not pus. In the same way when the wound is treated antiseptically the inflammation stops at once when the cause is removed. Now, if there be a substance like this which Professor Billroth imagines is formed in the wound, I think we might expect, at any rate to some extent, continuous action, and that suppuration would not stop abruptly when the outward cause was removed. So, in the same way, it would apply to antiseptic suppuration. Then with regard to the septic zymoid, if the septic zymoid and the phlogistic zymoid were identical, after you have once had the tissue put into a position to form this phlogistic zymoid by the tension, or by the irritation of the antiseptic, then the suppuration would pass on to septic suppuration; but we know that that does not take place. I understand from Mr. Hutchinson that his is a very similar view as to the formation of some such substance in the wounds. Another thing that he has mentioned is the subject of the treatment of ovarian cases. That is a subject in which I have also taken great interest, and it has been constantly thrown in my teeth as a believer in antiseptics, How do you explain the circumstance of ovarian cases doing so well? Surely, there you give the germs every chance; you have a large surface exposed; you have extensive adhesions to deal with; and if the germs be floating in the atmosphere, surely they have every chance of causing putrefaction. Certainly, I for one have seen most rapid and fatal cases of septicæmia in connection with ovariotomy, but happily they are rare. When we do get a case of septicæmia, I think, most surgeons who have practised ovariotomy will bear me out, it is often rapidly fatal. It seems to me that the reason why we have not more of it, and why ovarian cases do so well, is this, that immediately after you have done your operation you free the tissues from all sources of outward irritation, you thoroughly protect them, and leave them as nearly as possible as in the case of a wound in a state of health; the parts are left in a state of absolute perfect rest. There is nothing to interfere with them; there is no tension; the parts are all lax; there is nothing to interfere with the healthy processes going on; therefore, that idea which Professor Billroth seems to hold strongly, that there is vitality in the tissues in health which resists the action of these germs, and prevents the development of bacteria, will explain this—we have the tissues as nearly as possible in a state of health, and therefore, in an ordinary way the germs do not develope. If, on the other hand, we get a case where the patient is in bad health, the tissues have not the vitality required, and there we get these rapidly fatal cases. I hope that in making these remarks I have not strayed from the path which the discussion should have taken. As Mr. Hutchinson brought up the subject, I thought I might be allowed to refer to it.

The further discussion of the subject was adjourned.

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DIAGNOSIS OF BLOOD-CORPUSCLES.—Dr. Woodward, in the *American Journal of the Medical Sciences* for January 1875, comes to the conclusion that, if the microscopist, summoned as a scientific expert to examine a suspected blood-stain, should succeed in soaking out the corpuscles in such a way as to enable him to recognise them to be circular discs, and to measure them, and should he then find their diameter comes within the limits possible for human blood, his duty, in the present state of our knowledge, is clear. He must, of course, in his evidence, present the facts as actually observed; but he has no right to conclude his testimony without making it clearly understood, by both judge and jury, that blood from the dog and several other animals would give stains possessing the same properties, and that neither by the microscope, nor by any other means yet known to science, can the expert determine that a given stain is composed of human blood, and could not have been derived from any other source.

DEPUTY SURGEON-GENERAL C. R. FRANCIS, M.B., of the Indian Medical Department, has retired on an allowance of £456 per annum, together with an additional pension of £250.

# ASSOCIATION INTELLIGENCE.

## REPORT OF MEETING OF COMMITTEE OF COUNCIL.

AT a meeting of the Committee of Council held at the offices of the Association, 36, Great Queen Street, London, on Thursday the 15th day of April, 1875,—Present, Mr. G. Southam, President of the Council, in the chair; Dr. Falconer (Treasurer); Mr. Alfred Baker; Mr. E. C. Board; Dr. J. M. Bryan; Sir J. Cordy Burrows; Mr. Callender, F.R.S.; Dr. Alfred Carpenter; Dr. Ward Cousins; Dr. Farquharson; Dr. B. Foster; Dr. E. L. Fox; Mr. Berkeley Hill; Mr. J. R. Humphreys; Mr. W. D. Husband; Mr. F. E. Manby; Mr. R. H. B. Nicholson; Dr. C. Parsons; Dr. R. Quain, F.R.S.; Dr. Shettle; Mr. T. Heckstall Smith; Dr. T. Underhill; Dr. Waters, Chester; Mr. C. G. Wheelhouse; Dr. E. Wilkinson.

The minutes of last meeting were read and confirmed.

Read letters of apology for non-attendance from Dr. Steele and Dr. Wade; an apology was also received from Dr. Sibson, F.R.S.

*Resolved*—That the 193 gentlemen whose names appear on the circular convening the meeting, be, and they are hereby, elected members of the British Medical Association.

*Resolved*—That the minutes of the JOURNAL and Finance Committee of this day's date be approved, and the recommendations carried into effect.

Read letter from Mr. W. Fairlie Clarke, and memorial on the abuse of hospitals.

*Resolved*—That the memorial be presented at the annual meeting, with the suggestion that a committee should be appointed to consider the whole question of medical relief by the hospitals and dispensaries of the United Kingdom, and to report thereon.

*Resolved*—That the gentlemen forwarding the memorial relative to the mismanagement of medical charities be requested to devise some measure of reform, to be considered at the next general meeting of the Association.

A statement by those gentlemen appointed to consider the report of the State Medicine Qualification Committee, and advise the Committee of Council upon the matter, was read by Mr. Wheelhouse, of which the following is a copy,

Your Subcommittee are of opinion (*a*) with reference to (1) Poor-law medical officers:

1. That it is desirable that every person holding any public appointment connected with medical attendance upon the poor should have a fair knowledge of the principles of Public Hygiene.

2. It is also desirable that every medical man should be competent (as proved by examination) to fill such offices, and that every candidate for admission into the medical profession should, therefore, have a fair knowledge of the principles of Public Hygiene.

3. That it is desirable that every person holding the office of medical officer of health shall have passed through the ordinary curriculum of medical education, and shall be possessed of such medical qualification as shall entitle him to registration in the *Medical Register*.

4. That it is desirable that every corporation duly entitled to grant such qualifications as shall confer the legal right to registration in the *Medical Register*, shall be further entitled to grant a special qualification in State Medicine also.

5. That this qualification shall include an adequate knowledge both of *Legal Medicine*, or Medical Jurisprudence, and of Preventive Medicine, or Public Hygiene, comprehending *Medical Police* and the management of Medical Institutions supported by national or local taxation.

6. That every one holding this qualification be entitled to register it as an additional qualification (see Medical Act, 1858).

7. That the General Medical Council be empowered and required to prepare a scheme for the examination in State Medicine to be carried out by all Licensing Bodies. The scheme to specify: (*a*). The number, qualifications, duration in office, duties, and remuneration, of the examiners; (*b*). The subjects of examination; (*c*), The nature and methods of examination; (*d*). The forms of special diploma or special certificate to be granted by any Board of qualified examiners; (*e*). The fees to be paid, if any, by candidates for examination; (*f*). The places and times for holding the examination.

8. That each Licensing Body be empowered to grant the diploma in State Medicine to qualified medical men now holding office of a certain standing, and to medical Officers of the Army and Navy, after a practical *vivâ voce* examination.

9. That until January 1st, 1880, matters be permitted to remain *in statu quo*; and that after January 1st, 1880, no medical officer duly appointed before that time shall be disturbed in his office or appointment in consequence of not holding such special diploma or certificate.

10. That, after a given time—say the first day of January, 1880—no candidate for any appointment as medical officer of health shall be eligible for election unless he is able to produce a special diploma of having passed an examination in State Medicine by some one of the recognised authorities, in addition to his diploma entitling him to practise medicine generally, and to be enrolled in the *Medical Register*.

*Resolved*—That the report be approved, adopted, and entered on the minutes.

Read letter from Dr. Langdon Down, enclosing copy of laws, and reporting the formation, of the Thames Valley Branch.

*Resolved*—That the proposed laws of the Thames Valley Branch be approved, and the Branch recognised.

*Resolved*—That the thanks of the Committee of Council be given to Dr. Langdon Down and others for their exertions in promoting the new Branch, and congratulations that they have proved so successful.

*Resolved*—That the financial statement for 1874 be received, approved, and published in the JOURNAL.

Read resolution of Gloucestershire Branch respecting Dr. Rumsey.

*Resolved*—That the President of the Committee of Council, the Treasurer, and Dr. Carpenter, be requested to draw up a memorial on behalf of the British Medical Association to the Premier in favour of Dr. Rumsey; and that it be the specific object of the memorial to ask from the Government a pension for Dr. Rumsey, in recognition of his services to State Medicine.

## FINANCIAL STATEMENT FOR THE YEAR ENDING DECEMBER 31ST, 1874.

*Summary of Receipts and Payments for the Twelve Months ending December 31st, 1874.*

| Dr.] Receipts. | £ | s. | d. | £ | s. | d. |
|---|---|---|---|---|---|---|
| Cash in hand on 1st January, 1874, viz.:— | | | | | | |
| With Treasurer—at Messrs. Stuckeys, Bath | 578 | 13 | 5 | | | |
| At Messrs. Robarts, London | 42 | 2 | 7 | | | |
| With General Secretary | 13 | 0 | 9 | | | |
| | | | | 633 | 16 | 9 |
| Subscriptions | 6057 | 16 | 5 | | | |
| Advertisements | 2890 | 8 | 8 | | | |
| Sundry Sales of Journal | 254 | 5 | 11 | | | |
| Sale of pamphlets and reprints | 2 | 19 | 11 | | | |
| Sale of Waste | 9 | 11 | 6 | | | |
| Interest | 9 | 19 | 3 | | | |
| | | | | 9225 | 1 | 8 |
| Grant from Mr. Samuel Wood, Shrewsbury, to be given for the best Essay on Pyæmia | | | | 25 | 0 | 0 |
| | | | | £9883 | 18 | 5 |

| Cr.] By Payments. | £ | s. | d. | £ | s. | d. |
|---|---|---|---|---|---|---|
| Editor | | | | 262 | 10 | 0 |
| Sub-Editor | | | | 75 | 0 | 0 |
| Printer, for Journal | | | | 3690 | 17 | 11 |
| Paper for Maps, Geographical Distribution of Disease | | | | 11 | 0 | 0 |
| Contributors | | | | 1022 | 8 | 1 |
| Engraving and Lithography | | | | 36 | 9 | 6 |
| Reporting | | | | 97 | 13 | 6 |
| Sundry Journal Expenses: | | | | | | |
| Sundries | 10 | 1 | 6 | | | |
| Newspapers | 18 | 15 | 2 | | | |
| Parliamentary Papers | 4 | 19 | 11 | | | |
| | | | | 33 | 16 | 7 |
| Committee's Expenses: | | | | | | |
| State Medicine Qualification Committee | | | | 2 | 10 | 6 |
| Medical Reform Committee | | | | 5 | 15 | 8 |
| Hastings Medal | | | | 21 | 6 | 0 |
| General Secretary | | | | 262 | 10 | 0 |
| Salaries and Wages (three Clerks, and Boy and Editor's Boy) | | | | 342 | 19 | 0 |
| Rent of Office | | | | 38 | 15 | 0 |
| Accountant's Auditing Accounts for 1873 (Messrs. Price, Holyland, and Waterhouse) | | | | 42 | 0 | 0 |
| Map of Association and Branches | | | | 12 | 18 | 0 |
| Gratuity to Clerk | | | | 21 | 0 | 0 |
| Postage of Office, Association, JOURNAL, and Editor | | | | 145 | 12 | 1 |
| Office Expenses. Balance due to General Secretary | | | | 29 | 5 | 11 |
| Travelling Expenses of General Secretary | 16 | 6 | 5 | | | |
| Carriage on various Parcels | 1 | 8 | 9 | | | |
| Account Books, Ledgers, Minute Books, Pens, Ink, Paper, etc. | 31 | 14 | 11 | | | |
| Office Telegrams | 2 | 7 | 6 | | | |
| Cleaning Offices | 10 | 17 | 6 | | | |
| Hire and Charges of Committee Rooms | 7 | 3 | 0 | | | |
| Receipt Stamps | 2 | 10 | 7 | | | |
| Assistance in Office, Copying, etc. | 45 | 12 | 1 | | | |
| Commission paid for Advertisements | 16 | 12 | 4 | | | |
| Sundries | 29 | 18 | 10 | | | |
| Office Fittings | 23 | 2 | 0 | | | |
| | | | | 187 | 13 | 11 |
| Stationery, paper, envelopes, Association, and JOURNAL | 42 | 0 | 9 | | | |
| Circulars and printing in connection with subscriptions | 33 | 18 | 6 | | | |
| Association printing, forms of application, laws, circulars, Council, and Minutes of Committee of Council, Sub-Committees, Annual Report, etc. | 140 | 4 | 3 | | | |
| Circulars and printing in connection with Advertisements | 39 | 14 | 6 | | | |
| JOURNAL and Printing in connection with Editor's department | 29 | 8 | 0 | | | |
| Pamphlets and Reprints | 36 | 14 | 0 | | | |
| Weekly Address Labels for JOURNAL | 221 | 16 | 4 | | | |
| Printing in connection with Annual Meetings | 63 | 14 | 2 | | | |
| | | | | 607 | 10 | 6 |
| Gas and firing | | | | 10 | 5 | 0 |
| Bank Charges and Cheque Book | | | | 2 | 17 | 6 |
| Branch expenses | | | | 6 | 16 | 7 |
| Cash in hand on 31st December, 1874: | | | | | | |
| At Messrs. Stuckeys, Bath | 2889 | 4 | 7 | 6969 | 11 | 3 |
| At Messrs. Robarts, London | 0 | 18 | 3 | | | |
| With General Secretary | 24 | 4 | 4 | | | |
| | | | | 2914 | 7 | 2 |
| | | | | £9883 | 18 | 5 |

*Profit and Loss Account for the Twelve Months ending 31st December, 1874.*

| Dr.] | £ | s. | d. |
|---|---|---|---|
| Editor | 362 | 10 | 0 |
| Sub-Editor | 100 | 0 | 0 |
| Printer, for Journal | 5048 | 18 | 6 |
| Contributors | 978 | 13 | 10 |
| Ditto, Old Accounts | 15 | 0 | 0 |
| Engraving and Lithographing | 50 | 4 | 6 |
| Reporting | 85 | 6 | 0 |
| Scientific Grants | 225 | 0 | 0 |
| Committee Expenses | 13 | 13 | 0 |
| General Secretary | 350 | 0 | 0 |
| Salaries and Wages of Clerks and Boy | 324 | 1 | 0 |
| Rent of Offices | 47 | 10 | 0 |
| Legal Expenses, Incorporation of Association, etc. | 171 | 0 | 0 |
| Accountants | 42 | 0 | 0 |
| Postages | 123 | 11 | 8 |
| Office Expenses | 192 | 10 | 10 |
| Sundry Journal Expenses | 66 | 19 | 6 |
| Bank Charges | 1 | 17 | 9 |
| Miscellaneous Printing | 370 | 14 | 10 |
| Losses on Subscriptions | 177 | 3 | 9 |
| Discounts and Losses on Advertisements | 393 | 11 | 1 |
| Sundries | 32 | 0 | 0 |
| Expenses of Branch | 1 | 19 | 8 |
| Profit for the year | 365 | 10 | 1 |
| | £9539 | 16 | 0 |

| Cr.] | £ | s. | d. |
|---|---|---|---|
| Sundry Sales of Journal | 254 | 5 | 11 |
| Subscriptions | 6190 | 0 | 3 |
| Subscription Arrears from former years | 2 | 2 | 0 |
| Dividend on Dishonoured Cheque | 0 | 14 | 2 |
| Advertisements | 2910 | 3 | 10 |
| Sundry Receipts | 12 | 11 | 5 |
| Interest | 9 | 19 | 3 |
| Discount for Cash Payments upon £5048 18s. 6d. and £370 14s. 10d. | 134 | 19 | 2 |
| Grant from Mr. Samuel Wood, Shrewsbury | 25 | 0 | 0 |
| | £9539 | 16 | 0 |

*Balance Sheet, 31st December, 1874.*

| Dr.] LIABILITIES. | £ | s. | d. | £ | s. | d. |
|---|---|---|---|---|---|---|
| Grant from Mr. Samuel Wood, Shrewsbury | | | | 25 | 0 | 0 |
| Scientific Grants | | | | 200 | 0 | 0 |
| Subscriptions paid in advance | | | | 169 | 16 | 1 |
| Due on Advertisements | | | | 9 | 14 | 1 |
| Editor | | | | 100 | 0 | 0 |
| Sub Editor | | | | 25 | 0 | 0 |
| Printer, for Journal | | | | 1238 | 1 | 7 |
| Contributions | | | | 249 | 15 | 4 |
| Reporting | | | | 4 | 4 | 0 |
| Engraving and Lithography | | | | 13 | 15 | 0 |
| Expenses of Committees | | | | 11 | 2 | 6 |
| Legal expenses | | | | 171 | 0 | 0 |
| General Secretary | | | | 87 | 10 | 0 |
| Rent of Offices | | | | 21 | 5 | 0 |
| Miscellaneous Printing | | | | 85 | 4 | 4 |
| | | | | 2411 | 7 | 11 |
| Balance on 1st January, 1874 | 2687 | 10 | 10 | | | |
| Profit for the Year ending 31st December, 1874 | 365 | 10 | 1 | | | |
| Total of excess of Assets over Liabilities | | | | 3053 | 0 | 11 |
| | | | | £5464 | 8 | 10 |

| Cr.] ASSETS. | £ | s. | d. | £ | s. | d. |
|---|---|---|---|---|---|---|
| Subscriptions | | | | 656 | 17 | 5 |
| Advertisements | | | | 1824 | 5 | 7 |
| Furniture | | | | 68 | 18 | 8 |
| Cash in hand on 31st December, viz.:— | | | | | | |
| At Messrs. Stuckeys | 2889 | 4 | 7 | | | |
| At Messrs. Robarts | 0 | 18 | 3 | | | |
| With General Secretary | 24 | 4 | 4 | | | |
| | | | | 2914 | 7 | 2 |
| | | | | £5464 | 8 | 10 |

We have examined the above accounts for the year 1874, with the books and vouchers of the Association, and find the same to be correct.

PRICE, WATERHOUSE, & CO., 13, Gresham Street, E.C.
April 8th, 1875.

R. W. FALCONER, M.D., *Treasurer.*
April 15th, 1875.

## MIDLAND BRANCH.

A QUARTERLY meeting will be held at Lincoln on Wednesday, May 5th. Members desirous of reading papers are requested to communicate at once with C. HARRISON, M.D., *Hon. Sec.*

Lincoln, April 11th, 1875.

## NORTH OF ENGLAND BRANCH.

The Spring Meeting of the above Branch will be held at the Assembly Rooms, Bath Terrace, Tynemouth, on Thursday, April 29th, at two P.M. The following papers have been promised :

1. On the Treatment of Habitual Drunkards. By Dr. Eastwood.
2. On the Pathology of Catarrhal Pneumonia. By Dr. Macdonald.
3. A case of Extrauterine Fœtation. By Dr. Byrom Bramwell.
4. A case of Extrauterine Fœtation. By Thomas Wilson, Esq.
5. A case of supposed Renal Calculus. By Anthony Bell, Esq.

Gentlemen who are desirous of reading papers, exhibiting pathological specimens, or making other communications, are requested to communicate with the secretary, at their earliest convenience. Dinner at the Bath Hotel, Tynemouth, at four P.M. Tickets, 7s. 6d., exclusive of wine. G. H. Philipson, M.D., *Honorary Secretary.*

Newcastle-upon-Tyne, April 3rd, 1875.

## BORDER COUNTIES BRANCH.

The spring meeting of the Branch will be held at Carlisle on May 12th, 1875. President, Dr. Green, Kendal; President-elect, Dr. W. A. F. Browne, Dumfries. Gentlemen intending to read papers, or be present at the dinner, are requested to give notice to the Secretaries.

Henry Barnes, M.D. } *Hon.*
Carlisle, April 13th, 1875. J. Smith, M.D. } *Secs.*

## MIDLAND BRANCH.

A Quarterly Meeting will be held in the Board Room of the County Hospital at Lincoln, on Wednesday, May 5th, at two P.M.

Notice has been received of the following communications :

Ether as an Anæsthetic, and Notes of Cases. By C. Bell Taylor, M.D.

A case of Scald of Glottis, with recovery after the operation of tracheotomy. By the President.

A meeting of the Council of the Branch will be held at 12.30 on the same day, at the house of the President in James Street.

Lincoln, April 19th, 1875. C. Harrison, M.D., *Hon. Sec.*

## BATH AND BRISTOL BRANCH.

The sixth ordinary meeting of this Branch will be held at the York House, Bath, on Thursday evening, May 13th at 7.15.P.M. F. Mason, Esq., President.

R. S. Fowler } *Hon.*
Bath, April 1875. E. C. Board } *Secs.*

# CORRESPONDENCE.

## MR. SPENCER WELLS'S ADDRESS ON PUERPERAL FEVER.

Sir,—In your report of my Address on Puerperal Fever at the Obstetrical Society, a quotation from an address delivered twelve years ago at the Cambridge meeting of our Association has been accidentally omitted. The paragraph is in the second column of page 502 of your present volume ; and I shall be obliged if you will have the following passage published this week. It is a correct report of what I said, and appears to be essential to the coherence of the argument.

Now that the influence of bacteria is beginning to assume a more general importance in pathological investigation, I must ask you to listen to the following account, published, I must remind you, twelve years ago, of what I even then thought Pasteur's discoveries were leading us to.

"Carrying on the analogy between puerperal fever and purulent infection in the various forms which contribute so large a share to the excessive mortality after surgical operations, and applying the knowledge for which we are indebted to Pasteur of the presence in the atmosphere of organic germs which will grow, develope, and multiply, under favourable conditions, it is easy to understand that some germs find their most appropriate nutriment in the secretions from wounds, or in pus, and that they so modify it as to convert it into a poison when absorbed ; or that the germs after development, multiplication, and death may form a putrid infecting matter ; or that they may enter the blood and develope themselves, effecting in the process deadly changes in the circulating fluid. That these low forms of animal life may seriously affect the blood of the higher orders of animals is clearly proved by the recent researches of Davaine, who has furnished us with the first well established example of a disease of the blood due to the presence of inferior beings which are capable of development and multiplication in the torrent of the circulation. These creatures (bacteria) differ from the whole class of infusoria which form in putrefied matter, as they disappear completely as soon as putrefaction of the blood commences. The bacteria are rapid consumers of oxygen, and when they exist in the blood they absorb the greater portion of the oxygen furnished by respiration, and thus hinder the combustion of all the effete and used-up substances which ought to be eliminated from the body."

The remainder of the address is reported with perfect accuracy.

I am, sir, yours, etc., T. Spencer Wells.

3, Upper Grosvenor Square, April 20th, 1875.

*** The paragraph which Mr. Wells sends, commencing "Now that", should be substituted for the first sentence of the first paragraph on page 502, column 2.

## PUERPERAL INFECTION.

Sir,—I was very pleased to read the paper of Mr. Henry Hatherley, in the Journal of April 17th, on Midwifery Practice and Infectious Diseases. It recalls one I had some years ago. A woman who had been confined a week sent for me. I found her suffering from a sharp attack of scarlet fever in the desquamative stage ; she recovered in a short time without a single unfavourable symptom. I cannot but think, with Mr. Hatherley, that the danger of infection is overrated. I know many country practitioners who have scarcely ever had a case of puerperal fever, but who are constantly attending patients suffering from all sorts of fevers and lying-in women at the same time. I attended a lady two months ago in her confinement ; she had a sharp attack of puerperal peritonitis afterwards. The day I attended her, I had seen one case of typhoid, but had washed my hands and changed my coat before going to her. Since then, I sent her to London to see an ophthalmic surgeon of much repute about her eyes. He told her distinctly that my having attended the case of typhoid while attending her was the cause of her illness ; and that every medical man attending any sort of fever ought to have a friend to take his midwifery. How a man in the country is to do that, I cannot see, as we country practitioners have always infectious cases and must attend them.—I am, sir, yours, etc.,

H. M. L.

## THE CONTAGIOUS DISEASES ACTS.

Sir,—I agree with Dr. Nevins that the statistics of venereal disease in the Royal Engineers have been sufficiently discussed, and that the profession can form its judgment without further correspondence.

There is, however, one sentence in Dr. Nevins's letter to you last week which requires a word of reply. He says he has called upon the advocates of the Acts to refer to Dr. Balfour's returns "instead of their own picked and unauthentic statistics". This curious imputation, that we have not referred to Dr. Balfour's returns, is also stated in a paper called the *Medical Enquirer*, which is published at Liverpool avowedly in support of Dr. Nevins and the other opponents of the Acts. This paper says : "Neglecting the published Army and Navy Returns which are open to everyone's inspection, and which have, moreover, the advantage of referring to very large bodies of men, Dr. Parkes, Mr. Myers, and others prefer to select individual regiments, or parts of regiments, the facts and figures regarding which are known to none but themselves or their informants." The contention, nevertheless, of the advocates of the Acts has always been that the Army and Navy Returns are quite sufficient to prove the beneficial effect of the Acts. So far from neglecting these Army Returns, I may refer to my first letter, published in your Journal on December 19th, 1874, and to the exhaustive analyses of these Returns, published by Dr. Lawson in a contemporary on December 26th, 1874, and repeated and enlarged in your last week's issue, as showing how thoroughly they have been used.

The evidence subsequently furnished by various medical officers is most valuable, and is supplementary and not contradictory to the official statistics. The figures furnished by these officers are perfectly "authentic". They are taken from the Regimental Returns which are transmitted to head quarters, and form the basis of the tables there calculated. Dr. Nevins has no more right to doubt the accuracy of the figures given by Surgeons-Major Fox, Gore, Ffolliott, and others, than he would have to doubt the figures of any hospital physician of London or Liverpool who laid the statistics of a disease before the profession.

The tactics of the opponents of the Acts are so shifty that it would take a long letter to expose all their errors ; but I have thought it necessary to assert the good faith and accuracy of the army medical officers who have engaged in this controversy against Dr. Nevins's unfounded assertion that their figures are "unauthentic".—I am, etc.,

Netley, April 18th, 1875. E. A. Parkes.

## MEDICAL OFFICERS OF HOSPITALS.

Sir,—I am anxious to correct an error in one of your leaders in the

JOURNAL of last week. You there state that "in Chester, Shrewsbury, *Norwich*, and Taunton, where the rules in each case require three physicians, *but allow general practitioners to hold the office*, etc." Now, the fact is, that in Norwich none of the physicians are general practitioners, none of them dispense medicine or perform surgical operations; neither do I think during the more than one hundred years the Norfolk and Norwich Hospital has been established, any gentleman has been appointed physician to it being *at the time* in general practice. It is quite true that all the present physicians and several before them were general practitioners earlier in their career, but none of them continued to be so after their appointment, nor would they otherwise have been appointed to the office of physician. Please correct the mistake, and believe me, yours truly,

E. COPEMAN, M.D.,
Senior Physician to the Norfolk and Norwich Hospital.

Norwich, April 15th, 1875.

## MEDICO-PARLIAMENTARY.

### *HOUSE OF COMMONS.—Thursday, April 15th.*

*Supply of Water to Rural Districts.*—Mr. SCLATER-BOOTH, in reply to Sir G. Jenkinson, said the Government did not contemplate any further measures for the supply of water to rural villages and districts than those contained in the Public Health Bill.

*The Artisans' Dwellings Bill* passed through committee.

*The Public Health Bill* was read a second time after a short debate, in the course of which Dr. PLAYFAIR keenly criticised some of the provisions, and was replied to by Mr. SCLATER-BOOTH on behalf of the Government.

*Sale of Food and Drugs Bill.*—Progress was made with this Bill in committee.

### *Monday, April 19th.*

*Notices.*—Dr. LYON PLAYFAIR has given notice that he intends to ask the President of the Local Government Board whether, in continuation of the reports (134) of the non-medical inspectors of the Board, on their proceedings in bringing into operation the machinery of the Public Health Act of 1872, it is the intention of the Government to lay before Parliament reports, by the medical officer of the Board on the practical efficiency of the Act in promoting public health.—Mr. JAMES has given notice of his intention to ask for return of laws and regulations in France, Prussia, Belgium, Holland, Russia, Sweden, Austria, and the United States, relating to the registration and supervision of midwives.

## MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, April 15th, 1875.

Bevan, Richard, Clyde Terrace, New Cross.
Howard, Edwin, Lansdown Place, Wandsworth Road.
Lucas, Arthur, Burwell, Cambridgeshire.
Packer, William Herbert, Cheltenham.
Phelps, William, Weston-Super-Mare.
Rodwell, Edward Manby, Loddon, Norwich.
Thompson, Thomas William, Tavistock Square.

The following gentleman also on the same day passed his primary professional examination.

Harmar, James Raffles, General Hospital, Birmingham.

### MEDICAL VACANCIES.

THE following vacancies are announced:—

ABINGDON UNION—Medical Officer for the Workhouse. Salary, £45 per annum.—Medical Officer for No. 2 District. Salary, £115 per annum. Applications on or before the 24th instant.

ARDWICK AND ANCOATS DISPENSARY—Junior Resident House-Surgeon. Salary, £100 per annum. Applications on or before the 25th instant.

BETHLEM HOSPITAL—Two Resident Medical Students.

BRADFORD INFIRMARY AND DISPENSARY—Physician. Applications to be sent on or before June 12th.

BROADMOOR CRIMINAL LUNATIC ASYLUM—Assistant Medical Officer. Salary, £200 per annum, with furnished apartments, coals, gas, and attendance.

CHELTENHAM GENERAL HOSPITAL AND DISPENSARY—Junior House Surgeon. Salary, £80 per annum, with board and residence.

DOVER UNION—Medical Officer for the St. Mary's District and the Workhouse. Salary, £180 per annum.

GRAVESEND AND MILTON UNION—Medical Officer for the Milton District. Salary, £70.

GREAT YARMOUTH HOSPITAL—House-Surgeon. Salary, £100 per annum, with furnished apartments, coals, gas, and attendance. Applications on or before May 12th.

HOUGHTON-LE-SPRING UNION—Medical Officer for the Rainton District. Salary, £25 per annum.

HULL BOROUGH ASYLUM—Resident Medical Superintendent. Salary, £350, with coals, gas, washing, and vegetables. Applications on or before the 24th instant.

KENT AND CANTERBURY HOSPITAL—Assistant House-Surgeon and Dispenser. Salary, £50 per annum, with board, lodging, and washing. Applications on or before the 30th instant.

KILCHRENAN AND DALARICH, Parish of—Salary, £80 per annum. Applications, on or before May 1st, to the Chairman of the Local Board.

LIVERPOOL DISPENSARIES—Assistant Resident House-Surgeon. Salary, £108 per annum, with furnished apartments, coals, gas, and attendance. Applications on or before the 28th instant.

LUTON UNION—Medical Officer for the Workhouse. Salary, £30 per annum.

MANORHAMILTON UNION, Dromahaire Dispensary District—Medical Officer. Salary, £100 and fees, with £15 as Sanitary Officer. Applications on or before the 27th instant.

MILFORD UNION, co. Donegal—Medical Officer for the Ramelton Dispensary District. Salary, £100 per annum, and fees.

NEWMARKET UNION—Medical Officer for Nos. 1 and 3 Districts. Salary, £85 per annum.

NEWBURY UNION—Medical Officer for the Second District. Salary, £140 per annum. Medical Officer for the Fifth District.

OLDCASTLE UNION, Crossahiel Dispensary District—Medical Officer. Salary, £100 and fees, with £15 as Sanitary Officer. Applications on or before May 4th.

PADDINGTON, Vestry of—Medical Officer of Health. Salary, £300 per annum. Applications on or before May 4th.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL—House-Surgeon.

ROYAL INFIRMARY FOR WOMEN and CHILDREN, Waterloo Bridge Road—Physician.

ROYAL LONDON OPHTHALMIC HOSPITAL—Clinical Assistants and Ophthalmic Dressers. Applications on or before the 27th instant.

ST. GEORGE'S (Hanover Square) DISPENSARY—Physician. Applications on or before May 8th.

ST. GEORGE'S AND ST. JAMES'S DISPENSARY—Accoucheur and Surgeon. Applications on the 29th instant.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY—Assistant House-Surgeon. Salary. £65 per annum, with board, lodging, and washing.

SPALDING UNION—Medical Officer for the Gosberton District. Salary, £40 per annum.

STOURBRIDGE RURAL AND URBAN SANITARY DISTRICT—Medical Officer of Health—Salary, £50 per annum. Applications on or before the 24th instant.

TORBAY INFIRMARY—House-Surgeon. Salary, £100 per annum, with board and lodging.

TORONTO ASYLUM, Canada—Medical Superintendent. Salary, £411 per annum, with furnished apartments, fuel, light, and furnished table for family. Applications on or before May 15th.

TOTNES UNION—Medical Officer for the Ninth District. Salary, £20 per ann.

WANGFORD UNION—Medical Officer for the Bungay District. Salary, £90 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL—House-Surgeon. Salary, £100 per annum, with board, washing, and furnished apartments. Applications on or before May 3rd.

### MEDICAL APPOINTMENTS.

*Names marked with an asterisk are those of Members of the Association.*

DAVIES, F. Pritchard, M.B. and C.M.Ed., M.R.C.S.Eng., Assistant Medical Officer, State Lunatic Asylum, Broadmoor, appointed Senior Assistant Medical Officer to the Kent County Asylum, Barming Heath, near Maidstone.

EAGAR, Robert T. H., M.B., appointed House-Surgeon to the Coventry and Warwickshire Hospital, *vice* R. B. Wybrants, L.K.Q.C.P.I., resigned.

LAING, JAMES, M.B., appointed Medical Officer for Out-patients to St. Mary's Hospital for Women and Children, Manchester.

RICHARDSON, Charles S., L.K.Q.C.P.I., appointed a Medical Officer for Out-patients to St. Mary's Hospital for Women and Children, Manchester.

SHAPTER, Lewis, M.B., appointed Consulting Physician to the Wonsford House Lunatic Asylum, Excter.

### BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication*

MARRIAGE.

LEWIS—JOHNSTON.—On April 14th, at Crumlin Church, county Antrim, by the Rev. Robert Campbell, Templepatrick, assisted by the Rev. Robert Cleland, B.A., Crumlin, *William Lewis, M.D., C.M., L.R.C.P.Ed., L.R.C.S.Ed., etc., of Houston, Renfrewshire, to Annie, daughter of William Johnston, Esq., of Mountain Lodge and Clady, county Antrim.

DEATHS.

ATKINSON.—At Pontefract, on April 13th, Margaret, the beloved wife of George Paul Atkinson, Surgeon.

SERCOMBE.—Died on April 14th, in the 49th year of his age, at his private residence, 59, Gloucester Gardens, Hyde Park, Edwin Sercombe, M.R.C.S., also of 41, Brook Street, Grosvenor Square, fourth son of the late J. C. Sercombe, Esq., J.P., of Colleton Crescent, Exeter. Interment at Bournemouth on the 22nd inst. Friends will please accept this intimation.

PRESENTATION.—On the 10th instant, the students, past and present, of the City of Dublin Hospital presented Mr. Wheeler, one of the surgeons of the institution, with an illuminated address, accompanied by a clock, inlaid with malachite and gold, a pocket case of instruments and two bronze figures, as an expression of their grateful feeling for the instruction received from him whilst attending the hospital. After the presentation, those present were entertained at supper by Mr. Wheeler.

## OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

WEDNESDAY..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.

FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

## MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Mr. William Adams, "On the Treatment of Broken Nose by Forcible Straightening and Mechanical Means"; Mr. Henry Smith, "On the Results afforded by four hundred cases of Hæmorrhoids and Prolapsus of the Rectum operated on by the Clamp and Cautery".

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Dr. W. H. Day, "On Pulmonary and Cardiac Complications of Abdominal Tumours"; Mr. Fergusson McGill, "Case of Left Subclavian Aneurism treated by Temporary Compression direct to the Artery": Mr. Henry Lee, "Sequel to a Paper on Excision of the Ankle-joint".

WEDNESDAY.—Hunterian Society, 8 P.M. Mr. Durham, F.R.S., will read a paper "On some Symptoms of Organic Disease"; and Mr. Clement Lucas will exhibit a Plastic Operation of the Eyelid.

## NOTICES TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

WE shall feel obliged if Dr. W. N. Hiron (Brussels), whose letter on Medical Degrees and Titles appeared in our issue of March 6th, will forward us his present address.

### THE PREVENTION OF QUACKS.

SIR,—In your issue of the 17th inst., Mr. D. A. O'Sullivan, of Burnley, recommends to the consideration of the profession "the propriety of providing some official organisation whose special object would be the prosecution and punishment by law of quacks and pretenders." Everyone will, I think, agree as to the need of such an organisation; but I fear that medical men generally are too apathetic to admit of the idea being carried out very successfully.

In November last, you, as well as your contemporaries, the *Lancet* and *Medical Times and Gazette*, courteously published letters from me suggesting the formation of a "Medical Defence Association", for the purpose of prosecuting unqualified practitioners. Although my letters must have been read by several thousands of medical men in London and the provinces, only a dozen, chiefly country practitioners, responded to my appeal to join me in the movement. Subscriptions amounting to *twelve shillings* were sent in aid of the object (which I now hold), and a further sum of £3 6s. 6d. promised. This being far too small a sum to meet the preliminary expenses of starting such an Association, I have taken no further steps in the matter; but I am very reluctant to let the idea drop altogether, and still hope that something might be done in this direction. Were ten medical men practising in London to send me their names, and express their willingness to join the Association, I would call a meeting for the election of officers forthwith. The association once formed, numbers of provincial medical men would doubtless support us, for they, I believe, suffer more than we do from unqualified practitioners.—I remain, Sir, yours very faithfully,

GEORGE BROWN, M.R.C.S., L.S.A.

12, Colcbrooke Row, Islington, N., April 19th, 1875.

AN Old Clinic forwards a paper, but omits to send his name or address.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

### MALARIA.

SIR,—I will feel obliged by your allowing me space to make a few remarks on the existence of malaria. To those who, as far as I can understand their theory, wish to do away with the existence of malaria altogether, and to hold that intermittent fever is caused by chills alone, I would beg to put the question, How is it that in the West Indies, under almost exactly similar conditions in regard to climate, while intermittent fever is exceedingly common in some islands and places, it is almost unknown in others? Let me take the following as examples—Demerara, Antigua, Nevis, St. Kitts. Demerara, according to the chill theory, should be freer from intermittent fever than St. Kitts, as the temperature is higher, being 86 deg. Fahr. as a mean in the hot season, and 82 deg. Fahr. in the cold (see Parkes on *Practical Hygiene,* second edition, p. 546), while in St. Kitts, even in the leeward, which is the hottest side of the island, at Basseterre, the mean of day temperature, from May to October, is 84.35 deg. Fahr., and from November to April, 81.48 deg. (For figures in support of these observations, and other information about St. Kitts, see a paper by myself on Yellow Fever, in the *Edinburgh Medical Journal,* Sept. 1871. A map of the island is appended.) Yet though in Demerara intermittent fever is so common that almost every white inhabitant suffers from it, in Basseterre it is not at all common, a few cases in the year being all that I remember seeing in several years' practice. But on the windward and coolest side of St. Kitts, the mean top temperatures, taken by myself in 1868-69, at 2 P.M., were—May to October, 83.5 deg.; November to April, 80.15 deg. The ordinary variation of temperature in twenty-four hours was about 7 deg., while the extreme yearly variation was about 20 deg. (70 deg. in February and March during the night, to 90 deg., at 2 P.M. in October, in Basseterre, and 68 deg. to 87.75 deg. on the windward side. Yet intermittent fever was, in my experience, much more rarely seen on the windward side. I have seen cases of simple continued fever from chill, as from a wetting, but never, that I can remember, of intermittent fever. The soil of St. Kitts is a thick loam, the island itself being an extinct volcano. The neighbouring islands—Antigua, about fifty miles away, and Nevis, only ten miles (or only two from land to land)—enjoy exactly similar conditions of climate, which is just as equable in them as in St. Kitts; while the town of Charlestown in Nevis is rather hotter than Basseterre, being more protected from the windward breezes. Yet in Charleston and to leeward of it, a very severe remittent fever is endemic, and intermittent fever is very common: while on the windward (coldest) side of Nevis, as I have been informed by medical men practising there, it is not nearly so much seen. There are some marshy ponds to the windward side of Charlestown, which emit a very bad odour at times, and the soil is not nearly so deep as in St. Kitts.

In Antigua, intermittent fever is common. The soil there is a very hard clay, cracking deeply under the sun. In Basseterre, there is a square laid out with a garden in the centre, which, about twenty years ago, was a mud puddle. At that time, I have been informed by my father-in-law, the late Dr. Beard, who began practice there nearly forty years ago, intermittent fever was exceedingly common in the town. The few cases that now occur are generally attributed to malaria from a few acres of marshy land lying to the east of the town, about half a mile out of it.

If chill could produce fever and ague, sailors working all day in the heat of the sun (which I have seen 130 deg. Fahr.), and exposed at night in all manner of ways, should be very subject to the disease; but I never remember seeing a case among them in Basseterre Roads, where the ships are about four hundred yards from the town, and three quarters of a mile from the marshy lands I have spoken of.

I suffered from intermittent fever after spending one night in Antwerp in 1866. It returned three weeks afterwards, after a ride along the low-lying damp valley of the Eden, near Cupar, after nightfall, although I was not chilled. Since then, the only threat I have ever had of a return was a chilliness like a band of ice round the waist, coming on at the same hour every day for a few days in and after leaving St. Thomas's "harbour" on a voyage home in June 1871, under circumstances in which getting a chill was simply an impossibility (in fact, even to have felt cold would have made me think myself in the seventh heaven), as I had to sleep with the thermometer at 86 deg. (I have seen it in the same harbour 88 deg. at midnight). The steamers lie very near the shore in St. Thomas's harbour, which is surrounded by land on three sides.

Leaving the West Indies, I would ask, Has Edinburgh become warmer in climate since the North Loch was drained, or are its inhabitants less likely to be chilled by the biting north-easters which sweep through it? Yet intermittent fever is now utterly unknown in it, while it was quite common last century. Again, are the inhabitants of London north of the Thames less liable than formerly to be chilled? or why was ague common there two centuries ago and not now, if chill be the only cause of the disease?—I am, yours faithfully,

W. MUNRO, M.D., C.M., Late Med. Off. St. Kitts, W.I.

DR. BEVAN.—The charge seems to be one of simple dishonesty against the office. A county court summons appears to us to afford the simplest remedy.

### MATERNAL IMPRESSIONS.

SIR,—The case of deformity, reported in the JOURNAL of April 10th, by Mr. Sandham, so closely resembles one which occurred in my practice a short time ago, that it may be worth while to record it, too, in your columns.

In my case, the right upper extremity seemed perfect to the wrist; but the hand was represented by a single finger—apparently the index finger. The left upper extremity was precisely like it; only the forearm was flexed upon the arm, and held there by continuity of the skin only of the two joints. The child was born at the full time, of healthy parents, who had already had one well-formed child. It died at three weeks, never having shown signs of possessing much vital energy. The mother did not attempt to account for the deformity, but very pointedly expressed her surprise and disgust at such a result of so much time and trouble.

Islington, April 12th, 1875. I am, etc., J. ASHBURTON THOMPSON.

I. M'A. writes that he has been in attendance on a poor woman who gave birth to three children, and has been requested to find out whether she is entitled to Her Majesty's benevolence, and to whom she should apply.

*** Write to Her Majesty's Secretary at Windsor Castle, stating the case fully.

THE author of a letter signed "Licensed House", omits to furnish his name and address.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, twelve o'clock.

### DR. RUMSEY, F.R.S.

SIR,—I have read with much pleasure in your JOURNAL of 3rd inst., the letter of Dr. Farr, wherein he brings before your readers the great claims which that most eminent sanitary reformer, Dr. Rumsey of Cheltenham, has upon the sympathies of the medical profession and the public at large. We have abundant evidence in his own writings and in reports of Parliamentary proceedings, that he has been labouring in that most unselfish of all undertakings, the cause of sanitary reform, for more than thirty years—the best part of a man's life; nor were his disinterested exertions limited to the area that bounds Dr. Farr's enlightened administration; for, when in 1861-62, the then sanitary reformers of Ireland were battling for scientific registration of vital statistics, Dr. Rumsey threw himself into the struggle; his sympathies crossed the "melancholy ocean" which separates (if I may use the expression) the United Kingdom; and, by his exposition of the true principles which should guide legislation on the subject, he influenced, to a great extent, the nature of the final settlement. During that discussion, I can personally vouch for it, he spared neither time nor trouble, he even writing his correspondence, and every letter might be accepted as a treatise upon the subject matter contained. His great desire was that, as we in Ireland were establishing, for the first time, a national system of registration, that sound principles might from the first moment be recognised, and that the very faulty system then prevalent in England might in time be improved by comparison.

It would not be right to omit the fact that the dispensary medical men of Ireland individually are indebted to him, to a certain extent, for the addition to their incomes made from registration fees. It cannot be forgotten that, in the Bill introduced by Sir Robert Peel and Mr. Clive in 1862, the duties of registrar were directed to be performed by the sixty constabulary, and those of superintending registrar by the inspectors and subinspectors of the district. Notwithstanding the opposition in the press and otherwise of the medical men of Ireland, the authorities appeared determined to carry out their scheme as embodied in the Bill, and only yielded after receiving a deputation from the Social Science Association, nominated principally by Dr. Rumsey. It is but justice to Sir R. Peel to state, that although having a hereditary leaning to the constabulary force, he showed himself on that occasion open to conviction; and after paying every attention to the reasons assigned by the deputation, he said to us before leaving, "Gentlemen, you have succeeded; I cannot grant all you wish; on grounds of economy, the Poor-law clerks must be the superintending registrars, but the dispensary medical men of Ireland shall have the primary registration of births, deaths, and marriages."

I have not any doubt, sir, that if proper steps be taken, Dr. Rumsey's services in the cause of public hygiene would be fuly recognised. I shall be happy to do anything in my power to further the movement, to which I most heartily wish every success.—I am, Sir, your obedient Servant, ALEXANDER HARKIN, M.D.

5, College Street North, Belfast, April 7th, 1875.

ROYAL COLLEGE OF SURGEONS.—The following were the questions in Anatomy and Physiology submitted to the candidates at the primary examination for the diploma of membership of the Royal College of Surgeons on April 3rd, when 180 gentlemen offered themselves.

1. Describe the coagulation of the Blood; and state what is the constitution, physically and chemically, of the component parts into which it is resolved when coagulated. 2. Describe the distribution of the Pneumogastric Nerve in the Thorax; and state what are its functions in regard to the thoracic Viscera. 3. Describe the articulations of the Atlas with the Occipital bone and the Axis; and the Ligaments connecting these bones. 4. Give the attachments and nervous supply of each of the Muscles which flex and extend the Thumb. 5. Describe the course, relations, and anastomoses of the branches of the Facial Artery which arise below the inferior maxilla. 6. In making a longitudinal section of the Encephalon in the median line, enumerate the parts divided, in their order, from above downwards.

J. M. H. M. (St. Helen's).—Mr. Renshaw, 356, Strand, W.C.

H. B. C. asks for the names of any other hospitals or infirmaries, besides Carlisle and Leicester, that offer dresserships, etc., to senior students.

### CORONERS IN IRELAND.

SIR,—Will you kindly reply, by way of answer in your JOURNAL of next week, to the following query? Is an Irish coroner paid according to the inquests which he conducts, or by a stated salary? Your kind attention will much oblige

Merthyr-Tydfil, April 15th, 1875. Your obedient Servant, J. LOWE.

*** A coroner in Ireland is paid £1 10s. for each inquest held by him since the preceding assizes, or since his last application for a presentment, but not to exceed £50 at each assizes. The coroner is entitled to charge 6d. a mile for every mile travelled going to hold an inquest, but nothing for returning. The coroner may also charge 6d. a mile for visiting a place to inquire if an inquest is necessary.

P. B. SHELLEY AND PRUSSIC ACID.—In Trelawny's *Recollections of the last days of Shelley and Byron*, the former asks: "You, of course, enter into society at Leghorn; should you meet with any scientific person capable of preparing the prussic acid, or essential oil of bitter almonds, I should regard it as a great kindness if you could procure me a small quantity. It requires the greatest caution in preparation, and ought to be highly concentrated; I would give any price for this medicine; you remember we talked of it the other night, and we both expressed a wish to possess it; my wish was serious, and sprung from the desire of avoiding needless suffering. I need not tell you I have no intention of suicide at present, but I confess it would be a comfort to me to hold in my possession that golden key to the chamber of perpetual rest."

DR. GRIFFITH's paper only waits for space, on which, as he will have observed, there has been for some weeks unusually great pressure.

WE will communicate privately with Dr. Ross and Mr. Bradley on the subject of their letters. In one way or other we shall be able to meet their wishes.

### UNAUTHORISED SIGNATURE.

SIR,—I shall be glad if any of the readers of the JOURNAL can inform me whether the signing of a certificate under the following circumstances is a forgery punishable by law. A. left his practice in the charge of B., and, before leaving, gave B. instructions to sign all certificates in his, A.'s, name. Following out these instructions, B. signed a death certificate in the name of A. instead of his own, although A. had never seen the case.—I am, etc., P.R.C.L.

April 16th, 1875.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

### ON THE INFLUENCE OF TEMPERATURE DURING CHILDBIRTH.

SIR,—Motion and temperature are correlative; and it may be regarded as an axiom that no great work, whether of the mind or body, can ever be accomplished with the highest degree of efficiency, unless throughout accompanied by a great and general exaltation of the corporeal temperature. Parturition, instead of being an exception to this universal law of nature, is, as regards the body, the grandest expression of it.

We read in the book of Exodus that, when Pharaoh ordered the midwives to kill all the male children of the Israelites, the latter gave, as the reason of their inability to do so, the following reply: "because the Hebrew women are not as the Egyptian women; for they are lively, and are delivered ere the midwives come in unto them." Now, unless this statement is to be regarded as a mere subterfuge, there must be some peculiar reason why the Hebrew women should be so lively and rapid in the process of delivery; and it may fairly be assumed that their occupation of making bricks (which involved great bodily activity and a high temperature) was the cause. Had the sacred historian been inspired with further details concerning the labours of the Hebrew women, we should doubtless have been informed that, at that period, by virtue also of the liveliness of their faith and hope, they enjoyed a comparative immunity from the pains and perils of childbirth. Indeed, we can never sufficiently admire the wonderful courage displayed by that remarkable people, "whose lives", we are told, "were made bitter with hard bondage in mortar and brick, and in all manner of service in the field"; but who nevertheless "were fruitful and increased abundantly, and multiplied and waxed exceeding mighty, and the land was filled with them"; in all this forming a most striking contrast to the aborigenes of various nations whom colonists (to use an Americanism) have crowded out. For there can be but little doubt that when the spirit of a nation is broken, the women become thereby peculiarly liable to succumb to all sorts of abnormal conditions which then display themselves with ever increasing frequency during pregnancy and childbirth. The writer was informed, some years since, by Dr. Leeson (who is now practising at Vevey in Switzerland), that when he resided at Buenos Ayres, he attended, during the revolution, several cases of placenta prævia, which most dangerous and unusual complication could only be traced to anxiety of mind.—I am, etc., M.D.

Harlesden, April 1875.

VACCINE.—We fear nothing can be done to stop the circulation of the mischievous misstatements circulated by Mr. W. Young in the name of the Society for Suppressing Compulsory Vaccination; but it would, we think, be desirable if one of the societies for diffusion of sanitary knowledge were to print and publish, at a very cheap rate, a short and effective answer to the post-card which Mr. Young circulates, demonstrating the fallacies on which this misguided Society relies.

WE will make inquiries for Mr. Heane (Cinderford).

HANDBOOKS FOR MEDICINES.—Dr. H. F. Smith writes to remind us that there exists in the English language a Handbook for Medicines written by him, and published by Longmans and Co. It is, we believe, a very useful and reliable little book.

AN Anticontagious Diseases Acts paper, called *The Medical Inquirer*, is being issued monthly to promote the repeal of the Acts. It quotes the letters of Dr. Nevins at length from the columns of the BRITISH MEDICAL JOURNAL, but omits the refutations of Dr. Parkes, Inspector-General Lawson, Dr. Ffolliott, Dr. Myers, etc. This it does to remedy the "onesidedness" of the medical press, which is, indeed, its principal *raison d'être*.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Croydon Chronicle; The Newcastle Daily Journal; The Derby and Chesterfield Reporter; The Hampshire Telegraph; The Newton Directory; The Hereford Times; The Hackney Express; The Liverpool Mercury; The Glasgow Herald; The Scarborough Gazette; The York Herald; The Scarborough Mercury; The Scarborough Express; etc.

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COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. R. J. Lee, London; Dr. H. Parsons, Goole; Dr. John Dougall, Glasgow; Mr. Alfred Ashby, Boston; Dr. Galabin, London; Dr. R. H. Semple, London; Dr. Chas. Lees, Bombay; Mr. J. Chater, Tenby; Dr. Parkes, Southampton; Mr. J. Edward Schön, Kilburn; Mr. C. Dukes, Rugby; Mr. E. T. Burton, Birmingham; Mr. E. Noble Smith, Paddockhurst; Mr. G. Brown, London; Dr. J. Haddon, Manchester; Dr. McCall Anderson, Glasgow; Mr. J. Woodman, Exeter; Dr. J. W. Langmore, London; Mr. E. Atkinson, Leeds; Dr. Twyford, St. Helen's; Dr. Herbert Snow, London; Dr. Tilt, London; Dr. Trollope, St. Leonard's; Mr. L'H. Blenkarne, Buckingham; Dr. Rabagliati, Bradford; The Secretary of the North London Society; Mr. Clarke, Abingdon; Mr. J. Lowe, Merthyr Tydvil; Dr. Balthazar Foster, Birmingham; Dr. Copeman, Norwich; Dr. E. Holland, London; Mr. T. Holmes, London; Mr. Edward Swain, Arlesey; Dr. J. W. Moore, Dublin; Mr. H. C. Burdett, Greenwich; Our Dublin Correspondent; Our Edinburgh Correspondent; Mr. H. M. Lawrence, Hadlow; Mr. H. E. Smith, London; Dr. Jackson, London; Dr. A. B. Steele, Liverpool; Mr. G. Field, London; Mr. P. S. Gaye, Newton Abbot; Dr. Horne, Scarborough; Mr. Robinson, London; Mr. Heane, Cinderford; Mr. Marriott, Kibworth; Dr. Hardie, Manchester; Dr. Stevenson, Edinburgh; Mr. W. D. Napier, London; Dr. T. S. Dowse, London; Dr. John Harley, London; Mr. Spencer Wells, London; Mr. S. M. Bradley, Manchester; Mr. F. Mason, London; Mr. Poole, London; Mr. John Morris, Brighton; Inspector-General Lawson, London; Mr. G. De Gorrequer Griffiths, London; Mr. R. S. Fowler, Bath; Mr. E. C. Board, Clifton; The Secretary of the Royal College of Surgeons of Edinburgh; Mr. T. Hopwood, Sunderland; Dr. R. H. Allnatt, Frant; Dr. P. S. Fentem, Bakewell; Mr. W. F. Clarke, London; Dr. T. K. Bevan, London; Dr. Ross, Waterfoot; Mr. Wilson, Wallsend; The Secretary of the Apothecaries' Hall, London; The Secretary of the Moulsford Lunatic Asylum; Sir George Burrows, London; etc.

# CLINICAL REMINISCENCES.

By ALEXANDER HARVEY, M.D.,
Professor of Materia Medica in the University of Aberdeen, and Consulting Physician to the Aberdeen Royal Infirmary.

## I.

*Case of Malacosteon, leading to Extreme Approximation of the Rami Ischii, and rendering labour (which supervened) "per vias naturales" impossible.*—(Extract from Case-Book, August 5th, 1844.) Mrs. Wood, aged 38, married, and the mother of nine children, residing at Dam of Gilcomston, Aberdeen, applied to me in the autumn of 1843, on account of certain dyspeptic symptoms with which, she said, she had of late been troubled. Her general appearance at that time was sufficiently remarkable to attract attention. It was that of a person whose general health had been much broken by long previous illness. On inquiry, I learnt that she had had what she described as chronic rheumatism for a period of four or five years, during which time she had never at any time been altogether free of it. This affection she ascribed to an exposure to cold shortly after one of her confinements. Twelve years ago, she had an attack of acute rheumatism, from which she recovered perfectly. The pain or pains of that so-called chronic rheumatism affected various parts of the body, but chiefly the back and right shoulder. Within the last two or three years, both sides of the chest had undergone a marked change of form. She had a spare sallow countenance; had lost much of her flesh and strength, but was able to move about and discharge her household duties. She had borne a family of nine children, the last about six months before I first saw her. On this occasion, as on all previous occasions, her labour was easy and quick. She was now nursing her youngest child. For the rheumatic affection, she had tried a great variety of remedies; but, none of them having done her any good, she had for a long time given up using anything. And, as she did not now consult me for it, my advice to her was confined to recommending her to give up nursing (which she did), and to prescribing for her dyspeptic symptoms, which ceased to trouble her in the course of a week or ten days.

After this, I did not see her again (save casually once or twice) till the beginning of the following year (1844), when I was sent for to see her infant child, and which I had occasion to attend for six or eight weeks. During her child's illness, she had herself an attack of bronchitis. This, with the attendance on her child, added to the shock given her by the drowning of a boy in a sheet of water hard by her own house in the month of December previous, and the excitement attendant on a prolonged attempt in her house to effect the boy's recovery, weakened her exceedingly. On the removal of the bronchitis, and the recovery of her child, she went to the country, from which after a time she returned a good deal improved.

She continued much in her usual (infirm) state of health till the beginning of May, when she was again seized with bronchitis. This attack was much more severe than the former one, and lasted about six weeks. It was attended throughout by sleeplessness, and, when the weather was at all warm, by profuse perspirations; and both these continued till the time of her death. After the bronchial affection had subsided, she had occasional attacks of very severe pain, sometimes in one, sometimes in another part of her chest and back. These in general lasted only for a few hours, and yielded readily to fomentations and opiates.

About this time (May 1844), she informed me that her right collar-bone had gone out of joint some weeks before. On examination, this was found to be the case, the dislocation being at the scapular end of the clavicle. The shoulder had since become much more prominent, and she had but little use of the arm.

When I first saw her on this occasion (May), she informed me that she was again in the family-way, and expected her confinement about the end of June. She had her menses last in the first week of October. She had engaged a midwife to attend her, but intimated a wish (suggested by her weak state of health) that I should be in attendance also, if required.

Her last attack of illness had reduced her to a state of great weakness, and she was apprehensive that either she would not live to be confined, or have strength for it should she do so. She continued, however, much as she had been for many weeks till within the last few days of her life, when her breathing became quick and oppressed, and her pulse habitually accelerated. The day before she died, she stated that she had not felt the movements of the fœtus for twenty-four hours. In the evening of this day, her pulse and breathing became still worse: she was restless and anxious, and apprehensive of the worst. Next morning, she was still worse, and began to sink as the day advanced. When seen by me in the afternoon and evening, she was seemingly moribund. At 10 P.M., while sitting up out of bed, she had a well marked labour-pain, the waters came off, and she died about half an hour afterwards.

No examination *per vaginam* was made till about a fortnight before she died. The examination then made was, from her posture, an imperfect one, and only a single finger was introduced. Nothing preternatural, however, was detected in the state of the parts; and this, taken along with the circumstance of her having had an easy delivery eighteen months previously, removed all apprehension as to the condition of the pelvis.

During the last three months of her life, though very weak and her belly large, she was unable to assume the recumbent posture, even in bed, for any length of time. This was owing to the state of her breathing, and not less to the pain she felt in the back on assuming that posture. Her posture, as well in bed as out of it, was mostly the sitting, with an inclination to the left side. No doubt this posture, habitually maintained for so long a time, with the weight of the gravid uterus, contributed materially in her weak state of health, or rather, in the special constitutional state in which she then was, to bring about what was afterwards ascertained to have been then in progress; viz., the approximation of the tuberosities and of the *rami ischii.*

The morning of the day she died, she was seen along with me by my colleague the late Dr. Dyce, then lecturer, afterwards professor of midwifery in the University of Aberdeen. Her utter prostration was such as to make me exceedingly anxious about her. I was now coming to realise her own often expressed idea, that, should she reach her time, she would not be equal to the occasion.

In the circumstances, it seemed to Dr. Dyce desirable that labour should be artificially induced. With that view, he made an examination *per vaginam.* By reason, however, of the approximation of the tuberosities and rami of the *ossa ischii et pubes*, he failed to reach the orifice of the womb. In fact, it was all he could do, and this after firm boring pressure, to get his finger a little way into the vagina. We left together, to consider what should be done; but neither of us could see his way. As already stated, when seen by me in the afternoon and evening of that day, she was to all appearance moribund, and she died that night at 10.30.

On examination of the body after death (Dr. Dyce superintending), the uterus and its appendages were found healthy. The fœtus, a well formed female, seemed to have reached the full term. The general aspect of the pelvis was pretty much that of the "obliquely distorted pelvis" figured in Dr. Rigby's *System of Midwifery* (*Library of Medicine*), page 189, without, however, the elongation in the antero-posterior direction there shown, and with a singularly marked approximation of the tuberosities of the ischium, narrowing the space between the rami of the pubes and ischium. This approximation was such and so great as to admit the passage of only a single finger into the vagina. It was impossible to get three fingers in line any distance into the vagina. The linea ileo-pectinea was somewhat irregular; there were slightly projecting points of bone at the part of the line opposite the acetabula, and this did not correspond with the line of the promontory of the sacrum, the latter, on the right side, being situate lower down. The promontory, however, did not appear to be thrown forwards. The condition of the tuberosities and rami somewhat resembled that represented in a figure given at page 187 of Dr. Rigby's book, already referred to.

My impression, however, as to this, is now (March 1875), that the rami were more straight, and the approximation much greater than is there figured. Altogether, the virtual obliteration of the passage by the pubes was singular and very striking. Year by year, Dr. Dyce referred to this case in his lectures as the most extreme case of narrowing in that direction he had ever met with or had seen recorded. Delivery *per vias naturales*, even with instruments of any kind, was, it was clear, absolutely impossible. Had the patient lived, it could only have been effected by the Cæsarean section.

I need not obtrude on the readers of this JOURNAL any reflections on the case now recorded. I regret that I was not sufficiently alive to what was going on secretly "in the hidden parts", and that I did not consult Dr. Dyce sooner. The dislocation of her collar-bone, and other circumstances, might or should have awakened my suspicions, but they did not; while the facts, that she had so long been the subject of "chronic rheumatism", and yet during it had borne children easily, and the last only a year and a half before; and further that, but a fortnight before her death, the vaginal examination revealed nothing amiss, misled me. It was, indeed, a very cursory examination. Her posture, however, and her whole general condition, precluded its being made thoroughly. It would have added to her distress and suffering. Yet one cannot well doubt that, at that stage, a proper examination would have revealed something very far amiss. I ground nothing in extenuation of any fault attaching to me in respect of the management of this case, that I was not the poor woman's engaged accoucheur; I was her medical attendant, and, as such, responsible for everything in relation to that affair. But time ran on; things went on, and they ended disastrously for my patient, without, I would fain hope, any blame (all things considered) being fairly chargeable upon me. It is easy to be wise after the fact; yet what should have been done? And when or at what stage?

I regret that the particulars above recorded, as to the actual condition of the pelvis, should not be more precise. For many years, they were familiar to me, and I thought they could never pass from my recollection. But, after thirty years, I cannot recall them more precisely. What, however, I have given of the case is from notes taken at the time and now rigidly transcribed. Nor would these now see the light but for an eminent professor of midwifery, to whom they have been submitted, and who assures me that, "fragmentary" as they are, they "should not be lost", the case, as it stands, being "a most striking one".

## REPORT OF A CASE OF APHASIA.*

*By a Committee of the Glasgow Pathological and Clinical Society* (W. T. Gairdner, M.D.; Alex. Robertson, M.D.; and J. Coats, M.D.).

Clinical Notes by Dr. Gairdner.—Mrs. Williamson was first admitted to the Glasgow Royal Infirmary on October 10th, 1868, suffering from a well-marked hemiplegic and aphasic attack, in which the loss of language was so complete, that absolutely no information whatever could be obtained as to her sensations and the degree of her intelligence. The expression of her face showed that there was neither coma nor lethargy, but the only sounds she uttered for some time after admission, were, "Oh, dear!" with much moaning, and a sound like "buy", which she repeated over and over in a purely mechanical way, without the least apparent significance. The right side was almost completely paralysed, and she could not, or would not, protrude the tongue. The pupils were normal. The bowels were costive. She had a pretty severe cough, with mucous *râles* on the right side of the chest. When evacuations took place, they were made into the bed.

On October 13th, the state was nearly the same; but the formula of utterance was a constant repetition of, "I bud—bud—bud", whenever she was spoken to, or wished from any cause to give notice of anything. At times, she insisted on this formula with great vehemence and many repetitions; at other times, it was "I", or "Oh", alone, and sometimes she was quite inarticulate.

It was observed at this date that, while no merely verbal request to put out the tongue appeared to be understood if unaided by visible signs, it was always possible to obtain a response to these latter; and this continued long to be the case, although afterwards, in this as in other respects, there was a distinct improvement.

A synopsis of the whole observations, written about a month after this (November 13th), gives a tolerably complete view of the state of the patient during the earlier period of the case.

"1. There is, on the whole, a marked and gradual improvement in the state of apparent intelligence.

"2. To judge from the eye and gestures, this woman is quite the reverse of stupid or apathetic. She is rather quick and eager to communicate, and had several times been moved to tears by her inability to do so.

"3. In remarkable contrast with the above, she has never, at any time, articulated a continuous sentence, or been able to convey effectually her wants, although her most immediate friends and neighbours have visited her with the object of eliciting them. She has on no occasion given notice of any of her discharges, and has passed everything in bed.

"4. Her vocabulary since last report was, for a long time, limited to the words, 'Doctor, doctor', or 'it's doctor', or 'you're doctor, doctor'; and these words she repeated with gestures and looks which seemed to imply that she wished them to convey a great deal more. Frequently, the incongruity of this attempt and of the result would strike her, and she would break into a laugh. At other times, the emotion would be of a different kind, and she would alternate these with 'Dash it!' while, on other occasions, she has muttered bits of phrases, words with 'Oh! oh! oh!' evidently a sign of disappointment and vexation.

"5. It cannot be distinctly affirmed that she has clearly understood anything spoken to her, except in so far as the general sense may have been apparent to her through surrounding circumstances and gestures. . . . It has always been nearly impossible to get her to protrude her tongue . . . except by sitting opposite to her and making very pointed signs repeatedly, and with great emphasis . . . the tongue being in this case protruded as far as the teeth, but in no instance further.

"6. On the other hand, in any words that have fallen from her, there has not been the least trace of the special forms of indistinct utterance that usually go along with paralysis of the tongue. . . . She has, on one occasion, said quite distinctly, "Doctor, has no seen me to-day"; on another, has been surprised into the exclamation, not intelligible, but sufficient to demonstrate increasing power over the parts of speech."

After this, the gradual education (for such it was, though very slow and unsatisfactory) of her verbal faculty proved a constant source of interest; and, on many occasions, Dr. Gairdner and others sat at her bedside for a considerable time testing her power both of apprehending and pronouncing names. Her own name came first into notice, and, by persistently repeating to her successively, *e.g.*, "Robertson, Jacobson, Jamieson, Richardson, Williamson, etc.", she was gradually brought first to recognise by signs, by simple "No", and "Yes"; and then, after a while, to pronounce her own surname, though she always required the leading above-mentioned in order to do so. She also (but whether in answer to suggestions or not, is a little uncertain) gave her age as "sixty—under—two"; whether this meant fifty-eight or not remained undisclosed. Some time afterwards, she got hold somehow of the name of "Dr. Gairdner", and she soon adopted it as one of her formulæ, which she retained, alternating with others, to the very close of her stay in the Royal Infirmary. One of these others was curious, and she seemed to come upon it suddenly, no one knew exactly how. In the midst of her usual scraps of words and phrases, she often interpolated, "God, ay, God up a stair"; and whether in this there was any obscure consciousness of heaven or of anything above her, it was impossible to discover; for, at times, she seemed to alternate this expression quite mechanically with others of no significance. The paralytic condition improved somewhat, and she was able to sit up for some time before her removal to the Town's Hospital. She was able also, for the most part, to control her sphincters better, and she became more voluble in the use of some of her phrases, but not in any essential degree more spontaneous or intelligent in the use of language.

Clinical Notes, in continuation, by Dr. Alexander Robertson.—This patient died on December 26th, 1874, being then sixty-seven years old. She was admitted into the Town's Hospital on June 21st, 1869, having been discharged on that day from the Royal Infirmary, where she had been under Dr. Gairdner's care for a considerable time. She was constantly resident in the Town's Hospital from the time of her admission till her death.

*Mental Condition.*—During the whole time she was under my observation, there was no appreciable difference in the state of her mind. In the *Glasgow Medical Journal* for January 1871, I have published a note of her case in a paper on Aphasia, and the remarks there made regarding her speech and the condition of her mental faculties generally are fairly applicable to her during any period of her residence. I shall, therefore, simply quote them.

"I have a case under my care at present which fully illustrates the latter statement (regarding amnesia, *i. e.*, amnesic aphasia). The patient is an elderly woman, who has been amnesic for some years. Her stock of language at present amounts to 'Say a grace', and 'Doctor up the stair in our house', either of which she utters, apparently indifferently, in reply to any question that may be put to her. Upwards of a year ago, when she was first admitted into this institution, she was wont to ejaculate 'Dr. Gairdner' in the same meaningless way. I concluded that this gentleman's name occurred to her by an impression having been produced on her feeble memory (or, if we accept Dr. Bastian's theory, on her damaged 'auditory perceptive centre') through its frequent repetition in her hearing while under his care in the Royal Infirmary of this city. Although she seems to understand what is said to her, her intelligence is in reality extremely defective, as, when I ask her to take off her cap, give me a pin, or make any other simple request, she usually looks puzzled, and fails to comply with my wish. Yet this woman can pronounce all ordinary words, and even short sentences, with great readiness, directly after she hears them, though she commonly blunders the articulation of the latter half of big words." There was, however, a slight change in her stock phrases. She gradually stopped repeating the one beginning with 'Doctor' and 'Dr. Gairdner', substituting occasionally 'Margaret Williamson', her own name. There was an absence of the painful emotional excitability which is often associated with severe hemiplegia not complicated with aphasia; but she sometimes burst out into a loud though not a prolonged laugh when addressed, there being nothing in the observation to give rise to it.

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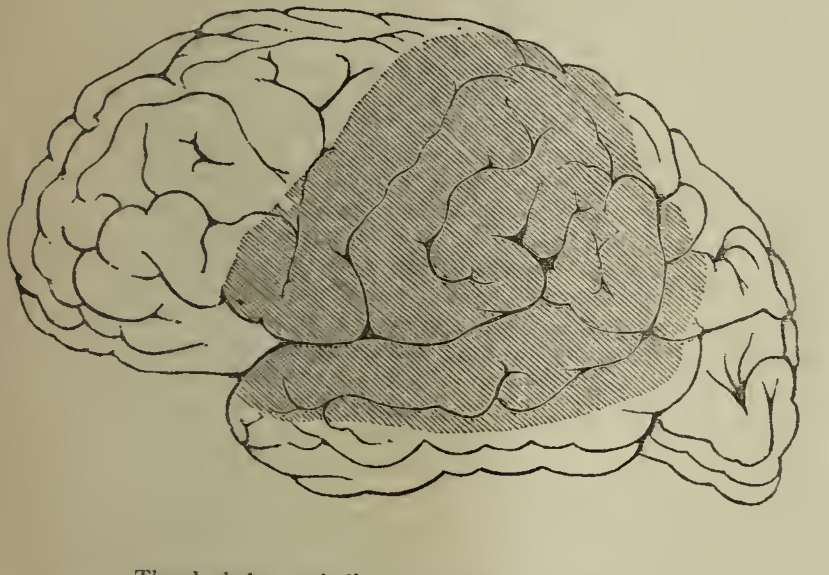
* Read before the Glasgow Pathological and Clinical Society, February 9th.

*Bodily Condition.*—During the first year of her residence, there was a slight improvement in the power of her right extremities; but after that there was no further change. Till shortly before her death, with the assistance of the nurse, she got dressed, and sat by the fireside most of the day. She could stand, and even drag the leg two or three steps in walking. The arm was more powerless, though she could move the fingers a little. It was much atrophied, and the flexors were contracted, so that the fingers were bent well on to the palm of the hand. There was no deformity of the face either in her ordinary expression or when she laughed. The cause of death was gradual progressive enfeeblement with diarrhœa.

PATHOLOGICAL REPORT BY DR. ALEXANDER ROBERTSON AND DR. JOSEPH COATS.—The lesion to be described existed on the left side of the brain; the right being apparently normal, apart from some irregularity of the convolutions. The left cerebral hemisphere was very much shrunk, the shrinking depending on a loss of substance in its middle parts. There was a large gap in the cerebrum, occupied (in the brain as preserved in spirit) by a collapsed membrane, which was stated to have contained, at the time of the *post mortem* examination, a large quantity of fluid. This collapsed membrane occupied the situation of a considerable number of convolutions. More precisely described, the following was the condition of parts. 1. In the frontal or anterior lobe, the superior or first frontal convolution was present almost in its entirety, it being doubtful whether it was not undermined at its extreme posterior part. The middle or second frontal was also nearly entire; at most, the extreme posterior part being absent. The third or inferior frontal was distinctly destroyed at its posterior part, the portion behind and above the ascending ramus of the fissure of Sylvius being entirely wanting. From the absence of the posterior part of the inferior frontal and of the ascending frontal, including the operculum, the island of Reil was exposed and visible without separation of the parts. 2. Of the parietal lobe, the only part present was the posterior half of the superior parietal lobule (Ecker); that is to say, the ascending parietal convolution, the anterior half of the superior parietal lobule, and the entire inferior lobule, including the supra-Sylvian and the angular gyri, were destroyed. It was even doubtful whether the destruction did not extend partly to the middle parts of the occipital lobe. 3. The upper parts of the temporal lobe were destroyed, including the superior temporal convolution, and a portion of the middle temporal, perhaps the whole of it.



The shaded parts indicate the extent of the lesion.

From the state of the brain, it could not be accurately determined whether the corpus striatum and optic thalamus had been much interfered with. The island of Reil was intact, and this might be taken as presumptive evidence that the lesion had not extended to the corpus striatum. The surface of this ganglion was smooth, and it was doubtful whether it was smaller than the right. The optic thalamus was nearer the altered portions, and its external parts seemed partially lost.

# ON THE MEDITERRANEAN COAST OF THE SOUTH OF FRANCE IN ITS MEDICAL ASPECT.

By WILLIAM MARCET, M.D., F.R.S.,
Late Assistant-Physician to the Westminster Hospital and to the Hospital for Consumption and Diseases of the Chest, Brompton.

## II.

IN a former communication (BRITISH MEDICAL JOURNAL, March 6th, 1875), I entered on the medical history of those consumptive patients who are usually sent to winter on the Mediterranean coast. I also attempted to trace the influence of the southern climate on the progress of phthisis, insisting at the same time on the careful selection of the site for the residence in each individual case, especially with reference to elevation above the sea-level.

My present object is to inquire into the physiological influence of differences of atmospheric pressure upon the human body. It is now, I think, generally acknowledged that altitude is a very important consideration with respect to the residence best suited for consumptive invalids. Of course, the Mediterranean coast does not afford means of treating phthisis in such high places as St. Moritz or Davos, which are admirably suited for a summer sojourn; but it unites a certain elevation above the sea with a mild temperature well adapted for a winter resort.

Such a thing as a perfect climate is not to be met with anywhere; at all events, certainly not for human beings. With regard to the vegetable kingdom, some trees, such as the Wellingtonia in California, and the Eucalyptus in Australia, appear to be possessed of a wonderful longevity. On the Sierra Nevada in California, there are, as many of my readers are aware, Wellingtonias (*Sequoia gigan'ea*) considerably over a thousand years old, and bidding fair to live for another thousand years to come. With these wonders of Nature, the climate, I may say, is as nearly perfect as possible. In the autumn of 1873, having visited one of these remarkable groves (the Mariposa), I found by walking round one of the trees and counting the number of steps, that its circumference measured approximately over one hundred feet, including of course, the immense projecting roots. The tree called the Grizzly Giant, seven and a half feet above ground, has been ascertained to have a circumference of seventy-eight feet and a half; and another observer estimated its height at nearly three hundred feet. By counting the number of rings on the stump of one of the trees which had been cut down at a height of six feet, it was found to be thirteen hundred years old (*Tourist's Guide*, Yosemite). An idea of the size of the trees may be formed from the fact that in the hollow trunk of one of them I stood on horseback, side by side with three other riders; and I passed on horseback, through the hollow trunk of another which was rotting on the ground. There are other smaller Wellingtonias in company with the giants; but they look so much their juniors, that they will have to outlive many centuries before they can aspire to be considered as big trees.

If I have alluded to the present subject, it is to observe that the climate of the home of these enormous Wellingtonias must be wonderfully adapted to their longevity. Indeed, there appears no reason why they should die at all, except from the hand of man, who will everywhere impose himself upon Nature and turn her to his advantage. The enormous stores of heat which probably thousands of years have accumulated on the Sierra Nevada have already been made use of by the Indians, and many of the trunks of the big trees left standing have been hollowed out by the action of fire long before the white man knew of their existence. It is our business, in a medical point of view, to ascertain the cause of this extraordinary prolongation of vegetable life. First of all, it will be observed that all circumstances unite towards that object. The atmosphere of these mountains is pure and dry; I believe it is never foggy. The rainfall is inconsiderable; the summer is dry, and never very hot; while the winter is never very cold. There are hardly ever any thunderstorms in those parts; and I was told by a person inhabiting Clarke's farm, the nearest habitation to the Mariposa grove, that, during a residence of three years in that locality, not more than two or three thunderstorms had occurred. The approximate height of the Mariposa grove above the sea is, I believe, between five and six thousand feet. The spot is admirably sheltered from the winds by its position in the Sierra, so that hurricanes and gales of wind are scarcely known in these solitary regions. The soil must supply an inexhaustible amount of nourishment from the remains of thousands of trees which are being turned into food for the support of the giants. Animal life is nearly absent from these forests; there are very few, if any, bears in that neighbourhood; no woodpeckers or insects to destroy the bark and wood, which are said to be protected, moreover, from these agents of destruction, by the presence of a peculiar secretion;

and there are no squirrels to feed upon the fruit of these enormous coniferæ. These trees have been left to grow, fighting an easy battle of life, and feeding upon their weaker congeners, some of them probably for several thousands of years. Their only enemy is the snow, which occasionally falls heavily in winter, and lops off the tops of the trees, or breaks off some of the higher branches.

Before entering upon the influence of altitude upon the treatment of consumption, I must beg to allude shortly to the theory of the interchanges of gases in respiration. In the *Lancet* for February 2nd, 1867, I communicated a letter to the editor explaining how Graham's discoveries on the absorption and separation of gases by colloid septa appeared to me to afford the best means of accounting for the passage of carbonic acid out of the blood and lungs, and the admission of oxygen into the blood through the pulmonary tissue. The phenomenon was described as due to the solubility of carbonic acid and oxygen in the damp pulmonary tissue, and their subsequent movement by physical diffusion—the one out of the blood into the pulmonary alveoli, the other from the alveoli into the blood.

I observed in this communication that the evolution of carbonic acid at the lungs might be considered as regulated by four different conditions: 1. The amount of carbonic acid contained in the blood; 2. The degree of readiness with which the carbonic acid travels through the tissue of the lungs; 3. The temperature of the lungs; 4. The amount of air taken into the lungs at each respiration. I did not at that time allude to another circumstance which clearly has a very important bearing upon respiration; that is, atmospheric pressure. There are two physiological circumstances to be considered in connection with the influence of a reduction of atmospheric pressure upon respiration: 1. The fact that the oxygen in a given bulk of air is proportionally lessened; and 2. That the escape of carbonic acid from the lungs meets with less and less resistance in proportion with a fall in the height of the barometer. The volume of oxygen in a given bulk of air, under different degrees of pressure, has been calculated by the distinguished professor of chemistry Marignac of Geneva, at the request of the well known physician Dr. Lombard, and the table showing the result of these calculations is published in Dr. Lombard's paper entitled "De l'Immunité Phthisique". This table shows that the amount of oxygen contained in a certain volume of air is reduced to one-half at an altitude of 5,000 *mètres*, or 16,404 feet. According to that gentleman, it has been found, from a series of a thousand observations, that at the height of Mexico, 2,227 *mètres* (7,306 feet), there is a daily falling off by 348 *grammes* (5,370 grains) on the amount of carbon transformed into carbonic acid at the seaside. There can be no doubt, therefore, that a much greater quantity of carbonic acid is formed and exhaled at the seaside in a given time than at an elevation above the sea-level. The circumstance relating to diminished atmospheric pressure facilitating the evolution of carbonic acid from the blood at the lungs is very important to notice. We know to what extent the pressure of the air checks the boiling of water; this it does by preventing the formation of steam, or escape of the water in the form of vapour; and just as a diminished pressure opposes less resistance to the boiling of water, so must it also assist the blood in getting rid of the carbonic acid it contains. When the lungs are thickened by disease and supplied with less blood than in health, the importance of such a means of favouring the elimination of carbonic acid at the lungs as diminished atmospheric pressure must be very great. On removing from the seaside to the height of a few hundred feet, a sensation is experienced quite in keeping with the above remark. The air appears lighter, and a feeling of comfort is experienced during the act of respiration which was unknown near the sea. Those who are asthmatic will perhaps be the first to notice the difference; but a similar relief will be experienced in all cases of consumption. Not only will expiration be carried on with greater facility at a certain height above the sea, but the cutaneous exhalation of carbonic acid will clearly be favoured by the very same circumstance. Let anybody enclose his arm in an India-rubber bag partly full of air, as I have done, and, after an hour or even half an hour, draw two or three pints of this air through a solution of barium hydrate in water: a precipitate of barium carbonate will be obtained, much more abundant than that which a similar bulk of pure air would have yielded in the same solution. It is, therefore, very obvious that the skin gives out carbonic acid; and it may be safely concluded that, in cases where the evolution of carbonic acid through the lungs is impeded, the skin takes upon itself the extra work, acting an important part as an organ of respiration. The reverse must also be true; and I have no doubt that circumstances checking the circulation at the surface of the body, such as a sudden accession of cold, must, by calling upon the lungs to do extra work, often be the cause of pulmonary irritation, attended with cough. Cutaneous respiration appears to be so important a function with certain animals, such as frogs, that they have been known to live for a considerable period after the removal of their lungs. Thus Paul Bert states that Albini (*Sulla Respirazione nelle Rane*) has seen frogs live for a period of a hundred and sixteen days after the excision of their pulmonary organs. (*Leçons sur la Physiologie comparée de la Respiration*, 1870, p. 276). I cannot, therefore, insist sufficiently on the importance of attending to the free action of the skin both as a perspiring and breathing organ. Access of air to the surface of the body should be promoted by every means consistent with protection from cold. Woollen textures, such as flannel, will answer the purpose best. When patients come to me with chamois-leather jackets, perhaps worn over the skin, or leather chest warmers or protectors, I make it a point to advise their being at once given up.

That hæmoptysis is due, in many cases, to a state of malnutrition of pulmonary vessels is, I think, a conclusion at which we must necessarily arrive; and any amount of carbonic acid which may remain in excess in the blood or pent up in the lung-tissue, must assist in keeping up this morbid state; hence, the check hæmoptysis meets with on rising above the sea-level will depend upon an improvement in the nutrition of the lungs due to their parting the more readily with the carbonic acid they contain.

Some people live several hours daily under conditions of pressure which must interfere considerably with their respiration and other functions; I am alluding to professional divers. I had heard that divers, in consequence of their being subjected to sudden and considerable changes of pressure, occasionally bleed at the nose and ears on returning to the surface of the water; and, on meeting a friend last summer who had been engaged with diving operations, the conversation naturally turned upon that subject. What I gathered from this gentleman, at the time, greatly excited my interest; and on reconsidering later the effects of the enormous pressure the body must sustain at a depth of about a hundred feet, I wrote to him, asking him if he could oblige me with a few additional particulars as to the influence of diving upon the body. In the kindest possible manner, he procured and sent me three letters, one from Mr. A. C., late Diving Inspector of Her Majesty's ship *Excellent;* one from Mr. G. C., Diving Gunner, Her Majesty's ship *Excellent;* and one from Mr. J. H., Diver, Her Majesty's Dockyard, Portsmouth. Thus it was impossible to be supplied with information from more trustworthy authorities.

Perhaps, the earliest unusual sensation felt on being lowered under the surface of the water is that of pain in the ears; this first effect of pressure is, indeed, well known to most of those who have gone down in the diving-bell at the Polytechnic Institution. My friend writes, that he has found the act of swallowing his own saliva to afford a marked relief in such cases. He observes, "Your ears, somewhere about the drums, gives a little crack like cracking of the finger-joints, and you feel immediately relieved. The moment you touch the bottom, the pain in the ears, which is like having bradawls bored into them, and is sometimes very acute, ceases." The late diving inspector of Her Majesty's ship *Excellent* remarks: "the only part of the body in which the rush of blood was felt painfully was the head, and that I believe was from the gradual compression of the air in the dress as the diver lowered himself in the water; the sensation depends greatly on the manner of the man's descent; if he go slowly down, descending at intervals a trifling distance, he greatly diminishes the pressure, and so *vice versâ*". Mr. G. C. has been fourteen years a diver, five and a half years of which he has passed in training divers for the navy. The first time he went under water, he felt a very severe pain in the ear, but no longer noticed it after a little time, until he became immersed in deep water, when it again returned to some slight extent, but disappeared on his reaching the bottom in eighteen fathoms or at a depth of 108 feet. He was then, he writes, "quite comfortable". Mr. J. H. has been diving for nearly thirty years. During the whole of that period, he has had almost daily practice, and has been down under water from one to four hours at a time, and at depths varying from five to eighteen fathoms. He remarks that the greatest pressure in descending to great depths is felt under the armpits (crutch), where a sensation is perceived as if a knife were entering the body at that part. When troubled with a cold, the drums of his ears have been stopped, and, while descending, his head has experienced a sensation which he compares to its being pierced through. When suffering from slight rheumatism, he has felt as if his flesh were being torn to pieces.

Life can, therefore, be carried on with comparative comfort, when in health, for a period of from one to four hours, at a depth of about 108 feet, and work under such circumstances can be done, necessitating considerable muscular exercise, such as unloading a sunken ship. The return journey to the surface is, however, always, apparently, attended with more or less discomfort. Mr. J. H., with his experience of nearly thirty-one years, writes, "On returning to the surface, blood invariably rushes to the head". During the whole of his career, he had never bled at the nose or ears, but has seen instances of men coming to the surface bleeding from those parts, though from nowhere else. Mr. A. C. "has never known an instance of a diver bleeding from anywhere but the nose, mouth, or ears", and then only through fright or exhaustion. Mr. G. C. has seen instances of men coming up bleeding at the nose and ears. He thinks that must be through weakness, for they were in shallow water, and only about one hour down. With respect to the influence of the state of health of divers on their sensations under water, some very interesting particulars are contained in Mr. A. C.'s letter. He observes: "the general symptoms are, in my opinion, to be gathered from the man's own state of health, or habits; if he is given to drink, then you may expect an accident, or sudden death, at any time; or, if he is consumptive, or his chest the least affected, the air is not sufficiently pure for him. During the latter part of my time as instructor in the *Excellent*, I had been suffering from chest disease; and the last twice I was down I could not remain five minutes, as the air was not pure enough for me to breathe." Mr. G. C., when having a slight cold, felt hot flashes all over his body, and a pricking sensation. Now, if a column of thirty-three feet and ten inches of water exert a pressure of about 15 lbs. on the square inch, at a depth of 108 feet, the pressure will be equal to about 47.9 lbs. on the square inch: a man of a height of 5 ft. 8 in., the surface of whose body would be equal to from 2,325 to 3,100 square inches, would therefore, at the depth of 108 feet, support a pressure of water of from 111,367 to 148,490 lbs. At the seaside, the atmospheric pressure on such a person would amount to from 34,875 to 46,500 lbs. He would, therefore, while at a depth of 108 feet from water, be subjected to a pressure of from 76,492 lbs. to 113,615 lbs. in addition to the weight he had to bear from the atmosphere at the seaside. On coming to the surface, this enormous excess of pressure is got rid of; no wonder a sensation should be felt of rushing of blood to the head, and that sometimes hæmorrhage should follow. The most remarkable feature of immersion in deep water is, perhaps, the fact that respiration should be carried on, apparently without difficulty, under such pressure; and it is natural enough that, should the diver have anything the matter with his lungs, his respiration should be seriously interfered with; in such cases he becomes liable to be poisoned by his own carbonic acid, as the blood must find it very difficult under such a pressure, and especially when the lungs are not in a perfect state of health, to emit the carbonic acid it contains; the air is not too impure for the diver to breathe, but his blood becomes impure from its retaining its own carbonic acid. The phenomenon is precisely the same as when increased pressure is brought to bear on boiling water; the boiling instantly stops, and steam ceases to be evolved.

Now, the difference of pressure of the atmosphere on the human body at the seaside and top of Mont Blanc amounts to about 15,432 lbs., being reduced by nearly one-half; and we can readily imagine the greater freedom with which carbonic acid will part with the blood in the lungs at such an elevation. It is really impossible to refrain from sharing Dr. Lombard's feeling of wonder that the body should be able to adapt itself to such extremes of external physical conditions.

An apology is due on my part for having gone so far astray of the subject, as stated in the heading of this communication. I have thought the above physiological considerations, which are not unconnected with my subject, of sufficient interest to warrant my calling the reader's attention to them on the present occasion.

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## TREATMENT OF CHOREA BY ARSENIC IN LARGE DOSES.

Arsenic has long been regarded as an useful therapeutic agent in the treatment of chorea, but it may not be generally known that the curative value of the drug is greatly increased by administering it in full doses. The tolerance of children for arsenic is a matter of common observation, and this tolerance is especially marked in the case of a non-febrile disease, such as chorea, where there is no increased irritability of the digestive organs. To a child between the ages of five or six and twelve, the subject of this complaint, Fowler's solution may be given in doses of ten minims three times a day, directly after meals. The influence of this treatment upon the disorder is seen almost immediately, and it is rare for any of the physiological effects of the drug to be observed. By this means, cases of the disease which had resisted smaller doses of arsenic may be cured in a few days, and even severe cases seldom last longer than a fortnight or three weeks.

Eustace Smith, M.D., F.R.C.P.

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# DIPHTHERITIC PARALYSIS:

## ITS NATURAL COURSE, PATHOLOGY, TREATMENT, AND RELATION TO PARALYTIC AFFECTIONS FOLLOWING FEVERS.[*]

By SIR JOHN ROSE CORMACK,
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Physician to the Hertford British Hospital, Paris; etc.

[*Continued from page* 136.]

In recording this case, I have but slightly abridged the original bed side reports, believing that complete histories of complex cases carefully observed from first to last are most appreciated by clinical students. Moreover, abstracts are not only historically imperfect, but they are apt to be biassed statements, from the narrator unintentionally giving undue prominence to the facts which most support his own particular views. A desire to avoid this evil, and to allow readers to form their own conclusions from complete data, is my reason for having detailed some cases at great length. Having, however, occupied so much space with minute clinical histories, I must (leaving for the present some additional illustrations of the relations of paralysis to enteric fever, to the puerperal state,[†] and to hysteria) proceed briefly to illustrate the relations of paralysis to cholera, dysentery, and small-pox.

### Paralysis during and after Cholera.

There is an excellent paper on temporary glycosuria by Mr. William Sedgwick, in the *Medico-Chirurgical Transactions*, founded on observations which tend to prove that there had existed paralysis of the abdominal sympathetic nerve prior to the glycosuria, and that the occurrence of the latter would serve to show that, during reaction from previous collapse, there is "a temporary excess of restorative effort".

It is well known that patients convalescent from cholera, in common with persons recovering from various diseases, often require the catheter to be used, in consequence of temporary paralysis of the bladder. Dr. Sutton has noted (page 412 of *Simon's Ninth Report to the Privy Council*, 1867), that "in more than one case four or five pints of urine were drawn off in twenty-four hours". He gives in detail the case of a woman, aged 39 years, whose husband and three children died in the East London Cholera Hospital from the disease. The woman was attacked with cholera at 2 A.M. on October 6th, 1866, and was admitted to the hospital at 7 A.M. on the same day. After a residence of nineteen days, she was dismissed in full convalescence. It is specially stated, in the history of this case, that, at 3 A.M. on October 16th, three pints, and on the 17th a similar quantity of urine was drawn off.

Dr. Henri Jaubert, in his thesis (Paris, 1866), *De la Convalescence du Cholera*, states that he had had the opportunity of observing 888 patients of both sexes and of all ages in a temporary asylum established for the reception of convalescents from cholera. Under the heading, "Accidents Nerveux", he gives three classes of cases; viz.: 1. Cases of cramps of limbs; 2. Cases of contractions of the extremities; 3. Cases of different forms of paralysis. In this last division, after referring to the observations of Dr. Mesnet (*Archives Générales de Médecine*, Fév. et Mars, 1866), he relates the case of a man, aged 60, who, during the course of the malady, was all at once attacked with weakness (*faiblesse*) in the entire right side of the body, including the face. When the patient was first seen by Dr. Jaubert, the right naso-labial sulcus was slightly obliterated, the commissure was depressed, and the tongue deviated slightly towards the right. It was with the utmost difficulty that he could make any use of the right arm and leg. He was, however, able to stand, and, with the assistance of a crutch, he could take some steps. He walked like a mower, advancing one foot before the other. There was inertia of the bladder (*vessie paresseuse*). After eight days' residence, the patient left the Convalescent Home in the state now described. It is to be regretted that this case remained under observation for so short a period.

Dr. Jaubert mentions another case of hemiplegia following cholera, which he had seen, but of which he did not take notes. In this case, the paralysis suddenly manifested itself at the commencement of reaction.

Dr. Jaubert likewise mentions having seen two cases of incomplete paralysis of motion and sensation. The subject of the first of these cases was a male patient in the Convalescent Home. When admitted, there existed nearly complete insensibility of the little finger and ring-fingers, and of the inner half of the middle finger; the prick of a pin was not felt unless a deep thrust were made. The gentle friction of the arm with anything was not perceived by the patient. The anæsthesia extended up to the elbow, but it was less in degree in proportion to the nearness of the situation to the elbow: it was limited to the cubital half of the arm. In the right foot, the two outer toes and the external half of the third were similarly affected. In the left foot, the affection was limited to the great toe. The paralysis did not extend to the leg on either side. The motor power was modified in a similar manner to the sensation. The patient could neither flex nor extend the affected fingers and toes. The paralysed parts were the seat of an unpleasant formication. This case was under observation during only a part of its course. The history concludes with the statement that, when the patient left the Convalescent Home at his own request, he was more paralysed than on admission. In the other case, there was no loss of motor power; and the anæsthesia was limited to the distal half of the ring-finger and little finger of both hands.

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[*] Partly read before the Medical Section at the Annual Meeting of the British Medical Association in Norwich, August 1874.

[†] The best clinical account of this subject is that given by Dr. Fleetwood Churchill of Dublin. It constitutes the seventeenth chapter of the fifth edition of his work on the *Diseases of Women*, and is entitled Paralysis occurring during Gestation and in Childbed.

Magendie, in his *Leçons sur le Choléra*, published at Paris in 1832, refers to paralysis as a sequel of cholera. He says that the way in which it begins to manifest itself is generally so gentle, that the patients seem to experience only extreme debility and a dislike for food. In about eight days, he says they pass into a state of profound prostration; the muscles of the face are paralysed, and those of the limbs become quite flaccid. The mental powers grow torpid, and at last death takes place, with a general destruction of all the vital powers.

The epidemics of 1849 and following years furnished numerous cases in which paralysis was secondary to cholera. Gubler refers to a series of lectures delivered in 1849 at the Bicêtre by Dr. Delasiauve, upon cases in which attacks of cholera had been followed by mental alienation and paralysis.

Dr. O. Landry, in his work *Sur les Causes et les Indications Curatives des Maladies Nerveuses*, states that, during the cholera epidemic of 1849, a man suffering from a formidable attack of the disease was admitted, under the care of Piedagnel, to the hospital of La Pitié at Paris. During convalescence, paralysis ere long invaded the superior and inferior extremities, without the occurrence of any symptoms of the nervous centres being involved. Micturition and defæcation continued to be performed in a normal manner. The muscles became atrophied. Treatment having proved unavailing, the patient was transferred to the Bicêtre as an incurable.

Briguet and Mignot, in their *Traité du Choléra Morbus*, published at Paris in 1850, mention three cases which occurred during the epidemic of 1849, in which partial paralysis manifested itself in convalescence from cholera. In one of these cases, the paralysis was limited to the hands. In the two other cases, the superior and inferior extremities were affected: in both cases, the paralysis first showed itself in the superior extremities. In the three cases, recovery from the paralysis took place. As Gubler remarks, in referring to these cases, it is noteworthy that restoration of power commenced in the hands, and that the paralysis remained longest in the feet and legs—noteworthy, because the same order in recovery is observed in the paralysis consecutive upon diphtheria and other acute diseases.

### PARALYSIS DURING AND AFTER DYSENTERY.

Dysentery has sequelæ similar to cholera in respect of sensation and motion.

On the 22nd April, 1872, I was telegraphed for to meet in consultation Dr. Bazard at Dijon, in the case of an English gentleman, who was laid up at an hotel in that town, unable to proceed on his homeward journey from Egypt to London. I reached the bedside of the patient between five and six o'clock on the afternoon of the 22nd. He had, I was told—excepting occasional remissions lasting for a day or two—been severely suffering for some weeks from dysentery. During the whole of that period, he had been travelling homewards by short stages, suiting his journeys as much as possible to his ebbing strength. His paramount idea had evidently been to get home to obtain efficient treatment; for he had only casually consulted physicians on the way, and had never placed himself under serious treatment till his arrival at Dijon, when it was too late. At the date of my visit, the sanguineous alvine flux had entirely ceased, there remaining, however, a very irritable state of the intestine, manifested by diarrhœal stools quickly following the reception of food into the stomach, if more than two or three tablespoonfuls of beef-tea, breadberry, or thin arrowroot gruel were taken. The cessation of the dysenteric flux had not, however, been followed by any restoration of strength or any other sign of real amendment. On the contrary, the debility had alarmingly increased during the preceding two days, and within that period there had also supervened, or at least there had been first observed, inertia of the bladder and partial paralysis, with anæsthesia of the lower extremities. When I arrived, there was anæsthesia and incomplete motor paralysis of both legs. There was no impairment of the motor or sensory power of the superior extremities, or of the muscles of the face, tongue, or œsophagus. The intelligence was not affected. The urine was scanty and slightly albuminous. The pulse was about 90, weak, and intermittent. My questions were answered fully and clearly. I passed the night in an adjoining room. The door between the two rooms being ajar, I heard all that passed. He spoke to the nurse at intervals in a distinct voice, and took beef-tea, arrowroot, and wine, when they were offered, at short intervals. I was twice summoned to his aid during the night, in consequence of his being attacked by dyspnœa. On both occasions, he obtained considerable relief from the application of large thin poultices of linseed-meal and mustard to the thoracic parietes. When I left early in the morning for Paris, he had just awoke from a short sleep. He concurred with me and Dr. Bazard in thinking that he was in a rather better state than on the previous day. On arriving at my house in Paris, I received a telegram, dated noon, requesting me to return to Dijon. I had made my arrangements to do so, when another telegram, dated 3 P.M., informed me that he had just expired. I afterwards learned that his death, till within an hour of its occurrence, did not appear imminent. It seemed (as I afterwards learned) to have been caused by profound general prostration and paralysis of the respiratory muscles. Death was not preceded by delirium.

Recently, I was consulted by a military officer passing through Paris, on his way home from India on sick leave. He had suffered severely from dysentery, followed by debility and a great loss of power in both inferior extremities, which, he said, at one time amounted to complete paralysis. When I saw him, he could walk with the aid of a staff. He had a very anæmic appearance, and was suffering much from constipation. He was taking citrate of iron and quinine, which I recommended him to continue, with the addition of a dinner aperient pill, containing a grain of the extract of nux vomica. I saw this patient only twice, and have had no opportunity of knowing anything of the course of his malady subsequently to my last interview with him.

Zimmermann says that, in some persons who have had severe attacks of dysentery, it is not unusual in convalescence to meet with paralysis of the mouth and tongue, and sometimes of the whole of the lower part of the body. Sometimes, he says, universal paralysis manifests itself simultaneously with the cessation of the dysentery. He does not describe any individual cases. (*Traité de la Dysentérie:* traduction Française, p. 13. Lausanne: 1794.)

I have had several patients under my care for paralysis of the rectum, who traced that affection back to severe dysenteric attacks of old date.

The frequent occurrence of intractable inertia and paralysis of the rectum after dysentery has led some authors to attribute this inertia and paralysis to dysenteric lesions of the intestinal canal. A fact of kindred character is noteworthy in the present inquiry; viz., that paralysis following dysentery attacks the inferior more frequently than the superior extremities. As a rule, in paralysis of cerebral origin, the superior extremities suffer most severely and far more frequently.

[*To be continued.*]

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# FOUR CASES OF A PECULIAR EPILEPTIFORM DISEASE.

## WITH SYMPTOMS INDICATIVE OF SPECIAL IRRITATION OF THE NERVE-CENTRE OF ARTICULATE SPEECH.

By W. B. CHEADLE, M.D., F.R.C.P.,
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THE cases here recorded exhibit epileptiform disease in one of its rarer and most curious forms. Trousseau has described seizures of an analogous kind in his *Clinique Médicale* as varieties of epileptic vertigo. As in Trousseau's cases, so in these, there is something more than the mere transient giddiness of the ordinary *petit mal;* something less than, and different in character from, the full epileptic fit. They have one distinct feature in common, although it is not equally prominent in all; viz., rapid muttering, the frequent hurried repetition of the same word or phrase during the convulsion; so that this special variety might, perhaps, be designated "eclampsia loquax", or "muttering epilepsy".

CASE I.—Albert H., aged 18, draper's shopman, first came under the care of Dr. Cheadle at St. Mary's Hospital in March 1868, suffering from a peculiar form of epileptiform attack, to which he had been subject since he was six or seven years of age. At that time, he had an attack of chorea, and, about the same period, he received a severe blow on the head with a heavy stick, about the centre of the coronal suture, which left a small well marked scar. He could not state positively whether he had any fits between the time he had chorea and his surviving the blow, but thought there were none till after the chorea. At the time of his admission, he had sometimes two fits a day, and then was free for a time, and generally he had two or three at the first onset, followed by a week's freedom from them. The series decreased in strength gradually, the last being only a sensation. During a fit, he felt frightened; desired to lean against some support; he trembled; was unconscious, but never fell, having sufficient warning to enable him to place himself safely. The attacks commenced with a peculiar sensation in the head. He then lost the use of the left arm, not of the right, although he dropped anything he might have been holding with that hand at the time. His eyes were said to be open, and to roll about, and he talked incessantly while the attack lasted, repeating the same word or phrase very rapidly over and over again. He had never hurt himself or bitten his tongue, but had twice passed urine unconsciously during the fit; he thought his bladder was very full at the time. After the fit, he was very drowsy. There was no history of nervous disorder in any other member of the family. This patient remained under treatment, with some short intermissions, for upwards of three years, and on one occasion was seized with one of his attacks while in the consulting-room, when the phenomena were carefully observed and noted down by Dr. Cheadle. Whilst he was standing waiting for his turn to be seen, the boy's face became suddenly distorted; he trembled, and looked frightened; his eyes became fixed and turned upwards, and he fell gently back against the wall, close to which he was standing. As he stood leaning thus supported, with his head slightly drawn back and his face turned upwards, he kept muttering with extreme rapidity, over and over again, the same words: "Man of war", "man of war", "man of war", about a dozen times. Then his features relaxed, and he stood up quite himself again. He was clearly perfectly unconscious during the height of the seizure; but, when sharply spoken to as it was passing off, he made an effort to reply, and evidently heard what was said to him. The whole attack did not last more than a minute. He was conscious afterwards that he had had an attack, but could not recollect what he said or did while it lasted. During the time of his long attendance, he was treated with bromide of potassium, belladonna, and strychnia; and on one occasion with the bromide and iodide of potassium together; but he never seemed to obtain other than temporary benefit. The bromide was used in doses varying from twelve to twenty grains three times a day, and always controlled the fits so far as to reduce their frequency and severity. On the occasion when it was prescribed with the iodide, no increased benefit was apparent from the combination. Belladonna was prescribed in the form of extract, of which a pill, varying from half a grain to a grain as a dose, was ordered every night. This also gave relief, either when used alone, or taken in conjunction with the bromide of potassium. Strychnia was given in the form of liquor strychniæ in doses of five minims three times a day; it was tried for twenty-eight days, but the fits increased in number and severity, and it was abandoned. The patient felt so much relieved by the belladonna and bromide, that he continued his attendance for years, although he lived a considerable distance from the hospital.

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* The cases are reported by Mr. G. C. A. Moir.

CASE II.—Miss A. W., aged 13, came under the care of Dr. Cheadle on September 22nd, 1873, suffering since her fourth year from attacks of slight loss of consciousness, lasting a few seconds or even minutes. During the attack, her eyes were drawn, she moved her body and head to and fro slowly, and spoke incoherently, generally of Scriptural subjects, repeating the same word or phrase over and over again, such as the name Moses or Jacob. She had never been hysterical. The only severe attack she ever had took place in the February or March previous to her coming under observation, and was like one of her ordinary seizures, only prolonged; in it she muttered, but neither foamed at the mouth nor struggled much. She had one or more attacks daily, and had twelve attacks on the day previous to coming under observation. Her mother has one other child, who has become strange and imbecile. Her maternal aunt was insane. No further family history could be obtained. The patient was said to have ascarides. A vermifuge of santonin and calomel was ordered, together with a mixture containing bromide of potassium in scruple doses, and iodide of potassium in doses of two grains, with cinchona and quassia. She took the powder on the 23rd, and had twenty fits; on the 24th, twenty-two fits; but, on the 26th, she passed a round worm, and had only two fits. On the 29th, she again had santonin with compound scammony powder. On October 6th, the powder was reported to have acted freely, but no worms came away. She had two slight fits, which lasted just an instant, when she turned up her eyes and muttered a few words. From this time, the patient improved; had no more attacks, except once or twice very slight vertigo, the medicine being gradually reduced and left off altogether in December. From this time to May 1874, she had only three slight fits at long intervals. The bromide was resumed in twenty-grain doses, and no relapse has occurred up to the present time, December 1874.

CASE III.—Miss K. F., aged 11, came under Dr. Cheadle's care on June 3rd, 1874, on account of slight vertiginous attacks, to which she had been subject for nine years. She was a quick excitable child; has never had rheumatism, chorea, or worms. She had an attack of convulsions when teething. There was no epilepsy or insanity known in the family. She was the youngest of eleven children, who were all alive and healthy. The attacks of vertigo were always ushered in by severe pain in the abdomen, about the umbilical region. She then put her hands up to her head, pulled down her hair, and held her ears, evidently in a state of confused half-consciousness, and repeated with great rapidity many times a phrase or sentence; often "Shut the door, shut the door, shut the door", many times over. Her face then became very blue, and she made a choking sound in her throat. The pupils of her eyes dilated, and a dreamy look passed over her face. Then she cried out, "All right, all right; I shall be better directly", as consciousness returned. She did not fall down, but she knew when an attack was coming on, and took care. She muttered and called out in this rapid incoherent way wherever she was. Attacks had taken place in church, and she cried out in this way. After the attack, she was very drowsy, and often went to sleep. The fits occurred sometimes three or four times a day; sometimes she was free for weeks. Excitement of any kind was very liable to bring on an attack. On examination, the chest was found normal, the heart's sounds clear, except slight prolongation of the systole at the apex. The abdomen was natural in appearance; no tumour of any kind could be detected, and there was not the least tenderness at any point. She was ordered five grains of santonin at night, followed by ten grains of compound scammony powder the next morning, and fifteen grains of bromide of potassium three times a day. For two days after taking the powders, she suffered great pain in the abdomen, so severe as to make her cry out and roll about, and also repeated attacks of the talking convulsion, five or six during the day and several during the night. The bromide of potassium was now increased to twenty-three grains, with three grains of iodide of potassium and one-eighth of a grain of extract of belladonna. The following week, the mother reported that the child had a bilious attack and diarrhœa, and the medicine was suspended. The attacks have continued, but no opportunity has occurred for the resumption of regular treatment.

CASE IV.—Louisa G. came under Dr. Cheadle's care in March 1872, having suffered for twelve months from attacks of convulsion of a curious character. The attacks were described as follows. She turned dark in the face; her eyes became fixed, and she seemed unconscious; her arms and legs "worked", and sometimes she fell; but the most constant feature was the pulling of her clothes up to her neck, crouching on the floor with her hands up to her chin; sometimes kicking, scratching, and laying hold of things; sometimes she talked rapidly, repeating the same phrase, often counting one, two, three, over and over again. She had no sobbing or crying after the fits; was drowsy and stupid, but did not sleep. She was conscious of having had an attack, but had no recollection of what she said or did during it. During the last week, she had had three or four of these fits daily, with one day's intermission. They were becoming more frequent and more severe than they used to be. She had several convulsions in infancy when teething. A careful physical examination disclosed nothing abnormal. She was not known to have worms. Her tongue was clean, the bowels reported regular, and appetite good. Four grains of santonine were ordered at night, and ten grains of compound scammony powder the next morning. Twenty grains of bromide of potassium in two drachms of steel wine were given three times a day. When seen a week later, she had had a fit every other day, and four on one day. The bromide was increased to thirty grains three times a day, and from this time she remained absolutely free from all attacks, except slight "warnings", in the shape of giddiness, speedily passing off. The medicine was gradually reduced, with the apparent effect of leading to a recurrence of the "warning" symptoms, but no decided attack. Thus she continued until March 26th, 1874, *i.e.*, two years after the commencement of systematic treatment, never having an attack of talking and struggling convulsion, but occasionally slight vertigo. She had left off medicine for long intervals—weeks at a time—resuming it only when threatened by a return of the warning symptoms.

In all these cases, the subjects were young. I have not met with an example of epilepsy of this form in adults, although many of Trousseau's cases of an analogous disorder occurred in grown persons. In the present group, the disease commenced in every instance in childhood; in the first case, at 6 or 7 years of age; in the second, at the fourth year; in the third, at 2 years old; in the fourth, at 7.

In two cases, the children had suffered from convulsions in infancy; and in one, which recovered, there was a history of insanity and imbecility in the family. In the first case, the seizures were attributed to a severe blow on the head; in the second, they were no doubt aggravated, but probably not originally caused, by the presence of a round worm, the symptoms abating after its expulsion, but not ceasing entirely for many months. In the remaining cases, no cause could be assigned. In one of them, the existence of an aura, or at least of a premonitory paroxysm of pain in the abdominal region, seemed to point to some local irritation there as the starting-point. The rapid repetition of the same word or phrase, evidently a mere automatic discharge of language not springing from ideas, points to the morbid stimulation of that portion of the brain which has been shown to be intimately connected with the translation of ideas into articulate speech; viz., the third left frontal convolution. The morbid anatomy of aphasia, and the striking experiments made by Dr. Ferrier, who says that he has succeeded by the electrical stimulation of this same third left frontal convolution in producing cries in animals while in a state of unconsciousness, give special interest to the cases here recorded. The phenomena of phonation produced during the epileptiform convulsion are so closely analogous to those produced in the experiments on animals, as to lead to the belief that the same portion of the cerebrum was irritated by morbid influences in the one case as by the electric stimulus in the other. Against this there is, however, the fact, that in Case I the convulsion was accompanied by loss of power in the *left* arm; yet on the other hand, cases of left hemiplegia with aphasia have been recorded, and the active organ of speech is probably not invariably on the left side of the cerebrum. In these instances of disease, the stimulus may have been applied directly to the centre, or, as was probably the condition in Cases II and III, reflected from some distant organ.

In Cases II and IV, continued use of the bromide of potassium resulted in the complete disappearance of the symptoms, which there is every reason to hope will be permanent. In one of these, the disease had existed for nine years. In Case I, the symptoms were mitigated by the use of the same drug; but complete relief was not obtained. It should be remarked, however, that in this instance the largest dose administered was twenty grains—an amount which subsequent experience has taught me is quite inadequate for the complete control of epileptiform attacks at the age of the patient in question; viz., 18. In Case IV, the occurrence of an intercurrent affection has prevented the proper trial of the bromide of potassium, and it has not yet been resumed.

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## PUERPERAL FEVER IN PRIVATE PRACTICE.

By WILLIAM HINDS, M.D., etc.,
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THE editor of this JOURNAL invites a contribution from the individual experience of its readers, otherwise a very limited experience would scarcely justify any such contribution from me. Besides some recent cases, of which I will speak, my previous experience is confined to one fatal case. This was the 103rd case of midwifery which I attended, and I had no more puerperal fever until I had attended some 550 cases in addition. This first case occurred in 1847, and was followed by death in seven days. My last case occurred in January last in a primipara. I will give some account of both these cases, and do what I can to trace the etiology in each. The first case stands alone in my experience, and, as the last one is typical of some others, none of which proved fatal, I will give a few notes of that case only.

CASE I.—Mrs. P., aged 38, of active sanguine temperament, began to experience labour-pains about 5 o'clock on February 12th, 1847, which gradually increased in strength and frequency until 9 the same evening, when I was summoned to attend her. The pains on my arrival were active, and belonged to the first stage of labour. The os uteri was not dilated or disposed to dilate. It was marked by firm cicatrices, most likely the result of injuries at former labours. After several hours, the os somewhat improved; but the pains all at once ceased, and not a single pain came on for an hour or two. There was neither exhaustion nor fever, and the patient was perfectly calm. After an hour or two, the pains recurred, and were as active as before, and the os uteri became more dilated and its edges soft and elastic; but the pains in a few hours again ceased entirely. There was, however, not the least exhaustion, and nothing to induce active interference. The same thing had occurred in her labours previously, she said; and her medical attendant had to leave her three successive times, and she had never required any instrumental aid. A third time I was compelled to witness a cessation of pains, and this time there was some disturbance of the circulation. The pulse was 120, the tongue was coated, and some thirst and considerable exhaustion. Ergot had been previously administered, and the head, which presented in the first position, rested on the perinæum. This was about twenty-four hours from the commencement of labour, and near six from the commencement of the second stage. I ordered an enema to be administered, and left to fetch my forceps and summon a medical friend near. Returning very soon, I found she had been delivered immediately after my departure. The placenta had also been removed by a woman of some experience, who had been in attendance. The placenta, on examination, appeared to be perfect, and the uterus well contracted. During the first night, she had not much sleep; was restless and thirsty, and the tongue still coated when seen on the 13th.—February 14th. Pulse, 120; skin hot and perspiring; thirst and restlessness. A pill, with one grain and a half of opium, was ordered to be taken at bedtime.—February 15th. She had an excellent night's sleep, but the thirst was still great and the tongue coated; pulse, 120. The patient expressed herself much better. There was no milk at present. She made no complaint, except of thirst. A brisk aperient and nutritious diet were ordered.—February 16th. She had been restless during the whole of the previous night; the bowels were well open yesterday. There were thirst and coated tongue, and occasional delirium. She now complained of erratic pains in the limbs, which she considered rheumatic. There was some milk. The pulse was 120 at least, and more feeble. The skin was dry, not moist as before. There was not the slightest tenderness of the abdomen. I ordered a diaphoretic mixture, with ammonia and opium, to procure sleep.—February 18th. She had little or no sleep during the last three nights, although an opiate was administered. She was delirious at intervals, and last night she was with difficulty restrained from getting out of bed. There was no pain of head, and no abdominal tenderness. Nausea occurred occasionally; the tongue was furred and brown near the tip. Pulse, 135, weaker. She was ordered to have wine; to take castor-oil immediately, and two grains of opium at bedtime.—February 19th. She had eight hours' sleep, which was, however, much disturbed. She complained of pain in the arms. On the outer part of each forearm, there was a slight blush of redness and some œdema. The lower extremities seemed free from redness. There was some nausea; no tenderness of the abdomen. The bowels were relaxed five or six times; the tongue was brown, the pulse weaker, and the breathing had become hurried and laborious. There was no milk, and the breasts had become quite flaccid. The lochia were scanty, and somewhat offensive. Wine was ordered to the extent of two ounces every two hours, and quinine every four hours. In the evening, the red blush on the forearms occupied the whole outside space from wrist to elbow, and had become deeper, and the œdema had somewhat increased. The breathing was still laboured, and the pulse was 140 and tremulous. She had diarrhœa. The tongue was brown and dry. She was ordered wine and egg-flip *ad libitum*. The patient died early on the following morning. No *post mortem* examination was obtained.

REMARKS.—Here was a case of undoubted blood-poisoning; but what was its advent, what its etiology? At that period, there was an almost universal belief in contagion or zymotic infection. In this direction, I made most careful inquiry, and I certainly found that the female who was left with my patient, who removed the placenta in my absence, and who was employed by various medical men to give injections, etc., had, according to her own statement afterwards, been in attendance within a few days previously upon cases of both erysipelas and scarlatina. Did she communicate to my patient any zymotic poison? With the light I then had, I supposed this rather probable. I do not think so now. I am decidedly of opinion that it was a case of septic infection. Small escapes of blood, intrauterine, and confined during many hours of a protracted labour, will certainly suffice to produce a septic poison; and, in this case, the cracks in the hardened cicatrices of the os uteri would easily facilitate the process of septic infection. In this way, I have come to regard this case as one of primary sepsis, caused by breach of surface.

My second case, which I shall give very briefly, belongs to a totally different category. Here the uterus alone, and secondarily the abdominal parts in its immediate vicinity, were first affected.

CASE II.—Mrs. W., primipara, was confined on January 27th last, after a labour of about ten hours' duration. She progressed favourably for four days at least; for, when seen on February 1st, there was no complaint, except of restlessness and insufficient sleep. On the fifth day, on entering the room, an extremely unpleasant earthy odour was found to pervade the atmosphere. I immediately inquired the meaning of this, but, before any answer could be given, I lifted the bed-clothes partly from the patient, when an intolerable stench escaped from the bed. The patient had had a frightfully putrescent and offensive discharge, and, for two or three days at least, had not been properly cleansed and changed. Rigors, very severe, had occurred, with sleeplessness. There was considerable prostration, with an anxious, flushed, and pinched countenance, with acceleration of pulse. The abdomen over the uterine region was very tender to the touch. There were some other grave features in the case, which made me regard it as one of great danger. Immediate steps were taken to wash out the vagina and uterus with lukewarm soapsuds impregnated with solution of soda chlorinata, and the processes to be repeated over and over again. Immediate and complete cleanliness was enjoined, and the napkins ordered to be well sprinkled with the same diluted chlorine solution. Opium and calomel were administered every eight hours at first, and counterirritation and fomentations were ordered to the abdomen. The next day, there was some improvement, and the patient afterwards gradually and fully recovered.

Remarks.—In this case, too, there was some blood-poisoning no doubt, but it was indirect, or arose from the absorption of poisonous or septic gases, while in the previous case, I have no doubt, the blood was poisoned by the direct and immediate absorption of a liquid poison. In the last case, death would soon have occurred from uterine and general peritonitis, if from nothing else, had not immediate means been taken to alter the conditions present in the cavity of the uterus. The diagnosis in the first case could be of little avail as to the result, and the prognosis grave in the extreme. In the second case, there was much more room for remedial measures, and, with the proper remedies energetically applied, and with perseverance, there was good room for success. I fear to encroach too much upon the space of the Journal, but should like to be permitted to remark on one or two points brought out in the very valuable discussion on this subject, and the kindred subject of pyæmia, as recorded in the columns of the Journal. The second of the cases I have given, and those belonging to the same category, certainly, as far as they go, have some bearing on Mr. Wells's second double proposition, and also somewhat illustrate the negative of the third. A good deal has been said of the relation of bacteria to puerperal and other cases of a certain phase, and no doubt this relation, in a strictly scientific sense, is of very great interest indeed; but I much question its practical value in reference to either curative or preventive measures. It is, I think, to be inferred that an extraordinary susceptibility of puerperal cases to the onslaught of zymotic poisons in general is not to be too hastily assumed. If any general predisposition to attacks from this class of causes exist, it can, I believe, arise only from the lowered vitality incident upon the puerperal state. No doubt, a lying-in-woman who, previous to her confinement, is susceptible, would become more so when her powers of resistance were lowered by childbirth. At the same time there would appear, from my own experience, good ground to believe that many women, in the puerperal state, are not susceptible at all to either scarlatina or small-pox, or to any other disease of the same class. Scores of times I have attended cases of small-pox and others of the zymotic class, and visited lying-in cases during the same morning circuit. Sometimes, it is true, I have been able to take the precaution to visit the puerperal cases before the others, but not always, and no one case of infection, to my knowledge, has ever taken place with me.

# CLINICAL MEMORANDA.

## THE MEANING OF THE TERMS "CROUP AND DIPHTHERIA".

In a paper on the above subject, in the last number of the Journal, Sir John Rose Cormack states that "the spasmodic croup of English authors is the *faux* croup of the French". I have always believed, and I believe still, that the spasmodic croup of English authors is also the spasmodic croup of the French; its synonyms being "Laryngismus stridulus", "Crowing inspiration", "Thymic asthma". The *faux* croup of the French is the "Inflammatory croup" of English authors. The French synonym is "Laryngite striduleuse", stridulous laryngitis; the cough and the respiration being, as a rule, more stridulous in cases of inflammatory or false croup without false membranes, than in cases of so-called "true croup", with diphtheritic false membranes in the larynx and trachea. It appears to me that to speak of the spasmodic croup of the English as synonymous with the false croup of French writers, is to introduce a new element of confusion into the discussion of the relations between croup and diphtheria. There are three distinct diseases to which the term croup has been applied generically: 1. Spasmodic croup, *syn.*, laryngismus stridulus; crowding inspiration; child-crowing; thymic asthma. 2. Inflammatory croup, *syn.*, stridulous laryngitis; catarrhal laryngitis; false croup. 3. Diphtheritic croup, *syn.*, laryngeal diphtheria; membranous laryngitis; membranous croup; true croup. Of course, laryngeal spasm may occur as complication of either simple inflammatory croup or of diphtheritic croup.

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## THE TREATMENT OF ACUTE PERITONITIS IN OVARIAN DISEASE.

The alleviation of the intense pain which occurs in cases of peritonitis, secondary to previous pathological changes in the peritoneal cavity, is frequently a matter of considerable difficulty. For example, where cancerous deposits exist in the mesenteric membranes, or in the various forms of ovarian disease, the recurrence of peritonitis and its duration appear to be attended with more acute suffering than any form of disease with which we are acquainted. The result of *post mortem* examination in such cases generally enables us to ascertain the fact, that active organic changes have apparently occurred in some particular part of the diseased tissues, from which the peritoneal inflammation has originated. In a case recently under my care in St. George's Hospital, where the symptoms and physical signs led to the diagnosis of an ovarian tumour of considerable size in the left pelvic and abdominal regions, composed of one cyst with walls of some thickness, and attached by strong and dense adhesions to the surface of the uterus and pelvis, the symptoms to which I have above referred suddenly occurred in that severe form which is met with in the worst cases of puerperal peritonitis. The abdomen was distended, tympanitic, and excessively painful; and the constitutional disturbance such as to lead us to expect that the patient would not survive many hours. With the view of relieving her from the pain she was enduring, I punctured the peritoneal cavity with a fine cannula trocar, and allowed the fœtid gas to escape. The trocar was again introduced and passed into the cyst, the surface of which reached between two and three inches above the pelvic brim. By means of the aspirator, about a pint and a half of fœtid pus was drawn off, and the cyst injected with warm carbolised water (1 in 80 at temperature 98 deg.) By alternate injection and aspiration, till the fluid was free from odour and turbidity, which required between an hour and a half and two hours' continuous attention, and the passage of nearly a gallon of water, the acute pain was entirely subdued. There were certain difficulties in the operation which the simple appliances at hand rendered unavoidable; but the result was satisfactory enough to encourage the belief that those processes of decomposition which give rise to gaseous and inflammatory products in the peritoneal cavity may be dealt with on the general principles of antiseptic treatment.

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# PATHOLOGICAL MEMORANDA.

## CAN A DEAD MAN GROAN?

The possibility and probability alike of such a circumstance as the utterance of a groan after somatic death are sufficiently heterodox to ordinary credence to induce me to record the fact of my having, in connection with others, heard a veritably dead man groan.

J. B., aged 57, committed suicide by hanging, and, after he had been very effectually suspended for an hour, was cut down by me and two others. As the doubled rope was slackened from the neck, air escaped from the thorax through the larynx, and a prolonged rather loud groan was the consequence. The two men who assisted me exclaimed, "He ain't dead"; and I, for the moment, fell in with their views, ripped open his clothes, and practised artificial respiration; but I soon noted that there was not the slightest attempt at respiration; that the heart was still to eye, hand, and ear; that his well opened eyes were glazed as only a dead man's eyes glaze, and that the dilated pupils were insensible to strong light. He was certainly dead, and dead from the first, and the groan we all heard had, I imagine, the following causation. The suicide braces his body for the final throe by taking in a deep breath; and, when hanging is the method adopted, the constriction of the air-passages is too immediate and effectual to allow this air to escape; but, when the rope is relaxed, the lungs and thorax contract with sufficient force to occasion a groan even an hour after death. Such a positively observed fact may find its importance in a medico-legal sphere, and I feel that it ought to be contributed to the *répertoire* of such as it may interest.

E. Holland, M.D.

# REPORTS
OF
# MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

## ST. THOMAS'S HOSPITAL.

### CASE OF STRANGULATED INGUINAL HERNIA: OPERATION: SAC NOT OPENED: IMMEDIATE UNION: RECOVERY.

(Under the care of Mr. F. MASON.)

THE patient in this instance was a man, aged 47, married, who was admitted into Albert Ward, under the care of Mr. Simon, on October 15th, 1874. It appears that he had had an oblique inguinal hernia on the right side for twelve years, for which he had worn a truss. He was a railway-porter, and was exposed to a good deal of physical labour, yet the instrument kept the rupture from protruding. He was quite well until the day of admission, when, in consequence of having a painful carbuncle over the iliac crest of the left side, he removed the truss. About 3 P.M., as he was walking across the room, the hernia descended, and all attempts on his part to return it proved ineffectual. He was admitted into the hospital at about 6 o'clock, and an ice-bag was applied for some time, when Mr. Simon was sent for, in consequence of the symptoms of strangulation becoming urgent. Mr. Simon being absent from town, Mr. Mason was called to the case at 12.30 A.M. on October 16th. On his arrival, the patient complained of a good deal of abdominal pain, and the hernia protrusion was so tender as to preclude a careful examination of the part. The patient had vomited, but the contents of the stomach were not markedly stercoraceous. It was decided to give the patient chloroform, and, if necessary, to operate. The patient having been removed to the operating-theatre, chloroform was administered, and, moderate taxis proving unavailing, Mr. Mason transfixed the skin over the neck of the hernia, and, dissecting carefully with the forceps and knife only down to the peritoneal sac, passed his finger into the external abdominal ring. A hernia-knife was then employed, and an incision made in an upward direction through a tight constricting band. The limb was then flexed on the abdomen, and the hernia instantly returned into the abdominal cavity. Four silk sutures were applied to bring the edges of the skin together, and, a pad and bandages having been adjusted, the man was taken back to bed. The subsequent history is briefly told; for, when the patient was dressed at 9 A.M., that is about eight hours after the operation, the wound was found perfectly healed. The stitches were removed on the following day; the wound was firmly closed, and not a single drop of pus was seen throughout. The patient was discharged well on October 30th, having been kept in the hospital until the carbuncle was cured.

REMARKS.—Mr. Mason observed, that so satisfactory a termination after an operation for strangulated hernia was exceedingly rare; and it was the more surprising in this case, inasmuch as the carbuncle from which the patient suffered indicated that the man was not in the best of health. Mr. Mason thought that the successful result was due partly to the little delay that existed before the operation, and in some measure to the sac not having been opened, but perhaps more particularly to the fact, that the incision into the constricting band was a fairly free one, which allowed the hernia to be gently returned without in the least bruising the intestine. With regard to the prolonged use of taxis, Mr. Mason added that he believed that some patients, with the view of avoiding an operation, employ an unjustifiable amount of force in their endeavour to put back the rupture. In dealing with any individual case, the surgeon should take this previous automanipulation into consideration, and, if there be much local pain, the division of the strictured part should be at once recommended. The operation was simple, if done early, but delay in strangulated hernia was well known to be especially dangerous to life.

## HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM.

### PARAPLEGIA: RECOVERY.

(Under the care of Dr. LOCKHART CLARKE.)

THE following case is one of great interest, and records an example of remarkable success in treatment.

J. M., aged 46, was thrown from a chaise in August 1870, and violently pitched on to a hard road. He turned a complete summersault, and fell on his back. He was quite stunned, and remained insensible or upwards of half an hour. A large and painful lump formed at the back of his neck, and for some two or three months afterwards he used, at night when in bed, to feel a dull heavy pain extending up the back part of his head. All effects of the fall, however, seemed to have disappeared, when, in September 1872, after two days' shooting, he suddenly felt an extreme coldness in his right foot for four or five minutes while sitting down. The same feeling was experienced in the course of a few days, and then recurred more frequently, the left foot also being sometimes affected in the same way, but never at the same time as the other. These symptoms were succeeded, about a month later, by stiffness of both knee-joints, followed by numbness in the leg, thigh, half the penis and scrotum, abdomen, and loins, on the right side. There was no loss of power, however, on that side; but the left leg was very weak, and he dragged it in walking, although he felt scarce any perceptible numbness in it at that time. In the right leg, besides the numbness, there was great loss of sensibility to heat and cold. For some months, he had been under medical treatment, and had taken nux vomica and iodide of potassium, with cold douche and shampooing to the back, and faradisation. However, the disease progressed until he became almost entirely paraplegic. He came into the hospital on February 5th, 1874. He was then unable to stand without support. He had hyperæsthesia of the right leg, and almost total anæsthesia of the left. Muscular startings in both legs were severe and distressing, but reflex action was diminished. His urine was thick, scanty, and loaded with lithates. On examination of the spinal column, considerable pain was found to be caused by pressure over the sixth and seventh dorsal vertebræ, and again over the tenth and eleventh. He was ordered a blister, five inches by two in size, over the tender space in the dorsal region of the spine, with the following draught:—Liquoris potassæ ʒss.; potassii iodidi gr. v; spir. ætheris nitrosi, ʒj.; spiritûs juniperi ʒss.; tinct. belladonnæ, ♏v. At the end of a week, another blister was applied over the tenth and eleventh dorsal vertebræ, and, a week afterwards, another was applied to the same place as the first, over the sixth and seventh dorsal vertebræ. These blisters were followed by diminution in the startings of the legs, and had also the effect of removing to a considerable degree the tenderness on pressure. In about a month, there was a very decided improvement in both the power and sensibility of the lower extremities. He could lift his legs a considerable height from the ground while sitting: a movement which he was wholly unable to perform when he came into the hospital. The hyperæsthesia of the right leg and the anæsthesia of the left had evidently diminished. He continued the same medicine, with repeated blisters at intervals to the spine whenever there was any tenderness on pressure or muscular jerking of the legs. At the end of two months, he was able to move about the ward with the assistance of two sticks; and, a few weeks later, he could walk round the garden at the back of the hospital. It was now considered better that he should leave the hospital and go to a relative in the country, but continue the same medicine and repeat the blister when necessary. He left on August 27th, and continued steadily to improve. In the course of six weeks, he wrote to say that he could very well walk a mile and a half without fatigue, and, a few weeks later, he called at the hospital to show himself, stating that he considered himself almost perfectly well. The number of blisters applied to the spine was fourteen.

The symptoms in this very satisfactory case were evidently due to a subacute or almost chronic inflammation of the spinal cord and its membranes, and the success of the treatment was in favour of this diagnosis.

## GENERAL HOSPITAL, BIRMINGHAM.

### FATAL CASE OF VOLVULUS.

(Under the care of Mr. PEMBERTON.)

[Reported by W. OTTLEY, M.B., House Surgeon.]

G. A., aged 50, a pauper imbecile, was admitted on March 21st, with a history of constipation and occasional vomiting, there being at the same time a tumour in the right inguinal region. Owing to his being dumb, and to his complete absence of intelligence, a very imperfect history was obtainable, but it was ascertained that he had been in his usual health until Thursday, March 18th, and the master of the workhouse stated that no tumour had been noticed in the groin until after that date. On examination, the abdomen was found to be moderately tense, but there was no marked tenderness of this or of the tumour before mentioned, which was of the size of a large egg, very hard and solid to the feel, without impulse on coughing, and not painful, even on moderately firm pressure. It was rounded and smooth, was not translucent; it occupied the right inguinal canal. There was no redness or œdema of the skin over it. The testis on this side was absent from the scrotum. On the other side, the testis was natural in shape and size; there was a scar of doubtful nature on the penis, but no enlargement of inguinal glands nor any other evidence of syphilis. The tongue was moist, slightly furred. March 22nd. He passed a very restless night, sitting up in bed, and occasionally getting out on the floor. He refused all nourishment; there was no change in the condition of the tumour; the bowels were not opened; there had been no vomiting. He was ordered an enema, and a draught containing twenty grains of hydrate of chloral and 30 grains of bromide of potassium at night. March 23rd. He vomited once. The enema was returned unchanged. March 24th. Tympanitis had decidedly increased, and there was considerable abdominal tenderness. Vomiting had occurred again, and the man was weaker.' In the presence of these symptoms, it was decided to make an exploratory incision into the tumour in the groin. The man being put under the influence of ether, an incision four inches in length was made over the axis of the tumour, and the dissection carried down to the sac, on opening which about two ounces of serous blood-stained fluid escaped, and the enlarged and adherent testis was brought into view. The sac (which was that of a congenital hernia, there being an opening into the peritoneal cavity large enough to admit the finger) was found to be empty, and a careful search having failed to reveal the seat of obstruction, the wound was closed. March 25th. The patient had very little pain after the operation, and slept a little during the night, though he continued to sit up, and to attempt to get out of bed in the intervals of waking. In the morning he was very much weaker, the abdomen greatly increased in size, and breathing much interfered with. He died about 1 P.M. At the *post mortem* examination, on opening the abdominal cavity an enormous coil of large intestine was found extending from the left iliac region to the diaphragm, filling the left hypochondrium, and curling down to the sacrum. It was as large round as the man's knee; its walls were thin and membranous and contained a large quantity of fluid, besides the gas which distended it. The small intestines were also blown up, and had pushed the diaphragm as high as the third interspace on both sides; the liver was thrust back against the spine. It was found that the coil of large intestine consisted of the sigmoid flexure which had been twisted a whole turn on itself, its channel being thereby completely obstructed, and the bowel had been so nipped that there was ecchymosis under the peritoneum at the seat of twisting. There was a second volvulus of the ileum, the mechanism of which is difficult to describe; but it appeared as if the gradual distension of the sigmoid flexure had twisted the greater part of the small intestine in one direction, the mesentery being rolled up; one coil, however, had received a twist the opposite way, and where the two pieces crossed, the bowel had been strangulated; there was ecchymosis at this point, and a few flakes of lymph were found near the spine. There was a congenital opening into the tunica vaginalis, through which a hernia might have descended; the testis in the right inguinal canal was hard and fibrous, containing several cheesy patches and without a trace of testicular structure. The bases of both lungs were collapsed from pressure by the abdominal contents.

# REVIEWS AND NOTICES.

Contributions to the Mechanism of Natural and Morbid Parturition, including that of Placenta Prævia. By J. Matthews Duncan, President of the Obstetrical Society, Edinburgh. Edinburgh: A. and C. Black. 1875.

Dr. Matthews Duncan has already obtained so high a reputation for his philosophical and accurate treatment of all the mechanical questions involved in parturition, that very high anticipations are raised by the appearance of another volume devoted to this special subject, and these are not disappointed in its perusal. In this, as in former works, the author is especially remarkable for the ingenuity displayed in devising experiments, whereby positive data are obtained for the solution of problems which had previously been the subject of uncertain inferences. In the more theoretical part of the discussion, we find that mechanical questions, which some authors have, by elaborate research, involved in greater obscurity, are always definitely and lucidly stated, and for the most part treated with accuracy and soundness. The book now before us, in conjunction with his former works, is sufficient to place Dr. Duncan in the very first rank of those who have contributed to the advancement of obstetrical science.

The present book, like the *Researches in Obstetrics*, consists of a collection of papers published at various times, and includes a reprint of those chapters of the former work which relates to the subject of mechanism. It thus forms a somewhat more complete whole than the other, comprising a consideration of most connected and mechanical points which are now open to discussion. Among the chapters reprinted, which will not now call for special notice, are those on the power exerted in ordinary labours, the maximum power in difficult cases, the strength of the uterus to resist bursting pressure, the pelvic articulations in parturition, the lateral obliquity of the fœtal head, and the relation of the caput succedaneum to the presentation.

In the introductory chapter, the author divides the progress of the science into three stages: first, the measurement of the passage to be traversed, and the body to be pushed through; secondly, the discovery of the manner in which the fœtus traverses the passage, and the alterations in form thereby produced; and, thirdly, the study of the forces employed to do the work. Of these, the first stage is already achieved; the second is far advanced, but still far more complete; while the third is as yet hardly commenced, but is far from complex, and promises more conspicuous practical results than either of the others.

The second chapter treats of long delay of labour after the escape of the liquor amnii; and a case is related, showing that the fœtus may survive as long as forty-five days under such circumstances, provided the uterus remains quiescent.

In the third chapter, Dr. M. Duncan discusses the curves of the developed genital passage. He controverts the opinion of Schatz and Schultze, that there is normally a posterior obliquity of the axis of the uterus in relation to the axis of the pelvic brim, and the practical conclusion drawn by the latter with regard to the position which ought to be assumed in the different stages of labour.

He next points out that there is commonly a lateral curve in the genital passage, due to the obliquity of the axis of the uterus towards the right side. In this circumstance, he finds an explanation of the mode of causation of brow and face presentation, discussed in the fourteenth chapter. A point is here involved, which is not only of theoretical interest, but has an important practical bearing in relation to the position which should be adopted in such cases; and the author appears to be not so clear as usual in the mechanical grounds upon which his conclusion is based. He assumes that resistances are uniform; and states that, when the fundus uteri is inclined to the right, that part of the fœtal head which is toward the left will be pushed down most, because the line of force will be nearer to the outer side of the curve. In this way, he considers that a face-presentation may be produced when the occiput is towards the right, and finds a confirmation for this explanation in the fact shown by statistics, that face-presentations are relatively more frequent in the second than in the first position of the head. Now, it is clear that the resultant of the uterine force will be parallel to the axis of the uterus, and that, so long as there is no lateral flexion of the fœtus, its line of action will lie in the median antero-posterior plane of the fœtal head. The effect of this force in rotating the head on a transverse axis, and so forcing down one extremity more than the other, is measured by the product of the force, and the perpendicular from the centre of gravity of the head upon its line of action. It depends, therefore, solely upon the point at which this line of action cuts a transverse plane drawn through the centre of gravity of the head. And this will be the same, whether the head enter the brim directly or obliquely. The fact that, in the latter case, the line of action passes nearer to one side of the passage, does not affect the question.

It appears, therefore, to us, that Dr. M. Duncan has discovered the true cause of face-presentations, but that its mode of operation is somewhat different from that which he describes, and is to be found in the inequality of resistances. If the fœtal head enter the brim obliquely, it will first encounter that margin of the brim which is nearest, namely, that which forms the inner side of the laterally curved passage. The part of the head which is on the inner and shorter side of the curve, will, therefore, be first resisted and retarded, and, if the occiput of a dolichocephalic head be turned in this direction, as in the second position of the vertex, it may become hitched upon the edge of the brim. When the head is fully engaged in the brim, a similar effect will be produced up to a certain point, but in a different manner. The pressure, and therefore the friction, will then be greater on the outer and longer side of the curve, towards which the line of force is inclined. So far as regards friction, therefore, the outer extremity of the diameter will be most retarded. But an opposite, and usually a preponderating effect will be produced by the excess of perpendicular pressure at this end of the diameter. In consequence of the elongated shape of the head, the direction of this force will, so long as the largest diameter of the head has not yet entered the brim, meet the longitudinal axis of the head at a point in advance of its centre of gravity. When this is the case, it will tend to produce such a rotation on a transverse axis, that the part of the head on the outer and longer side of the curve will descend most rapidly. It is in the same way that the resistance of the antero-posterior curve of the pelvic passage produces extension of the head in the later stage of normal labour.

Precisely the same mechanical point is involved in the question, also discussed by the author, of the effect of anterior or posterior obliquity of the uterus, in relation to the axis of the brim, in producing lateral obliquity of the fœtal head. The confusion which has existed on the subject is shown by the fact that Scanzoni and Litzmann have attributed to the same causes exactly the opposite effects to those which Dr. Duncan, with good reason, considers them to produce.

In the seventh chapter the effective power of parturition is discussed, and the danger and difficulty pointed out, which are inherent in the method of calculation adopted by Professor Haughton, leading to the conclusion that the auxiliary forces exceed that of the uterus in the proportion of about ten to one, and amount to a total of nearly a quarter of a ton. By estimating the force required to check the advance of the head, the author infers that the total force naturally exerted rarely exceeds fifty pounds.

The ninth chapter contains an account of experiments on the tensile strength of the fresh adult fœtus; and an inference is drawn as to the amount of force applied in podalic extraction, which is compatible with the life of the child. It is shown that the spinal column gives way under a tension varying from ninety to one hundred and fifty pounds, and that an addition of less than twenty pounds more is sufficient to produce decapitation.

In the tenth chapter, the author investigates the question of the synclitic motion of the fœtal head, which Kuencke has described as taking place while it traverses the true pelvis, and the enclitic motion which he believes to occur in the last part of the passage. By the former of these not very lucid expressions, Kueneke means such a motion that the same plane of the fœtal head, which is at first coincident with the brim, becomes coincident in turn with the successive planes of the pelvis, so that the head descends as if fixed to a lever moving on a hinge at or near the symphysis pubis. Dr. Duncan forcibly demonstrates the fallacy of the explanation given by Kueneke for this supposed motion, namely, that the pressure of the curved posterior wall of the pelvic passage causes a corresponding pressure of the head against the symphysis; and that this latter pressure produces a greater retardation at the anterior end of the diameter than the former does at the posterior. This explanation amounts, as he shows, to an assumption that the reaction is greater than the action.

The sixteenth chapter contains an explanation of the true mode in which the placenta is naturally expelled, and a refutation of the view commonly entertained, and expressed by Ramsbotham, Rigby, Schultze, and others, that it descends like an inverted umbrella, the point where the cord is inserted coming foremost. Dr. Duncan points out the fact, which every observer can verify for himself, that, when no traction is made on the cord, and there is no excessive effusion of blood, it is the edge of the placenta, and not the point of insertion of the cord, which first presents at the os uteri. He shows that normally the placenta becomes folded upon itself about a longitudinal axis.

The last five chapters of the book are devoted to a very full discussion of the several points of mechanism connected with placenta prævia, including the spontaneous separation of the placenta, the causes and source of hæmorrhage during pregnancy and labour, and the mechanism of its arrestment. Hæmorrhage in the earlier months of pregnancy, if not due to commencing abortion, the author considers to be analogous rather to the accidental hæmorrhage which may occur when the placenta is normally situated. He controverts both the old traditional view that it depends on an expansion of the cervix during the later months of pregnancy, and also the theory of Dr. Barnes, that it is due to the excessive proportionate growth of the placenta, because the latter involves the erroneous notion that the cervix can be the placental site. He shows that the spontaneous separation of the placenta is due to the lateral stretching, and not, as Dr. Barnes has supposed, to the longitudinal shrinking of the uterine wall, since otherwise separation would occur at the normal site, where a corresponding amount of shrinking may take place at the escape of profuse liquor amnii. He considers Dr. Barnes's estimate of the diameter of the zone of necessary separation to be too great. The arrestment of hæmorrhage he attributes mainly to the lowering of venous pressure produced by the hæmorrhage itself. He regards, however, as important aids towards this end the effect of the pressure upon the open mouths of the vessels, and the elongation of their orifices, which are produced by uterine action.

We have endeavoured to give some outline of the more important topics discussed by Dr. Matthews Duncan, but to all our readers we commend the book itself, and especially to those who are themselves students of the mechanics of parturition. It will be found not only to convey most valuable instruction, but to be fruitful in suggestions to scientific observers in pointing out those lines of investigation which are most likely to afford further discoveries in the future.

# REPORTS AND ANALYSES

AND

# DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

## KINMOND'S EFFERVESCING FLUID CITRATE OF MAGNESIA.

It is very well known that what is commonly sold as granular effervescing citrate of magnesia is in truth not a citrate of magnesia at all, but a tartrate of soda. A good deal of discussion and some legal proceedings have resulted from this unsatisfactory state of things, and some of the leading chemists have proposed various compromises in the way of title. But, as the soluble salts of magnesia have decided advantages, and are those which the prescriber desires for his patient, it is a good idea which Messrs. Kinmond and Co. of Leamington have had in issuing in a duplex bottle a fluid magnesia of double the officinal strength, and (in the attached smaller compartment) a solution of sweetened citric acid. Half a teaspoonful of the citric solution added to a tablespoonful of the magnesia solution gives a true effervescent solution of citrate of magnesia.

## MR. SYDNEY JONES' OVARIOTOMY-FORCEPS.

This forceps has many advantages over those previously made for ovariotomy. First, the handles are longer than Nélaton's, by means of which they are not so much in the way of the operator. Another great advantage is, that the instrument never tears the walls of the cyst, because the holding parts of the places fit well into each other, as shown in the diagram. Lastly, near the bow, is a rack similar to that of a hæmorrhoid-forceps. The ovariotomy-forceps has been in use at St. Thomas's Hospital for some time, and has been much admired by several of the staff.

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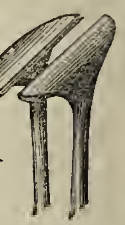

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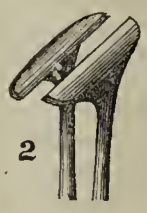

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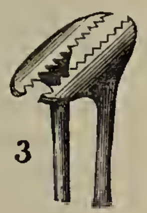

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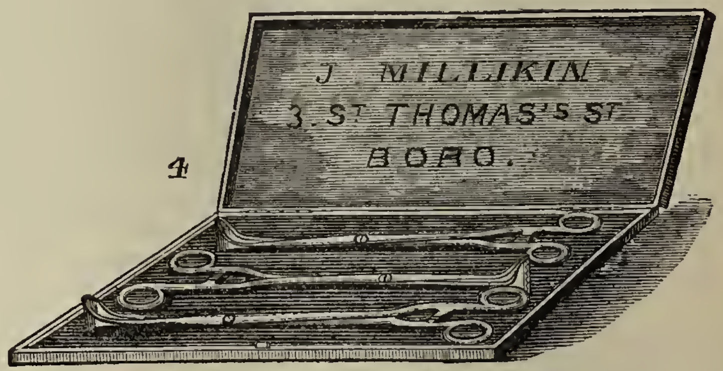

## ETHER-FLASKS.[1]

Staff-Surgeon Dr. James Lilburne has invented a very useful method of closing bottles containing ether, chloroform, and other volatile fluids or tinctures, in hot climates. The bottles are made with a narrow neck, corked, and the glass of the neck drawn over the cork and closed with the blow-pipe. Evaporation is impossible. The invention is very simple and practical, and his ether-flasks, after being tried and found successful, are, we understand, to be adopted at foreign stations.

## DR. VON BRUNS'S WOUND-DRESSING COTTON.

Von Bruns's dressing cotton for surgical use possesses many advantages which must, we think, recommend it for use in hospitals and public institutions. It is entirely free from grease, very pure and white, and is in every way a most convenient material for all kinds of surgical dressing, either as an absorbent of discharges, an elastic compress or tampon, a cushion or envelope. It merits, and we think would repay, trial by surgeons. It is supplied by Kröhne and Sesemann, Duke Street, Manchester Square.

## BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1875.

SUBSCRIPTIONS to the Association for 1875 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

# BRITISH MEDICAL JOURNAL.

SATURDAY, MAY 1ST, 1875.

## THE SANITARY ADMINISTRATION OF THE LOCAL GOVERNMENT BOARD.

IT only needed the publication of the reports of the general inspectors of the Local Government Board, on their proceedings in initiating the Public Health Act, 1872, to complete the strange story of the sanitary administration of that Board under Mr. Stansfeld's presidency. These reports have now, thanks to Mr. Stansfeld himself, been laid before Parliament, and he has already, in his place in the House of Commons, taken occasion to refer to them as justifying his sanitary policy by the "great progress" in local sanitary organisation which they show. It will be remembered that Mr. Stansfeld's policy, according to his utterances first before a deputation from the Executive Council of the British Medical Association in November 1872, and again at Halifax in January of the present year, was, before all things, a policy of local health self-government. In pursuit of his policy, he selected for his agents in interpreting the Public Health Act, 1872, to the sanitary authorities newly created by it, the former Poor-law inspectors: a selection determined by the familiarity which already existed between these gentlemen and the rural sanitary authorities, and by the confidence which the Board reposed, as the result of long experience, in the judgment with which they would act as "negotiators" between the local bodies and the Board. These inspectors, following a Poor-law precedent, were directed to invite and promote conferences with local authorities, and to "work out" with them, in discussion, the different questions which would arise in the initiation of the Act, trammelled only by certain general indications of the Board's wishes. Without laying down any rigid rule as to the medical officers of health, and admitting that, under certain circumstances, Poor-law medical officers would be the best medical officers of health, the Board, while declining to express an opinion on the area over which such officer should be appointed, was, on the whole, in favour of joint appointments. But it was for the local authorities to discuss and determine what they should do, and for the Board to approve or not of such determination, and it expressed a hope that "local authorities would discuss schemes for the appointment, whether joint or separate, considering seriously whether they could not unite the appointment, and then that they would propound their schemes to the Board". The policy here explained had been instilled into the inspectors during "a couple of days'" discussion between them and the president immediately after the passing of the Act, after which they were dismissed to their districts, "there to act as the interpreters and negotiators of the policy of the Board".

Any knowledge of the subject-matter of the Act on the part of the inspectors was held unnecessary, and, it may be inferred, even undesirable, as tending to interfere with the judgment of local authorities. The essential consideration in the initiation of the Act was the integrity of local self-government; and even such suggestions as the Board thought fit to make for the guidance of local authorities were to be held wholly subsidiary to this consideration, subject to the reservation of the Board retaining its power of approval or disapproval of any schemes submitted to it. Certainly, on the first of the occasions which have been referred to, Mr. Stansfeld spoke of his faith in the power of local government bodies as being conditional on their direction and encouragement by impartial guidance, and he gave expression to some excellent precepts concerning minute sanitary work; but these observations had obviously no intimate bearing upon his sanitary policy, and they may be dismissed from consideration.

If now we turn to the reports of the inspectors entrusted with the interpretation of this policy to local authorities, the attention is at once arrested by several curious inconsistencies between their action and the policy of the Board as described by Mr. Stansfeld. Either we must assume that the sacred privilege of self-government, of which as regards local authorities the Board had, according to its own showing, become the tutelary genius, attached also to its own inspectors—in which case we have an inspector's policy superadded to the Board's policy; or, that the inspectors had widely misapprehended the Board's policy, thus betraying the confidence reposed in their judgment by the Board; or, that the policy described by Mr. Stansfeld in November 1872, as influencing the Board, was the outcome of some less defined preceding policy. The explanation of the inconsistencies is probably to be sought in the operation of all the conditions here assumed in various degrees.

It is apparent that the inspectors gave little heed to that sensitive regard for local self-government which Mr. Stansfeld describes as the essential feature of his policy. They went to their districts possessed with the notion that the new duty imposed upon them involved very active and energetic work in advising the local authorities, and, so far from simply setting the new organisations in motion with such suggestions and in such manner as the Board had recommended, they submitted to them very definite detailed schemes, and urged these upon the authorities with a remarkable persistency. Mr. Hedley understood that the inspectors had to give detailed consideration to the circumstances of each district, in advising the local authorities as to making appointments; Major Cox (acting temporarily for Mr. Peel) "urged strongly" combined appointments; Mr. Farnall submitted "precise suggestions for combination" to the local authorities in his district; Mr. Wodehouse urged joint appointments; Mr. Corbett "invariably sought, in the first instance, to attain" such appointments, having recourse to "personal conferences and remonstrances with recalcitrant Boards"; and so forth. Clearly, the inspectors entered upon their tasks with such a notion of local sanitary government as was derived from their experience of local Poor-law government, with regard to which they exercised much more considerable powers. We are not surprised to find, therefore, not a few of the inspectors lamenting their want of compulsory powers to carry out the notions of the Board, and urging the necessity of such powers. One only seems to have a shadowy notion that possibly, in addition to difficulties arising out of certain hesitancy of new authorities to undertake their duties, there might be difficulties arising out of the previous relations between the inspectors and the authorities in Poor-law government. Mr. Wodehouse deprecates hasty dealing with the authorities, and observes, "already, in certain matters connected with Poor-law administration, such as the appointment and removal of officers, and the detailed plans and construction of workhouse buildings and infirmaries, there is reason to believe that the control exercised by the central authority has deterred some gentlemen, who would be useful members of boards of guardians, from taking part in their proceedings, because they consider that their hands are too much tied to enable them to discharge with efficiency the duties imposed upon them". Few things, indeed, have contributed more to prejudice new sanitary authorities, and especially urban authorities, against the inspection of the Local Government Board, than the impression that the inspectors could exercise as much vexatious power in sanitary administration as in Poor-law administration. Their selection as sole interpreters of the Local Government Board was on this ground alone a blunder (Mr. Stansfeld notwithstanding), which their meddlesomeness and want of knowledge served to aggravate.

If the inspectors and their president were not in thorough concord as to the spirit in which they approached local government, they were still less in concord, where concord was most desirable with him, and also among themselves as to the suggestions of the Board. It would appear from those reports, that the inspectors were not left to their unaided imaginations as to the opinion of the Board. The reports make reference to a certain instructional letter of the 17th August, 1872, issued by the Board for their guidance; but this letter, although it forms the text, as it were, on which the various reports comment, is, strange to say, not printed, and only one paragraph from it, so far as we have made out, appears in the course of the reports, namely, in the report of Mr. Wodehouse. If the reports be read in the order in which they are printed, the reader would come to the conclusion that the Board's views in favour of joint appointments of medical officers of health had actuated the advice of the inspectors throughout. When, however, the reports are arranged in order of the time when the inspectors began their new duties, a very different result is obtained. Mr. Doyle was the first in the field; and he, coming fresh from the "couple of days'" discussion with the Board, recommended the several Boards of Guardians in his district "to appoint the medical officers of each union officers of health, each in his own district"; and Mr. Hedley tells us that the Board, in the instructional letter referred to, "appears at that time to have contemplated that, as a general rule, the district medical officers were to be appointed as medical officers of health, each one acting for his own poor-law district". The quotation from the instructional letter given by Mr. Wodehouse completes all that need be said on this part of the subject. It is as follows: "Where the services of a medical practitioner possessing superior qualifications for the office are likely to be obtainable, it is desirable that the appointment should be for the whole sanitary district, or for two or more adjoining districts." Those of our readers who are attached to puzzles will find a charming exercise in attempting to reconcile these different utterances with the utterances of Mr. Stansfeld.

By the time we have got thus far in the analysis of the reports, we are quite prepared to accept as consistent parts of the policy of the Board, the various suggestions of the inspectors as to the area fitted for an officer of health. Mr. Hedley prefers a county; Mr. Wodehouse "is not prepared to go quite so far", and recommends, after Dr. Budd, the Parliamentary division of a county; Mr. Baldwyn Fleming prefers the "union area" as the unit for appointments, at least in the first instance"; Mr. Doyle fixes the area of the poor-law medical officer's district; and so forth.

Mr. Hedley thinks that the "advance which has been made in the path of improved sanitary organisation", under the wondrous policy here briefly indicated, "may easily be underrated by those who look to ends only, in disregard of means". We prefer to look at the means with reference to the ends they are designed to accomplish. Now, it has been commonly understood that the object of the Public Health Act, 1872, was to bring every part of the kingdom under the influence of such a form of sanitary organisation as had been shown by experience to be most beneficial in previously organised districts. The functions of a medical officer of health and of an inspector of nuisances were perfectly well known, and these have been not inaptly set forth in the regulations as to these offices issued by the Local Government Board. But Mr. Hedley has no hesitation in setting aside previous experience on the subject and stultifying the regulations of his Board, by writing: "It is not easy to overestimate the importance of the efficient discharge of the duties appertaining to the office of inspector of nuisances. The majority of the sanitary defects in the country arise from faulty construction or from simple neglect to remove filth. The former may require some engineering skill for their correction; but the latter can be detected and abated by the exercise of our common senses and our common sense. Such are ninety-nine out of every hundred village nuisances, against which the inspector has to wage incessant war. It is only in those more serious and happily rarer encounters with enemies, whose detection and extermination require the insight and accuracy of science, that the intervention of the medical officers of health will be indispensable. In ordinary times, and under ordinary circumstances, it is the inspector of nuisances who will fight the sanitary battle." Mr Wodehouse regards the action of the inspector of nuisances as the means of educating authorities up to a proper appreciation of the utility of a medical officer of health; Mr. Corbett "pressed on" the appointments of inspectors of nuisances before those of medical officers of health, in order that the new authorities might obtain through them "the fullest information on the sanitary condition(?)" of their districts; and so from report to report we find the prevailing notion among the inspectors that sanitary work and the prevention of disease simply mean the removal of obvious nuisances and the arrest of spreading diseases when they happen. Comprehending the duties of the inspector of nuisances more fully than those of the medical officers of health, they naturally have given prominence to the former at the expense of the latter, and thus reversed wholly the teachings of sanitary experience. The intelligent conception of the ends arrived at in reference to the prevention of disease by the removal of nuisances, which it is the primary object of the medical officer of health to supply, has no place in their advice to sanitary authorities; and the chief measure of success with them in the sanitary organisations which have been effected under their supervision is the abatement of nuisances as ordinarily conceived.

Advice such as this, which reverts to rudimentary conceptions of sanitary administration, and for which the Local Government Board is alone responsible, has largely frustrated the ends which alone justify the appointment of a medical officer of health, and has too commonly interposed no inconsiderable difficulty in the proper discharge of his duties.

## PUERPERAL PERITONITIS AT CREWE.

The recent sentence of a midwife at Manchester for attending women in labour, after she had been cautioned by a medical man not to do so, has created great alarm in the northern counties. We have commissioned a correspondent at Crewe to make inquiries, where an outbreak of puerperal fever had been announced, as to the state of the register of deaths, and, after a careful examination, he states that there have been four cases of puerperal peritonitis, and one of peritonitis immediately after childbirth. It was currently stated at the guardians' meeting, on the previous Saturday, that there had been nine cases of deaths from puerperal fever, but the person who examined the register had probably included the deaths of some women after labour, from causes particularly incidental to women at that period. Dr. Haughey, medical officer to the Nantwich Board of Guardians, had the misfortune to have three cases of puerperal fever, one of peritonitis simply, and Mr. Vaughan attended the other patient at a little village called Hough, near Wybunbury. The deaths in the case of Dr. Haughey occurred, the first on March 20th, the 21st, 26th, and April 2nd. Mr. Vaughan's occurred on the 26th. It will thus be seen that the whole of the deaths took place within a period of ten days. There have, as we have already stated, been a singularly large number of deaths from causes incidental to women in labour, and all these have been seized upon, and currently reported as having been caused by the fever epidemic. The excitement in Crewe, on the appearance of the brief reports in the northern dailies, was very great, and several of the more well-to-do mechanics and tradesmen have sent their wives away to be confined. The Local Government Board have been telegraphing for information as to the extent of the ravages of the disease, but when it is stated that there are only four well authenticated cases on record, the anxiety felt in all quarters will now be considerably modified.

The subject came before the Crewe Local Board at its monthly sitting on Wednesday week. The following letter from Dr. Haughey, addressed to the Chairman, was read by the Clerk.

"Sir,—With the intention of allaying the unnecessary alarm which the allusion in the papers may create as to the prevalence of puerperal fever in Crewe, I venture to address a few remarks upon the subject. Careful investigation has conclusively proved that the disease called puerperal fever prevails epidemically, and that there are conditions which favour infection with the poison in the puerperal state, just as there are conditions which predispose to infectious and malarious diseases in the non-puerperal state, such as exposure to sewer-gas in badly drained houses, and depressing emotions, fear, and dread. We have often observed that puerperal women exposed to the poison of zymotic diseases, such as scarlet fever and measles, or to erysipelatous contagion (especially if the vital systems, nervous, circulatory, or mental, are excited or not in a state of health) are liable to be attacked with some form of puerperal fever. But it is also believed that puerperal fever is produced from poisoning of blood induced by inflammation of patient's own tissues and decomposing matters in the uterus. I admit the possibility of fever being conveyed by accoucheurs, nurses, and visitors, but more especially by nurses, as they are more in contact with the patient, especially if strict precautions are not observed as to cleanliness, disinfectants, and change of dress. If these precautions are taken by those attending midwifery, the possibility of conveying disease is very doubtful. Of the fatal cases which occurred in my practice, I can only attribute one to puerperal fever, so-called, the remainder having died either from improper nursing or exposure to cold, and other internal complications not in any way connected with the puerperal condition. I have not been able to trace any history of contagion or infection in the deaths from childbirth in my practice, because the interval between the deaths was very considerable, and during the time I attended a great number of cases who made good recoveries. In order to take every precaution, I have not delivered any cases of labour for three weeks, and have secured the services of a medical gentleman, who has been surgeon on board-ship and is fresh from the sea-air, to attend to my patients."

"P.S.—Puerperal fever, like all other zymotic diseases, is likely to be engendered by decomposing animal matters; hence the importance of antiseptics and efficient sanitary measures."

A special report upon the disease was also read from the medical officer to the board (Dr. R. Lord), but he merely "deplores what they feel powerless to remedy", although he has ordered every sanitary precaution to be taken.

The board had a long discussion, and the result was that the Clerk was ordered to write to the medical men and midwives in the town, asking them to use every precaution against spreading the disease. No death has occurred since those enumerated.

It is now to be hoped that we have heard the last of this case. Presuming that these cases are favoured by unsanitary conditions, it must be confessed that Crewe presents a favourable field for the spread of disease. At the monthly meeting of the Local Board last week, it was stated that the ashpit contractor was just four hundred pits in arrear, and, with the summer sun streaming in upon these, it will not cause surprise if fever of other kinds is soon rife in the town. Then, again, the water is described to us as being "about the vilest liquid possible, being full of animalcules and sediment". These are conditions favourable to the spread of any zymotic form of disease, both by the facility with which contagia are thus conveyed, and probably, also, by the constitutional depression which they produce.

It is stated that Mr. Wheelhouse of Leeds, and Mr. Hussey of Oxford, will be brought forward as candidates for seats in the Council of the Royal College of Surgeons.

The Marquis of Lansdowne will preside at the sixty-first annual dinner of the Royal Hospital for Diseases of the Chest, City Road, to be held on the first Wednesday in June. The Grocers' Company have given one hundred pounds, and the Brewers' Company twenty guineas, to the funds of this hospital.

Surgeon-General Thomas Longmore, C.B., Professor of Military Surgery in the Army Medical School at Netley, and Honorary Surgeon to Her Majesty the Queen, has consented to take the chair at the annual festival of the Fellows of the Royal College of Surgeons in July next.

The *Correio Medico de Lisbon* announces the death, through suicide by shooting himself, of Dr. J. C. Mendes, surgeon of division, and for a long time director of the permanent military hospital in Lisbon. He was about fifty-six years old.

His Royal Highness Assistant Brigade-Major the Duke of Connaught recently visited the Norfolk and Norwich Hospital, after which he generously forwarded the sum of £50 in aid of its funds.

Among the candidates recommended by the Council for the Fellowship of the Royal Society are Mr. Ray Lankester, Dr. Risdon Bennett, Dr. Klein, and Dr. Dupré.

Only Dr. Risdon Bennett and Dr. Klein, among all the candidates selected, have any medical status. Dr. Klein is, however, not a practising physician, but is well known here as the able director of the laboratory of the Brown Institute at Wandsworth, under the auspices of Professor Burdon Sanderson, and for his very valuable histological and pathological researches, of which his work on the lymphatics and his recent investigation of the organisms of typhoid and sheep-pox are among the most recent. Dr. Klein was, in Vienna, an assistant of Professor Stricker. His labours since he settled in this country have amply justified the reputation which he brought to it.

The medical profession cannot complain that they are not adequately represented in the Royal Society. For the last quarter of a century, medical men have been largely honoured by the Fellowship of this Society, and the judgment shown in the selection has been very generally admitted to be sound. Nevertheless, there is a feeling in the minds of many that the door by which they enter is too much of a side-door, and that, while eminence in medical science is recognised indirectly, it is not openly weighed at its just and apparent value. Medical men commonly enter the Royal Society either very late in life as an official form, or as physiologists, histologists, or for some piece of work in chemical biology. What often happens practically is this. A senior of a great hospital sees that the number of names on the staff with this triliteral decoration have fallen below the high average which properly illustrates the list of officers. Then some of the young juniors are told: "You ought to work for the Royal Society." This work is generally a piece of biological research very remotely connected with the real pursuits of his life, and only adopted for the express purpose of "getting into the Royal Society". That object achieved, the Society hears little more of its new Fellow, and sees little more of him, except in the tea-room, at the annual *conversazione*, or at the Royal Society Club dinner. This, of course, is not the typical Fellow, nor is it the typical mode of work. But it occurs so often, that it has come to be accepted to be perhaps even more commonly the practice than it really is. The medical and surgical Fellows of the Royal Society include the cream of the profession, and the sound good sense and just influence of Professor Sharpey have to be thanked for making a very inadequate method work, on the whole, satisfactorily, as, in good hands, even defective instruments are often made to work; but there are various disadvantages in this mode of procedure. In the first place, it produces a good deal of sham physiological work, and tends probably in the end to discourage real physiological advance. So large a number of medical men of one grade or other have been introduced to the Royal Society on the score of single achievements which they have never followed up, that we are blinded in this country to the poverty of our physiological work and the thinness of real scientific and medical investigation by the number of crowned physiologists. The mode in which the sciences and researches collateral to medicine are dealt with at the Royal Society—distributing facile honours for little work, and really on other intrinsically good grounds—holds out no premium for the devotion of a lifetime to such research. It confounds the real workers with the workers *ad hoc*.

It is possibly owing to the peculiar relation of the biological sciences to the Royal Society, and the absence of any weighty encouragement, scientific or otherwise, that this country has no biological Society where workers in biology can meet for mutual debate, encouragement, and comfort. The very august and sedate character of the sittings of that most distinguished body, and the fact that a large proportion of its biological members become *emeriti* as biologists, after a very short essay, does not encourage the attendance of younger men, who can relate short notes of recent investigations, and discuss their work as it proceeds. The practice of meeting in sections would perhaps help the present desolation. Nothing is more exciting than sympathy; and the disgust with which mathematicians and astronomers hear of the labour bestowed on determining the development of a tooth, or watching the migration of white corpuscles, is not enlivening. Moreover, the severely abstract atmosphere of the place tends to divorce physiological research from its medical relations, and this, again, is an evil. We are inclined to think that the interests of biological science would be served by the formation of sections in the Royal Society, or by the foundation of a biological section.

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THE interesting discussion on puerperal fever at the Obstetrical Society will, we hear, be reopened by Dr. Barnes at the next meeting of the Society on Wednesday next, May 5th. Professor Stoltz, Dean of the Faculty of Nancy, and Professor Howitz of Copenhagen, are expected to be present; and it is hoped that Dr. Arthur Farre will make a contribution to the subject under discussion. It is long since Dr. Farre, whose stores of experience must be great, and whose skill and erudition have been well approved, has made any public contribution to the knowledge of the art which he practises with distinction.

THE British Medical Benevolent Fund has received a donation of one hundred guineas from Mr. Erasmus Wilson, F.R.S., for the special fund for augmentation of annuities. Mr. Erasmus Wilson has reached that honourable stage in life when good nature ripens into munificence; he appears to pass no small part of his time in the occupation which he publicly eulogised this week in his official speech at the Installation of the Prince of Wales as Grand Master of the Freemasons, that of "leading the brethren to unite in the grand design of being happy and communicating happiness". The "grand design of being happy", *pace* Freemasonry, is a poor conceit; that of communicating happiness a much surer and nobler pursuit.

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LORD LAWRENCE, formerly Governor-General of India, and more recently Chairman of the London School Board, has accepted the post of President of Guy's Hospital, in lieu of the late Mr. Gurney Hoare. His lordship presided for the first time at a General Court of Governors held at the hospital on Wednesday last. Old Guy's men will learn with regret that Mr. Birkett has retired from the office of surgeon to the hospital, the time having arrived when, according to the new rules of the institution, his term of office had expired. We presume that he will be appointed to the honorary post of consulting-surgeon to the hospital, in accordance with the precedent which has been followed in the case of the other physicians and surgeons who in recent years have retired from their active duties upon the staff. At the above named Court of Governors, Mr. H. G. Howse, late assistant-surgeon to the hospital, was elected surgeon; and Messrs. R. C. Lucas and Golding Bird, demonstrators of anatomy in the medical school, were both appointed assistant-surgeons. Mr. Cooper Forster is now senior surgeon to the hospital. Mr. Birkett's retirement, and the promotions consequent thereon, will necessitate considerable changes in the surgical department of the medical school. It is understood that Mr. Forster and Mr. Durham will be the joint lecturers on surgery.

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THE Board of Trade have received intimation that a severe outbreak of yellow fever has occurred at Rio de Janeiro, and that the deaths amount to from twelve to fifteen daily. The despatch states that a considerable number of the crews of British vessels had fallen victims. Her Majesty's Minister at the Hague states that all arrivals from Rio will be placed under quarantine at the ports of the Netherlands.

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THE usual publishers' medical advertisements continue to appear in the daily papers. One which we notice this week—such as have appeared without reproach for years—includes advertisements of books on "The Uterus and its Appendages", "The Treatment of Fistula", "Constipated Bowels", "The Urine and its Derangements", "Diseases of the Urinary Organs", "Stone in the Bladder", "A New Successful Treatment of Cancer", "The Functions and Disorders of the Reproductive Organs", "Uterine Therapeutics", "Cancerous Growths", etc. Are any of these books intended for popular readers? We believe not. Then why advertise them to popular readers? In no other country, we believe, is such a practice tolerated. Does it add to the dignity of our profession, or to the edification of the public? If these books were written for general readers, or intended to be read by them, the practice would have a satisfactory meaning. But, if any suffering and deluded person should buy one of these books, he would find it couched in technical phraseology, addressed to a technical audience, and presupposing so much technical knowledge that only professional readers could master its contents or draw a sound conclusion. The purpose with which this system of advertising of medical books in daily papers is commonly believed to be carried on by many, though certainly not by all or even by the majority, was very broadly and intelligibly stated recently by the President of the Harveian Society. There can be no doubt that his strictures have a considerable force and a wide scope of application. Why should a practice which is open to so many objections be continued?

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DR. LYON PLAYFAIR last week asked the President of the Local Government Board whether he had obtained any report from the Medical Officer of the Local Government Board on the practical efficiency of the Public Health Act; and, if so, whether he would lay it before the House of Commons. The answer was, that no such report had been obtained. This is, of course, very significant and entirely consistent. It was perfectly well known that the jealousy of the Medical Department of the Local Government Board was such that Mr. Simon, the chief repository of knowledge in this country on the subject of the methods, powers, and results of sanitary administration and executive work, was not consulted on the passing of the Public Health Act; and that, if he had been, it would have been free from the gross blunders which have marred its conception and arrested the progress of sanitation throughout the country. It is quite consistent with this course, that the Local Government Board should carefully abstain from taking the opinion of their own highly skilled officers on the operation of the Act. A house divided against itself, how shall it stand?

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MR. STANSFELD'S public excuse for the proved absurdities and omissions of the Public Health Act was sufficiently ingenious, if rather incredible. He aimed at failures, because only by failures in local self-government can success be reached. He claims to have a peculiar insight into the mental and moral constitution of local boards. The result of his experience is a theory that only by realising their own shortcomings, and passing through much tribulation, can they reach the state of docility in which they will be willing to be guided by higher knowledge. After falling often into the mud, they may learn to desire to be supported on the strong wing of the central authority at Gwydyr House. The epidemics of Over-Darwen and Lewes were contemplated in his scheme, and are among the means by which benighted boards may learn to ask for help. His scheme is not one of legislation in the ordinary sense, but of freewill, in which Gwydyr House shall play the part of Providence. The reports which have recently been published of the lay inspectors, each in his own district, are sad examples of the sufferings of intelligent men set to play a part in which they are ignorant of the first principles of their work. The blundering of the authorities is only equalled by the errors of the inspectors; and the simper of self-satisfaction with which this lasting proof of official mismanagement, ignorance, and conceit is put on record, sets the true stamp upon the whole. Here we see a government which feared nothing so much as contact with the men who knew their business, employing the blind to lead the blind, and asking them to record in their own words what is their own opinion of their own proceedings, and carefully abstaining from submitting them to the judgment of a highly skilled expert in their own office, the principal medical officer of the Board. One day, when we have time and space for a little harmless sanitary fun, we shall take these reports in hand. They are a huge and costly practical joke, but so utterly worthless, except as examples of what to avoid and how not to do the right thing, that just now it were idle to waste more time upon them than we do this week.

### ASHANTEE HONOURS.

THE medical officers of the army seem singularly unfortunate in the return which they have received after every campaign, for the skill, care, and attention which they have bestowed upon their combatant brethren while in the field, and at a time when such services are of the very last importance to the latter. As far as we can see, the vast mass of the medical officers engaged on such occasions have received no reward whatever for their untiring devotion to duty, except perhaps a few empty compliments which could scarcely be held back by those in authority. In former days, when the army still retained much of its ancient feudal character and prejudices, and when military surgeons were the nominees of persons of rank against whom it would have been in vain to rebel, we could understand the existence of such a state of thraldom; but now that the army has become a national one, and that the interests of the old officers have been bought out at an enormous expense to the country, we fail to see why the young surgeons who enter the service by public competition are denied their fair share in the public honours and rewards, granted no longer to an exclusive class, but to stimulate the military virtues of the whole. It would be vain, indeed, to hope that without such rewards anything but a perfunctory performance of duty would be carried on at a moment when success depends upon the simultaneous and zealous movement of all. In his opening statement, when presenting the army estimates to the House of Commons on the 8th ultimo, Mr. Hardy acknowledged that, with respect to the one expedition which went out last year—that to the Gold Coast—the medical service was so highly satisfactory that it would be wrong in him to pass it by without a word. "I am told by the Director-General of the Army Medical Department that this most satisfactory result, considering the nature of the service and the climate, was mainly owing to the skill, care, and intelligence of the medical officers accompanying the expedition." Yet, in spite of this high eulogium from the Secretary for War, a reference to our Parliamentary intelligence will show that the Horse Guards consider that the medical officers have received their full proportion of honours and rewards in being granted these last in a proportion of one in nine to those engaged, while combatant officers, more than one of whom, we believe, never landed or saw a shot fired, are granted similar recompenses in the proportion of one in three, and this in a doctors' war, when the chief enemy to be combatted was the climate, not the missiles of the Ashantees. Such a want of generosity on the part of the Horse Guards appears to us to be almost without precedent. We cannot but remember that brevet promotions, staff appointments, pecuniary rewards and decorations were sown broadcast among the fortunate soldiers who composed the little army which went to the Gold Coast, and we should have thought that some concessions would have been made to the feelings of those medical officers who bore the brunt of the work, and without whose exertions the confines of the Protectorate would scarcely have been reached. No combatant officer who did good service was forgotten; many medical officers, on the other hand, have but broken health as the legacy of the late expedition. We have commented thus strongly on the injustice of the treatment received upon the part of the profession, and the very unequal distribution of rewards, for we cannot but feel that what is done to-day will be repeated to-morrow, when any similar occasion may arise, unless we continue to do so.

### LEPROSY RESEARCHES.

IT will be in the recollection of many of our readers that Dr. Vandyke Carter was commissioned by the India Office to visit, on his way out to India, various places in the East, with the view of gathering information relative to leprosy and allied diseases. A few particulars of his proceedings may not be without interest. At Milan he saw pellagra, but, contrary to the teaching of books of authority, he could trace no outward resemblance of the disease to leprosy. We are glad to have this opinion, because it relates to a matter in regard to which we have long indulged in scepticism. Dr. Carter visited Biskra, and had an opportunity of seeing the "Biskra bouton". As the result of his observation, it would appear that he gained an impression that the "bouton" is not always specific, at least it seems to pass by many transitions to the form of "boils", yet there are a seasonal and a regional limitation which, when combined, are very significant conditions. At present, Dr. Carter has not made up his mind as to the nature of the disease. At Crete, however, he happened to come across the "Aleppo bouton", which is supposed to be analogous to that of Biskra. The disease was introduced in 1827 from Syria, starting from Cavea; hence the current name of "Cavestica" has spread over the whole island. A cursory inspection of the morbid specimen obtained reveals something like the growth figured by Fleming and others as occurring in Delhi boil, and, as it is contagious, Dr. Carter notices a great likeness between it and Delhi sore, and so far he lends weight to the supposition that Biskra bouton, Delhi sore, and Aleppo boil are one and the same thing in essence, however much they may differ in accidental features. Leprosy, of course, mainly engaged Dr. Carter's attention. He found little or none in Algiers, Tunis, or Greece proper, but plenty in the Archipelago, where the disease is probably spreading and is severe enough. Asylums are provided here and there, but the Turkish Government take literally no trouble about the matter. We believe we are correct in saying that Dr. Carter met with no new observations tending to throw light upon the nature or the cause of leprosy. We are at one with him in being more than ever impressed with the necessity of carrying out a special study of the disease at all stages, and especially in reference to its pathological condition, and in relation with Hansen's recent observations. India, indeed, is *par excellence*, the field for such work, and it ought to be undertaken by competent workers. Sooner or later, facts showing light upon the genius of the disease must be forthcoming to the display of scientific acumen and diligent investigation; meanwhile the segregation of the leper is the most effective and humane *régime* under which the sufferer can be placed, and it offers the best opportunity for affording that alternative which recent observation had shown to be possible. We shall look forward with interest to Dr. Carter's account of the facts he gained on his way to India, and we cannot conclude without expressing a hope that the Indian authorities will give him the opportunity of pursuing his inquiries into the matter of leprosy.

### DEATH FROM CHLOROFORM.

THE *Gazette Médicale de Bordeaux* (November 5th, 1874) mentions a fresh case of this kind, a man, aged forty-two, suffering from a cancroid of the penis, on whom Dr. Lande operated by galvano-cautery. Chloroform was given with a compress arranged like a funnel, at the bottom of which was a plug of lint. The patient, though weak, had neither pulmonary nor heart disease. Scarcely had twelve to fifteen *grammes* of chloroform been inhaled, when, at the end of two or three minutes, the patient became pale, the pulse stopped, the respiration was suspended, and all efforts to restore animation proved fruitless.

### ST. THOMAS'S HOSPITAL.

AT a General Court of Governors of St. Thomas's Hospital, held on April 21st, the treasurer informed the Court that the president, Sir John Musgrove, Bart., had founded a scholarship of the annual value of forty guineas, to be awarded biennially in the medical school of that hospital, and to be held for two years by the second year's student placed highest in the first class at the winter examination. Sir John Musgrove, Bart., has transferred the sum of £1,400 Consols into the names of the treasurer and other trustees, and a deed of trust, defining the conditions on which the scholarship is to be awarded and held, has been executed. A very cordial expression of thanks to Sir John Musgrove was unanimously passed.

### OBSCENE PUBLICATIONS.

They seem to have a much firmer way of dealing with quackery in Scotland, and one which it would be well to imitate a little more on this side of the Tweed. For causing indecent bills to be posted, the principals are fined as well as the bill-stickers. In the Small Debts Court of Glasgow recently, a firm of printers sued a "Dr." Perry of Buchanan Street (whose name does not appear in the *Medical Directory*) for the cost of printing a number of leaflets. The defendant pleaded that the printing was not executed in conformity with his orders, and was of an inferior quality. He produced a copy of the publication to Sheriff Galbraith, who presided, and who, examining it for a minute, said that he declined to look at such a leaflet either in one way or another, and that he could not admit such a disgraceful publication into that Court. He consequently dismissed the action.

### THE COTTAGE HOSPITAL, WOODHALL SPA.

In the spring of 1873, a cottage hospital was opened at Woodhall, in order to place the valuable spa water within the reach of the poor, on terms which they could afford. After the hospital had been in operation for two seasons, it was found that the expense of the baths was so great, that the committee have been obliged to raise the weekly payment for each patient from five shillings to ten shillings. They have also decided that in future a donation of ten guineas, instead of five, shall be requisite to constitute a life governor, and have appealed to their supporters, begging them, in the interests of the hospital, either to refrain from exercising their right of nomination or to increase their subscriptions. The treasurer announces in the third annual report, recently published, that his appeal has been responded to in a liberal spirit, and he hopes that the hospital will re-open this spring free from debt. We are glad that this institution has thus been placed upon a basis which promises to give it permanence. We have more than once pointed out the value of the Woodhall waters. The large proportion of iodine and bromine which they contain—a larger proportion than any other mineral water in the world—makes them particularly valuable in all cases that are connected with the scrofulous diathesis. A brief statistical table, appended to the report by the medical officer, Mr. R. Cuffe, shows the classes of cases that are most likely to derive benefit from a visit to Woodhall.

### THE PHYLLOXERA.

According to Reuter, the Academy of Science of Paris have discovered an effectual and practical means of destroying the phylloxera. The Academy will shortly publish a communication on the subject, and it is believed that this plague will be averted.

### THE LATE PROFESSOR OPPOLZER.

A portrait of the late Professor Oppolzer was publicly unveiled in the large hall of the Academy of Sciences in Vienna, on April 17th, in the presence of a large concourse of professors, students, medical practitioners, and others. Addresses were delivered by Herr Waller on the part of the students, and by Professor Zimmermann. Dr. Theodor Oppolzer, professor of Astronomy, returned thanks for the honour paid to the memory of his father.

### LEEUWENHOEK AND THE MICROSCOPE.

A Committee has been formed at Delft in Holland, to make arrangements for the celebration, on September 8th, of the second centenary anniversary of the discovery of microscopic animals by the celebrated Antony van Leeuwenhoek, a native of the town. It is intended to render the occasion especially interesting by the exhibition of the microscopes which the distinguished naturalist made and left at his death, and of letters and other memorials of him. The Committee are also endeavouring to raise a fund for the purpose of founding a gold medal, to be awarded under the name of the Leeuwenhoek medal, every tenth year, to the Dutchman or foreigner who shall have done most for the advancement of microscopic science. The award is to be made by the Royal Academy of Sciences at Amsterdam.

### THE RISKS OF OBSTETRICIANS.

It is not long since an action was brought against a medical man, and heavy damages consented to, for having accidentally infected his patient with syphilis whilst attending her at her confinement. The case created much attention at the time, from its extreme rarity and the attendant circumstances. The reverse, we believe, has never happened, where the attendant has sued the patient for infecting him, although this is of much more frequent occurrence, and the ultimate consequences more serious. Many practitioners have not only been ruined in health, but even in reputation and character, through this untoward accident. In some cases that have come to our knowledge, the persons were advanced in years, the effects of the syphilitic poison most severe, and ruinous in their consequences. The legislature has been very careful to protect the public from the effects of negligence or malpractice on the part of the practitioner; but is the reverse the case? The question comes, how to obtain security against the liability of contagion, and redress, after being infected. Dr. Cairns, who brought a most interesting but sad case before the Obstetrical Society of Edinburgh in November last, where a medical man was doomed to suffer most grievous wrong, lose his best patients, have his character assailed and maligned, and his very presence shunned, through having caught syphilis whilst attending a gratuitous patient, suggests that patients should be compelled by pains and penalties to inform the attendant, when about to be confined, that they are suffering from venereal disease; and that, in every case where there is any abrasion of the skin of the hand, the medical man should use a gutta-percha covering, if he be not ambidexter; and that he should carefully wash the hand afterwards with a good antiseptic. Respecting the former proposal—that patients should be compelled to acquaint the attendant that they are suffering from venereal disease—it is open to this very grave objection and serious difficulty: the majority of women who have contracted syphilis from their husbands are entirely ignorant of the fact; and, again, many women give birth to syphilitic children without themselves being affected, apparently, in the least degree, and yet their children may be the source of contagion to the medical man. The subject is one of extreme difficulty, and worthy of serious consideration.

### DEATH DURING THE ADMINISTRATION OF ETHER.

We are favoured by Dr. James Hardie of Manchester, with the following particulars of the case of fatal administration of ether, which has recently occurred under his care. J. F., a delicate timid boy, aged 16, had long suffered from strumous disease of the bones of the feet. He became an inmate of the Manchester Workhouse Infirmary last autumn. On September 25th last, Dr. Hardie removed the right foot at the ankle-joint, chloroform being administered. He bore the anæsthetic well. On October 29th, the cuboid bone of the left foot and the metacarpal bone of the left thumb were excised. On this occasion chloroform was again administered. When the operations had been completed, some alarming symptoms showed themselves, viz., fixed dilated pupils, feebleness of pulse, extreme pallor, and absence of respiration. These quickly passed off, on the tongue being forcibly drawn forward, cold water sprinkled over the face, and galvanism applied to the phrenic nerves. On the 3rd of the present month, bare bone having been found to remain in the unhealed wound of the thumb, the boy was again placed on the operating table, having previously been given an ounce of brandy. He was asked to have the trifling operation performed without an anæsthetic, in order to test his probable endurance; but, the patient beginning to whimper, Dr. Hardie stirred a probe about in the wound. This caused him to cry out; and ether was administered by Dr. Hardie, who poured about four drachms on a piece of lint, which was placed in a folded towel, and held pretty closely over the face. He inhaled the vapour more quickly than usual, there being no coughing, and but little struggling. In about four minutes from the commencement of the inhalation, and before any fresh ether was poured on the lint, he was apparently ready for the operation. Immediately afterwards, before the operation was begun, Dr. Hardie observed the respiration, which he had been closely watching, suddenly cease; and, at the same instant, an extreme pallor came over the face, and the pupils became widely dilated. At the moment when these symptoms appeared, he had not his finger on the pulse, nor did he feel for it before resorting to remedial measures. Mr. Pountney, the house-surgeon, however, on placing his finger over the radial artery, when Dr. Hardie gave the alarm, found it to be imperceptible. Dr. Hardie immediately pulled the tongue forcibly forward, but without effect. The poles of a battery standing in readiness were then applied to the phrenic nerves, and only induced three or four gasping attempts at respiration, which also then ceased. Cold water affusion, artificial respiration, and Nélaton's method of suspension by the feet, were all successively had recourse to, without the slightest avail. Indeed, beyond the few gasps induced by the application of the battery, there was not the smallest response to the efforts towards reanimation. After twenty minutes, these were discontinued. The *post mortem* examination was made, by the Coroner's order, by Mr. J. Armstrong. The following is the report in the hospital register of inspections, by Mr. Needham, senior house-surgeon, who was present. The brain, larynx, liver, kidneys, and intestines were healthy. The stomach was quite empty, and no signs were observed of any attempt to vomit. The cavities of the heart were quite empty, and the lungs were neither gorged with blood nor darker than usual; their posterior portion was somewhat dark, but this was probably owing to the position of the body on its back. The spleen showed commencing amyloid degeneration. The larger blood-vessels contained much blood, which was very dark, and showed no tendency to form clots, but seemed loose and fluid. No microscopic examination of the heart was made, but to the naked eye it appeared healthy, only being slightly pale. It appears probable that death resulted from syncope. The ether used was Robbins' ether for local anæsthesia.

### OTHELLO AND HAMLET.

THE performance of the part of Othello by Signor Salvini at Drury Lane is one of the most interesting of psychological studies. Of all the great life-histories which our national dramatist has bequeathed as an immortal legacy to our literature, there is none more strongly and nobly marked than this of Othello. Less subtle, less varied, and less changeful than that of Hamlet, always a favourite study of psychologists, it is yet more splendid in its passion, and more pathetic in its motives. Both passion and pathos find in Salvini an interpreter rich in natural gifts of voice and person, and whose histrionic power is so developed by study and so strong in genius, that this difficult character is here realised with singular grandeur and startling effect. The sudden changes in mood, the gradual alienation of mind, the highly wrought accesses of rage, the melting moments of pity, the distracting anguish of horrible suspicions and false beliefs, and the tiger-like impulses of the ferocious jealousy of the hot-blooded Moor, are rendered by Salvini with marvellous power. It is curious to observe how Shakespeare, whose observation ranged so widely, had taken note of the association of epileptiform seizures with brutal accesses of rage, on which alienists have much dwelt of late; and the wildest rage of Othello is associated with "trance". The stage is so degraded with buffooneries and burlesques, made up of jingle, fleshings, and poor verbal jests, that the advent of an artist such as Salvini, who restores it to its true function, is worthy of record. Mr. Irving's performance of Hamlet might perhaps here also properly be mentioned, but that we think that the actor has misconceived the psychological import of the character. The fussy, vulgar, spasmodic, ranting, gasping prince, in whom Mr. Irving, by much study and great skill, interests us, in spite of our better judgment, is not the noble, high-bred, philosophic Prince of Denmark whom Shakespeare shows us in the closet. His madness is a piece of player's fustian: we seem all the time to be present at another version of "The Bells". It is an effective and studied performance, but no true picture of that most interesting and most noble of Shakespearian characters.

### MEDICAL WITNESSES IN THE POLICE-COURTS.

DR. CORBY, House-Surgeon of the South Infirmary, Cork, and his resident pupil Mr. Fahil, have, as we learn from the *Cork Examiner* of the 17th ult., done good service by calling attention to the anomalous position of medical men who are required to give evidence before magistrates. A patient had, in a quarrel, received a cut on the head, which was dressed at the Infirmary. Mr. Fahil, who was summoned to give evidence at the police-court, respectfully objected to make any statement unless he received a fee for his attendance. This course he adopted at the request of Dr. Corby; and the latter gentleman said: "We object on principle, because, if we were compelled to give evidence in the case of every cut we dress at the Infirmary, we would soon have no time at our disposal to attend accidents at all, and, in fact, a second house-surgeon would be needed." The magistrates, the chief clerk, and two solicitors concerned in the case were all of opinion that the medical witnesses ought to be paid for their attendance; but unfortunately the magistrate has no power to allow fees in such a case as this, nor is there any fund out of which he could pay them. We sadly need a new Judicature Bill, which, while it does not overlook weightier matters, will condescend to provide for the reasonable remuneration of medical witnesses in the inferior no less than in the superior courts of law.

### ALLEGED NEGLECT BY A MEDICAL MAN AT BOSTON.

THE *Lincolnshire Herald* contains a report of the prosecution of a medical practitioner of Boston, Lincolnshire, for causing the death of a midwifery patient by mismanagement and neglect. As the defendant thought proper to reserve his defence, we can only give the facts as they appear from the evidence of the prosecution. From this it appears that the doctor was called to visit the patient, a multipara, about 7 a.m. He went at once, found that she had been in labour about five hours, and that she was in a very exhausted state, owing to hæmorrhage, which had been going on for some time. Having administered some brandy, he immediately proceeded to deliver by turning. The witnesses for the prosecution allege that he used considerable force in performing this operation, and that the delivery was effected with undue haste. They also state, however, that the child, a seven months' fœtus, and the afterbirth, came away together, and it appears likely that the case may have been one of placenta prævia, with breech-presentation. But little blood was lost during or after the birth, and, as the patient appeared comfortable, the doctor soon took his leave. About an hour afterwards, sudden collapse occurred, and the patient sank rapidly. At the *post mortem* examination, a rupture of the uterus was found. As the defendant was committed for trial, this is not the time to comment on the case. We are, however, sorry to read the very positive way in which one of the medical witnesses criticised the defendant's conduct. We only hope that he himself may never be placed in a similar position; though, if the report above referred to be a fair one, much more unlikely things may happen.

## SCOTLAND.

THE conferring of medical degrees took place at Aberdeen University on Saturday. Twenty candidates received the M.D. degree, and thirty-one that of M.B. The address to the graduates was delivered by Dr. Ogston.

THE installation of Dr. Alleyne Nicholson to the Chair of Natural History in the University of St. Andrew's, vacant by the death of the late Dr. Macdonald, took place last week in the Lodge Hall of the United College. On the 22nd, the graduation ceremonial of the same University occurred, when nine candidates were presented for the degree of M.D.

AT the second professional examination in Edinburgh, held last week, the inspectors of the General Medical Council, Dr. Barclay of St. George's Hospital and Professor Humphry of Cambridge were present and inspected the examinations.

DR. BELL PETTIGREW, Lecturer on Physiology at Surgeons' Hall, Edinburgh, has been awarded the Godard Prize of the French Academy of Sciences for his original anatomical and physiological memoirs. In virtue of this distinction, Dr. Pettigrew becomes a Laureate of the Institute of France.

WEDNESDAY, April 21st, was the Graduation Day in the University of Edinburgh, for the arts and other classes at the end of the winter's work. Among other degrees conferred was that of D.Sc. on Mr. T. B. Belfour, with first-class honours; of B.Sc. in the new department of Public Health, with first-class honours, on Mr. James A. Russell, demonstrator of anatomy, the first degree of the kind in this department; and two of M.B. and C.M. After the ceremony, an address was delivered by Professor Sellar, in which he contravened the arguments used by the Principal at the beginning of the session, derogatory to the arts teaching in the university, and showed that, since 1858, there has been a gradual and very considerable increase in the number of arts students, and now this is crowned by the largest number of arts graduates on record.

### ACCIDENTAL POISONING.

A CASE of accidental poisoning took place at Barnhill, Perth, on Saturday. A few months ago, a man named Robertson had one of his legs amputated in the Perth Infirmary, in consequence of a railway accident. He did well, and a short time since was allowed to return to his own house, where he was attended to by his wife. On Saturday afternoon, Mrs. Robertson gave her husband what she thought was the tonic he was in the habit of taking, but unfortunately she had taken the wrong bottle, and, instead of the tonic, administered a quantity of the liniment used to his leg, in consequence of which he died in about two hours.

### THE EDINBURGH ROYAL INFIRMARY ACT OF PARLIAMENT.

WE are informed that the expenses of passing the Act of Parliament just obtained by the managers of the Royal Infirmary will be defrayed with a sum of money given for the purpose by the trustees of the late Mr. David Nisbet, architect, Edinburgh. In this way, the ordinary funds of the institution will be relieved of a considerable burden.

### MILK IN EDINBURGH.

AT a late meeting of the Edinburgh Town Council, the report of the city analyst, Dr. Falconer King, for the past quarter was read. During that time, six samples of milk had been sent in for analysis, of which only one was found adulterated, and that was by being mixed with a considerable quantity of skimmed milk. The report stated that considerable alarm had lately been caused by a rumour that the common flavouring substance oil of lemons was largely contaminated with lead. A sample of the substance was subjected to a careful analysis, with the result of showing that only the merest trace of lead was present.

### THE HEALTH OF EDINBURGH.

THE report of the Medical Officer of Health for Edinburgh, for the month of March, shows that the mortality during that month was at the rate of 26 per 1,000 of estimated population. This comparatively high mortality is accounted for by the unusual number of deaths from diseases of the respiratory organs. Meanwhile the health of the city, so far as diseases of an infectious nature are concerned, is very satisfactory. During the past month only three deaths from fever have been recorded—indeed a fortnight elapsed without a death from fever of any kind being registered—a very unusual event in Edinburgh. The corresponding month of last year shows a lower death-rate on the whole (24 per 1,000), but a much higher mortality from fever. This year the mortality is spread pretty equally over the old town, new town, and southern suburbs—a fact which indicates the action of no merely local cause, but the question of a low and uncertain temperature affecting the whole city.

### ANCIENT REMAINS.

AT the monthly meeting of the Society of Antiquities of Scotland, an interesting account was given by Mr. A. J. Warden, of the opening of several stone cists, containing human remains and urns, at Barnhill Links, in the parish of Monfieth. One of the skeletons had been the subject of more than usual interest, on account of a curious appearance on the long bones, which seem to have been bound round closely and regularly with some fibrous substance, suggestive of decayed strands of hemp. But Mr. Sadler, assistant to the professor of botany, stated that the structure exhibited under the microscope, by the great mass of the vegetable matter, was not fibrous in texture, but composed of rhizomorphic fungi—a curious class of plants, which grow in cists and coffins, and sometimes entirely fill them. A curious and interesting collection of stone implements from Shetland, and a nugget of native gold, weighing close upon an ounce, from Kildonan, Sutherlandshire, were exhibited at the same meeting. The gold nugget is said to be the largest ever found, except one in the possession of the Duke of Sutherland.

### THE PROPOSED REGISTRATION OF FOREIGN DEGREES FOR WOMEN.

THE Royal College of Surgeons of Edinburgh has forwarded to Dr. Lyon Playfair a petition against the Bill now before Parliament "To amend the Medical Act, 1858, so far as relates to women who have taken the degree of Medicine in a foreign university"; the universities specified being those of France, Berlin, Leipzig, Berne, and Zürich. The petitioners admit that it might be a fair question whether the degrees of certain foreign and colonial universities of good repute should be allowed to be registered, the privilege, however, not being confined to women; but they point out that it should be left to the General Medical Council to decide, after due inquiry, what universities should be so registered. They further allege that, without such provision, it would be unfair to the public and the profession of Britain to admit to registration foreign and colonial degrees, which are beyond the supervision of the Medical Council. A further objection urged is, that to pass such a measure as the Bill in question would be inexpedient and partial legislation, and inconsistent with the object of the Medical Act.

## IRELAND.

### ROYAL COLLEGE OF SURGEONS OF IRELAND.

ON Tuesday, May 4th, pursuant to the provisions of the Supplemental Charter, the election for the various examiners of this college will take place. These include seven examiners to examine candidates for fellowship and letters testimonial; three for the diploma in midwifery, and a similar number to examine students as to their proficiency in general education. A considerable amount of interest is expected for these elections, as several names, some already on the council, intend, it is said, to compete for these appointments.

### CONVERSAZIONE AT THE ROYAL COLLEGE OF SURGEONS OF IRELAND.

ON Thursday evening, the 15th instant, the President and Council of the College of Surgeons entertained his Grace the Lord-Lieutenant and a numerous company at a *conversazione*. All the rooms in the College were thrown open, and a military band attended, and performed at intervals during the evening. A large number of interesting scientific and artistic objects were exhibited. His Grace arrived about ten o'clock, and was conducted through the rooms by the President. The arrangements were excellent, and reflected great credit upon the organisers of the entertainment. We were glad to notice among the visitors a large number of non-professional gentlemen. We think that such entertainments are well calculated to bring the public into more intimate relations with our profession, and should always be glad to welcome a larger proportion of the non-medical element in such assemblies. We congratulate the President and Council on having their invitations responded to by such a varied company, and upon the excellent arrangements for their entertainment.

### PATHOLOGICAL SOCIETY OF DUBLIN.

THE last meeting for the session was held last Saturday. It is customary for the president to declare the name of the winner of the gold medal of the Society, for the best essay on the subject named by the Council for competition among the students who attend the meetings. The subject for this year was on the "Human Entozoa", but, no essays having been sent in, no medal was awarded.

# SPECIAL CORRESPONDENCE.

## PARIS.

[FROM OUR OWN CORRESPONDENT.]

Paris, April 11th, 1875.

*Effects of Atmospheric Pressure on the Blood.—Germs and Ferments.—Dr. Dechambre and the Academy of Medicine.—Professor Pajot.—Professor Gubler.—Concours for Appointment of Professor Agrégé.—The General Medical Association of France.*

YOUR readers are doubtless acquainted with the researches of M. Bert, with reference to the quantity of oxygen which the arterial blood of animals contained at different degrees of atmospheric pressure. He has instituted further inquiries in order to ascertain the amount of oxygen the blood is capable of absorbing at divers degrees of barometrical pressure. In a paper read before the Academy of Sciences, he has summed up the results of his experiments as follows: "There exists a combination of oxygen with hæmoglobin, which may be obtained by agitating blood and air at the normal pressure. This combination remains stable at a temperature of 16 deg. C. (60.8 deg. Fahr.), under gradually diminishing pressure, until it reaches about an eighth of the atmosphere; but at the temperature of the bodies of the mammalia, the combination becomes gradually dissociated according as the pressure diminishes." From these experiments the following deduction may be made, viz.: That the poverty of the blood in oxygen of an animal placed under feeble pressure depends on the imperfect union of the air with the blood in the lungs, and the diminished capacity of the blood for absorbing oxygen, so that, if it were possible to saturate the blood of the animal with oxygen under such pressure, the quantity of oxygen would still be considerably less than the blood would contain at the normal pressure. In other words, the anoxyhæmia which produces mountain-sickness is brought about by purely physico-chemical and physiological processes.

The discussion about germs and ferments is still going on at the Academy of Medicine. After passing in review M. Pasteur's opinions about putrid fermentation in eggs and fruit, and the production of ammoniacal urine, M. Colin stated that, "in making a synthesis of the facts observed, one is led to think that the ammoniacal salts, such as urea, etc., can be found at divers parts of the organism; that they then enter the general circulation, and are finally eliminated by the kidneys, and the other excretory organs". What makes him believe that the ammoniacal products do not originate in the bladder, is the fact that he had not been able to produce ammoniacal fermentation, notwithstanding he had placed the animals for experimentation in the most favourable position for the production of such a phenomenon. For instance, M. Colin injected into the bladder of a cow twenty-five cubic centimetres of putrefied urine, and, notwithstanding this, the cow continued to void normal urine. In summing up his arguments, M. Colin advised that we should not be too hasty in coming to conclusions, or in accepting as absolute and definite solutions of difficult problems; doubts and objections provoke researches which lead to the discovery of new facts, new relations, new laws. The study of fermentation in the living organism and the dead body is incomplete. M. Pasteur considers M. Colin's experiment with ammoniacal urine of no great value. Why should it astonish, he said, that putrefied urine should not have rendered the cow's urine ammoniacal? If the animal expelled the liquid immediately it was injected, the vibriones, not having remained in the bladder, could not change the nature of the urine.

Dr. Dechambre, the talented editor of the *Gazette Hebdomadaire*, and author of several works, has been elected a member of the Academy of Medicine. The tardy recognition of the meritorious services of a man so well known was the wonder of all who knew him; but the Academy has somewhat redeemed its fault by acting on the principle of "better late than never".

The opening of the School of Medicine took place on March 15th. Professor Pajot began his course of lectures on the following day. I need hardly say that his reappearance at the school was looked forward to with the greatest impatience, and long before the hour the amphitheatre was crowded. The spectacle was very imposing, and offered a great contrast with the "manifestations" reserved for unpopular professors. When he entered the amphitheatre, the scene was most affecting. He was received with an outburst and a salvo of cheering; and he was so overwhelmed by this mark of affectionate sympathy that it was some minutes before he could speak. He then addressed the students in the following terms. "Gentlemen, it seemed to me that, after the fatigue caused by overwork, and after having been engaged in teaching for thirty years, I was entitled to rest, and that I should yield my place to younger heads and hands; but it seems it must be otherwise. You think I am still good for something, and, although I am not altogether of your opinion, I found I had no alternative in compliance with your own solicitations but to return to my post; so here I am. In former years, I had not to ask your indulgence, I did not require it; but now, age and sickness render this necessary. It is not with impunity that one can practise the profession of accoucheur, which requires him to spend night after night without any sleep, and, at the same time, speak for an hour nearly every day, in a large amphitheatre like this, for thirty years. One must have the constitution of a horse to be able to withstand for any time the mental and physical fatigue inseparable from such a profession. So you see, strong as I was, I have at last broken down, and now require rest. I shall, however, do my utmost to continue my work, that is, if my health will allow me, so let us not lose a moment." These words were received with great applause; and on silence being restored, the professor continued: "Gentlemen, now that we have offered mutual felicitations, let us work." I cannot help thinking that these demonstrations are of questionable propriety, and it must be galling, I should say insulting, to unpopular professors that their pupils should be allowed to sit in judgment on them, especially if their unpopularity arise, as indeed it almost always does in the Paris faculty at least, from some difference of political or religious creed between the two parties.

Professor Gubler, another popular lecturer at the School of Medicine, devoted his first lecture for the session in simply recapitulating last year's course on the therapeutics of acute diseases. M. Gubler first treats of the diseases, and then enters into the natural history of the therapeutic agents employed, which gives the student a better notion as to their clinical application. This year, M. Gubler is to take up the treatment of chronic affections, and he places first on the list the different forms of dyspepsia, which is found associated with almost all chronic affections, either as an efficient cause or complication, and which is often an indication of the first stage of cachexia. Then follow the various degrees of anæmia and nervous affections, which are frequently superadded to the above. He next proposes to treat of the different forms of cachexia, gout, Bright's disease, diabetes, and the treatment of two opposite conditions of the system, emaciation and excessive fat.

These lectures were interrupted by the competition examinations, or *concours*, for the appointment of professor *agrégé*, or subprofessorship in medicine, which has just been brought to a close. The following are the successful candidates: MM. Dieulafoy (well known in connection with the aspirator), Grancher, Lionville, Lépine, and Legroux for Paris; and MM. Grasset and Ballestre for Montpellier; all distinguished for their works in the various branches of medicine.

The annual meeting of the Association Génerale des Médecins de France, a benevolent society, took place on Sunday, April 4th, and was followed by the usual banquet. As the funds of this Association are in a prosperous condition, the annuities have been extended to the families of deceased medical men who may be in need; and it is in contemplation that, should the funds continue to prosper, pensions will be granted to all medical men who may belong to the Society. The chair was occupied by M. Tardieu, the President; but M. Amédée Latour, the talented and well-known Editor of the *Union Médicale*, though present at the meeting, was prevented by indisposition from occupying his usual seat of General Secretary. He was replaced by M. Brouardel, who read the annual report.

# REPORTS OF SOCIETIES.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, APRIL 27TH, 1875.

SIR JAMES PAGET, Bart., D.C.L., LL.D., F.R.S., President, in the Chair.

### PRACTICAL OBSERVATIONS ON THE PULMONARY AND CARDIAC COMPLICATIONS OF ABDOMINAL TUMOURS: WITH REMARKS ON BLOOD-LETTING AFTER SURGICAL OPERATIONS. BY WILLIAM HENRY DAY, M.D., M.R.C.P.

THE author first described some of the effects of solid or cystic abdominal tumours, and of large collections of fluid in the peritoneal cavity, in displacing the thoracic organs, and inducing a long series of constitutional and local symptoms. He showed the importance of ascertaining the condition of the lungs and heart before deciding upon the removal of fluid or of tumours from the abdominal cavity. He examined the effects of rapid and of gradually increasing pressure upon the thorax, and also the results of the rapid removal of pressure by tapping or by the removal of a tumour; advocating the gradual removal of pressure whenever practicable, and giving several instances to prove the utility of venesection in cases where portions of lung which had been compressed have rapidly expanded, and congestions or hepatisation have followed. He also gave instances in which organic diseases of the lung have been relieved after the pressure which aggravated the symptoms had been removed. He compared the pulmonary symptoms which often follow operation on the abdomen with the more ordinary forms of bronchitis or pneumonia, and gave practical details of treatment in different classes of cases. The author ended his paper by endeavouring to enforce the two following conclusions. 1. The surgeon who treats cases of abdominal distension must not overlook the pulmonary and cardiac complications which are due to compression or displacement. 2. The success of operations for the removal of abdominal tumours may be increased or diminished by careful examination of the state of the chest before operation, and by equally careful attention after the operation, not only to the parts involved in the surgical proceedings, but also to those changes in the blood and in its circulation through the heart and lungs, and to the effects on these organs, which are due to sudden removal of pressure alone, or to other causes of considerable elevation in the temperature of the blood.

Mr. KNOWSLEY THORNTON had seen much of the cases referred to in the paper; they seemed to bear out the author's remarks on blood-letting. There were two important questions to be considered. When should blood-letting be performed? and in what class of cases? He thought that it should be done promptly, when the first symptoms appeared—flushing of the face, with rapid pulse and hot dry skin—even though there was yet no rise of temperature. If this period were allowed to pass, blood-letting did not seem to act so readily. The application of cold to the head was very useful in many cases, in which there appeared to be a condition of brain which led to a rise of temperature and rapid pulse. For this purpose, he recommended the cap (or a modification of it) used by Mr. Lister, by which a constant stream of water was constantly poured over the head. Under the application of cold to the head, symptoms of acute bronchitis sometimes rapidly ceased. The action was too rapid to be accounted for by cooling of the blood; it seemed as if some influence were exerted directly on the brain. This method was preferable to the cold pack in hyperpyrexia, while in septicæmia the latter was especially indicated. —Dr. PROTHEROE SMITH had for many years practised venesection in connection with ovariotomy, in preparing patients for the operation. He removed small quantities of blood.—Mr. SPENCER WELLS doubted whether small bleedings before the operation would have much influence on the result. He rather agreed with Mr. Thornton that, when it was necessary to bleed after ovariotomy, the bleeding should be early and free. Since Dr. Day's paper was written, he had had four or five cases in which bleeding was followed by remarkable relief. He could also bear testimony to the usefulness of the ice-cap, which had the advantage over the cold pack that the patient was not disturbed. He had lately given small and repeated doses of aconite—half a drop of the pharmacopœial tincture every half-hour—with the effect of quickly rendering the pulse slower. The effect on temperature was less marked.—Dr. DAY, in reply, pointed out that blood-letting was not always at once followed by a fall of temperature. The ice-cap was no doubt useful in many cases; but sometimes it failed in relieving the symptoms.

### A CASE OF LEFT SUBCLAVIAN ANEURISM TREATED BY TEMPORARY COMPRESSION APPLIED DIRECTLY TO THE ARTERY IN THE FIRST PART OF ITS COURSE. BY ARTHUR FERGUSSON M'GILL, F.R.C.S., LEEDS.

(Communicated by JOHN WOOD, F.R.S.)

The patient, a laundress aged 35, had been suffering from an aneurism of the third part of the left subclavian artery for three years. She had been treated by digital compression, by manipulation, and by repeated galvano-puncture. The first two methods were adopted without result; the last with great, though temporary improvement. In December 1874, it was found, on examination, that the pulsation extended upwards from the centre of the clavicle for 1¼ inches, and downwards and outwards from the same spot for 2½ inches. The patient was suffering much from pain; her rest was impaired; and she was rapidly becoming worse. Under these circumstances, it was determined to try the effect of temporary compression applied directly to the artery at the first part of its course. On January 2nd, 1875, the operation was performed. An incision was made from the centre of the sternum upwards along the anterior border of the sterno-mastoid for two inches, and another of the same length along the clavicle; the sternal and part of the clavicular origin of the sterno-mastoid muscle was then divided, and the anterior scalenus and first rib were reached. After searching with the finger, the artery was found displaced backwards, and an aneurism-needle was passed round it. In passing the needle, a small opening was made in the pleura. The artery being isolated from the surrounding structures, a pair of torsion-forceps were applied, and left on for ten hours and a half. The next day, there was a return of pulsation in the sac; but this disappeared in twelve hours. She was apparently doing well, when symptoms of pleurisy and bronchitis supervened, and she died at the end of five and a half days. Leave could not be obtained to make a complete *post mortem* examination, but a partial examination at the seat of the operation was allowed. The forceps had been applied at the point where the vertebral was given off, and at that position the artery was patent and healthy. The aneurism, which commenced a quarter of an inch from the thyroid axis, and extended outwards for 3¼ inches, was filled with a hard clot, and was in fact cured. The operation was only performed after grave consideration. It was thought, (1) that no other method of treatment could be adopted with advantage, (2) that the proposed operation was practicable, and (3) that there was a reasonable prospect of success. The second of these opinions was arrived at after making many dissections on the dead body, and after learning that Dr. Rodgers of New York had applied a ligature to the subclavian artery in this position. It was thought that the application of a ligature in the ordinary manner was unjustifiable, as experience showed that patients on whom this operation was performed almost invariably died of secondary hæmorrhage. It was hoped that, by applying temporary compression, this accident would be avoided; while the experience of the rapid-pressure treatment of aneurism, introduced by Dr. W. Murray, showed that a cure by this procedure was not improbable. When this method of treatment was adopted, the cure was not effected by the gradual deposition of layers of fibrine, but by the sudden coagulation of the contents of the sac. This would account for the return of the pulsation on the second day after the operation. Though in this case the treatment had not been successful, it seemed probable that it might hereafter prove so in similar cases.

Mr. JOHN WOOD said that the application of direct pressure to an artery was very different from pressure from without; it was difficult to regulate the force applied so as to avoid sloughing of the vessel. He thanked Mr. McGill for bringing forward the case; there was too much reluctance to make unsuccessful cases public.—Mr. HENRY LEE said that the filling of an aneurismal sac with clot was not the same thing as curing the aneurism. He had had a case of inguinal aneurism which he treated by flexion. A clot formed; but the patient would not keep his limb bent, and the clot disappeared in two or three days. This was followed by intense and long continued pain in the course of the femoral artery, as if portions of the clot had been washed down the vessel.—Mr. HULKE said that Scarpa had used a broad ligature for the purpose of occluding arteries without dividing the middle and internal coats.—Sir JAMES PAGET called attention to the method recommended by Mr. John Dix of Hull, of using wire, bringing out the ends through the skin apart from the wound, and twisting them over cork, so that the ligature could be tightened or loosened at pleasure.—Mr. MCGILL said that the pressure was applied as lightly as possible, so as to avoid division of the inner and middle coats of the vessel.

## CLINICAL SOCIETY OF LONDON.

FRIDAY, APRIL 23RD, 1875.

E. HEADLAM GREENHOW, M.D., F.R.S., Treasurer, in the Chair.

*Fibroma.*—Dr. TILBURY FOX communicated for Dr. Gustavus Fritsche of Poland a case of fibroma weighing thirty-five pounds, which was successfully removed. The case occurred in the surgical clinical establishment at Warsaw, and was operated upon by Dr. Kosinski in that hospital. The patient, a female aged 27, stated that the growth had existed from childhood, and in all probability was congenital, as directly after birth a little dark spot was observed in the position of the subsequent growth. It increased slowly, and assumed great dimensions, so that the patient could not stand long, could not lie on her back, and could not work. Three years before admission, she observed a sore place on the lowest part of the growth; and there escaped from it an enormous quantity of serous fluid. When admitted, the patient was seen to be of medium stature and weakly constitution. Her skin was pale, rough, and covered with a great number of dark brown spots, especially on the extremities. In the sacro-lumbar region was a large tumour hanging to the knees of the patient when she was in the erect position. The pedicle of the tumour extended from the eleventh dorsal vertebra to the junction of the sacrum to the coccyx, and on the sides to lines drawn perpendicular from the ends of the eleventh ribs. The skin covering the growth was of a brown colour, and was very thick. At its lower part were numerous enormously enlarged lymphatic vessels in and under the skin. The whole mass was very soft, and felt like a bag filled with a gelatinous mass. The tumour was removed by a circular incision made round the pedicle; and afterwards, by a few deep cuts, the mass was separated from the body. A large quantity of blood was lost; and the patient, after the operation, was very weak and exhausted. The healing of the wound, which was retarded by an attack of erysipelas, occupied six months. The growth weighed thirty-three pounds, without the fluid and blood which escaped during the operation, and which would have weighed at least two pounds. Microscopic examination of the tumour showed that it consisted of long bundles of cellular tissue, which was in some places very loose. These bundles contained many spindle-cells, and formed a network, the meshes of which contained much fluid, with a great percentage of albumen and many wandering cells. At the end of six months, the patient left the hospital in good health and much strengthened.

Dr. TILBURY FOX said this was a valuable contribution to the therapeutics of fibroma; for, taken in connection with Mr. Pollock's cases, it showed that such large masses could be removed successfully, contrary to what is stated in books.—Mr. POLLOCK said that, in all the cases he had seen (ten or twelve), there had been smaller multiple tumours in addition to a larger mass. He pointed out the necessity of trying to save as much blood as possible during the operation; this was done in his last case by first passing numerous ligatures round the base of the mass to be removed, the vessels being so large, that the veins equalled the fingers in size, while the arteries were as large as the radial. Although he left much behind, yet the mass removed was so great (extending the whole length of the thigh), and, in spite of precautions, so much fluid and blood was lost, that the patient never rallied from the operation.

*Disordered Nerve-Function in an Infant.*—Mr. THOMAS SMITH related the following case. L. C., a girl sixteen months old, the only child of healthy middle-aged parents, was under the care of Dr. Chaldecott of Chertsey. She was healthy up to a year old, when she could walk. At this time, she began to cut her teeth rapidly, and suffered from disordered bowels, being for the most part troubled by obstinate constipation, but occasionally suffering from diarrhœa. Her urine became high-coloured and very offensive. She gradually lost strength, became unable to walk, and finally was too feeble even to sit up. She had no convulsions. When first seen by Mr. Smith, she had been ill for four months; her expression was anxious; face pallid; she was very irritable; she could neither sit nor stand. The skin was everywhere harsh and dry; on the front of the belly, it was shrivelled, and looked as if she had borne children. The pulse, tongue, and respiration were natural; the bowels, though obstinately constipated, were less so than heretofore. There was scarely any hair on the head. She held her hands to her head like a child suffering from cervical caries. There was tenderness over the spine in the sacral region. There was no paralysis of sensation or motion. The urine and fæces were normally retained. The following phenomena were observed. The child, who was extremely fretful and irritable, could at once be quieted by scratching roughly either the palms of the hands or soles of the feet. If this were done, she at once became quiet; the expression of her face completely changed; her muscles relaxed; and in a minute or two the parts scratched lost their dry and horny condition, and became warm and soft. Meantime, perspiration began to flow most profusely, until it dripped from the surface. The parents said that, as long as this irritation was continued, the same phenomena were observable; and that the child would remain quiet even for hours. The same results could be obtained by scratching the scalp, or by plucking out the hair. The present hairless condition of the head was due to the child having torn off her own hair for her own pleasure. She had been treated with advantage by bromide of potassium and hydrocyanic acid, and her constipation had been relieved by small doses of jalapin with podophyllin. Two months later, under the continuance of the same treatment, all symptoms, with the exception of the constipation, had disappeared. The urine was normal; the skin moist and soft; the palms and soles were no longer dry and horny, and she could not bear to have them touched. The hair was growing well on the head; she had no pain; she could sit up, and even walk. The improvement had been gradual and persistent. Mr. Smith brought this case before the Society as an instance of that form of hysteria known as spinal irritation, and fully described by Dr. Radcliffe, the late Dr. Anstie, and others: a disease seen, as he said, too frequently in adults, especially in the middle and upper classes, but most rarely met with in infants.

*Scald of the Glottis: with Deposit of Diphtheritic Membrane in the Pharynx, Larynx, and Bronchi.*—Mr. R. W. PARKER read notes of the case. The patient was a little girl, aged 3, under the care of Mr. Thomas Smith, in the Hospital for Sick Children. She had put her mouth to the spout of a kettle, which was boiling on the hob, and from which steam was actually issuing at the time. She would not swallow anything that same evening; but there was no difficulty with her breathing. Indeed, the immediate effects of the accident seem to have been slight, as she was not seen by a medical man for thirty-six hours. It was not until three days afterwards that the breathing became really affected, and she had a "croupy" cough for the first time. During the next two days, her breathing became more laboured, and her voice weaker; and, on the sixth day from the accident, she was admitted into the hospital. She was now exceedingly low and depressed, breathing very rapidly, and with great difficulty, but she did not struggle for breath. Her voice was entirely suppressed. There was great contraction of the hypochondriac regions with each inspiration. The mouth was carefully examined, and the lips, tongue, palate, and tonsils, were found free from any visible injury. On the posterior wall of the pharynx, a small patch of membrane was seen. An ice-bag was applied to the neck, but, at the end of two hours, there was no amelioration, so tracheotomy was performed. Two long pieces of membrane was got up with the aid of a feather; one of them was tubular, and about the size of a crow-quill. The child was greatly relieved by the operation. The general condition, however, rapidly became worse; she ceased to take notice of anything or anybody, and died thirty-six hours later, of blood-poisoning and exhaustion. The *post mortem* examination showed the lips, tongue, and tonsils, to be normal. Two small erosions existed on the hard palate at its junction with the soft. The anterior surface of the soft palate was normal; its posterior surface was rather swollen and mammilated in appearance, from swelling of the glands of its mucous membrane. There was a small patch of membrane on the base of the uvula, and another just above the left arch of the palate, another piece on the posterior surface of the posterior pillars of the fauces; these pieces were not perfectly separable from the mucous membrane. The epiglottis was covered with membrane, and was thickened and swollen, as were also the aryteno-epiglottic folds. The tracheal mucous membrane was intensely red and injected, and coarsely granular in appearance; this appearance extended as far as the tertiary bronchi. In some of the bronchi, pieces of thin, reddish, well formed membrane were found. In the lungs there were patches of slight superficial collapse; the margins and bases were slightly emphysematous. No pneumonia was present anywhere. No urine was observable during life, but a little found in the bladder after death contained albumen and hedgehog-crystals of urates. It was argued, that the membrane was not directly due to the hot steam, therefore, that it was not a slough: 1. Because those parts with which the steam would first come into contact, were not injured, while parts with which the steam could not come into contact were patched with membrane; and, further, because membrane was found in the tertiary bronchi, where, even if the steam penetrated at all, it must have been so cooled by admixture with the contained air, and by contact with the bronchial secretion, that it could not then have caused the extensive mischief described: 2. Because the dyspnœa did not commence until three days after the accident, and only became urgent on the sixth day. The insidious onset of the more acute symptoms, on the contrary, suggested the diphtheritic nature of the complication, and the *post mortem* evidence favoured this view. Mr. Parker maintained that the fact that false membranes had been found under a variety of circumstances, such as scalds of glottis, foreign bodies in the larynx, and in cut-throat cases, could scarcely be urged as an argument in favour of the non-specific nature of such exudations, any more than that the erysipelas which attacked a hospital patient after operation was non-specific, because the patient, though in exactly the same surroundings, had resisted the contagious influence for five or six weeks previously to his operation. Finally, the identity of croup and diphtheria was inferred from the fact, that the same contagion would produce the two diseases indifferently, and, in illustration, the following cases were read. A little girl was taken into the Children's Hospital with typhoid fever, and when she was in the fourth week of the disease, she had laryngeal diphtheria, and had to be tracheotomised. The disease began with a loud croupy cough, and slight hoarseness, which lasted for several days, but there was no dyspnœa. There was no enlargement or tenderness of the submaxillary glands. There was no albumen in the urine; there was no dysphagia; no marked depression; and there was no membrane about the fauces. After an emetic on the fourth day of the disease, she vomited freely, and, in the effort of vomiting, she brought up some tough white membrane; other pieces were brought up on the two following days. Being much worse, she was tracheotomised. On the ninth day after the operation, the urine became albuminous, and continued so for eight or ten days; she recovered. A few days later, another child in this same ward, who was under Mr. Smith for scrofulous disease of the knee-joints, began to be ill, with symptoms of languor and depression; then her temperature rose to 104.4 degs. Fahr., she was flushed, and felt sick, and could not swallow without discomfort. On closer examination, it was found that there was swelling and tenderness of the glands below and behind the angles of the lower jaw. The uvula was of a deep red colour and swollen. Both tonsils were enlarged, and deep red in colour, and, on the inner surface of each, there was a patch of white membrane of the size of a fourpenny-piece. The voice was pharyngeal in quality, otherwise not altered. There was no dyspnœa; no albumen in the urine. In eight days from the commencement, the membrane had entirely disappeared, the swelling of the throat was subsiding, and the child's general condition improving; she quite recovered. A fortnight later, one of the nurses in the same ward had a sore throat. On examination, the fauces were found red and congested, the tonsils large, and the left one spotted with half-a-dozen small white dots. The submaxillary glands were not enlarged. Now, had the first case not been operated on, she would quickly have died, and the disease in her case would have been found localised in and confined to the larynx, and, on *post mortem* examination, it would have been demonstrated as true croup; while, had the second child died, the case would just as certainly have been called one of diphtheria; and there would be no hesitation in speaking of the third case as follicular tonsillitis. No doubt these three diseases were due to one and the same cause, the difference in manifestation being the result of idiosyncrasies of the individual attacked, or of the organ implicated.

Dr. DICKINSON could not concur in these conclusions. The child must have been peculiarly unfortunate to have suffered from the effects of scald one day and to have been attacked on the next with diphtheria. Irritants, as boiling water, acids, etc., were well known to produce membranous inflammation of the larynx. The assertion that croup and diphtheria were identical, was one of the most startling manifestations of the present change in the current of thought in medicine. It might, indeed, be impossible to discriminate croup and diphtheria by the occurrence of membranous inflammation of the larynx alone; but how could a case of scarlet fever be distinguished after death from one of simple cynanche pharyngea? or how, as Dr. Moxon had pointed out, could Asiatic be distinguished from English cholera when the anatomical lesion was alone presented? or contagious erysipelas from the same affection following a gumboil or inflamed tooth? Clinically, however, typical cases of croup and diphtheria differed most widely. Croup began with nasal or bronchial catarrh, and the inflammation, spreading to the larynx, led to the formation of membrane. Diphtheria had no antecedent catarrh, but was ushered in by a general febrile condition resulting from a specific poison, and was accompanied by the formation of false membrane primarily on the pharynx, which might spread to the larynx. In the worst cases, the exudation was limited to the pharynx, nasal passages, and mouth, and death occurred from asthenia. The laryngeal inflammation in croup had no tendency to spread. Glandular enlargements, the early appearance of albumen in the urine, and the frequent supervention of peculiar nervous sequelæ, characterised diphtheria. The etiology was different: croup was frequently traced to cold, diphtheria mostly to exposure to some definite poison, *e.g.*, sewer-gas. The outbreak of diphtheria in the Children's Hospital, quoted by Mr. Parker, was traced to defective drainage and escape of sewer-air into the ward. The subject was one peculiarly appropriate to the Society, whose President (Sir W. Jenner) had recently declared in favour of the identity between the two affections, while he (Dr. Dickinson), on the other hand, thought the arguments in favour of their non-identity to be unanswerable, although cases were occasionally met with which it was difficult to place under either category.—Dr. HILTON FAGGE fully concurred in the views expressed by Dr. Dickinson, and he was partly influenced by the fact, that membranes might be found in the larynx under very different circumstances, as in cut-throat. Every few weeks or so, a child was brought to a London hospital suffering from croup. If it died, a membrane might or might not be found in the larynx, and it might reach the bronchi. In the pharynx, there was usually more or less membrane. In old times, the presence of membrane on the pharynx in croup was seldom recognised; but, since the introduction from the French of the term "diphtheria", it had been taught that any membrane whatever seated above the aryteno-epiglottic folds was diphtheritic. Moreover, the older physicians, recognising croup from its clinical features, might readily have passed over small patches of exudation on the palate and fauces. Only a small proportion of cases met with in an epidemic of diphtheria presented a marked laryngeal character; and, according to his experience, it was the rarest thing to find diphtheria admitted into a hospital apart from an epidemic. It was, indeed, highly probable that so-called "laryngeal diphtheria" in children was merely croup. He believed that every true case of diphtheria was as contagious as the exanthemata. The last case he had seen was nine years ago, when a patient with chorea, admitted into the same bed occupied just before by a case of diphtheria which was fatal, contracted the disease and died, although all precautions had been taken. It was far better always to act on the belief that diphtheria was very contagious. Croup and diphtheria could not be distinguished by their anatomical characters; but he would say that, in London, a case of membranous laryngitis would probably be croup. Much of the confusion between the two affections arose from the use of the word "diphtheria" by German writers; thus Virchow gave the term "diphtheritic" to that form of inflammation in which the deeper layers of the mucous membrane were infiltrated, the whole altered membrane sloughing off; and Niemeyer, adopting this view, applied it to epidemic diphtheria. This was clearly erroneous, and a more correct interpretation was given by Rindfleisch, who admitted the anatomical identity between laryngeal and pharyngeal croup (diphtheria). But it had led to the view being taken in England that the diphtheritic membranes should be inseparably adherent, and should invariably leave a raw surface when detached.—Dr. DUCKWORTH also concurred with the two preceding speakers, and pointed out that, although the presence of membrane on the pharynx could not be held to be distinctive of diphtheria, there was invariably in this disease a peculiar turgidity and redness of the mucous membrane of the pharynx (even in purely laryngeal cases) which was never seen in croup.—Mr. T. SMITH pointed out that Mr. Parker's case refuted the statement that the membrane resulting from local irritation was not the same as that resulting from diphtheria; for here it had no character of a slough, but was precisely the same as a diphtheritic exudation.—Dr. YEO had recently been converted to the view, that croup and diphtheria were identical; for he had seen cases presenting the symptoms of croup to which diphtheritic symptoms were added. One such, a child, died from blood-poisoning, although tracheotomy had been performed and had afforded great relief. Here the larynx and trachea were studded with circular patches of exudation. He thought Mr. Parker was quite justified in his opinion that the scalding water did not pass the glottis; and one explanation of the escape of the buccal mucous membrane might be found in the fact, that this was ordinarily exposed to rough substances without injury.—Mr. BARWELL had seen several cases of scald of the throat produced by children sucking the spouts of tea-kettles. The child, being frightened, made a deep inspiration, and thus drew water into the back of the throat, so that it was quite conceivable that some might enter the larynx. Only one case had been seen after death, and in that the trachea was lined by false membrane, while the tongue was abraded from contact with the spout of the kettle. He agreed with Dr. Dickinson that it would be very remarkable had a child been attacked with diphtheria directly after it had scalded its throat.—Dr. CAYLEY pointed out that the theory of non-identity required that more than one cause could produce the same effect; in the opposite view, many effects had the same cause; one of the chief arguments against the identity of croup and diphtheria being, that the identity of the membrane was no evidence of the identity of the disease. But it was notorious that the same poison or the same irritant produced very different effects in different individuals, the differences shading one into another. It was certainly not his experience that, as Dr. Fagge had stated, cases of croup admitted into London hospitals were equally distributed throughout the year. He had had cases at the North-Eastern Hospital for Children, which, from their sudden onset and rapid course, would be called croup, proving fatal within forty-eight hours, whether tracheotomy were performed or not. In all, false membrane had occurred in the fauces. Such cases were truly laryngeal diphtheria, so rapidly fatal as not to show any other of the symptoms of that disease. There were two distinct forms of diphtheria: one in which the general manifestations predominated, and the other in which the local symptoms were chiefly exhibited; cases of the latter kind occurred even in epidemics. He believed, then, the two diseases to be identical, and both due to the same poison.—Dr. **GREENHOW** thought that Mr. Parker's case was one of diphtheria, in which the scald played the part of a determining cause; and he strongly upheld the view, that croup and diphtheria were perfectly distinct affections. The marked depression characteristic of diphtheria was absent in croup. He had recently had under his care a case of croup, which was treated by leeching and depressing remedies, emetics, etc., with success; but such treatment could never be adopted in diphtheria. A few weeks ago, a child was admitted under his care, in which the diagnosis was at first doubtful; but tracheotomy was performed without relief, and the enlargement of the glands behind the jaw pointed in favour of diphtheria. After death, some small patches of exudation were found on the fauces, beyond the reach of observation during life. Four days afterwards, the sister of this patient was admitted with diphtheria, and died; while the nurse in charge of the two cases was attacked, and was only now convalescent. The nature of the membrane was of minor importance, for it differed widely in different cases of diphtheria. He had only been enabled to examine after death one case of croup, in which death resulted from absolute choking by the false membrane; here a tube of membrane was found confined to the larynx and trachea, the surface beneath being injected, but in other parts pallid and free from the vascularity correctly described by Dr. Duckworth as occurring in diphtheria.—Mr. **PARKER**, in reply, pointed out that those parts nearest to the steam were least affected; and he could not accept Mr. Barwell's explanation of the formation of the membrane in the trachea from direct irritation. The case of laryngeal diphtheria following typhoid, which he had related, was acknowledged by all at the time to be diphtheria, although confined to the larynx, and the membrane being exceedingly tough and white. The early symptoms in this case were those of croup, *i.e.*, of catarrhal character; but he had seen cases of croup in which there was but little primary coryza. Diphtheria might occur without deposition of membrane, with merely coryza and reddened fauces. Passing to the sequelæ, he said that evidence was wanting that paralysis was a necessary sequela of diphtheria; and it would hardly do to base the diagnosis of a disease upon its sequelæ, as had sometimes been done in diphtheria. In that view, dropsy or perforation of intestine might be held to be distinctive of scarlatina or typhoid fever, and yet it was very likely that these sequelæ could be prevented by timely treatment. Thus no case of scarlet fever treated from its commencement in the Children's Hospital had led to dropsy; while those cases in which dropsy supervened were precisely those in which little or no treatment had been adopted; so also with typhoid fever. With regard to albuminuria, in one of the two undoubted cases of diphtheria he had mentioned, there was much albumen; in the other, none. Was croup non-contagious? The last case in the Children's Hospital for which tracheotomy had been performed with success produced violent inflammation in the eye of the nurse in charge, by some of the membrane being expectorated into the eye. Nor was the amount of depression any diagnostic feature; and he repeated that he had never seen a case of asthenic croup in an impoverished child; the type, then, varied with the individual. There was no glandular swelling in the case of diphtheria following typhoid which he had related.

## HARVEIAN SOCIETY.

THURSDAY, APRIL 5TH, 1875.

W. H. BROADBENT, M.D., President, in the Chair.

*Facial Neuralgia.*—Mr. **HENRY SEWILL** related three cases of facial neuralgia, which, after resisting treatment for considerable periods of time, were cured by the extraction of carious teeth with inflamed nerves. The patients had not suffered from toothache.—Dr. **BROADBENT** remarked, that in his experience several cases of the most severe facial neuralgia, in which diseased teeth were not suspected by the patient, had been permanently relieved by dental treatment.

*Tinnitus Aurium.*—Mr. **GEORGE FIELD** read a paper on this subject. He first gave its various causes, and the treatment that had been recommended, etc. He then related fifteen successful cases of severe noises in the ear, treated by him by galvanism at St. Mary's Hospital, all of which had failed to get relief from other modes of treatment. He used Dr. Stohrer's double-celled induction apparatus, applying the galvanism directly to the membrana tympani by means of a probe passed through an ear speculum, made for the purpose by Messrs. Krohne and Sesemann. A piece of platinum wire was fixed to the speculum, and by this the current was carried to the tympanic membrane. Most of these patients had great concavity of the membrana tympani, with more or less deafness and obstruction of the Eustachian tubes. Some of them had suffered from noises in the ears for many years, and the sounds described by them were various. The "tinnitus" in some cases was almost unbearable before this mode of treatment was adopted. Mr. Field maintained, that galvanism no doubt stimulates the intrinsic muscles of the ear, and therefore enables them to perform their proper function. He said he had reason to believe that the stapes often remains fixed within the foramen ovale in these cases of singing in the ears. Such a condition doubtless does, from the continued contact of the stapes with the internal ear, induce a constant formation of false sounds. The partial withdrawal of the stapes, effected by contraction of the stapedius muscle, would be followed by a reduction in, or a temporary removal of, such false sound. And he would, therefore, suggest, that if this stimulation be carried on perseveringly, the muscles may regain their tone and exert their proper influence in the auditory function. A discussion followed, in which the President, Mr. Edmund Owen, Mr. Thomas, Mr. Browne, Mr. Sewill, and Dr. Farquharson took part.

# ASSOCIATION INTELLIGENCE.

## MIDLAND BRANCH.

A QUARTERLY meeting will be held at Lincoln on Wednesday, May 5th. Members desirous of reading papers are requested to communicate at once with C. HARRISON, M.D., *Hon. Sec.*

Lincoln, April 11th, 1875.

## BORDER COUNTIES BRANCH.

THE spring meeting of the Branch will be held at Carlisle on May 12th, 1875. President, Dr. Green, Kendal; President-elect, Dr. W. A. F. Browne, Dumfries. Gentlemen intending to read papers, or be present at the dinner, are requested to give notice to the Secretaries.

HENRY BARNES, M.D. } *Hon.*
Carlisle, April 13th, 1875. J. SMITH, M.D. } *Secs.*

## MIDLAND BRANCH.

A QUARTERLY MEETING will be held in the Board Room of the County Hospital at Lincoln, on Wednesday, May 5th, at two P.M.

Notice has been received of the following communications:

Ether as an Anæsthetic, and Notes of Cases. By C. Bell Taylor, M.D.

A case of Scald of Glottis, with recovery after the operation of tracheotomy. By the President.

A meeting of the Council of the Branch will be held at 12.30 on the same day, at the house of the President in James Street.

Lincoln, April 19th, 1875. C. HARRISON, M.D., *Hon. Sec.*

## BATH AND BRISTOL BRANCH.

THE sixth ordinary meeting of this Branch will be held at the York House, Bath, on Thursday evening, May 13th, at 7.15 P.M. F. Mason, Esq., President.

R. S. FOWLER } *Hon.*
Bath, April 1875. E. C. BOARD } *Secs.*

## METROPOLITAN COUNTIES BRANCH: ORDINARY MEETING.

AN ordinary meeting of this Branch was held at 11, Chandos Street, on February 19th; T. B. **CURLING**, Esq., President, in the Chair.

*Cerebro-spinal Paresis with Intense Neuralgia.*—The history of a case of this kind, by Dr. **LOCKHART CLARKE**, was read in his absence by Dr. **FARQUHARSON**, one of the Honorary Secretaries. A discussion followed, in which Dr. Fothergill, Dr. W. Dickson, Mrs. Garrett-Anderson, Mr. Sedgwick, the President, Dr. Farquharson, Dr. Dowse, and Mr. Allingham, took part.

# CORRESPONDENCE.

## PUERPERAL FEVER.

SIR,—In response to your invitation to members to give publicity to their views on puerperal fever, I send you the result of my experience, extending over a period of fifteen years.

In the beginning of my career, I acted as *locum tenens* for a gentleman who was obliged to leave home owing to the prevalence of puerperal fever in his practice. He had, in a few weeks, attended many cases of this nature, some of them proving fatal, and he left under my care several patients in various stages of the disease. One only died, the rest (daily, and often twice daily, visited by myself) recovered. I may here state that the fever was not generally prevalent, but was restricted to the practice of which I was in charge. During the few weeks I officiated, I delivered from twenty to thirty women, yet of all these not one was attacked by the disease.

Now the question which seems to me to upset the ordinary belief as to the communicability of contagion by the hand or clothes of the accoucheur is, how did it happen that, as I was in such close contact with patients suffering from a disease generally acknowledged to be very contagious, there was absolute immunity in the cases I delivered? I have in my time attended many isolated cases of puerperal fever, why did the disease not spread to the other cases I delivered during such attendance, if the clothes readily communicated it? A neighbour of a patient suffering severely from puerperal fever, and who administered vaginal injection, and generally acted as nurse, acted at the same time in the same capacity for another woman; no bad result ensued.

Three months ago this disease appeared in my practice. During a fortnight, out of nine cases I attended, eight were attacked, two ending fatally. I ceased practice, spent in the interval a fortnight at a hydropathic establishment, took various baths and out-door exercise, and, not feeling well, put myself under an alterative course of treatment. I resumed the practice of midwifery after five weeks cessation. All the cases subsequently delivered have done well. Neither scarlatina nor any other fever was prevalent in our district, and no other medical man, save myself, had any case of the kind.

From consideration of facts such as these, I have formed the opinion, first, that there is a form of puerperal fever communicated by the the accoucheur; second, that it is extremely improbable that it is communicated by effluvium from the clothes or any merely external source. Cases such as I have cited confirm me in the belief that we must look for some other explanation, and that furnished by one of your correspondents a few weeks ago, seems to me to be the one most reasonable and worthy to be entertained, viz., that the poison originates, or has its *habitat* in, and is exhaled from the person of the accoucheur.—Yours truly, GERM.

## THE CONTAGIOUS DISEASES ACTS.

SIR,—When such persistent efforts are being made by certain parties to obtain the repeal of the "Contagious Diseases Acts", I think it would be well if medical men who have been, or are, called upon to treat venereal diseases, would give their opinions and the foundations for such opinions—*Whether the "Acts" in question should be repealed or not.*

I have been the medical officer to the Tenby district of the Pembroke Union for many years. In the vicinity, we have, upon an average, from 130 to 140 soldiers, at the Huts and Fort, who are drafted from the Depôt at Pembroke Dock to this locality for rifle drill and practice; and, after a few weeks, exchange for other detachments coming up for the like purpose. We are not under the Acts; but the fact admits of no dispute, that, up to the passing of the Contagious Diseases Acts, venereal disease was prevalent in this locality, and my list of patients was never free from such cases. Since the Acts have been in force and the troops protected, venereal diseases have steadily diminished in frequency, until such complaints are all but extinct in this locality. I have not seen a single case of venereal disease of any kind for two years and upwards; and I have the permission of my friend Surgeon-Major Venour (the medical officer in charge of the troops) to state that his experience coincides with my own.

It is not my intention to enter upon a discussion of the subject, under the pretext that the "Acts" have an immoral tendency, or the reverse. It is notorious the parties brought under surveillance are well known to have little, if any, morals to part with; and I must have been very much mistaken if thirty or forty years ago the inhabitants of our large cities, or the soldiers located in barracks thereat, were more moral than at the present time, because venereal disease was prevalent, or the fear thereof. That venereal disease will ever be eradicated from our large cities I do not expect, but that the ravages of these distressing complaints may be in part in course of mitigation, I have no doubt. It does seem absurd, in my humble opinion, that a soldier or civilian is more moral because he has had, or expects to have, venereal disease. That such is the inference certain parties would suggest is obvious, fortunately without effect. Neither the actual contamination or the fear of infection has prevented the spread of such complaints, and never will. Therefore, by all means let the "Contagious Diseases Acts" be carried out to their legitimate issue, without let or hindrance. Such is the opinion and conclusion of yours obediently, GEORGE CHATER.

Tenby, April 16th, 1875.

SIR,—I am obliged to Dr. Parkes for affording me the opportunity of correcting an unintentional injustice to various gentlemen who have taken part in the recent controversy. He says, in his letter in to-day's JOURNAL, "there is one sentence in Dr. Nevins's letter which requires a word of reply". He says he has called upon the advocates of the Acts to refer to Dr. Balfour's returns, "instead of their own picked and unauthentic statistics"; and Dr. Parkes goes on to add, "The figures furnished by the various medical officers are perfectly 'authentic'. They are taken from the regimental returns, which are transmitted to head-quarters, and form the basis of the tables there calculated. Dr. Nevins has no more right to doubt the accuracy of the figures given by Surgeons-Major Fox, Gore, Ffolliott, and others, than he would have to doubt the figures of any hospital physician of London or Liverpool who laid the statistics of a disease before the profession. I have thought it necessary to assert the good faith and accuracy of the Army Medical Officers against Dr. Nevins's unfounded assertion, that their figures are 'unauthentic'."

In the beginning of my letter, from which Dr. Parkes has quoted, I objected to the use of "unpublished and unauthenticated statistics", and was not aware, until he pointed it out, that in a later paragraph of the same letter I had written "picked and unauthentic statistics". I have not the slightest thought of imputing want of good faith to any of my opponents in this controversy, nor do I believe that it has ever been implied in any of my letters; and if the accidental use of the word "unauthentic" has been so understood, I trust they will accept this *amende.* What I have throughout objected to has been the use of statistics "unauthenticated" by publication in the Army Returns, and therefore not accessible to the profession at large, and affording no means for the correction of accidental inaccuracies. I regret that, whilst zealous about an accidental and doubtful imputation upon the good faith and accuracy of his friends, Dr. Parkes should have allowed himself to write about his opponents, "the tactics of the oppopents of the acts are so shifty, etc." The controversy, hitherto, has been very free from personal imputations, and I trust it will so continue to be carried on, that it may leave behind it no remembrance of words which their writers would wish to be forgotten.—I am, sir, yours faithfully,

J. BIRKBECK NEVINS, M.D.

## THE DEBATE AT THE PATHOLOGICAL SOCIETY.

SIR,—When speaking at the last meeting of the Pathological Society, I had intended, had I not been stopped by the clock, and by the evident feeling of the Society that the debate should be adjourned, to ask Dr. Bastian to give us in his reply some explanation of the many published experiments which seem, to those who hold to the germ-theory, to be distinctive of the views held by him. I refer more especially to the "porous cell" experiments of Klebs, the diffusion experiments of Chauveau, both repeated by Sanderson; the experiments recently published by Roberts of Manchester, in the *Philosophical Transactions*, and those of Lister in the *Quarterly Journal of Microscopical Science*, and the *Lancet* of April 3rd. I think the facts they place before us are so important that any paper or discussion which does not deal *fully* with them, cannot be said to be anything but one-sided; and I trust Dr. Bastian will, at the next meeting, let us have his explanation of them.—I remain, yours, etc., J. KNOWSLEY THORNTON.

Park Street, Grovesnor Square, April 27th.

TESTIMONIAL.—The committee of the Surrey Reformatory School for Girls has presented a valuable microscope to their honorary physician, Dr. G. P. Rugg, on his retirement from that office, with a suitable inscription, in "testimony of their appreciation of the valuable and efficient services rendered by him as honorary physician to the school during a period of eight years".

PRESENTATION.—On April 26th, an address, handsomely illuminated, was presented to Dr. O'Keefe, of Queen's College, Cork, by the students attending the classes in Materia Medica and Medical Jurisprudence, in which they expressed their appreciation of the value of the lectures delivered on these subjects, and of the great attention they received from that gentleman.

# PUBLIC HEALTH
AND
# POOR-LAW MEDICAL SERVICES.

## REPORTS OF MEDICAL OFFICERS OF HEALTH.

SANITARY MATTERS AT LEWES.—The medical officer of health reports that the recent outbreak of typhoid fever in Lewes has rapidly died out, and that no fresh case had been reported during the fortnight embraced by this last return. During the last three quarters, the deaths in Lewes referred to fever have been nine, twenty-five, and fifteen, respectively. The usual quarterly meeting of the Town Commissioners was held on the 7th inst., when several matters connected with the sanitary condition of the town were discussed. It was stated that, under the present contract system, the scavengering and watering of the town were inefficiently performed; and it was, therefore, proposed that the commissioners should take this work into their own hands. At the present time, the ashpits, it was said, were emptied very irregularly, and at times it was difficult to get them emptied at all. The chairman, in pressing the proposition (which met with some opposition, on the ground that the new system would probably be more expensive than the old), very properly urged the importance of all refuse being regularly cleared at least once a week, especially from small houses. Most of the commissioners agreed that the existing arrangements for the clearance of ashpits and refuse were a disgrace to the town, and that they could only be put upon a satisfactory basis by taking the matter into their own hands, which was desirable, even should it result in a slight increase of expense. These views prevailed, and the proposition was ultimately carried with but one dissentient voice. Efficient scavengering forms an important part of the sanitary organisation of a town.

SWANSEA.—At the monthly meeting of the Swansea Rural Sanitary Authority, the medical officer of health, Mr. Rogers, reported that, during February, the death-rate had exceeded 28 per 1000; this large mortality being principally due to scarlet fever and to bronchial affections amongst children, resulting mainly from the keen easterly winds and the great alternations of temperature which had been experienced. The type of the prevalent scarlatina is stated to be very malignant, and this may perhaps in part be explained by the fact that, in many instances, the population live in badly constructed houses, which are ill-drained, and have neither proper water-supply nor efficient means of scavenging. Disinfection appears to be carried out in the district; but, except this step be seconded by isolation, which under existing circumstances is stated to be impracticable, it cannot be expected to result in much good.

WILLENHALL.—In the Willenhall urban district, the mortality during the past year has been 23.4 per 1000, and, according to Mr. J. T. Hartill's report, enteric fever has been very prevalent. The report only contains a brief *résumé* of the sanitary work which has been carried out, and it does not enter into details as to the probable causes of the mortality. The supply of water is, however, stated to intermit, and it is believed that risk of local contamination is thus favoured.

SHORT HEATH.—Mr. Hartill reports that the sanitary condition of this district is likely to be much improved when the water-supply now being provided by the Wolverhampton Waterworks Company has been carried throughout the locality. In many other respects, however, sanitary improvement is evidently much needed. There is no efficient sanitary inspection, the removal of night-soil is not properly effected, and in some parts there is overcrowding, and persons resident in ill-ventilated cottages are subjected to the effluvia emanating from foul ditches.

CAMPBELTOWN.—At Campbeltown, in Argyllshire, considerable improvement is stated to have been effected in the sanitary condition of the borough; but the evils resulting from overcrowding are still great, many families being huddled together in ill-ventilated tenements. This condition is stated to be increasing every year with the increase in population, and it is found to be one of the greatest obstacles to sanitary reform. Dr. Gibson, in his report, instances cases where, in two small ill-ventilated apartments, as many as seventeen persons were found residing; and he points out that, under such conditions, it would be quite impossible for him to stay the spread of any infectious disease which had once obtained a hold in these haunts. Fortunately, such diseases are at present rare in the district, and the spread both of typhus and of small-pox has in several cases been prevented by the immediate removal of the first cases to hospital. The provision of more closet-accommodation is also an urgent want in the borough, for at present every quiet street and lane are made the depositories of human filth. In many of the inferior houses, there are no closets at all, and, as there is a great dearth of public closets, it is at present impossible to put an end to this nuisance. After hearing Dr. Gibson's report, the Council resolved to give both him and the inspector of nuisances an increase of salary, and it is to be hoped that the adoption of this step indicates a determination on their part to deal energetically with the gross sanitary conditions reported to them as still prevailing in their district.

THE HEALTH OF DUDLEY.—The usual quarterly meeting of the Dudley Town Council was held on April 6th, at which was read the report of the Special Committee which had been appointed to consider Dr. Ballard's report upon the sanitary condition of the borough. The recommendations of the Committee were, principally, that a full statement of what had been done by the Council to remedy the evils pointed out by Dr. Ballard should be forwarded to the Local Government Board. This included efforts to obtain a better and a more regular water-supply; the covering in of foul ditches; the suppression of filthy undrained pigsties; the better regulation of slaughter-houses; the gratuitous distribution of disinfectants; the provision of a complaint-book for the use of the inhabitants; the pulling down of houses unfit for human habitation; the appointment of additional inspectors of nuisances; and an increase of the salary of the medical officer of health. The report also stated that a public mortuary and a hospital for infectious diseases would both be built shortly. The Mayor expressed his willingness to take all the blame upon himself if the Town Council and the Sanitary Committee were not kept to their work; and it would really seem as if a reign of real sanitary activity were now to prevail in this unhealthy town. That it is much needed, is proved by the last report of the health-officer, from which it appears that the death-rate of the borough is still equal to 39.2 per 1,000. The deaths included twelve from whooping-cough, and three from puerperal fever, which is now very generally prevalent. There had been four cases of small-pox in the town; but, by prompt isolation, the spread of the disease had been prevented, and it was reported that all the patients were convalescent.

SELBY.—An interesting report has been issued by Dr. Parsons on the sanitary condition of the Selby rural district during the past year. The district is situated in the centre of a wide alluvial plain, through which runs the Ouse; it is also skirted by the Rivers Aire, Derwent, and Wharfe. The surface is generally flat, and but few houses are more than thirty-five feet above the sea-level. Taking the average of the past six years, the general mortality for the district has been 18.0 per 1000; but it has varied in different groups of villages from about 22 to 15. This difference is attributed to the closer aggregation of dwellings, to the consequent concentration of the refuse matters of the population, and to the greater want of a free circulation of air in the villages of the former class. One of these evils is, however, in course of removal, the ordinary midden-privies being replaced by box-closets. The boxes are made to fit accurately beneath the closet-seat, and the latter lifts on hinges, so that the ashes may easily be thrown day by day upon the excreta. The boxes are further fitted on wheels, so that, when full, they can easily be wheeled away to a spot where their contents may suitably be deposited. Much of the water with which the district is provided is procured from wells often sunk in an alluvial or peaty soil, and more often still fouled by the percolation into them of filth from drains, privies, and farm-yards. Indeed, the supply derived from the rivers is found to be superior to that procured from many wells, and even that derived from the Aire is stated, after the sediment has subsided, to contain less albuminoid organic matter and chlorine than that of most of the wells. Great difficulty is, however, experienced in dealing with the question of water-supply; for, although power is given under the Sanitary Law Amendment Act, 1874, to close polluted wells, there is no power to compel the owners of property to provide a proper supply of water by sinking a new well. Dr. Parsons has been in communication with the Local Government Board on this point, and he has been informed that the obligation on the part of an owner of property to give his houses a proper water-supply, provided this can be done "at a rate not exceeding twopence per week", does not apply to cases where such a supply can only be obtained by digging a well. This is a point of extreme importance, and, if the view adopted by the Local Government Board be correct, it is evident that some modification of the existing law on this point is required. Dr. Parsons suggests that, in any future legislation, the words "at a rate not exceeding twopence per week" should be altered into "at a reasonable cost". The report concludes with a detailed account of the special sanitary work required in each portion of the district, and contains some excellent advice as to the necessity for using disinfectants with lavish liberality wherever they are required. Parsimony, especially in this matter, is mistaken economy, and it is calculated to do the more harm, because of the false sense of security it tends to give.

HARDINGSTONE.—At a recent special meeting of the Hardingstone rural sanitary authority, Mr. Haviland, in an elaborate paper, drew attention to the main causes of disease in this district, and pointed out the extreme fatality of typhoid fever and of phthisis. As regards the former disease, Northamptonshire, in which this district is situated, affords a specimen of the high mortality resulting from it. Consisting of twelve registration districts, it only contains one, namely Oundle, in which the mortality from "fever" during the decennial period 1851-60, was below the average, while five districts, including Hardingstone, had a fever mortality considerably in excess of the average. This mortality has since that date been maintained, and, in Mr. Haviland's opinion, it is, to a great extent, due to peculiarities of soil which tend to favour the spread of this disease, mainly by water-pollution. Thus the district lies mainly upon the great oolite, a porous limestone, and upon the porous Northampton sands with its ironstone, and the water which descends through these two strata are held up in them by a bed of impervious and tenacious upper lias clay. Such geological sites are clearly conducive to the spread of typhoid fever, if the soil be once fouled by filth, for they naturally give easy passage to the rainfall to form springs, but they, at the same time, also admit the soakage of filth which is derived from cesspools, badly constructed drains, and dungheaps, and the whole is upheld by an underlying impervious bed. In order to obviate the evils attendant upon such peculiarities of site, Mr. Haviland stated that the abolition of the cesspool system was essential, and in its place he advocated the organisation of a system of frequent scavenging and the establishment of dry-closets. Unless these steps were carried out, he confidently assured the authority that the high mortality of past years would most certainly become permanent. Hardingstone is almost exclusively a rural district, but its mortality in the ten years 1861-70 was as high as 20 per 1,000 living, and the fever mortality during the same period was in excess of that prevailing in Northampton. In the course of his paper, Mr. Haviland referred to some outbreaks of diphtheria, and he stated that he was then making inquiry as to the connection of this disease with overcrowded churchyards amongst other causes. There is hardly any disease concerning the causation of which more precise investigation is required, and it is from rural districts, where isolated outbreaks occur, that a clearer knowledge of its means of spread must in all probability come.

## POOR-LAW MEDICAL APPOINTMENTS.

BANNISTER, William, M.R.C.S.Eng., appointed Medical Officer and Public Vaccinator for No. 1 District of the Havant Union, *vice* W. Stedman, M.R.C.S.Eng., resigned.

LAVIN, Michael D., L.R.C.P.Ed., appointed Medical Officer and Public Vaccinator for the Bushey District of the Watford Union, *vice* W. E. Burton, L.R.C.S.I.

PAGE, Edward S., L.F.P.S.Glasg., appointed Medical Officer and Public Vaccinator for the Solihull District of the Solihull Union, *vice* T. Lowe, M.R.C.S.Eng., resigned.

PAUL, Ernest W., M.R.C.S.Eng., appointed Medical Officer and Public Vaccinator for the Calne Union, Wilts, *vice* H. W. A. Sandell, L.R.C.P.Ed., resigned.

PIERCE, Evan, M.D., appointed Medical Officer for the Llanrhaiadr District of the Ruthin Union, *vice* E. P. Williams, M.D., whose appointment has expired.

SHANNON, Thomas E., M.D., appointed Medical Officer and Public Vaccinator for the Longford District of the Ashbourne Union, *vice* T. G. Copestake, M.R.C.S.Eng., resigned.

WILLIAMS, Robert, M.B., appointed Medical Officer for No. 2 District of the Leominster Union.

# MILITARY AND NAVAL MEDICAL SERVICES.

INSPECTOR-GENERAL HENRY S. DOMVILLE, M.D., C.B., has been appointed to Plymouth Hospital, *vice* Minter, retired.

DR. DONNET, Deputy Inspector-General of Hospitals and Fleets, doing duty at Malta Hospital, has been promoted to the rank of Inspector-General, *vice* Minter, placed on the retired list.

FLEET-SURGEON J. G. T. FORBES, who, owing to a close application to his work in the Medical Statistical Department at the Admiralty, was lately struck down by paralysis, is slowly improving in health, but it is believed that he will never be able to resume the discharge of his highly useful and onerous duties.

PROMOTIONS AND RETIREMENTS IN ARMY MEDICAL DEPARTMENT.—Surgeon A. C. Gaye to be Surgeon-Major, *vice* A. C. Ross, M.D., retired upon temporary half pay.—Surgeon W. E. Alston, M.D., to be Surgeon-Major, *vice* J. Jardine, M.D., retired upon temporary half-pay.—J. A. Scott to be Surgeon-Major, *vice* W. Lapsley, retired upon half-pay.—Staff-Surgeon J. J. Henry, from half-pay to be Surgeon-Major, *vice* G. McG. Carolan, retired upon temporary half-pay.—Surgeon-Major T. Teevan retires upon temporary half-pay.—Surgeon-Major P. H. E. Cross retires upon half-pay.—Surgeon S. W. Handy, upon half-pay, resigns his commission.

MOVEMENTS OF ARMY MEDICAL OFFICERS.—Surgeon-Major F. Odevaine, in medical charge 84th N.I., is allowed furlough to Bombay for one month from date of quitting regiment, preparatory to furlough to Europe on private affairs.—Surgeon-Major W. D. T. Ticehurst, in medical charge 13th Regt. N.I., is allowed furlough to Europe for two years, from date of departure in April.—Surgeon F. Johnson has arrived in Dublin, from Dunmore, and been ordered to do duty at the Station Hospital, Phœnix Park.—Deputy Surgeon-General Grant, M.D., has been struck off the strength of the Curragh District on embarking for Bermuda, to assume the duties of principal medical officer at that station, and will be succeeded by Deputy Surgeon-General Vere Webb.

## RECENT PROMOTIONS IN THE NAVY.

THE *Army and Navy Gazette*, in reporting that Dr. James J. L. Donnet, Deputy Inspector-General of Hospitals and Fleets (1867) has been promoted to the rank of Inspector-General, vice J. M. Minter, placed, owing to age, on the retired list, points out that, in promoting Dr. Donnet, the Lords of the Admiralty have passed over, in consequence of a most unfortunate technical objection, two most deserving and very valuable public officers—Deputy-Inspector Mackay and Deputy-Inspector Macleod, both of whom are several years senior to Dr. Donnet. We sympathise with regret that there is a difficulty in recognising the services of the two able officers named; at the same time it is right to point out that there is no question here of a merely technical objection, but the direct and express provision of an Order in Council. By the Order in Council of the 7th August, 1869, it is provided that no Deputy Inspector-General of Hospitals and Fleets shall be promoted to the rank of Inspector-General of Hospitals and Fleets, unless he shall have served five years as a Deputy Inspector-General, during three years of which he shall have been in charge of a foreign hospital, or of a fleet or squadron. Deputy-Inspectors Mackay and Macleod, who have respectively nine and seven and a half years' standing in that rank, have been on continuous full pay in England. In giving way in promotion to younger officers who serve in all climates, and are on full pay alternately, they fulfil the express terms of the order. The principle is, we believe, considered in the service to be sound, and one which ought not to be invalidated. At the same time, it ought not to be applied retrospectively to officers on active service when it was brought into law; and these officers might have been promoted in due turn *in italics* out of the limited list of available posts. This might, we suggest, fairly be the subject of a special Order in Council for their promotion.

## ARMY MEDICAL SERVICE.

SOME very pointed remarks on the Army Medical Service have been put in a very terse way, in a small printed sheet of six pages, by "X". The writer shows that the mere guarantee of promotion of surgeons at fifteen years, which the Secretary of State for War, in bringing forward the Army Estimates, stated he believed he saw his way to granting, will not bring back the value of an army medical commission to what it was under the warrant of 1858. This was the warrant which Dr. Alexander, who was then Director-General of the Army Medical Department, succeeded in obtaining after a prolonged struggle, and which has since been much tampered with. In addition to certain promotion to the step of surgeon-major at the end of fifteen years, there must be a more steady flow of promotion. We agree with "X" in thinking that one of the most powerful safeguards against stagnation and wholesome spurs to exertion was taken away when Clause 7 of the warrant of 1858 was expunged. By this clause, it was ordered that all promotions to the inspectorial ranks should be given "by selection for ability and merit"; the grounds for the selection being stated in writing, and recorded in the office of the Commander-in-Chief. Instead of selection, seniority has been made the rule; so that, as "X" puts the case, "the sole qualification needed for eminence in the Army Medical Department is good physical health"; while the "feeling amongst the juniors, which should have culminated in respect for the scientific attainments of the seniors of their department, has merged into veneration for their years". We are sure that there is much truth in this. When men know that it makes no difference in their prospects or advantages whether they distinguish themselves in their profession or not, they are not likely, excepting in isolated instances, to exhibit particular zeal, or to distress themselves by overwork. They are more likely to "take the world easy", and make the preservation of health the first consideration. A remark, attributed to the late Sir John Hall, was quoted in a recent pamphlet on the organisation of the Army Medical Department. It was to this effect. On being asked whether he thought promotion by seniority or selection best, Sir J. Hall replied, "If promotion goes by seniority, God help the department; if by selection, God help the man who has to make it". This sounds very much as if the only interests to be consulted were those of the department, or of the officer on whom the duty would devolve of selecting for the higher grades in it. But we cannot help noticing that there are other interests at stake as well as those of the character and reputation of the department, though these are not to be lightly considered. The interests of patients and of the army at large are not to be neglected. No doubt it is an easy matter for the responsible authorities when seniority is the rule; there is no trouble in making an appointment when all that is to be done is to see what name stands first in the list. This was not the proceeding, however, that was adopted by the governing authorities when they had to appoint an administrative officer for conducting the comparatively recent expedition on the West Coast of Africa. They did not take the oldest general officer on the list because it was the easiest thing to do, but selected an officer who had the necessary professional knowledge, ability, and energy for carrying out the objects of the expedition to a successful issue. Neither did Sir Garnet Wolseley take the members of his staff on a seniority principle, but he selected them from the most competent officers at Woolwich, Sandhurst, or wherever else he could find them. Surely the respective merits of the medical officers must be pretty well known in the office of the Director-General of the Army Medical Department in London; if not, we can only say they ought to be known. If the heads of the medical service are themselves competent professionally, and able in their administrative capacities, they can have no more difficulty in estimating the relative merits and abilities of the medical officers under them than occurs in other branches of the public service. At any rate, if the system of seniority promotion is to continue, we agree with "X" in thinking that the deadlock in promotion will continue also. We commend the remarks of "X" on this point to the notice of the Right Hon. the Secretary of State for War.

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SIR,—In discussing the various views regarding the Army Medical Department, great confusion of ideas seems to arise from confounding two separate and distinct subjects, the good of the service generally and the good of the members of the medical service.

Opinion is very much divided on the former, as to whether the late "combination" plan (of regimental and staff, for there never was a purely regimental system) or the recent "unification" scheme is the better; and till the latter has had a fair and continued trial, no decided verdict from experience can be given. But it is scarcely compatible with our knowledge of human nature to expect a fair trial of a new system to be carried out by men who suffer by the change. It is therefore necessary that the members of the department should be sharers in the benefit, if any, arising from it. "Increased duties and responsibility" ought not to be thrust on a gradually decreasing number of executives without some incentive to increased exertion; and if, as Mr. Hardy admits, we have always done our duty well as regimental officers, it must be made to our advantage to persevere in the same course under altered and adverse circumstances. That may be a low view, but it is the practical one. If we are to be a "staff", let us be treated as such, by increased pay and allowances, and total detachment from regiments to which now we are only attached for the purpose of supporting institutions in which we can no longer have any interest. As a satisfied and contented department we will work *con amore* any scheme which makes us so, but do not let us suffer whilst the experiment of finding out what is best for the service generally is being tried. If station hospitals and staff officers are best, let us have the one and be the other. If regimental hospitals and regimental officers are best, let us have them by all means. But do not let us personally bear the discomfort and disadvantages of both, without the benefits of either, till the question is decided.

There is no variety of opinion on the second subject, the good of the members, and the means of allaying the discontent of the service. Quicker promotion, earlier and better retirement, and a reasonable chance of reaching the highest rank of the department would suffice. But how can we be contented, whatever the system, when three-fourths of our service must be spent in the lowest grade, and our chance of attaining the higher is so extremely small as to be scarcely worth calculating on? Promotion at twelve years service, a pension at twenty sufficient to induce retirement, and the administrative appointments tenable for only five years in each rank (the members of which should be equal), would restore the department to such a position as to lead a sufficient number of good men to enter it, and the question of an unification or other scheme would be a mere matter of detail, and minor grievances be unheard of.

In my estimation the old "combination" plan is the best for both medical officers and the service. As long as the regiment is the unit of the British army, it ought to be self-contained, complete in every respect, and it would be as reasonable to make the rest of the regimental staff part of a general one, as to make the medical officers solely members of a department when doing regimental duty. But if such should be found necessary for economy (I deny the efficiency), do not let the change be made at the expense of the officers by whom the saving is to be effected. Yours, etc., A. M. D.

## THE DISSATISFACTION IN THE ARMY MEDICAL SERVICE.

WHEN the Secretary of State for War mentioned, some nights since, in the House of Commons, that he had been deluged with pamphlets on the Army Medical Department, and referred to the want of agreement in the views of the writers, as expressed in them, he certainly could not have had in his mind, or have meant to make his listeners believe, that there existed any discrepancy among them regarding the causes of the prevailing discontent in the department. All the pamphlets that we have seen, agree in tracing the dissatisfaction among the Army Medical officers to the same sources, though this or that source of dissatisfaction may be put more prominently in one than in another pamphlet, according to the particular experience or feelings of the writer. The interference with the Royal Warrant of 1858, and the rescinding of the privileges which were granted in that warrant, were the *fons et origo* of the heart-burning among the medical officers which has never since been allayed, but has rather gone on increasing with increasing years. The mischief and distrust which resulted from the withdrawal of the status and rights which that warrant granted to the medical officers have been incalculable. None of the warrants or circulars which have been since issued have succeeded in undoing the harm, or in removing the sense of insecurity, which the breach of faith in cancelling certain of the provisions put forth in the articles of the warrant of 1858 gave rise to. A fresh addition to the list of pamphlets already published on the grievances of the Army Medical Department, entitled "Rough Notes on the Army Medical Department", which has just appeared, only calls attention to the same fact in other language. In this pamphlet may be found a short history of the legislative regulations bearing on the constitution and privileges of the medical branch of the army, from the year 1848 to the present time, together with an account of existing grievances, and some suggestions for their removal. As the Minister for War has himself admitted, in the House of Commons, that the discontent in the Army Medical Department is widely spread (and it would be difficult, indeed, for him to shut his eyes to the fact, considering in how many ways it has been brought to his notice); as in the next place there is a general agreement in respect to the principal causes of this discontent; it remains only that the various suggestions which have been put forth, with a view to secure a restoration of content, should be fairly considered. There is no lack of them for consideration. It is for the Secretary of State for War to decide, after consultation with his responsible advisers on such matters, what among the suggestions that have been laid before him can be accepted, and to what extent they can be acted upon, with due concern for the interests of the medical officers and the army at large; and we trust that there will not be any avoidable delay in a conclusion being come to on the subject. It is hardly possible to overrate the harm which must result from a large and important body of officers, such as those which form the medical branch of the army, continuing in a state of chronic sense of wrong having been done to them, of labouring under the sting of grievances unredressed, and of being subjected to other unjust treatment. The sooner this state of things is altered, and the department brought to a satisfied condition by just and reasonable concessions secured on a firm basis, the better it will be, not merely for the medical officers themselves, but, we may add, for all who are brought into official relations with them in the public service of the country.

## NAVAL MEDICAL APPOINTMENTS.

CANN, Staff-Surgeon T., M.D., additional, to the *Ganges*.
COLAN, Fleet-Surgeon Thomas, M.D., to the *Alert*.
COLQUHOUN, Staff-Surgeon A. G., additional, to the *Implacable*.

# MEDICO-PARLIAMENTARY.

*HOUSE OF COMMONS.—Thursday, April 22nd.*

*The Public Health Act.*—Mr. SCLATER-BOOTH, in answer to Dr. Lyon Playfair, said he had no report from the medical officer of the Local Government Board on the practical efficiency of the Public Health Act, and therefore could not lay it before the House.

*Friday, April 23rd.*

*Ashantee Honours.*—Dr. LUSH asked the Secretary of State for War whether, having regard to the fact that in the distribution of honours and rewards after the Ashantee war, combatant officers were rewarded in the proportion of about one in three of those engaged, medical officers in the proportion of about one in nine, he would give some assurance to the House that in any contemplated or fresh distribution of honours to the army, such a grave disproportion would receive his attention with a view to its remedy.—Mr. STANLEY: In the unavoidable absence of the Secretary of State for War, perhaps I may be allowed to answer the question. It is considered that the medical officers engaged in the Ashantee Expedition have received their full proportion of the honours and rewards bestowed on that occasion, and I am unable to hold out any definite assurance with regard to any future proceedings.

*Tuesday, April 27th.*

*Ventilation of the House.*—Lord H. LENNOX, in answer to Mr. Cawley, said he believed that the plan of filtering air by passing it through cotton-wool had been found very successful, and there was no objection to supplying it to both Houses of Parliament, if this were necessary. At present, however, almost equally good effects were obtained by filtering the air through the finest cambric. The expense of changing to the cotton-wool would be £200 at first, and from £50 to £100 a year afterwards.

*Medical Acts Amendment (College of Surgeons) Bill.*—Mr. STANSFELD has given notice that he will, on the House going into committee, move that the House will consider the Bill that day six months.—Viscount SANDON will move the following amendments. After clause 1, insert the following clause (saving rights of the College to admit women to certain examinations). "Nothing in this Act contained shall deprive the said College of the right (if any) existing at the passing of this Act, or relieve them from the obligation (if any) existing at the passing of this Act to admit women to the examinations required for letters testimonial of the College, or for a qualification to be registered under the Medical Act, 1858, or to grant letters testimonial to any woman who has successfully passed the examinations and fulfilled the other general conditions imposed upon persons seeking to obtain from the said College such letters, testimonial, or qualification."

*Notices.*—Mr. WHITWELL has given notice that, on the second reading of Mercantile Marine Hospital Service Bill, he will move that it be read a second time upon that day six months.—Mr. O'LEARY, on the second reading of the Medical Act Amendment (Foreign Universities) Bill, will move that it be read a second time upon that day six months.

# OBITUARY.

## ROBERT LAW, M.D.

DR. LAW, late Professor of Institutes of Medicine in the School of Physic in Ireland, died on Friday, April 23rd, at his residence, Merrion Street, Dublin, at the age of 77 years. Dr. Law was educated at the University of Dublin, of which he was a distinguished student, gaining high honours during his collegiate career. He obtained a scholarship in Trinity College in the year 1817, and graduated A.B. in 1819. He took his Bachelor of Medicine degree in the year 1822, but did not take higher degree of M.D. until 1857. He joined the King and Queen's College of Physicians in 1827, and was elected a Fellow in 1829, and served the office of Censor for several years. Dr. Law was an earnest and constant student of pathology and practical medicine, and contributed great numbers of papers to the medical journals and transactions of the various medical societies. His most remarkable contributions were those on Cirrhosis of the Liver and Lung. His papers on the administration of mercury by small and repeated doses contributed much to the advancement of the knowledge of the uses of that drug, and had a great influence in diminishing its excessive use. Dr. Law contributed articles on Hæmoptysis and Pleurisy to the *Cyclopædia of Practical Medicine.*

Dr. Law was elected President of the Dublin Pathological Society in the year 1858, and continued to take an active part in the Society's proceedings so long as his health permitted. His communications to the Society were always of an extremely original character, and tended much to raise the credit of the Society. He had made a collection of valuable pathological specimens illustrating these diseases, in which he took a special interest.

Dr. Law was elected Professor of Institutes of Medicine in the School of Physic in Ireland in the year 1841, in succession to Dr. Graves. He continued to hold this office until October 1873, when, in consequence of the failure of his health, he was compelled to resign. The College of Physicians accepted his resignation with great regret. Since the attack of illness in 1873, Dr. Law's health steadily failed, and he resigned all his public appointments, including his offices of Physician to Sir Patrick Dun's Hospital, Simpson's Hospital, and the Criminal Lunatic Asylum at Dundrum.

Dr. Law was much beloved by all who knew him. He was an elegant scholar and pleasant companion, and was not only an active worker for the improvement of his own profession, but also in the cause of charity of every kind.

# UNIVERSITY INTELLIGENCE.

## UNIVERSITY OF OXFORD.

THE NATURAL SCIENCE SCHOOLS.—In a Congregation on April 27th, a statute, the principal effect of which would be that the examinations in the Natural Science Schools would be held only once a year, and that honours might be obtained in different subjects at different times, creating, in fact, independent Schools of Physiology, Chemistry, and Physics, was thrown out, after a sharp debate, by twenty-five votes to twenty-three. The opposition was partly due to the fact that the complex character of the preamble had rendered amendments impossible.

# MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners on the 20th April, viz.:

Messrs. William Walker, L.S.A., Land's End, Lancashire; Alexander Cosgrave, Fairfield, near Manchester; Charles Edwin Smith, L.R.C.P.Lond., Preston, Lancashire; Thirkell Anningson, Burnley, Lancashire; Charles Wm. Buck, Settle, Yorkshire, and Arthur Richardson, Rusholme, Lancashire, students of the Manchester School; John James Barnes, L.R.C.P.Ed., Bolton; Charles William Bass, L.S.A., Barnsley, and Robert Alexander Jackson, Notting Hill Square, of University College; Edward Joseph Day, L.S.A., Woodyates, Dorset; Edwin John Gurdon, L.R.C.P.Ed., Colchester, and Henry Percy Potter, Denmark Hill, of St. Thomas's Hospital; John Rees, L.R.C.P.Ed., Dover, and John William Davies, L.R.C.P.Lond., Ebbw Vale, Monmouthshire, of Guy's Hospital; Thomas Murray Hope, L.R.C.P.Edin., Natal, and George Newton, Newcastle-on-Tyne, of the Newcastle School; Edward Houlbrook, L.S.A., Ilkley, Yorkshire, and John Benjamin Hellier, Headingley, Yorkshire, of the Leeds School; George Henry Haines, Woburn Place, of St. Bartholomew's Hospital; Frank Nankivell, York, of the Edinburgh School; James Stuart Orchard, M.B.Aberd., Salford, Lancashire, of the Aberdeen School, and Alfred Thompson, L.S.A., Spilsby, Lincolnshire, of the London Hospital.

The following gentlemen passed on the 21st April.

Messrs. Joseph Bourne Waterhouse, Burslem, Staffordshire; Frederick William Richard Romano, L.S.A., Brazil; John Morrison Hobson, L.R.C.P.Lond., Forest Hill, and Alfred Rawlings, L.S.A., Plympton, Devon, students of Guy's Hospital; Thomas Porter Greenwood, Easton, Northamptonshire; Leander Starr Jameson, Earl's Court Road, Kensington, and Henry Algernon Hodson, Bishop's Stortford, of University College; Eugène Crétin, L.S.A., Mauritius, and George Roger Tasker, Lancaster, of St. Bartholomew's Hospital; David Valentine Rees, Carmarthen, and Frederick Treves, L.S.A., South Hackney, of the London Hospital; Frederick Daniell Miller, L.S.A., Streatham, of King's College; John Aspinall Hunt, Ackbrook, Derbyshire, of St. Thomas's Hospital; George Gosset, B.A.Cantab., of the University College and Middlesex Hospitals; John Thomas Graham, M.B.Glasg., Tottenham, of the Glasgow School; Samuel Edgar Martin, M.D., Queen's University, Ireland, Newry, co. Down, of the Belfast School, and Wm. Richardson Edmond, Swansea, of the Edinburgh and University College Hospitals.

The following gentlemen passed on the 22nd April:

Messrs. David Edwards, L.R.C.P.Lond., Mold, Flintshire; Charles Greenwood, Nether Broughton; and John Fleming Hartley, Thorpe Salvin, Notts, students of University College; George Weddall Bond, L.S.A., Pulham, Norfolk; and John Parkes Lockwood, New Hampton, Middlesex, of Guy's Hospital; William Mardon Beaumont, L.S.A., Oxford, of the Middlesex Hospital; William Hotson Cadge, Carlton Colville, Suffolk, of St. George's Hospital; William Romains Smith, Oxford, of King's College; John Duncombe Bell, L.S.A., Antigua, of St. Bartholomew's Hospital; and Edward Thornton Johnson, South Norwood, of St. Mary's Hospital.

The following gentlemen passed their primary examination on the 27th April:

Messrs. John Theodore Cash, Abraham Garrod Thomas, Ernest Aylward, James Milne Chapman, Vincent Wanostrocht, and Walter Smith Kay, students of the Edinburgh School; William Roger Williams, Gregory Stock, Frank Taylor, Thomas Chalmers Norton, and Arthur Henry Boissier, of the Bristol School: Alfred Edward Fitzpatrick, Walter Baugh Hadden, and Damer Harrison, of the Liverpool School; James Herbert Thorpe, Arthur Kimberley Scattergood, and William Smith Porter, of the Leeds School; Henry Frederick Bailey, and Richard Shalders Miller, of University College; William Barron Smith, and Robert Hunt, of the Manchester School; John Henry Barnard, and Alexander John James Johnston, of Guy's Hospital; Edward Stacey Norris, B.A.Cantab., of the Cambridge School; Evlyn Richard Hugh Pollard, of the Dublin School; William Henry Rean, of the London Hospital: and Albert Benthall, of King's College.

The following gentlemen passed on the 29th April:

Messrs. T. C. Booth, Alfred Blackmore, George Kirby, T. H. Parke, and Edwin Jackson, students of the Manchester School; J. D. Grant, James Cooper, John Hassall, and C. E. H. Warren, of the Edinburgh School; Charles Green, T. G. Ainsley, and Mark Malvin, of the Newcastle School; John Bibby, L. W. Davies, and R. S. Wilson, of the Liverpool School; E. L. G. Gamble, S. P. Woolley, and F. E. Cockell, of St. Thomas's Hospital; R. G. Bailey, and J. W. Hinings, of the Leeds School; E. W. Pryce, and S. T. Plumbe, of St. Bartholomew's Hospital; E. B. Granger, and A. C. Morton, of Guy's Hospital; Ernest Blacker, and H. G. Milner, of the Bristol School; F. G. Baker, of St. George's Hospital; E. H. Dumbleton, of the Birmingham School; and A. J. Smith, of the University College Hospital.

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**Apothecaries' Hall.**—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, April 22nd, 1875.

Barrow, John, Hilldrop Crescent, Camden Town.
Chadwick, George Richard, King's Lynn, Norfolk.
Lush, John Selfe, West Lavington, Wilts.
Makins, George Henry, Dacresfield, Walton-on-Thames.
Musgrave, Reginald Vernon, 39, Finchley Road.
Strickland, Arthur William, St. George's, Wellington.
Thomson, George William, Hemel Hempstead.

The following gentlemen also on the same day passed their primary professional examination.

Collier, Herbert, St. George's Hospital.
Ellis, Joseph Watson, St. Bartholomew's Hospital.
Farnell, Henry Dawson, University College.
Gillard, Clarence Richard, St. Thomas's Hospital.
Grimwood, John Joseph Wright, Guy's Hospital.
Heelas, James, University College.
Khan, Mirza-Hussein, St. Mary's Hospital.
Robertson, Frederick Freer Leslie, St. Bartholomew's Hospital.
Thompson, Harry Young, St. Bartholomew's Hospital.
Williams, Alfred Glover, St. Bartholomew's Hospital.

At the Preliminary Examination in Arts, held at the Hall of the Society, on the 23rd and 24th April, 62 candidates presented themselves; of whom 24 were rejected, and the following 38 passed, and received certificates of proficiency in general education—viz., in the First Class, in order of merit:

1. A. B. Lee. 2. J. P. Hardman, W. C. E. Taylor, and G. E. Wainwright. 5. H. S. Frakes. 6. C. B. Richardson and G. B. Wall. 8. J. R. Day, F. C. Fisher, and S. H. Lindeman. 11. C. F. Cuthbert and J. Whiting.

In the Second Class, in alphabetical order:

J. W. Aird, Isabella Bartholomew, H. A. Benham, A. Beverley, R. Brookes, J. F. Burnes, G. H. Dodson, A. W. M. Drew, R. E. Durell, R. H. Fuller, F. J. Grindon, St. V. L. A. Hammick, E. A. Harbord, B. A. Y. Jollivet, G. L. L. Lawson, C. A. McAnally, A. K. Morgan, J. N. Pogose, John Reis, T. S. Rogers, J. J. Rolands, A. Smith, C. A. Smith, E. A. Swithinbank, F. H. Villanueva, and H. Wakefield.

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**King and Queen's College of Physicians in Ireland.**—At the usual monthly examination meeting of the College, held on Tuesday, Wednesday, and Thursday, April 13th, 14th and 15th, the following candidates were successful for the License to practise Medicine.

Messrs. Frederick George Leslie Eagar, Charles Gabriel Maturin, Wm. Henry Sutcliffe, and George Hugginson Wilson.

The License to practise Midwifery was obtained by—

The above-named candidates, and Messrs. Matthew Smyth Blood and Arthur Sedgley Halan.

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## MEDICAL VACANCIES.

The following vacancies are announced:—

BETHLEM HOSPITAL—Two Resident Medical Students.

BRADFORD INFIRMARY AND DISPENSARY—Physician. Applications to be sent on or before June 12th.

BROADMOOR CRIMINAL LUNATIC ASYLUM—Assistant Medical Officer. Salary, £200 per annum, with furnished apartments, coals, gas, and attendance.

CAMBRIDGE IMPROVEMENT COMMISSION—Medical Officer for the Urban Sanitary District of Cambridge. Salary, £250 per annum. Applications to-day.

CHELTENHAM GENERAL HOSPITAL AND DISPENSARY—Junior House Surgeon. Salary, £80 per annum, with board and residence.

EVELINA HOSPITAL, Southwark Bridge Road—Registrar and Chloroformist. Salary, £50 per annum.

GREAT YARMOUTH HOSPITAL—House-Surgeon. Salary, £100 per annum, with furnished apartments, coals, gas, and attendance. Applications on or before May 12th.

HOUGHTON-LE-SPRING UNION—Medical Officer for the Rainton District. Salary, £25 per annum.

KILCHRENAN AND DALARICH, Parish of—Salary, £80 per annum. Applications, on or before May 1st, to the Chairman of the Local Board.

LUTON UNION—Medical Officer for the Workhouse. Salary, £30 per annum.

MILFORD UNION—Medical Officer for the Colloney Dispensary District.

NEWMARKET UNION—Medical Officer for Nos. 1 and 3 Districts. Salary, £85 per annum.

NEWBURY UNION—Medical Officer for the Second District. Salary, £140 per annum. Medical Officer for the Fifth District.

NOTTING HILL PROVIDENT DISPENSARY AND MATERNITY—Resident Medical Officer, with furnished apartments, coals, lights, and attendance. Applications on or before the 20th instant.

OLDCASTLE UNION, Crossahiel Dispensary District—Medical Officer. Salary, £100 and fees, with £15 as Sanitary Officer. Applications on or before May 4th.

PADDINGTON, Vestry of—Medical Officer of Health. Salary, £300 per annum. Applications on or before May 4th.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL—House-Surgeon.

SALOP AND MONTGOMERY COUNTIES LUNATIC ASYLUM—Assistant Medical Officer. Salary, £100 per annum, with board and apartments. Applications on or before the 14th instant.

SCARBOROUGH DISPENSARY AND ACCIDENT HOSPITAL—House-Surgeon. Salary, £120 per annum, with apartments, gas, and attendance. Applications on or before the 17th inst.

ST. GEORGE'S (Hanover Square) DISPENSARY—Physician. Applications on or before May 8th.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY—Assistant House-Surgeon. Salary. £65 per annum, with board, lodging, and washing.

SPALDING UNION—Medical Officer for the Gosberton District. Salary, £40 per annum.

STOW-ON-THE-WOLD UNION—Medical Officer for the Loughborough District and the Workhouse. Salary, £50 per annum, and fees. Applications on or before the 5th instant..

SWINFORD UNION—Medical Officer for the Tullamore Dispensary District. Salary, £100 and fees, with £25 as Sanitary Officer. Applications on or before the 4th inst.

TORBAY INFIRMARY—House-Surgeon. Salary, £100 per annum, with board and lodging.

TORONTO ASYLUM, Canada—Medical Superintendent. Salary, £411 per annum, with furnished apartments, fuel, light, and furnished table for family. Applications on or before May 15th.

TOTNES UNION—Medical Officer for the Ninth District. Salary, £20 per ann.

WANGFORD UNION—Medical Officer for the Bungay District. Salary, £90 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL—House-Surgeon. Salary, £100 per annum, with board, washing, and furnished apartments. Applications on or before May 3rd.

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## MEDICAL APPOINTMENTS.

*Names marked with an asterisk are those of Members of the Association.*

**Abbott**, George, L.R.C.P., appointed Assistant-Surgeon to the Central London Ophthalmic Hospital, *vice* C. N. Macnamara, M.R.C.S.Eng., resigned.

**Cooke**, E. M., M.R.C.S.Eng., appointed second Assistant Medical Officer to the Worcester City and County Lunatic Asylum.

**Coombs**, Rowland H., L.R.C.P.Lond., appointed Assistant-Physician to the General Infirmary, Bedford.

**Davidson**, David C., L.R.C.P.Ed., appointed Senior House-Surgeon to the Birkenhead Borough Hospital, *vice* B. L. Tandy, L.R.C.B.Ed., resigned.

**James**, William D., M.R.C.S.Eng., appointed House-Surgeon to the Hull and Sculcoates Dispensary, *vice* F. R. Chapman, M.B., resigned.

**Richardson**, John R., M.B., appointed House-Surgeon to the Torbay Infirmary, *vice* A. Nicholson, L.R.C.P.Lond.

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## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication*

### BIRTHS.

**Elliott.**—On April 20th, at Chichester, the wife of George H. Elliott, M.R.C.S., of a son.

**Davidson.**—On April 24th, at 224, Union Street, Aberdeen, the wife of Alexander Dyce Davidson, M.D., of a son.

### MARRIAGE.

**Roberts—Alexander.**—On April 14th, at Pinkieburn, Inveresk, N.B., by the Rev. J. D. Campbell, D.D., uncle of the bride, Frederick T. Roberts, M.D., of 53, Harley Street, Cavendish Square, W., to Elizabeth Lindsay, second daughter of the Rev. W. Lindsay Alexander, D.D., of Pinkieburn.

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## MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London. George Buchanan, M.D., L.R.C.P., will deliver the Annual Oration at 8 P.M.; subject, "Some Points of importance relative to Modern Hospitals".

TUESDAY.—Pathological Society of London, 8.30 P.M. Adjourned Debate on the Germ-Theory of Disease; being a Discussion on the Relation of Bacteria and Allied Organisms to Virulent Inflammations and Specific Contagious Fevers.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Adjourned Discussion on the Relation of Puerperal Fever to the Infective Diseases and Pyæmia. The debate will be resumed by Dr. Barnes.—Royal Microscopical Society, 8 P.M. Mr. H. J. Slack, F.G.S., "On the Relation of Angular Aperture to Surface-markings and Accurate Vision".

THURSDAY.—Harveian Society, 8 P.M. Mr. Teevan, "On Urinary Affections of Children".

## OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

WEDNESDAY..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Roya Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.

FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

## NOTICES TO CORRESPONDENTS.

Correspondents not answered, are requested to look to the Notices to Correspondents of the following week.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

Authors desiring reprints of their articles published in the Journal, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

We cannot undertake to return Manuscripts not used.

Communications respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the Journal, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

Erratum.—In page 566, column 2, of last week's Journal, "Handbooks for *Medicines*" should be "Handbook for *Midwives*".

### Medical Education of Women in India.

The Indian Government state that they are desirous of every encouragement being given to ladies to study for a medical degree, in which case, it is observed by Dr. Furnell, they must attend the full curriculum of prescribed studies; but where the ladies themselves prefer the more limited and practical course of study suggested by Dr. Furnell, arrangements may be made accordingly, and, on the completion of the course of study, certificates can be given by the College authorities of the degree of proficiency acquired in each subject. The division of the course of study recommended by Dr. Furnell is approved, and the Government fully concur with the Surgeon-General and Dr. Furnell that, with the exceptions specified, ladies desirous of becoming doctors must be prepared to attend the courses of lectures with students of the opposite sex. The Government understand these exceptions to be midwifery and surgery, and one or two lectures in anatomy and physiology. By the adoption of the arrangement proposed by Dr. Balfour of allowing the ladies to attend the lectures given at the Lying-in Hospital by the warrant medical officer to pupil midwives, it would appear that no additional expense need be incurred on account of midwifery lectures. The Surgeon-General will report the expense which will be incurred for pre-collegiate training and for separate lectures in surgery, anatomy, and physiology, during the course of three years' study referred to above. The expense involved in the case of any of the ladies determining to study for the degree of M.D. should also be stated. No fees will be required for the present from the lady students.—*Madras Mail.*

Hastings Prize Essay on the Surgical Treatment of Aneurism.—The General Secretary acknowledges the receipt of an Essay, bearing the motto "San Remo".

### Use of Tar Internally.

Sir,—Two communications on the use of tar having appeared in the British Medical Journal, I write to advise caution in its employment. I have a vivid recollection of the case of a gentleman who, after taking tar pills for a considerable time to relieve chronic cough, was seized with peritonitis and obstruction in the bowels. The treatment employed was useless in obtaining any mitigation of his sufferings; and he died in the course of a few days. No *post mortem* examination was made, but the suspicion was very strong that an accumulation had occurred, and obstruction at the ileo-cæcal connection when pain was first complained of.

I am, etc., L. H.

We have not received the communication to which Dr. Huntley (Jarrow-on-Tyne) refers.

G. W.—The British Medical Journal can be sent to foreign countries on payment of the additional postage.

Sir,—Can you inform me, from recent sanitary reports, as to what is the present condition of the health of Hastings and St. Leonard's? A lady who is desirous of taking change of air at one or other of those places, has been warned not to do so, as "small-pox is raging in the place". Possibly a member of the Association residing either at Hastings or St. Leonard's, might be good enough to give me some information.—I remain, Sir, truly yours, H. B. D.

London, April 27th, 1875.

Notices of Births, Deaths, Marriages, and Appointments, intended for insertion in the British Medical Journal, should arrive at the Office not later than 10 A.M. on Thursday.

### Prevention of Quacks.

Sir,—I was very pleased to read the letter of Dr. D. A. O'Sullivan, in your last issue of the British Medical Journal, concerning the prevention of quacks; but I am afraid it would be money thrown away to appoint consulting medical law officers when the present state of the law will not allow conviction. It appears to me that the first thing to do is to endeavour to bring unqualified practitioners, bone-setters, and the various self-called professors, within the limits of the law. I would like to ask your readers if they know of any case like the following, in which a man has been fined or imprisoned. A man, with a fracture of the leg, goes of his own will to a bone-setter. The bone-setter orders poultices, and leaves the leg without splint or bandages; the bones protrude through the skin, and afterwards mortification sets in, and the man has to have his leg amputated. Now, if a case like this is unable to obtain redress at the hands of the law, how much good would the profession obtain by a legal adviser?

This matter of the suppression of quackery has been ventilated in the *Students' Journal;* but I believe nothing has been done concerning it lately. When quackery was spoken of in this Journal, the one portal system was combined with it, which I think was a mistake, as I believe many are against this; but I think no medical man would be against the suppression of quacks. The law which seems to me to be able to meet all cases of unqualified practice is this: "That any person, male or female, who visits, prescribes, or in any way treats a patient for a disease, and receives in return an acknowledgment for any advice given to man, woman, or child, suffering from disease, should be liable to a fine or imprisonment as the case deserves."

If it be desirable to omit midwifery, I would say, make a law requiring every man or woman who does not obtain a qualification to practise to sign a proper paper, stating where he has received his or her information from, to justify their undertaking the charge of a lying-in woman, and then have a register kept, and, in case of neglect or ignorance, have their name struck off the list.—I remain, yours, etc., One who would wish to see Quackery abolished.

Sir,—I cordially agree with Dr. O'Sullivan's suggestion. With regard to funds, let each member of the Association be asked to subscribe five or ten shillings. If the same energy be shown in this (a question of vital importance to the profession) that has been shown lately in the pages of the Journal over the trivial matter of our titles, we will soon boast of a protection society. I enclose my *carte*, and remain, yours truly, A Member with Hope.

Northwoods Asylum.—We are requested to state that this well-known institution for lunatics has passed into new hands. Dr. Reginald Eager, the late Medical Superintendent of St. Luke's Hospital, and Mr. Seymour, the late Secretary of the same hospital, have become the conjoint proprietors. The experience of these gentlemen is a guaraneee that the future management of the Asylum will be thoroughly efficient, and we wish them every success.

Sir,—In your abstract of the remarks I made at the Royal Medical and Chirurgical Society on Mr. Acton's paper on April 15th there are a few corrections required. In page 524, 27 lines from bottom, the number should be "10,000", instead of "1,000". In line 21 from bottom, instead of "secondary", "primary" should be inserted. In line 19, "1870", instead of 1873; and the sentence in lines 9 and 8, commencing "Before the Acts", to convey my meaning should have stood, "During the same period, the average of gonorrhœa at Aldershot had been 95 per 1,000; but by similar corrections it would be reduced to about 75."

In my letter in reply to Dr. Nevins, in the last column in page 527, the year in lines 14 and 10 from bottom should be 1872, instead of 1873; and in line 12, "now" should be "never". In page, 528, line 11, instead of "question", insert "operation".—I am, yours, Robert Lawson, Inspector-General.

Dr. Tilt's paper on "Lymphangitis in Pelvic Pathology" will be found in the recently published volume of the *Transactions of the Obstetrical Society of London.*

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. T. Claye Shaw, Leavesden; Mr. John Ewens, Cerne Abhas; Mr. John Dix, Hull; Our Dublin Correspondent: Mr. Wood, Boston; Mr. S. C. Griffith, London; The Secretary of the Rugeley Hospital and Provident Dispensary; Dr. Cheadle, London; Dr. Blandford, London; Mr. F. Coppleston, Crewe; Dr. Foulis, Edinburgh; The Secretary of the Medical Society of London; Dr. H. B. Dow, London; The Secretary of the Obstetrical Society; Mr. C. E. Webber, London; Dr. Huntley, Jarrow-on-Tyne; Dr. Matthews Duncan, Edinburgh; Surgeon J. D. Crowes, Ennis; Mr. J. H. Pridham, Birmingham; Dr. P. H. Mules, Manchester; Dr. Sedgwick Saunders, London; Dr. Blunt, Leicester; Dr. E. W. Kerr, Kinlough; Mr. W. M. Reeves, London; Mr. Latimer, Swansea; Mr. W. Thomson, Southall; Mr. T. Wilson, Wallsend; Dr. P. H. Watson, Edinburgh; Mr. Carter, Richmond, Yorkshire; Dr. Macnaughten Jones, Cork; Dr. E. M. Skerritt, London; Mr. J. K. Thornton, London; Dr. R. J. Lee, London; Mr. Lennox Browne, London; Mr. F. Morsdin, Eastbourne; Mr. Burns, London; Dr. J. A. Calantarients, Scarborough; Dr. Falconer, Bath; Dr. Stirling, Perth; Mr. A. Hawes, Launceston; Mr. J. Rogers, Saltash; Mr. L. Armstrong, Newton Abbot; Dr. J. W. Hulseberg, Aldershot; Staff-Surgeon G. Jackson, R.N., Portsmouth; Dr. J. Coats, Glasgow; Mr. R. Christie, Perth; Mr. Tireman, Howden; Dr. G. G. Gardiner, Hackney; Mr, Dickson, Buxton; Mr. M. Beverley, Norwich; Dr. D. Mackey, Inverness; Dr. Crossby, Nice; Dr. J, Rayner, Warwick; Mr. J. Garrett, Castleover; Mr. J. D. Hume, Wigton; Dr. A. D. Davidson, Aberdeen; Mr. T. Lyle, London; Dr. Snewen, London; Dr. J. D. Rendle, London; Dr. Semple, London; Dr. Hamilton, Kelso; Mr. P. Miller, Edinburgh; Dr. J. Bell, Edinburgh; Dr. J. M. Bryan, Northampton; Dr. E. J. Miles, Chillingham; Dr. J. H. Trouncer, Surbiton; Mr. A. Steven, Nice; Mr. J. T. Davenport, London; Dr. J. Ward, Carnforth; Dr. Long, Madras; Dr. J. B. Tuke, Edinburgh; Mr. B. Wheeler, Manchester; Mr. F. Moore, Leeds; Dr. Cumming, Edinburgh; etc.

# REMARKS
ON
# LEAD-POISONING IN LEAD-MAKERS:

### WITH PARTICULARS SHOWING THE OPERATIONS BY WHICH THE POISON IS INTRODUCED INTO THE SYSTEM, AND THE SYMPTOMATIC DISTURBANCE RESULTING THEREFROM, IN TWENTY-FIVE CASES.

By J. S. RAMSKILL, M.D., F.R.C.P.,
Physician to and Lecturer on Medicine at the London Hospital, etc.

IN consequence of there being in the east end of London several factories in which whitelead is made, many persons suffering from lead-poisoning contracted in these factories apply for treatment at the London Hospital; this institution, therefore, affords many opportunities for studying plumbism.

We have been unable to obtain the number of out-patients who have thus applied; but find that sixty patients with well marked symptoms were admitted into the wards of the hospital during the last two years. Of these, thirty-three were males, and twenty-seven females. Of the males, nineteen were aged from twenty to thirty, eight from thirty to forty, and only seven were over forty. The fact that the largest number attacked were under thirty, would seem to indicate that the men are unable to work for a long period in such factories without suffering, and not a few of them becoming incapacitated. Of the twenty-seven females, three were under twenty years of age, nine from twenty to thirty, eleven from thirty to forty, and only three over forty. From these particulars, it might seem at first sight that the females are able to continue the work longer than the men; but inquiry on this point led us to think that the women do not generally begin the work so early in life, and, therefore, the men attacked are younger, because they are employed at an earlier age. The women employed, judging from their statements to us, seem to resort to this occupation when they have failed in their endeavours to obtain other work.

We were anxious to know the operations by which the poison is introduced, and its effects on the system; and, therefore, obtained from a number of patients (twenty-five) particulars of their work and symptoms. We then learnt that some of them had been employed in what are known as "the stoves", where the carbonate of lead is dried. Others had been engaged picking out of the tanks the pieces of metallic lead, which had escaped the action of the acid; these pieces at the time of removal were lying amongst the newly formed soft carbonate, consequently the pickers' hands were necessarily more or less smeared with the carbonate. Others carried the freshly made whitelead from the tanks to the drying stoves; but it would seem that this part of the work is not so injurious. The persons who attend to the drying at the stoves, and those who carry the dried whitelead from the stoves to the warehouse are most frequently attacked, suffer soonest, and commonly have to discontinue their work. In these stove operations, the white-lead, after drying, is powdery and easily shaken about, and the atmosphere around the workpeople who lift and remove it is consequently more or less charged with its particles. This finely divided substance may, it would seem, enter the body by respiration, or by mouth and swallowing, or become intimately mixed with the clothing, and thereby brought into contact with the skin, especially of the hands and face. The persons who remove this dried powdery lead in trays from the stoves are mostly women; and they carry the trays on their heads; consequently, in lifting them up and carrying them along, they must necessarily shake some of the powder in the atmosphere they are breathing.

One woman who had been thus engaged, said that she was first employed in a lead-factory three years ago. She then worked four weeks, not every day, because she found she was unable, but "on and off only" about three days a week. After the first three or four days, she got "queer pains all over;" and, at the end of a month, was compelled to leave work on account of "drop wrist". About twelve months afterwards, she returned to the same employment, continued at it five weeks, and then was again obliged to leave it because of "drop wrist". A third time, she returned to this occupation of carrying about a month before she came to the hospital, and she said that, after working three weeks "on and off", the last day being in the stove department, she found one morning that she had no use in her wrists; she felt exceedingly weak, and had pain in her limbs. When seen at the hospital, at the time she gave this history, the "drop wrist" was very marked.

Another woman said she was employed as a carrier for about twenty-four days, and was then obliged by illness to leave her work. She was laid up for three months, and seemed to have had well marked symptoms of lead-poisoning. She returned to the employment; and a second attack came on, for which she applied for relief. We found that she had a very evident lead-line on the gums, and other decided symptoms of plumbism.

A third woman said she first worked in a lead-factory three years ago, but not continuously; she usually "washed the pots". After being thus employed four months, she was attacked with lead-colic. On recovering, she returned to the work; and, after three months, a second attack compelled her to absent herself. She went again to the same employment, and a third attack, for which she applied for treatment, followed. She had the usual well marked symptoms.

A case illustrating the way in which the stove attendants suffer, occurred in a man, aged 26, who had previously been a dock-labourer, and had good health. He said he first worked in a lead-factory four months before he came to the hospital; he was employed in "the stoves". After working one week, he began to vomit frequently, and always felt sick; at the end of two weeks, he had "colicky pains like cramp"; in the fourth week, he had to be carried to a doctor, because he was doubled up with pain" in his abdomen, and he was very tremulous and felt weak. He also said that, during the month he was thus employed, he did not work more than four days in each week; his bowels were constipated, and he was advised by his fellow-workmen to take aperient medicine. Diluted sulphuric acid was placed in the works, and all the workpeople could use it if they wished, but he remarked that he never found it of any service to him. Three months elapsed from the time when he left the factory to his admission in the hospital, during which he lost the use of the extensors of the wrist; he had great pain in the abdomen, was troubled with giddiness and extreme weakness, and he became very pale and lost a deal of flesh. In this patient the blue line was well marked.

One more case may be mentioned as showing the injury arising from the lead-picking above alluded to. A woman, aged 40, said that, five weeks before she came to the hospital, she for the first time worked in a lead-factory. During the first and second weeks, she worked full time; in the third week, she worked only one day, and was obliged to leave on account of severe pain all over the abdomen; she felt sick and vomited, and was extremely weak. When seen by us, the blue line on her gums was very distinct, and she complained much of pain in the limbs. She further told us that, according to the custom of the factories, she took aperient medicine once or twice every week whilst at work. She had in her occupation to pick the blue lead out of the tanks, and in doing this she must of necessity move about the powdery white-lead amongst which it was concealed.

On taking an average, founded on the statements of these twenty-five patients, the women, it seems, were attacked after working in a lead-factory about four months, and the men, two years; the period varying according to the individual occupation; and, from what we could learn, the earlier suffering of the women was due to the fact that nearly all of them were employed in the more injurious occupations of carrying and otherwise moving the dry powdery lead. Some men, suffering from lead-poisoning, said that they had been employed for many years, one even twenty-seven years, without suffering greatly; but they had worked amongst the blue, that is, the metallic lead.

We next endeavoured to ascertain the symptomatic phenomena which first revealed the lead-poisoning; and, to our minds, the symptoms were instructive, for we soon learned that poisoning by lead is generally attended by symptoms very similar to what occurs in other forms of poisoning. The patients, almost at the outset, become troubled with pain in the limbs and abdomen especially; and weakness with a feeling of great lassitude was an early and very common symptom; they frequently felt sick and often vomited, and constipation was usually an early trouble, for which they commonly took some aperient medicine, seemingly with relief. Not a few of the patients had an appearance which at once suggested lead-poisoning; the face had a dirty yellow or sallow colour; they were generally a good deal wasted and walked feebly, and more or less bent forwards; some of them were so prostrate that they moved with difficulty, and seemed to avail themselves of any opportunity to sit down. Pain and weakness seemed to be the most common and most distressing symptoms; in some the pain was confined for the most part to the abdomen, and although a few had, at the time they applied for relief, severe paroxysmal pain, so-called "lead-colic", in the majority it was not so urgent, but rather of a dull, wearing, constant, aching character. Together with the abdominal disturbance, the patients usually complained of pains in their limbs, and, in some of them, it was confined to these parts; this was chiefly in the joints in many cases, and in others it seemed to be disseminated through the muscles as well. In one case especially, the pain was referred to the bone, and so localised seemingly in the tibia, that it was thought by some there might be periostitis; this patient at the same time had "drop wrist" and an exceedingly well-marked blue line on the gums. Some of them complained of pain in the head, and occasionally this symptom was very distressing. We have referred above to the characteristic cachectic appearance that is usually observed in these patients, but this was not well marked in all. One patient in particular had not this colour, but his skin was exceedingly pale, and it was instructive to notice that, after he had been in the hospital two or three weeks, this pallor had much diminished, and his aspect was even then much healthier. Nausea and vomiting were also very frequent symptoms, and several suffered with constipation, but usually the bowels acted regularly under the influence of drachm-doses of sulphate of magnesia. Tremor was a common symptom; this brought forcibly to our minds how closely the condition resembled fever; and with this tremor there was usually a great deal of weakness, and a very agitated manner on movement.

With a view to show the symptoms and their frequency, we append the following summary, in which the particulars of twenty-five cases (fourteen males and eleven females) are given. There was in twenty, pain in limbs, or joints, or "all over"; in twenty, colic, severe, or dull aching pain; in eighteen, vomiting; in seventeen, blue line on gums, very marked; in seventeen, tremor, very great in some; in fifteen, constipation; in fourteen, marked cachexia; in fourteen, great weakness—extreme prostration in some; in eleven, loss of appetite; in eleven, loss of muscular power, or 'drop wrist"; in ten, thirst, sometimes excessive; in nine, foul taste in the mouth; in nine, nausea, not necessarily vomiting; in six, headache; in six, wakefulness; in five, wasting; in five, strangury; in four, frequent micturition; in three, delirium; in three, offensive breath (probably more frequent); in three, fainting; in two, giddiness; in two, dimness of sight; in one, loss of voice; in one, swelling of the body.

The treatment adopted in most of the cases was, removal from the source of the poison, confinement to bed to a great extent until the most urgent symptoms had subsided, light food, such as milk, broth, etc., quinine and sulphuric acid in some cases, and in others sulphate of magnesia followed by iodide of potassium. With this treatment, the average duration in hospital was as follows. Of the sixty patients, twenty-nine were discharged "cured", on an average within nineteen days; eighteen were discharged "relieved", within twenty-seven days; ten remained under treatment at the time we took these notes; one contracted fever, and was removed to the Fever Hospital; and two died.

The two who died were both young women, and sisters. One was brought to the out-patients' department; she seemed very ill, confused, and with stupor to such a degree, that she was unable to give any clear statement as to how she had suffered, but she said she had had a great deal of pain in her head, and her sister, who accompanied her, told us she had had fits in which she lost her senses; these were evidently epileptiform. She had for some weeks worked in a lead-factory, but, her health failing, she was obliged to leave it, and the fits came on. It was found she had a well-marked blue line on her gums, but it was recognised at the time that she might be an epileptic, and the seizures and lead-poisoning might coexist without their having any relation of cause and effect; and inquiry showed, that she had, when very much younger, suffered from fits, but, as far as we could gather, she had been free of them for years until she went to work in a lead-factory. This patient's heart, lungs, abdomen, and urine were examined, but there were no signs of chest or abdominal lesion. She was taken into the hospital, and next day she died. The necropsy showed that the viscera were healthy looking; the spinal cord was also examined microscopically, and no morbid change was discovered. A large portion of the brain was analysed, and Dr. Tidy reported that he discovered lead in its substance.

Within a few days of this patient's death, the sister above referred to, who had also worked in a lead factory just previously, was admitted into the hospital, and she, too, rapidly died with epileptiform seizures. The lead-poisoning in these cases would seem to have determined the later fits and death.

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The Royal Society.—The following gentlemen have been selected by the Council from the fifty-four candidates for election to the Fellowship of the Royal Society:—W. Archer, M.R.I.A.; J. Risdon Bennett, M.D.; D. Brandis, Ph.D., F.L.S.; J. Caird, C.B.; Professor J. Casey, LL.D.; A. Dupré, Ph.D., F.C.S.; J. Geikie, F.R.S.E.; J. W. L. Glaisher, M.A.; J. B. N. Hennessey, F.R.A.S.; E. Klein, M.D.; E. Ray Lankester, M.A.; G. S. Nares, Capt. R.N.; R. S. Newall, F.R.A.S.; W. C. Roberts, F.C.S.; Major-General Scott, R.E., C.B.

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# ABSTRACT OF THE LUMLEIAN LECTURES
ON
# LIFE, AND ON VITAL ACTION IN HEALTH AND DISEASE.

*Delivered at the Royal College of Physicians, London.*

By LIONEL S. BEALE, M.B., F.R.S.,
Physician to King's College Hospital.

## Lecture III.

One of the most remarkable examples of inherited constructive power is the bioplasm of the spermatic particle. The bioplasm of a human spermatozoon, which, perhaps, hardly weighs as much as the one-hundredth part of a single red blood-corpuscle, may stamp with unmistakable individual characteristics several tissues and organs which, in their fully developed state, weigh many pounds. Moreover, the influence of the power thus conveyed extends over many years, and is as distinctly manifest in the action as in the structure of tissues. This influence may not be clearly evident until many years have passed since the minute particle of bioplasm left the organism that produced it. But how are we to explain the association of such far-reaching constructive power with molecules of such minute size? No properties of any elements that have been discovered are in any way comparable with those manifested by this wonderful particle. Mr. Darwin has, therefore, endeavoured to explain the marvellous properties in another way.

It is suggested that living spermatozoon may be composed of particles detached from every component element of the tissues of the parental organism, passing from every part of the body where they were formed, and moving with unerring precision towards the gland-tubes, where they collect together in sets without confusion, thus to form the spermatic particle. By what means these millions of particles find their way to their proper destination—how they are sorted, how at last they arrange themselves in proper order, has not even been suggested. But, further, it is not stated from what part of the cells the particles are supposed to come. Now, the anatomical elements are complex, and many are composed of several kinds of matter. Many are growing, and the matter of which they consist is in very different states in different parts at different periods. If non-living particles were to collect in the manner assumed, it is not conceivable that such a collection could in any way have vital powers communicated to them. On the other hand, if we assume that the minute particles are detached from the bioplasm, we should have to assume that minute particles of bioplasm passed through even the thickest and hardest formed material in a direction the opposite of that in which nutrient fluid was flowing. We must further conceive such living particles as making their way into the intercellular spaces, and directing themselves, or being drawn, into the blood-vessels or lymphatics, or working their way through the tissues in the most direct course towards the seat of their development. By what means they find their way, why they do not take up nutrient material and grow so large as to be stopped in their course, how it is that many are not lost and impacted in growing parts, it is impossible to conjecture.

It has been suggested that a general directing agency might be influential in regulating and governing the phenomena contemporaneously proceeding in all parts of a living body which result in the formation of very different structures, somewhat as a number of workmen are controlled and directed by a central authority placed over them. Certainly, the facts of the case do seem to demand some such postulate; for, as each part grows and undergoes development, changes occur in other parts not anatomically connected with the first, but otherwise related, though separated perhaps by a considerable distance. But there is, in fact, no centre from which such power could act, and there are no means by which it could be conceived to operate upon tissues at a distance. I cannot even admit that any facts known to us justify the belief that one cell is capable of acting upon adjacent cells. I do not believe that any particle of living matter is capable of influencing the phenomena of any other particle, except perhaps by taking up more than its own share of pabulum, in consequence of an unequal distribution.

It will be asked, How, then, are the facts to be explained? If the development of any particular tissue be carefully studied, as may be done by comparing specimens taken at different stages of growth, the observer will be able to form a conception of the phenomena which succeed one another in an orderly manner, until, in place of the bioplasm-particles of the embryo, he finds a highly elaborate arrangement of parts performing a definite office. At first, all that is to be seen is a number of masses of bioplasm which divide and subdivide. After the process of multiplication has continued for a certain period of time, each portion of bioplasm undergoes change upon the surface, and produces formed material. The arrangement and shape assumed by each particle will, in some measure, be determined by the growth of neighbouring masses, and the pressure that may be exerted, as well as by a number of other circumstances. The general form of the organ or tissue is determined chiefly by the inherent vital powers of each individual portion of bioplasm out of which it is formed, but in part by the growth of contiguous organs or structures. Whether the elementary part shall be drawn out like tendon, muscle, or nerve, flattened, many-sided or oval, like certain forms of epithelium, will depend upon its connections which were determined at a very early period, and whether it be subjected to stretching or pressure. Many questions, however, that might be asked with reference to many of the matters to which I have very briefly adverted cannot, in the present state of our knowledge, be answered, and are likely to remain unanswered for a long period of time. But I venture to think that, if scientific men substitute conjectures for answers, and confidently recommend to the public their own speculations as if they were scientific conclusions based upon evidence, it is the duty of other scientific men to examine the propositions, and to carefully criticise them. From what has lately fallen from some of those attached to the doctrine of evolution, it would almost seem as if they considered that their views were to be accepted by us without even the slightest examination. Against this idea, one cannot too strongly protest, and especially when one finds the most far-fetched hypotheses advanced and pressed upon the people as worthy of being accepted, and believed as actual truths.

BIOPLASM IN DISEASE, AND THE DEGRADATION OF BIOPLASM.—Having considered the changes taking place in simple living matter, and those wonderful phenomena which succeed one another with perfect regularity and in perfect order, until the formation of the organism, with its complex tissues and organs, is accomplished, let me ask your attention to vital phenomena of a different kind which result in degradation as regards formative power, although there is increase, not diminution of those changes to which I would restrict the term vital. If the bioplasm of man or one of the higher animals grow more rapidly than in the normal state, its power of forming tissue and of developing structure is impaired. If any structure whatever be produced, it is soft, incapable of discharging its function properly; it is weak, and it does not last. But, if the rapidity of the growth of bioplasm be very considerably increased, no tissue at all results. Bioplasm produced by descent from that which grows and multiplies quickly does not regain formative power. Rapid increase is associated with loss in constructive power; but vital activity is increased, if by the phrase we mean to imply that more pabulum undergoes conversion into bioplasm within a given time than in the normal state.

If the bioplasm of any tissue in a state of inflammation or fever be compared with that of the same tissue in health, it will be found that the bioplasm-masses have considerably increased in size. The essential change, both in inflammation and in fever, seems to be *increased nutrition of bioplasm*. An inflammation may be regarded as a local or circumscribed fever, and a fever as a general inflammation. The growth of the bioplasm in ordinary fevers does not proceed far enough to end in pus-formation, because the general changes in the blood, in the nervous system, and in other parts of the body, cut short life long before the whole organism could pass into a a state of general suppuration; but how often do we find a sufficiently marked tendency to such a state in the extensive and too often wide-spread suppurations occurring in tissues and organs of persons who just escape death from severe attacks.

Now, what is the cause of the increased nutrition and growth of the bioplasm? In fevers and in every form of inflammation, the bioplasm suddenly, quickly, that is perhaps within a few hours, increases greatly in amount. It may divide and subdivide into several masses, all of which grow rapidly and take up a large quantity of nutrient matter. The production of formed material is not only for the time suspended, but much of the formed material last produced, and still in a soft and imperfectly developed condition, is taken up by the bioplasm which produced it.

What would happen if the living matter did not increase, if pus were not formed, and perhaps much tissue destroyed? Although the inflammatory process is undoubtedly destructive, the tissue destroyed is as nothing compared with the amount of texture that would be totally destroyed by decomposition, if the phenomena of inflammation did not occur. The bioplasm-particle would die, and that regular flow of fluid to and fro in the very substance of all the tissues being deranged, the bioplasts near the part affected would also die, and the organic matter of these, with that of the tissue and organic matter present, would undergo decomposition. The resulting products would diffuse into the neighbourhood, and extensive mortification would ensue. The blood would stagnate in the neighbouring vessels; its bioplasm would die and undergo decomposition. In such cases, it often happens that the death of the organism very soon follows. If, however, a part of the body mortify, and inflammation occur around the dead tissue, life may be saved and the dead mass detached. But in this case there must be rapid growth and multiplication of bioplasm between the part that is dead and the healthy tissues.

If the bioplasm of any tissue be supplied with more nutrient material than it receives in the normal condition, it will grow more rapidly than usual. This increased growth, owing to an increased access of nutrient pabulum, is the *first change that occurs in inflammation, and it is essential to the inflammatory process.*

The more ready access of nutriment may be due to an opening in the formed material and exposure of the bioplasm at one point, as may occur in mechanical injury; or it may depend upon a softened state of the formed material, which is thereby rendered more permeable to the fluids; or the character of the nutrient fluid may be so altered as to permeate the formed material much more readily than the nutrient fluid which transudes through the walls of the vessels from healthy blood—a condition which is met with in some forms of inflammation, and in all the more severe forms of fever. But the access of pabulum could not determine increased growth, unless there were an active tendency on the part of the bioplasm itself to appropriate the pabulum and to grow. Bioplasm has within itself no power of regulating or controlling the rate of its growth. The conditions vary as regards every kind of bioplasm; and different forms of bioplasm differ greatly in their power of bearing a change in the conditions. Some forms will live under external circumstances of the most varied kind, and are, therefore, found over a very wide area. Others suffer or are destroyed if the external conditions be altered only so slightly as to be imperceptible to many living creatures. As it were between the two extremes, are forms of bioplasm that grow and deteriorate, but still live for years, under adverse circumstances, the structures formed never attaining a state of vigour. The weak succulent too quickly developed vegetation of our fern-cases is an example; and the soft rickety tissues of some of our weak, flabby, overfed, town-bred, highly precocious children, supply a very painful instance of too quick formation and growth. Is it not a mistake to point to such cases as examples of diminished vital action? It seems to me that life has been carried on too fast, and not too slowly. Too much pabulum has been taken up, not too little. Too much heat, too much food, favour a quick rank succulent spongy sort of development, inducing the formation of soft bones and weak imperfectly acting tissues.

The loss of formative power as the rate of growth and multiplication of the bioplasm increases is a fact of great interest. Bioplasm may form tissue and give origin to multitudes of bioplasts, from which tissue may also be developed. But the very particle of bioplasm which might have taken part in tissue-formation will, if it grow and multiply too fast, not only lose its power of forming tissue, but the particles that may be produced from it by descent will never regain the capacity that has been lost. No pus-corpuscle or any of its descendants ever takes part in tissue-formation. But, although formative power is lost, new powers or properties may be acquired. These are, however, remarkable for destruction; never for construction. Some forms of pus acquire a most wonderful capacity for rapidly growing and multiplying, as well as for living and resisting the influence of external conditions. The little offsets or particles that are detached from them may rise in the air, live for a time in water or milk, or other fluids containing organic matter, adhere to a sponge or probe or other substance, or be carried in a living state on the foot of a fly or some other insect, and thus transported to an organism at a distance from the one which was the seat of their production. The minute germs, being in contact with material adapted for their nourishment, rapidly grow and multiply in their new situation. As we know but too well, such forms of virus have been produced *ab initio*, fostered, and propagated to the destruction of hundreds of human beings. This particle of deteriorated bioplasm, which in some cases may be seen, is a "disease-germ", and of such "contagium" consists. It has been already shown that an ordinary form of morbid bioplasm, pus, often originates in the bioplasm of epithelium and in that of connective tissue, and that certain forms of pus have specific virulent properties, and are in fact animal poisons, which may be inoculated. I do not, however, entertain the opinion that all contagious disease-germs spring from the bioplasm of epithelium or connective tissue. Some may come from white blood-corpuscles, or from lymph-corpuscles. But I do consider that many facts favour the doctrine, that the contagious particles concerned in propagating many of our most serious specific fevers have been derived from the living matter of man's body, and that they are not germs of fungi or bacteria of any kind whatever.

I have, since 1861, directed attention to the many insuperable objections to the acceptance of the bacterium and fungus-germ hypothesis of contagious fevers. It is asserted by some that bacteria are the active agents, or at least the essential concomitants, of almost every form of contagious disease. Others have expressed themselves clearly and forcibly against this doctrine. Others, again, seem to think that fungi may or may not be the active *materies morbi*. If, say they, contagium do not consist of actual bacteria, it is caused by bacteria, or bacteria constitute an essential condition of propagation, or they prepare the body for the reception of the contagium, or they make the pabulum upon which the contagium lives, or they are a stage in the development of contagium, or they are constant and necessary accompaniments of contagious particles. But, at the time when certain contagious matter is most virulent, no bacteria, or few or doubtful bacteria, are to be discerned, while as the bacteria multiply the specific properties of the poison become weaker, and, when the bacteria are growing rapidly and freely multiplying, its specific properties have disappeared. Again, it is assumed that there is a necessary connection between the development of bacteria and the formation of pus, although anyone can satisfy himself by observation that the living moving pus-corpuscle is destitute of bacteria-germs, while the dead inactive pus-corpuscle, or more strictly, the matter resulting from the death of the pus-corpuscle, is being devoured by them.

I must apologise for troubling you with so many remarks against any form of physical doctrine of life, but I shall trespass very little more upon your patience. If, by physics and chemistry, the phenomena common to all living—even in the case of the very lowest, simplest living—cannot be adequately accounted for, it seems to me it would be an idle waste of time to recount the numberless facts and arguments against the acceptance of a physical doctrine as applied to thought.

Have the supporters of physical doctrines been able to tell us what goes on when a nerve grows, what occurs when it acts, or the difference between the nerve-matter of the nerve-centres and nerve-fibres when they are in a state of the highest activity and most complete rest? Have they shown us how a single nerve-fibre is formed in its position, much less accounted for the manner in which that inextricable interlacement of fibres characteristic of all nerve-texture is brought about? Have they proved how an odorous or a sapid particle influences the nerve, or the differences between the vibrations of the molecules of the nerves concerned in sight and hearing, or what happens when a nerve-centre receives an impression from the periphery, or transmits an impulse outwards—nay, have they advanced a plausible theory to explain how we are able to bring about a definite degree of shortening in muscular fibres, maintain it for a time, and vary it as we will? And yet we are expected to accept the dicta concerning the nature of the highest and most complex actions of man's organism, of authorities who are professedly unable to enlighten us as to the changes which occur when an amœba or a bacterium moves, or takes up nutrient matter, grows, or divides and multiplies.

THE HIGHEST FORM OF VITAL ACTION: BIOPLASM OF NERVE. —I venture to think that we may entirely dismiss from our minds every vestige of the notion that the action of any nervous apparatus is mechanical, or that any part of it can be formed by physics or chemistry. As far as I am able to learn, there is in every nervous action something behind that part of the process which is plausibly considered to be physical. Before the simplest reflex act can be completed, there must be a nerve-current, and the latter cannot be set free unless some chemical change occur. The matter undergoing this chemical change must be formed, and its particles must have been so arranged that the changes ending in the development of the nerve-current may occur. I am not one of those who regard the nerve-force as some mysterious and very peculiar form of energy, and am quite ready to accept the view that the current that passes along the nerve-fibre is electricity, or something very closely allied or related to it. I can conceive that many of the phenomena of the nervous system are a consequence of nutritive acts, and that the latter are, in their turn, controlled and regulated by nerve-action. I was, in fact, the first to describe the distribution of nerves to capillaries, and to point out that these form the afferent part of a self-regulating nerve-apparatus connected with the distribution of blood. There is, one may say, always a tendency to the derangement of the complex phenomena of the higher organisms; but this tendency is compensated by the most elaborate and beautiful arrangements, of which the self-regulating nerve "mechanism", in connection with the distribution of the blood in the capillaries, is one of the most remarkable. All the nerves and nerve-centres, and other tissues of which this so-called "mechanism" is constituted, were gradually formed by living matter, and the action of this apparatus is due to the action of the bioplasm in connection with it; for, when the latter is deranged, the action of the "mechanism" is disturbed; if it cease for a time, the action is suspended, and, if the bioplasm die, the "mechanism" is destroyed. Vitality, therefore, comes into play in the construction of the apparatus out of bioplasm, and in the preparation of the substances, by chemical change, in which the nerve-current is established. But the actual nature of the nerve-current is only a very small part of the great question of the general nature of nerve-action. The nerve-current may be the same form or mode of force in all creatures, the different results effected by it in different animals being due rather to differences in the construction and arrangement of the nerve-apparatus of the organism than to differences in the current which the nerves transmit. But the development and arrangement of the nerves is entirely dependent upon bioplasm.

Whether the bioplasm which takes part in the development of nerve-fibres, and which is found in connection with the active part of all nerve-fibres, at every period of life, is concerned in receiving impressions, or whether this office is performed by the fine nerve-fibre only, is a question of great interest. In connection with all nerves forming the terminal expansions which constitute the essential part of sensitive nerve-organs, masses of bioplasm are numerous; and numbers are found in connection with the ultimate ramifications of motor nerves distributed to some muscular fibres which are highly active, like those of the diaphragm and tongue. In the case of some muscles, the terminal nerve-fibre is at certain points highly convoluted; and here we find the masses of bioplasm very numerous, and situated very near to one another. All these facts support the inference, that these masses of bioplasm are intimately connected with the action of the nerve-fibre as well as being concerned in its formation. On the other hand, there are very few upon the finest ramifications of nerve-fibres in the serous membranes, which become extremely sensitive in disease. It might, therefore, be argued that the pain results rather from pressure upon, or stretching of the finest nerve-fibres in the intervals between the bioplasts, than from any direct pressure or other influence upon the bioplasts themselves. Again, in the imago state of many insects, the finest ramifications of the nerve-fibres exhibit very few bioplasts in their course. The same remark holds good to a less extent with regard to the distribution of nerves to the involuntary muscles. At the same time, the peripheral ramifications of nerve-fibres are nowhere destitute of bioplasm. Probably one-hundredth of an inch is the greatest length of peripheral nerve-fibre in the higher animals which intervenes between two bioplasts.

I conclude then that, although the bioplasm is necessary to the peripheral expansion of nerves, it is not the material which is in all cases absolutely essential for the reception of impressions and their conveyance to distant parts. I think, however, there is little doubt that the bioplasm of peripheral nerves developes nerve-currents, feeble perhaps as compared with those set free by central nerve-cells, but yet of sufficient intensity to influence the nerve-centre. The peripheral nerve-bioplasm is also concerned, as has been already remarked, in the formation and renovation of the nerve-fibres. This change is constantly proceeding in all nerve-organs.

Another important change in which these bioplasm-particles, in connection with the peripheral expansion of nerves, probably take part, is the development of heat. Is it not possible that, under certain circumstances, the mode of force developed in the matter of the nerve-bioplasm may be changed, heat being rapidly produced instead of nerve-force? The suggestion at once occurs, whether the explanation of such exceptional cases of high temperature as that brought by Mr. John Teale before the Clinical Society a short time since, will not probably be found to have something to do with the phenomena of nerve-bioplasm.

BIOPLASM OF THE BRAIN.—Let me now endeavour to ascertain whether the phenomena connected with the operation of mind have their origin in bioplasm. The only instrument concerned in thought attains its highest state of development in man. In the formation and action of this organ bioplasm is all-important, and exists in greatest amount in that part which, upon other grounds, we know is concerned in mental action.

The highest form of bioplasm or living matter in the world is that which, as I believe, is concerned in mind, and this attains its highest state of activity not until the age when that part of the nervous apparatus concerned in mental operations has attained a high degree of

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elaboration. This period differs in different races and in different individuals, but it is never reached until some time after growth has ceased, and every tissue and organ is fully developed. As far as I am aware, those parts of man's brain concerned in the manifestation of its highest mental faculties constitute the only structures in nature which continue to improve for many years after the rest of the organism has attained its highest state of development. So also these, above all structures, are remarkable for continuing to improve, although many tissues of the body may have been for some time undergoing deterioration and decay.

It is not easy to conceive by what means the angular cells, which form such prominent objects in the grey matter, could will. That these are concerned in the formation of the fibres is certain, and it is possible that in them nerve-currents may originate; but it is very doubtful whether the bioplasm of these cells is the bioplasm concerned in thought. There are other bioplasm-particles, and in enormous numbers, though they do not constitute such prominent objects as the angular or caudate cells. These are little spherical particles of bioplasm, many of which are smaller than a red blood-corpuscle, and are probably connected by communicating fibres of great delicacy. These bodies are situated near the surface of the grey matter among the ultimate subdivisions of the excessively delicate nerve-fibres. In this situation, the supply of arterial blood is more abundant than in any other part of the nervous system, and the particles of bioplasm in question being naked and unenclosed in any cell-wall at any period of life, are just such as we should expect would undergo rapid change. These are, I believe, the active agents which, by their movements, may act upon the delicate nerve-threads which ramify on all sides in very close proximity to them. When we examine these particles of bioplasm after death, they are spherical; but are we not justified in assuming that during life they may change in form, at least as much as a mucus-corpuscle or an amœba? The slightest alteration in form would influence the current traversing the nerve-fibres that were close to them. These delicate bioplasts are, I believe, during the waking state continually undergoing changes in form. That in some situations they increase in number cannot be doubted, and it seems likely that collections might increase in extent even long after the formation of the brain had been completed. What is very remarkable is, that these bioplasts retain their primitive characters throughout life.

I daresay few persons will be persuaded to believe that the bioplasts concerned in the highest mental acts of man are bodies not more complex than the lymph-corpuscle or the white blood-corpuscle; but all evidence is in favour of the view, that exalted function is not dependent either upon complexity of constitution or upon quantity of material. There are no differential characters to be demonstrated between different forms of living matter having widely different endowments, by which the peculiarities may be accounted for. There may be differences in power not dependent upon differences as regards matter and its forces. May we venture to conclude that mind is the form of vital power which, stirring in these particles of bioplasm, causes the movement of the matter of which they consist, and that thus the elaborate mechanism slowly constructed and gradually brought to perfection is influenced? If this be so, mind is the highest form of vital power which exists in Nature, by which particles of matter are caused to move in a definite manner for a definite purpose.

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# CONSIDERATIONS ON THE TREATMENT OF NEW FORMATIONS OF BENIGN CHARACTER IN THE LARYNX.*

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THE introduction into medical practice of the laryngoscope, by Professor Czermak, more than sixteen years ago, opened up a new and even yet unexhausted territory for observation and treatment—a territory equalled in importance by that of no other technical instrument for exploring the deeper cavities of the body. At first considered a mere physiological toy, this instrument has been proved, in a very short space of time, to be of immense power for good, and, it may be added, also for evil. It is, I suppose, an undoubted fact, that many more ophthalmic operations are now performed than previously to the discovery of Helmholtz. Certainly, the vaginal speculum and uterine sound have robbed of much wholesome fear surgical interference with the cavity of the womb. But as the laryngoscope surpasses all these other instruments, by combining completeness of revelation with opportunity for precision of local treatment, so also has its reputation suffered in far larger proportion from excessive instrumental interference with the organ over which it holds sway. It is some years since Dr. George Johnson "felt it his duty to remark upon the possibility that the larynx may get too much of local treatment". Yet I fear that many who have quoted his warning have only done so to excuse their own overzeal in this respect.

Every sort of instrument has been introduced into the glottis, from the innocent brush to the cutting forceps or unguarded knife; and, while portions of the larynx itself, as the epiglottis or a vocal cord, have been bodily removed, one American laryngologist, on the other hand, has made, by intralaryngeal operation with the reflected light of the laryngoscope, a new vocal cord to replace one lost by disease. At least, such is the reported case. I am glad, for the honour of British surgery, to be able to state that these abuses of the value of the laryngoscope have, for by far the most part, occurred abroad.

In no department of practice with the laryngoscope do the foregoing remarks obtain with greater force than in that of the treatment of growths in the larynx; for, since Czermak, in 1859, first discovered, with the laryngoscope, a growth on the right vocal cord, and Lewin, eighteen months later, by aid of the same instrument, removed one, the goal of every student in throat-diseases has been to find an excrescence in the larynx, and, having found it, to remove it *vi et armis*, without for a moment considering how slight might be the symptoms he was attempting to relieve, or what serious results might ensue to his patient by the operative interference he adopted. I venture to think, therefore, that a few remarks with a view of inducing members of the profession to withhold their hands from efforts at mechanical removal of what is often, in every sense, a most benign formation, will not be considered inopportune or unworthy of attention.

The propositions I venture to submit for consideration are the following.

1. *Attempts at removal of growths from within the larynx are not in themselves so innocuous as is generally believed, but, on the contrary, direct injury of healthy parts, leading to fatal results, is by no means of unfrequent occurrence.*—I am quite prepared to give case for case in which this proposition could be verified; for I have knowledge of at least five instances in which perichondritis, or other equally fatal result, has followed as a direct consequence of intralaryngeal instrumental operations for removal of benign growths from the larynx. Nor is there much room for wonder at such a statement. However able a laryngoscopist the operator may be, he is, in ninety-nine cases out of a hundred, guided in his knowledge of the exact situation of the growth by previous examinations; and, when he operates, the larynx spasmodically closing around the instrument as soon as it passes the epiglottis, the growth is caught according to his skill, or, more often, according to his good fortune. But it is easy to understand how a piece of mucous membrane, the arytenoid cartilage, or one of the cornicula, may be caught and injured also. This is especially the case with the unguarded instruments now generally employed. Further, it every now and then occurs, that spasm of the larynx after an operation on a growth is so severe as to require tracheotomy. I have myself been called upon to perform it for such a reason.

2. *The functional symptoms occasioned by benign growths in the larynx are, in a large proportion of cases, not sufficiently grave to warrant instrumental interference.* Dr. Morell Mackenzie, in his exhaustive and elaborate essay on *Growths in the Larynx*, analyses the symptoms of nearly three hundred cases, one hundred of which occurred in his own practice, while the remainder were derived from every published source, English or foreign. From this analysis, it is seen that impairment of the voice is the unique symptom in about fifty-two or fifty-three per cent. of cases of growth. Pain is a very rare symptom. Cough, and not often severe, occurs but in twelve per cent. In two or three per cent., the sole sensation was that of "tickling". Difficulty of swallowing occurred in only eight per cent., and actual pain in swallowing was present in only one of these eight instances. In all these latter cases, the growths were attached to the epiglottis, and there could not be any objection to, or any difficulty in, their removal. These cases of glandular or fibrous growths on the epiglottis may, therefore, well be dismissed from further consideration as hardly coming within the scope of the present article. Dyspnœa was present in only thirty per cent., and dangerous dyspnœa in only fifteen per cent. In other words, as many as seventy per cent. of the cases were free from any element of danger whatever, and in eighty-five per cent. there was no serious danger to life.

It has, I am aware, been generally considered that mere impairment or loss of voice is in itself a sufficient reason for removing a laryngeal growth; but this opinion has been, and is, held in the belief that intra-laryngeal operations are at least harmless, if not always successful, and few practitioners have hitherto thought it necessary to warn their patient that there was a certain amount of risk to life attending these operations, and that, in comparatively few cases, is the voice restored to its purity and entirety. The number of persons to whom the advice (appropriate to those subject to benign growths in other regions of the body) to watch and wait is given, must be very small; but, without doubt, there are a very large proportion which never require treatment, and, if left to themselves, never assume a serious aspect. For example, I have been the subject for the last four years of a small polyp on the left vocal cord, which renders my voice occasionally, but not uniformly, a little hoarse, and the text of "physician heal thyself", is not unfrequently preached at me. A French laryngoscopist kindly offered to remove it, but I hardly thought the symptoms sufficiently severe, and I have until now had no reason to regret having left it alone. Further still, there is no reason to doubt that, while many of these formations remain thus stagnant, a large proportion would, if untreated, "frequently disappear spontaneously, being subject, as they are, to slow atrophy and resorption" (Virchow).

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* Read before the Medical Society of London.

3. *Many of these new formations will disappear or be reduced by appropriate local and constitutional medical treatment, especially when of recent occurrence.*—Before going further, I must premise that, except in the very rare and doubtful instances of a congenital growth, all these new formations originate as a direct consequence of hyperæmia, or, as Virchow puts it, "as the expression of an inflammatory irritation, which affected the whole surface, though it does not give rise to the same result in all parts". When growths are present, there is not unfrequently considerable general congestion of the laryngeal mucous membrane. It is, therefore, most important that every practitioner should make himself *au fait* with the use of the laryngoscope, and in every case of hoarseness examine the larynx of his patient at the very earliest date. Let him then treat the hyperæmia when it first occurs, and he will also see a new formation, should one arise, at its very commencement, or at least on the first approach of symptoms of its presence. It cannot be too strongly urged that the cause of a hoarseness is not to be discovered by pressing down the tongue with a paper-knife, and looking into the back of the mouth, and that a localised inflammation, ulceration, or irregular formation within the larynx, is not to be healed by swabbing the pharynx with a brush charged with solution of nitrate of silver, or by pushing a probang similarly loaded down behind the tongue, unguided by the mirror, in the vain belief that it is going into the larynx, when, in the one case out of ten in which it certainly reaches no further than the superior surface of the epiglottis, it as certainly finds its way down the gullet.

This is not the occasion, nor would space allow, to consider in detail the particular treatment best adapted for laryngeal congestion. It may be, however, stated that, in addition to the use of general and topical remedial measures to reduce the hyperæmia, the practitioner should remove any cause likely to keep up irritation of the larynx, such as a relaxed uvula, unsuitable occupation, or exposure to sudden changes of temperature, and rest of the voice should in all cases of hoarseness be strictly enjoined. I am not of opinion that frequent direct local applications with the brush are in any way necessary in cases of simple congestion of the larynx; but the moment the least irregularity of the cord is visible, the practitioner should at once make mineral astringent applications to the spot, daily until there is diminution of the growth or ulcer, and then on alternate days, or less frequently, as may be required. I know there is a great and general feeling in the profession against local laryngeal treatment, and much of this feeling may be something more than prejudice; but the case may be put thus. No ophthalmic surgeon would say that he would deem it necessary to himself drop solutions each night and morning into the eye of a patient suffering from simple conjunctivitis; but, were the case one of ulcer of the cornea or granular lid, he would feel justified in advising the patient to have the necessary topical remedies applied by himself or some other medical practitioner; and, if this be true of the eye, how much more is it of the larynx, where the part to be treated is not only hidden from the ordinary view, but where also some amount of technical skill is necessary to apply topical remedies with precision. I have seen many cases of neglected hyperæmia of the larynx, in which after an interval—sometimes only of a few weeks—a new formation has been seen to have sprung up, and such cases are not by any means necessarily associated with syphilis or phthisis. I have also often seen cases of small growths in which, by early local treatment, a distinct cure has resulted. The last under my notice, seen also by my friend Mr. Llewelyn Thomas, was that of Miss T., aged 19, who for three months had lost her singing voice, and for two months had been distinctly hoarse in ordinary conversation. The condition, as seen with the laryngoscope at her first visit, is represented on Fig. 1, namely, a small growth on the left vocal cord surrounded by bright red localised congestion. In a week from the first application, February 3rd of the present year, the hyperæmia was removed. In a month, she was quite well. I saw her last week, and her voice was perfectly clear. Now, as to constitutional treatment, a word or two may be necessary; for, as I stated a few weeks ago, on the occasion of Dr. Drysdale's admirable paper on Syphilis, it is of the utmost importance in the case of syphilitic ulceration of the larynx, to combine local and constitutional measures, pursuing each with equal vigour and attention. Those who believe only in the local origin of these formations will probably be of opinion that all internal remedies are useless. It is certain, however, that syphilis, and, as I have little doubt, gout also, play an important part in predisposing to these local developments; and it may well be that medicines directed to counteract these dyscrasiæ are of good effect on the local condition; and so, I think, I have in some cases found them.

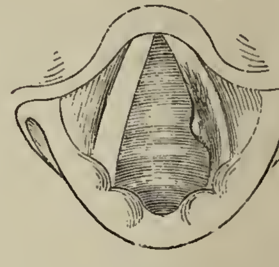

Fig. 1.

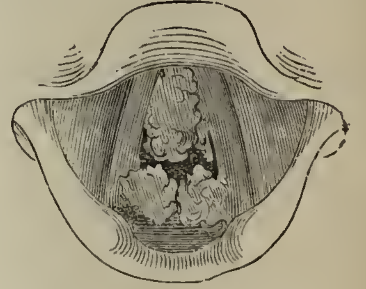

Fig. 2.

4. *Recurrence of laryngeal growths after removal* per vias naturales *is much more frequent than is generally supposed.*—Here again, as in illustration of the first proposition, numerous cases could be given in which the authors have been too quick to report their cures; and since the reports have been printed their patients have presented themselves either to their former attendant or to another with a return of their disease. Six per cent. has been given as about the proportion of recurrence after intralaryngeal removal. I would put it at 20 per cent., and two cases lately under my notice may be quoted as confirmatory on this point.

The first was that of Mr. T. F., a baker, who consulted me on October 22nd, stating that his voice had been always rather thick, having as a boy suffered from enlarged tonsils. He had within the last twelve months become hoarse, and was now almost voiceless. Until three or four weeks before coming to me, he had been for some months under the care of another practitioner, who had on eleven different occasions removed pieces of growth, and at the last two or three sittings he had informed the patient that there was the merest fragment left. There is in my mind not the slightest doubt that the practitioner stated the truth; but it should be mentioned that all this was not communicated to me until after I had examined the patient and made a drawing of his case (Fig. 2), when he exclaimed: "Why, that is just like the drawing made before I was ever operated upon." Regarding what I just now said as to constitutional treatment in these cases, it may be stated that this patient had contracted primary syphilis six years previously, followed by sore-throat and skin eruption, and was when I saw him suffering from palmar psoriasis. He had, however, received no medical treatment whatever from his former attendant, who told him that the eruption on his skin had no more to do with his throat than would a broken leg. Mr. Durham, who kindly saw the case with me, shrewdly remarked: "But you would think a broken leg had something to do with your throat if you had hurt both with one and the same accident."

The second case is that of Walter L., a hairdresser, aged 19, whom I first saw on the 3rd of March last at the Central London Throat and Ear Hospital. He stated that he had always been subject to catarrh, and, having lost his voice during an attack two years previously, had never since recovered it. He had attended for nearly a year at a general hospital, and only on his last visit had been examined with the laryngoscope. He had then attended another hospital, where, after removal of his uvula, pieces of growth were evulsed from his larynx on four different occasions, at intervals of from seven to ten weeks. The largest piece was that last removed. He stated that his voice was now worse than before any operation at all, and that lately his breathing had become laboured. He gave as his reason for discontinuing attendance at this last institution, that he did not see what was the use of these operations if the tumours grew larger at each interval. Laryngoscopic examination showed two pink lobulated and symmetrical growths on the vocal cords at their anterior insertion (Fig. 3). There was great thickening and irritability of the pharynx; the larynx was also extremely congested, and it was difficult to make even an ordinary examination. Although, therefore, I bring this case forward to show the strong tendency to fresh growth, even while under treatment, I cannot forbear expressing my opinion that the fact that any growth at all had been removed, reflects the greatest credit on the skill of the practitioner under whose care this patient had been.

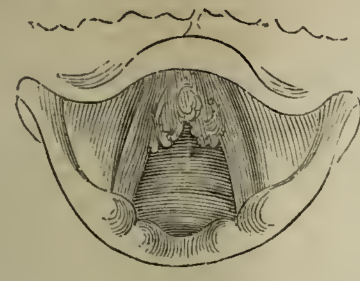

Fig. 3.

It is worthy to be remarked that, where there is a tendency to fresh growth in another part of the larynx, or to recurrence in the original situation of the first formation, and repetition of operative procedures is made, the intervals between each successive recurrence almost invariably become shorter. This is, I believe, only what takes place in recurrence of tumours in other parts of the body.

5. *While primary malignant or cancerous growths are of extremely rare occurrence within the larynx itself, benign growths frequently assume a malignant or even cancerous character by the irritation produced by attempts at removal.* This proposition is to a large extent a corollary of the foregoing. Epithelioma commencing at the epiglottis or base of the tongue, or at the anterior wall of the œsophagus at its favourite spot just opposite the cricoid cartilage, often extends into the larynx; but it is most rare to find malignant disease commencing in the vocal cords or ventricular bands; that is to say, in the cavity of the larynx itself.[*] One of the points, however, strongly brought out by Mr. Simon and Sir William Jenner, and admitted by Mr. De Morgan in the great discussion on Cancer at the Pathological Society last year, was, that cancer may be induced in tissue previously healthy by mere irritation, such as that of a needle; this result being due, according to the two former authorities, to constitutional vice, and to the latter, to local development. Whatever the cause, this is what is often found in the case of growths of the larynx. I may allude to one such case (No. 87) in Dr. Morell Mackenzie's report of one hundred cases, which he, having treated during the life of the patient as benign, most straightforwardly included in his list of benign cases, though somewhat to the detriment of his statistics. I quote his remarks on the result of the *post mortem* examination. "The luxuriant growth of the new formation in this case pointed to its being otherwise than of benign character; and its microscopic examination illustrates the extreme difficulty of arriving at accurate conclusions concerning the histology of these tumours even when the entire growth is brought under observation. The specimen was examined by several eminent microscopists, and was at first supposed to be a simple papilloma. On another examination, fibrous tissue was found to be developed, and it was pronounced to be fibro-cellular. Still later, my brother, Mr. Stephen Mackenzie, discovered some nested cells (laminated capsules of Paget). From the extreme importance of this element, the case must undoubtedly be placed in the category of carcinomatous growths, and be considered as epithelioma. The whole surface of the growth was covered by papilloma." I was the more impressed with this case, because I saw the patient almost daily while he was under the care of Dr. Mackenzie, and he was for some months transferred to my sole charge.

6. *The instruments now most generally in use are far more dangerous than those formerly employed.* Success in removal of growths from within depends so much on the individual manual dexterity of the practitioner, as well as on the method of his examining the larynx and the plan on which his other instruments are constructed, that it is not surprising that well-nigh every practitioner who has attempted the operation has invented a new instrument for the purpose. As with tracheotomy-tubes, many such instruments have been adapted for one particular case, their utility lapsing with its termination. As to others, one wonders how they could ever have been expected to be of use at all. At first, every instrument—and, indeed, some more cautious practitioners still confine themselves to such—was on the principle of a snare; and these were undoubtedly the safest. They are constructed more or less on the plan of a Gooch's cannula, and have been used by Dr. Walker of Peterborough, Sir Duncan Gibb, Dr. George Johnson, and others. The fault of them is that, while safe from injuring other parts, they are not well adapted for hard or large growths. Dr. Mackenzie's tube-forceps are a step further towards more instrumental freedom and strength.[*] Then came guillotines, rigid loops with sharp edges, fenestrated knives; and finally, in America, Germany, France, and England, common forceps, cutting forceps, and crushing forceps, strong enough to break a vesical calculus. Scissors, knives, guarded and unguarded, were also freely used. Galvano-cautery has been extensively employed abroad, but, happily for the patients, has not met with much professional favour for these cases in this country. As a curious evidence that even in Germany, where operative procedures are most boldly adopted, a feeling is dawning that it is possible to intrude too rudely into the larynx, it may be noted that Eyselle has recently suggested transfixing the growth by a needle passed through the thyroid cartilage from without: a procedure more easy in imagination than performance, and of little practical value. Dr. Jelenffy of Pesth has also, on the well founded belief that one does not see much of the larynx after the instrument has entered it, invented a very safe guarded *écraseur*, by which, as he states, first one side and then the other can be freely and safely swept of excrescences. Undoubtedly, the safest instrument is the guarded ring-guillotine of Stoërk, which combines strength, cutting power, and the maximum of safety against wounding healthy parts. I think I have good reason for stating that, since instruments were used unguarded, injury to healthy structures, and consequent perichondritis, have occurred more frequently than was formerly the case.

7. *The cardinal law, that "an extralaryngeal method ought never to be adopted unless there be danger to life from suffocation or dysphagia", should be applied with equal force to intralaryngeal operations;* and it is a subject worthy of consideration whether, in many cases, tracheotomy alone might not be more frequently performed—*a.* With a view of placing the patient in safety when dangerous symptoms are present; *b.* In order that the larynx may have complete functional rest; and *c.* As a preliminary step to further treatment, radical or palliative. If I have succeeded in proving the truth of my previous propositions, there is not much necessity for enlarging on this. I would simply beg once more to impress the importance of a more general study of the laryngoscope, and of its use at an early stage in every case of alteration of voice; of the early treating of hyperæmia of the larynx, remembering that it is the most general forerunner of growths; of the early and active local treatment of such new formations by topical astringent applications; of the administration of suitable medicinal remedies when there is evidence or presumption of any constitutional cause or complication; and of the non-instrumental interference with these formations for mere symptoms of inconvenience, having always in view the dangers that may occur to healthy structures, and the fear that irritation of the growth may only make the disease worse, rather than better. I have not discussed the question of thyrotomy, or division of the external cartilage of the larynx. Many of these operations have been done for reasons as little justifiable as some in which intralaryngeal operations have been adopted. Certain foreign practitioners have not hesitated to divide at one operation two or three rings of the trachea, the cricoid cartilage, the crico-thyroid membrane, the thyroid cartilage, the thyrohyoid membrane, and even the hyoid bone, for removal of a small growth causing but little annoyance; and all this with apparently no thought of such a consequence as perichondritis or caries. In many cases where there is dyspnœa—the only symptom which appears to me to warrant interference capable of leading to fatal results—tracheotomy, whether as an only step, or as preliminary to other measures, should much more frequently be adopted. In making this suggestion, I am not unmindful of the fact that the operation of opening the windpipe is in itself a serious operation; but it is generally agreed that, in chronic diseases and in adult patients, the procedure is unattended with much risk to life. Amongst other advantages in the class of cases under consideration, it offers the chance of removing the growth from below—*i. e.*, through the tracheal opening. Sufficient success has already attended this step to give encouragement to its more frequent adoption.

Looking at the many evil consequences likely to result, and actually resulting, from attempts at removal of growths from the larynx by the laryngoscopic or any other method, the profession generally will, I trust, consider the proposition established, that there is not so commonly as is supposed any operative procedure for the treatment of these cases in which "no chance of danger is incurred".

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[*] This statement was made originally as the result of my own experience, which comprises a personal knowledge of at least 20,000 cases of throat-affections, and in which I had only seen two cases of what was considered to be primary cancer in the larynx. A doubt having been suggested to me of the accuracy of my assertion, reference has been made to the works of Türck, Cohen, Mandl, and others: all are found to agree in the rarity of primary cancer of the larynx proper, and the extreme rarity of any form but that of epithelioma.

[*] Dr. George Johnson has recently been so good as to show me an arrangement, suggested by an ingenious patient, by which this form of forceps is rendered somewhat less liable to wound the mucous membrane.

## MEANING OF THE TERMS DIPHTHERIA, CROUP, AND FAUX CROUP.

By SIR JOHN ROSE CORMACK, F.R.C.P.Lond., M.D.Paris.

In my note on the History and Meaning of the Terms Diphtheria and Croup, published at page 544 of the JOURNAL of April 24th, I suggested that the prefixes diphtheritic, herpetic, spasmodic, and the like, are required so long as the word croup continues to be used by medical writers as a name for essentially different diseases. The propriety of this suggestion is illustrated by a criticism on my own statement in my paper, which is made by Dr. George Johnson at page 575 of the JOURNAL for May 1st.

He there says: "In the last number of the JOURNAL, Sir John Rose Cormack states that the spasmodic croup of English authors is the *faux* croup of the French. I have always believed, and I believe still, that the spasmodic croup of English authors is also the spasmodic croup of the French, its synonyms being laryngismus stridulus, crowing inspiration, thymic asthma." Dr. George Johnson adds, that "to speak of the *spasmodic croup* of the English as synonymous with the *false croup* of French writers is to introduce a new element of confusion into the discussion of the relations between croup and diphtheria". He says that the "faux croup" of the French is the "inflammatory croup" of English authors.

I correctly stated the meaning of the French term "faux croup". It is synonymous with our English terms "laryngismus stridulus" and "spasmodic croup". It is a "névrose", and not an "inflammation". I quote the following from p. 795 of the edition published in 1873 of the *Dictionnaire de Médecine et de Thérapeutique Médicale et Chirurgicale*, edited by Dr. Bouchut, Physician to the Hôpital des Enfants, and Dr. Desprès, Surgeon to the Hôpital Cochin.

"LARYNGITE STRIDULEUSE, ou CROUPE SPASMODIQUE, ou FAUX CROUP.—La laryngite striduleuse, maladie en apparence voisine du croup par l'âge des sujets où elle se montre, et par les accès de suffocation qui la caractérisent, n'est qu'une névrose du larynx greffée sur une laryngite aiguë."

"Une accès de suffocation apparaissant d'emblée, sans phénomènes précurseurs chez une jeune enfant endormi et bien portant, accompagné de toux sonore, avec conservation de la voix, également sonore et non croupale, disparaissant en quelques minutes ou en quelques heures, caractérise le *faux croup* au laryngite striduleuse."

It is evident from this extract that Dr. George Johnson errs when he says a "new element of confusion" is introduced by considering "spasmodic croup" and "faux croup" as synonymous. When I assert the synonymity of the terms, I only state a fact.

The following is from the *Manuel de Pathologie* of Professor Tardieu, p. 144.

"LARYNGITE STRIDULEUSE.—Syn.: Faux croup (Guersant); angine striduleuse (Bretonneau); laryngite spasmodique (Rilliet et Barthez). Le spasme du larynx qui constitue à proprement parler l'un des éléments de la laryngite striduleuse peut exister seul, et n'en diffère alors que par l'absence du catarrhe laryngien primitif au concomitant."

The following is from the *Pathologie Interne* (vol. i, p. 300) of Monneret.

"ANGINE STRIDULEUSE.—Syn.: Faux croup, laryngite striduleuse, laryngite spasmodique.

"Spasme de muscles laryngiens; asthme de Millar, de Kopp; asthme thymique; spasme de la glotte; tétanos apnéen périodique; apnée spasmodique; laryngisme infantile.—*Nature.* L'absence de toute lésion des voies respiratoires......Tels sont les traits principaux de la névrose que nous étudions."

The following is from the *Dictionnaire de Médecine* of Nysten, edited by Littré and Robin.

"FAUX CROUP.—Syn.: Pseudo-croup; croup spasmodique; laryngismus stridulus......L'absence de inflammation," etc.

The following is an extract from the *Aide-Mémoire* of Corlieu, the cram-book at present most in favour with the medical students of Paris.

"LARYGITE STRIDULEUSE, ou Faux Croup. Pharynx et larynx à l'état normal, à peine rouges......Ne pas confondre avec laryngite aiguë, ou laryngite pseudo-membraneuse, ou croup."

It will be observed that one of the mistakes against which the grinder warns the student is the mistake which Dr. George Johnson commits—the confounding "faux croup" with inflammation of the larynx.

In my former communication, I ought to have mentioned *laryngitis*, which most English writers call *croup*, but in which there is no false membrane.

I would add that my recommending the use of such explanatory prefixes as "spasmodic", "herpetic", and "diphtheritic," was merely an incidental suggestion of a simple means of giving lucidity and uniformity to the clinical descriptions of authors holding different views, and was not intended as a proposed reform in scientific nomenclature.

## TRUE AND FALSE CROUP.

By JAMES RISDON BENNETT, M.D., F.R.C.P.,
Consulting Physician to St. Thomas's Hospital, etc.

It is not my wish to enter the lists in the interesting and important controversy now going on respecting the identity or non-identity of croup and diphtheria. But the criticism of Dr. George Johnson on Sir J. Rose Cormack's communication in the JOURNAL of April 24th, calls for notice. Dr. Johnson denies the accuracy of the statement that "the spasmodic croup of English authors is the *faux* croup of the French". This denial much surprised me, as, unless my memory deceived me, the term false croup used to be the common designation of the French for what has latterly been called by us "laryngismus stridulus". I, therefore, referred to Guersant, who, in the first edition of the *Dictionnaire de Médecine*, 1821, introduced the term false croup. In the second edition of the same work, 1835, art. croup, he thus speaks: "The name of false croup which I had introduced in the first edition of the *Dictionnaire de Médecine*, to supply the place of that of the acute asthma of Millar, which I thought ought to be abolished, because it has given rise to confusion and error, is certainly, as the critics have remarked, not very scientific; but my intention in proposing it was merely to associate a word which might be easily popularised with that of croup, which was already popular, and thus I wished to introduce into common language a distinction which I believe to be absolutely necessary. For the use of physicians, I shall more willingly adopt the expression of stridulous laryngitis admitted by M. Bretonneau" (Semple's Translation in Sydenham Society's *Memoirs on Diphtheria*, p. 210). The above passage is sufficient to prove that Sir John Rose Cormack's statement is correct; and also that Dr. Johnson is wrong, not only in his criticism thereon, but also in affirming that the "laryngite striduleuse" of the French is simply synonymous with the inflammatory croup of English authors. In reference to the latter term, however, it will, I think, be found that French authors employ it and the term laryngismus stridulus somewhat loosely. But Guersant, Bretonneau, and others certainly employ the term "false croup", stridulous laryngitis, "acute asthma", *i.e.*, Millar's or thymic asthma (and, therefore, our laryngismus stridulus) as synonymous or nearly so. It is certain that Guersant, in the *Dictionnaire de Médecine*, second edition, speaks of "laryngites striduleuses" in the plural, and his first variety "laryngite striduleuse simple" is clearly our spasmodic croup, or "laryngismus stridulus". His second variety appears to be catarrhal laryngitis; and his third, I suppose, corresponds with Dr. Semple's "laryngitis stridulosa", or strictly acute inflammatory disease, but unattended with the exudation of false membrane. To a certain extent, therefore, Dr. Johnson may be right in affirming that *one* of the forms of the *faux* croup of the French is an inflammatory disease. In the new *Dictionnaire de Médecine et Chirurgie*, it is distinctly stated that under the term croup the writer comprises only those acute diseases of the larynx which are attended by pseudo-membranous exudations. All others are relegated to the class of false croup. Nysten, in his Dictionary, under the head "laryngisme", cites Marshall Hall as his authority for describing it as an example of reflex or diastaltic nervous action, and terms it "laryngisme striduleux". Under the head of "*faux* croup", he gives as synonyms, pseudo-croup, "croup spasmodique", laryngismus stridulus.

At all events, and this is the main purport of my communication, it is, in my opinion, highly desirable, for the sake of the public, as well as for the profession, that the term "false croup" should be applied and restricted to the spasmodic disease which is commonly called "crowing inspiration", or simply "croup". Sir Thomas Watson, with his usual felicitous use of the English language calls this "bastard croup", or "spurious croup". I would willingly adopt the latter term and speak of "spurious croup"; but for the public I think "false croup" is even better, for I suppose we cannot discard the word "croup". Whichever term be used, we thereby clearly separate from all other forms of laryngeal affection one, whatever may be its pathology, which is not inflammatory, is not attended by any form of inflammatory exudation, is not contagious, and, for the most part, is a far less serious malady, and which moreover, and this is of the highest practical importance, demands a very different mode of treatment. The distinction is certainly not understood by the public, and, I fear, is too often not made by the medical attendant. For one not unfrequently finds that leeches, blisters, and antiphlogistic remedies of all kinds have been employed, in cases where a warm fomentation and a purge followed by some antispasmodic and mild sedative were all that the case required.

In conclusion, and in reference to the controversy now maintained as to the identity or diversity of diphtheria and the old English inflammatory disease, croup, I will venture to express my conviction that they are distinct diseases. So far as I know, I was one of the first to call attention to the outburst of diphtheria in this country, which took place about the year 1850, in which year I read before the Medical Society of London a paper (*Medical Times*, vol. i, new series, 1850) expressing my views as to the distinction between the disease described by Bretonneau and that with which English practitioners were familiar, as acute inflammatory croup. Though much more familiar now with diphtheria than I then was, I have seen no reason materially to alter the views expressed in that paper. Previously to that date the disease with which I, and I believe most other practitioners, were most familiar, was an acute inflammatory disease, beginning in the air-passages and amenable to strictly antiphlogistic treatment, and which Dr. Semple would call "laryngitis stridulosa". This designation is not, however, I think, a happy or desirable one, partly for reasons that may be gathered from what I have cited from French authors. The classification that I would suggest would be 1, false or spurious, or bastard croup; 2, acute inflammatory croup; 3, diphtheritic croup, or diphtheritic laryngitis. I do not touch the question whether the croup of Home and the cynanche trachealis of Cullen, etc., are or are not the same disease as that which is now called diphtheria. The absence of all reference to paralytic symptoms in the older writers is, however, remarkable.

## A CASE OF CEREBRO-SPINAL PARESIS,

### ACCOMPANIED BY INTENSE NEURALGIA AND CEREBRO-SPINAL IRRITATION.

By J. LOCKHART CLARKE, M.D., F.R.S.,
Physician to the Hospital for Diseases of the Nervous System.

A LADY, aged 56, in delicate health, and always subject to debility, with occasional pain in the back, had felt, about a month before I saw her, unusually weak and languid for a few days, and then experienced a severe pain along the spine, accompanied by a sensation as if the spine were stiff, or "as if it were drawn back by a tight cord". She also felt as if her neck were drawn back, but it was not so in reality. The pain along the spine extended to the back of the head, to the shoulders and scapular region, and was accompanied by a sensation of "pins and needles" in the hands and fingers. She complained also of shooting pains all over her head, but particularly on the right side; and, on the same side, she had the most intense pain over the brow, in the temple, and below the eye, along the orbitar ridge of the malar bone, extending thence to the inner angle of the eye and side of the nose, and causing frequent fits of sneezing. There was some swelling of the brow and face. The pain in the brow extended upwards to the forehead and vertex of the same side. It was so severe, that she felt "as if it would drive her mad". These symptoms were accompanied by chills, flushes, and perspirations; but there was no continuous pyrexia. The pulse was small and rather quick. Her intellectual faculties became much impaired: she had confusion of mind, loss of memory, and felt so nervous and timid, that she was afraid to move about. In the course of a few days, she became very weak, and took to her bed. There was considerable tenderness on pressure at the back of the neck, and at several points along the cervical and dorsal regions of the spinal column. She was ordered citrate of iron and quinine, iodide of potassium, and Dover's powder at night, with counterirritation along the spine. Great improvement followed in a few days, and, at the end of twelve days, all the neuralgic pains had gone, but some tenderness remained along particular parts of the spine. When the neuralgic pains had subsided, she complained of great soreness of almost all parts of her body. The soreness was first felt on each side of her face, on opening and shutting her mouth, and the masseter muscle was tender to the touch. The soreness then extended down to the sides of the neck from behind the ears; then over the shoulders and back of the arms as far as the elbows; next down the back of the thighs and legs, but not in the feet. Her body and face became much emaciated, and the masseter muscles were evidently wasted. By continuing the use of the citrate of iron and quinine, with small doses of tincture of nux vomica, she was quite herself again at the end of a month.

This is an exceedingly interesting and instructive case. I have called it cerebro-spinal paresis, because the cerebral and spinal functions were much depressed. The correctness of the diagnosis was proved by the successful treatment.

## ON A NEW AND EFFECTUAL METHOD OF ADMINISTERING CHLORAL AND BROMIDE OF POTASSIUM IN DISEASES OF WOMEN.

By G. DE GORREQUER GRIFFITH, L.R.C.P.Lond.,
Senior Physician to the Hospital for Women and Children, Pimlico.

MRS. M., aged 26, gave birth at her full time to a healthy male child, on Sunday, July 19th, 1874, being attended for me by Mr. Smith. The labour—primipara—was natural, and was completed within thirteen hours; but towards the close of it, the soft parts offered great resistance, which, however, was overcome by patient waiting, and without any manual interference, or any rupture of the perinæum. Everything went on well till the night of Saturday, July 25th, when it was necessary to draw off the urine, as none had been passed for twelve hours. In four hours, she was again seen; she had become restless, complained of not being able to sleep, and had a pulse fast and quick, but full and strong; she was feverish, and I therefore prescribed for her a diaphoretic aperient, which acted effectually. As she had not slept much the previous night, and was still restless, I gave her a sedative of opium and chloral, and had the vagina well washed out by means of warm water with Higginson's syringe.

On Monday, July 27th, acute puerperal mania declared itself unmistakably. She refused all kinds of food, as well as her medicine; would not allow the urine to be drawn off, nor the syringe to be used, and became very violent. Under these circumstances, I had to put her under chloroform, in order to do for her all that was necessary, and to procure her some sleep.

Tuesday, July 28th. She was put under chloroform three different times, and had done for her as on the previous day. I gave her subcutaneous injection of morphia, using one-third of a grain only. The chloroform acted quickly, very little being sufficient to anæsthetise her; it did not occasion sickness, nor any other bad symptom; but it did not assuage the delirium, which returned with the reaccession of consciousness. In the evening, while she was under the influence of the chloroform, I gave her a subcutaneous injection of morphia (one grain), which had the effect of prolonging the soporific influence of the former drug, and of producing great contraction of the pupil. The discharge from the uterus and vagina being somewhat offensive, the syringe was used every four hours, Condy's red fluid being added to the warm water. The child was removed the very first day the maniacal symptoms declared themselves, and the breast-pump was used to get rid of the milk.

Wednesday, July 29th. Chloroform was given at 9 A.M.; the patient was fed by the bowel; the urine was drawn off; a vaginal injection of warm water and Condy's fluid was given. At 1 P.M., chloroform was again given, in the same dose as in the morning, one grain of morphia being now injected subcutaneously. At 4 P.M., Dr. Cumberbatch and I met in consultation, and agreed to continue the administration of nutriment by the bowel; adding, however, to the egg and milk, half a wine-glass of pale brandy; and, as the morphia injections had not relieved the delirium, and had begun to aid in drying the tongue and mouth, and to induce other morphia symptoms, we decided to use an injection into the rectum of bromide of potassium one drachm, chloral half a drachm, mixed with the egg, milk, and brandy; and to repeat the drugs, if necessary, every four hours. Accordingly, at 5 P.M., I put her again under chloroform, and injected into the bowel the nutriments, having the medicines previously mixed. She slept for about six hours. At half past 11 P.M., as she was awake, restless, and violent, we gave her chloroform, and the enema, as at 5 P.M. She slept nearly the whole night soundly, awaking at intervals, but only for a short time, when she still raved, muttering incoherently, and then again falling asleep. On July 30th, chloroform was administered, and the nutrient enemata; but, as she was drowsy and quiet, the bromide and chloral were laid aside all this day. On the 31st, in the afternoon, the bromide and chloral were again given her in one of the nutrient enemata, which she had regularly every four or five hours.

Saturday, August 1st. She being quiet, having lapsed into a state of imbecility, and taking some nourishment by the mouth, as well as allowing the egg, milk, and brandy to be given her by the rectum, the chloral and bromide were discontinued; and I am happy to learn that, in the asylum, whither she was moved, she is convalescing.

The difficulties in this case can hardly be estimated, unless they had been witnessed, so strong was the patient and so violent; and it would have been impossible to feed her, or, indeed, do anything for her, without great violence, had chloroform not been administered. As, however, the effects of this speedily passed off, little ulterior good might have been wrought, but for the chloral and bromide, the sedative and good effects of which were quickly manifest each time they were used, acting apparently more rapidly than when taken into the stomach; nor was there any diarrhœa, or other irritant effect produced on the bowel.

In very many cases, this mode of giving chloral is, I consider, the best; since it does not nauseate, nor does it sicken, nor give that unpleasant taste in the mouth which remains long with some patients, nor does it occasion the burning in the mouth, throat, and stomach, of which many patients complain, a sensation which may be prevented in the rectum by beating up the drug with a raw egg, or even two raw eggs, a little warm milk being added to further the solution. One great advantage is that the gastric nerves are not affected, as they are when the medicine is taken by the mouth; in which latter case they seem completely deadened, or, as it were, narcotised, a result that tends to impair the appetite.

Since my experience in this case, I have used the chloral in half-drachm doses, with a lady suffering the agonies of gall-stones, and in whom the stomach was so constantly irritable that no medicine could be retained; chloroform inhalation to narcotism, morphia by subcutaneous injection, and every conceivable remedy, had been tried to allay pain, and procure rest and sleep, but had all failed. In ten to fifteen minutes after the rectal injection of chloral, pain was assuaged, and in half an hour sleep was procured. I have in this manner also used it when menstrual pain and sickness could perhaps have been relieved in no other way; also in cases of uterine and ovarian irritation, where pain, such as we have in those affections, varied from the mildest to the severest states. In irritable rectum, also, I have found it most efficacious, and have just commenced to use it as a vaginal suppository. In uterine, ovarian, and rectal cases, it is an especially valuable agent, inasmuch as it is brought into immediate contact with the affected nerves, and acts upon them directly, deadening any hyperæsthetic conditions, and relieving pain.

I have recently (end of April) seen the patient who was the sufferer from puerperal mania, and find her perfectly well in body, mind, and intellect, quick and vivacious, with no trace of imbecility remaining. The patient suffering from gall-stones, who had been for so long a time a sufferer without any relief, till the chloral was administered by the rectum, has remained quite well.

# CLINICAL MEMORANDA.

## CROUP AND DIPHTHERIA.

THERE appear to be two questions under discussion relative to croup. The first has reference to the meaning of the term, and the second to the nature of membranous croup. I take it that the former is to be settled by usage. I find that most medical men whom I meet in consultation apply the term croup to any acute affection where the symptoms denote a partial closure of the glottis. They cannot often know the exact nature of the malady, whether it be due to simple inflammation, or whether a membrane be present. This is a matter for after-diagnosis. They are, therefore, content to call the case one of croup, which is as good an expression as most other terms in medicine. The second question as to the nature of membranous croup is a very important one, both pathologically and clinically, since the answer either affirms or denies the existence of such a pathological condition as a membranous inflammation of the aerial mucous membrane. I speak of the mucous membrane as a whole, for I suppose no one would say that different causes were in operation according as larynx, trachea, or bronchi were affected, seeing that we may find the whole of the air-passages, from glottis downwards, covered by membrane. It is well known that nearly every pathologist in Europe has spoken of two forms of inflammation of the mucous membrane of the air-passages, the catarrhal or corpuscular, and the membranous or croupous, and clinical observers have acquiesced in this division. It is now maintained, and notably by two good authorities in London, that there is no such thing as an idiopathic membranous inflammation, but that, when found, it is due to a cause external or specific. A prevalent opinion is, that such membranous inflammation may arise under various influences; but the modern assertion is, that it is never idiopathic but always diphtheritic. As the question is not an anatomical one, but has to do with causes, it can only be settled by clinical observation.

SAMUEL WILKS, M.D., Physician to Guy's Hospital.

## CROUP AND DIPHTHERIA.

IN the report of the observations I made at the Clinical Society (BRITISH MEDICAL JOURNAL, May 1st), on the subject of the identity of croup and diphtheria, I am made to say that I have "recently been converted to the view that croup and diphtheria are identical". I should like to say that this does not quite express my position; the observations I made were to the effect that, although I had long believed in the distinctness of the two diseases, this opinion of mine had recently been "rudely shaken"; and I instanced a case I had lately had under my care which would, probably, have been registered as croup if a *post mortem* examination had not shown it to be diphtheria. But, whilst I am entirely convinced that many cases of diphtheria have been registered as croup, I am far from believing that sufficient evidence has been produced to settle the question in favour of their identity, and I am altogether opposed to the tone of dogmatic finality which has been assumed by some on the identity side, as it is essentially hostile to that liberal and patient spirit of inquiry, which, in medical as in all scientific investigations, can alone lead to real advancement in knowledge. It has also occurred to me in connection with this discussion, that I have found a far larger experience and familiarity with cases of so-called croup, and with epidemics of diphtheria, amongst medical men in large general practice, especially in the provinces, than amongst the physicians of general hospitals in London. So far as I have been able to observe, cases of croup and diphtheria are comparatively rare in the general wards of London hospitals. As these cases are exceedingly acute and often rapidly fatal, I am inclined to believe that by far the greater number of them fall exclusively under the observation of our brethren in large general practice, and it is to them, therefore, that we should look for evidence which may decide this dispute. I. BURNEY YEO, M.B., Assistant-Physician to King's College Hospital.

## CROUP AND DIPHTHERIA.

IN the note on croup and diphtheria inserted in page 507 of the JOURNAL for April 17th, I need not say that I professed to give only a brief summation of my own experience in these diseases. I admit, with Sir John Cormack, that the nomenclature is unfortunate and open to misconception, and cordially concur with him in the views held by the French and other authorities, which he has so lucidly detailed. I believe that diphtheria and croup are as distinct as typhoid fever and pneumonia; that the former is a fever of low type, with or without, but generally with, evident local manifestations; the latter a local inflammation giving rise to general febrile disturbance, and both running a rapid course; and that the recognition of these distinctions is very important in prophylaxis and treatment. In answer to Dr. Semple's courteous notice, I can only say that, confining both diseases to children under the term of puberty, the characters of the membranes observed by me have been such as I described. That of simple membranous croup was firm, tough, light kid-coloured, its inner surface glistening, its texture elastic, when ejected during life or removed after death retaining its tubular form, and when cut transversely the edge clear and clean; that of diphtheria generally ash grey or dull white (*subalbicans*), like rice-paper that had been macerated, or, as Dr. Starr described it in 1749, "like an oversoaked membrane, which, being oversoaked, had become rotten"; when removed from the body collapsive, so that the tubular form was lost, and when cut transversely the edge soft and flabby. I may add, that many years elapsed after my acquaintance with membranous croup before I saw a case of diphtheria, and when I did, I had not the slightest difficulty in recognising the latter, and the marked difference of its exudation from that of the former. Perhaps Sir John Cormack may recall during his early professional life in Edinburgh, if he were attached to a dispensary especially, many cases of membranous croup with its characteristic membrane, for it was about that time and in the class of patients who frequented dispensaries that I chiefly met with it.

WM. CUMMING, M.D., Edinburgh.

# OBSTETRIC MEMORANDA.

## PUERPERAL INFECTION.

IN reply to the fourth question in Mr. Spencer Wells's address on puerperal fever, How can its spread be most certainly prevented or checked? and, in response to your call for any useful hint on this now prominent subject, I have pleasure in giving the plan which the late Dr. Dawson, Lecturer on Midwifery at Newcastle-on-Tyne, found effectual in preventing a run of puerperal fever cases in his practice, and which has proved entirely satisfactory in my own. In 1863, I called on Dr. Dawson to see a case of puerperal peritonitis. My wife was at the time "daily expecting", and I naturally felt peculiarly anxious. On my way home, I told him my position and feelings, and put the question to him, What must I do to prevent more cases from occurring? Dr. Dawson at once asked, if I could use either hand in delivering? Yes. Then, said he, touch this poor woman with one hand only, and reserve the other for future cases; and, lest you should inadvertently neglect the precaution, you might put the mistrusted hand in a sling when called to a case. I warmly thanked the doctor, felt my weight of anxiety removed, nor have I ever had more than isolated cases of puerperal fever since. Before parting, I told Dr. Dawson that I had more than once observed my revered teacher, the late Dr. Patterson of Glasgow, with one arm in a sling, he must have adopted the same method. Undoubtedly, was the reply. Dr. Dawson's mode of preventing the spread of "childbed fever" would also be efficacious in cases of syphilitic infection. Had it been more in vogue, we might never have had to lament that distressing trial of Simpson and Wife *v.* Davey. That "puerperal fever" is infectious is quite granted in this district, for I have heard it styled "nail fever". Besides baths, disinfectants, change of clothes, and other preventative means, I would recommend the obstetrician, when first a suspicious case occurs in his practice, to discontinue the use of gloves, to walk in the sunshine, and if he have the opportunity, to do a little flower-gardening.

JOHN CARRICK MURRAY, M.D., Newcastle-on-Tyne.

# REPORTS
OF
# MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

## QUEEN CHARLOTTE'S LYING-IN HOSPITAL.

### A CASE OF CÆSAREAN SECTION.

(Under the care of Dr. GRIGG.)

CASES of Cæsarean section are rare, and the modern improvements by which delivery is facilitated without recourse to this last resort of the accoucheur have rendered the instances which call for the operation so few, that its performance is always an occasion of painful interest. In the following case no other proceeding was open. Although in some respects the case was favourable, and although the operation was performed with skill, the mother died. The child, however, still survives; and there is, we believe, a good prospect that its life may be preserved.

Jane B., aged 38, married, was admitted on April 26th. She had been under the observation of Dr. Sloman of Farnham, by whom she was sent into the hospital. She stated that she was a native of London, being born near Holborn; that she had been delicate from birth, always subject to chronic bronchial catarrh and gastric disturbance. During the last five years, she had lived in the country, during which time her health had much improved. She had intercourse on July 29th last, quickened a fortnight before Christmas, and married shortly after Christmas. She believed that she became pregnant in July. Gestation was normal, with the exception of slight increase of gastric disturbance, coupled with much sleeplessness. Her parents were healthy; two brothers and one sister were living, healthy and well formed. She was the last but three of eleven children; those younger than herself died at early ages. None of the family were deformed.

When admitted, she presented a worn attenuated appearance; her height was forty-two inches and a-half; her head was large; the lower third of the spine was sharply curved forwards; the mammæ were large; the chest was of fair size, but deformed; the spine was, as it were, driven in. Her arms were small; her hands large; her thighs straight; the legs were much curved anteriorly, being bent like the letter S. External measurement of the pelvis by callipers gave eight inches from one anterior superior spinous process of the ilium to the other, and from the sacrum to the pubes four inches and a half. A vaginal examination showed the conjugate diameter to be one inch and five-eighths. The pelvis was oblique, the left side being less developed than the right, with the right wing of the ilium much bent in. The depth of the pelvis was slight, but the cavity was roomy. The axis of the inlet was nearly at right angles with the perpendicular line of the patient's body. The breech was found by external palpation to be presenting. She was examined by Drs. Brodie, Hope, and Greenhalgh. On account of the peculiar direction of the axis of the inlet, it was thought impossible to attempt craniotomy with any chance of success; Cæsarean section was, therefore, decided upon.

The operation was to have been performed on April 30th; but, labour having set in prematurely on the morning of the 29th, at eleven o'clock, the operation had to be hastened, and was performed at 5.50 P.M. on the latter day. The membranes ruptured at one o'clock. At 5 P.M., the os was two-thirds dilated; the breech could be felt high up; the pains were strong and frequent. There were no signs of the breech entering the brim. Pulse 130. Temperature normal. The vagina was cool and moist. The patient was placed under methylene by Dr. Gordon; and, in the presence of Sir William Fergusson, Mr. Spencer Wells, Drs. Brodie and Waters, and Professors Simpson of Edinburgh, Helmholtz of Stockholm, Netzel of Christiania, and Stoltz of Nancy, Dr. Grigg made an incision beginning at two inches and a half above the umbilicus, and extending to within one inch and a halt of the pubes. The various structures were carefully divided. On opening the peritoneal sac, about a pint of serous fluid escaped. The bladder reached to within an inch and a half of the umbilicus; and some care was required to avoid cutting it. The uterus was opened by an incision commencing about the middle of the body of the organ, and extending in a direct line downwards to within two inches of the external os. The fœtus, whose back was foremost, was rapidly and easily extracted, as was also the placenta removed, which was seated at the fundus and posteriorly, with only slight hæmorrhage; the uterus contracting firmly. The bleeding was not much throughout. In dividing the cervix, a large vessel was cut through, which bled for the moment freely. A continuous silken suture was placed in the uterine wound, the end being passed down through the vagina; it was not tied at either end. This was a plan recommended by Mr. Spencer Wells, and the suture was placed in by himself. The abdominal walls were brought together by interrupted silken sutures. The patient rallied, and did very well up to 2 P.M. on the following day, when she suddenly became hot and then cold; was delirious at 4.30; and died collapsed at 8.50 the same evening. She, however, kept nothing upon her stomach from the time of the operation. The child, a boy weighing over six pounds, is living.

At the *post mortem* examination, the measurements of the pelvis were verified, and were found to correspond exactly with those made out during life. The upper third of the abdominal wound had healed; the uterine wound was patulous, and the thread suture had worked out of the upper half. There were very slight signs of peritonitis in the immediate neighbourhood of the wound. The cavity of the uterus and the uterine wound were bathed with some turbid fluid which escaped externally on dividing the abdominal sutures. The abdominal wound measured four inches, and the uterus the same. The apex of the incision was three inches from the apex of the fundus, and one inch and three-fourths from the external os.

## NEWCASTLE-ON-TYNE INFIRMARY.

### REPORT OF A CASE OF LYMPHÆMIA.

By G. H. PHILIPSON, M.A., M.D.Cantab., F.R.C.P.Lond., Physician to the Infirmary, Lecturer on Medicine in the University of Durham College of Medicine.*

RALPH M., aged 40, a tobacco-pipe maker, resident in Gateshead, was entered as an out-patient at the Newcastle-upon-Tyne Infirmary, under my care, on July 9th, 1874. He stated that he had been in weak health for five years; that he had been aware of a swelling in his abdomen for two years; that, for the past six months, his breathing had been hurried; and that he had been rapidly losing strength, having suffered from epistaxis, sickness, and diarrhœa; and that for six weeks the right side of the neck had been swollen. He also complained of fleeting abdominal pains. Upon interrogation, he admitted to having had syphilis fifteen years ago, and to having led a very dissolute life. Upon examination, the abdomen was enlarged, visibly so on the left side. Upon palpation, the left hypochondrium was found to be occupied by a hard tumour, which was dull upon percussion. The dulness extended nearly to the middle line in front, and from the sixth interspace to two inches below the umbilicus. The anterior border was sharp and hard, and was distinctly notched. The tumour felt near the surface, but was unable to be moved; yet the hand could be passed behind it. Its position remained unchanged in forced inspiration and expiration. The blood was examined microscopically, and it was found that there was a considerable diminution of the red globules and an increase of the white.

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* Read before the Northumberland and Durham Medical Society.

The tumour was regarded as an enlarged spleen; the diagnosis being based upon its position, its nearness to the surface, its sharp and notched anterior border, and the ease with which the hand could be passed behind it. It was surmised that the organ was bound to the abdominal wall, which would explain its immobility.

He was advised to enter the institution, but declined. He was ordered to take iodide of potassium internally, and to rub the compound iodine ointment over the enlargement of the neck and the swelling in the abdomen. On August 2nd, he was made an in-patient. He was greatly emaciated, and very anæmic; the lips and conjunctiva were almost white, while there was a peculiar fawn or orange tint about the eyelids. The pulse was 106, and the temperature 100.4 deg. Fahr. The face and head were considerably swollen from œdema. The right leg was œdematous. The lymphatic glands on both sides of the neck, and in both axillæ and both inguinal regions, were enlarged and hard. Upon examination of the abdomen, it was found that the tumour extended fully three inches to the right of the umbilicus; upwards, as high as the sixth interspace, and downwards, within two inches of Poupart's ligament. There was distinct fluctuation in the abdomen. No *bruit* was heard upon auscultation over the tumour. The heart's impulse was visible about half an inch within the left nipple and in the nipple-line. The heart-sounds were feeble, but without murmur. Upon examination with the ophthalmoscope, it was noted that the optic discs were normal, but that the fundi were extremely pale. The urine was of specific gravity 1028, and contained albumen, but no blood-corpuscles, pus-cells, or casts of the uriniferous tubules. He was ordered a generous diet, wine, and the tincture of the perchloride of iron.

September 2nd. From time to time, he suffered from diarrhœa, which was restrained with the chalk mixture and catechu, and the compound powder of ipecacuanha. He gradually became weaker, and died on September 20th.

Necropsy, forty-five hours after death.—The peritoneum contained a small amount of clear yellow serosity. The spleen was adherent to the abdominal wall, the left lobe of the liver, and fundus of the stomach, by old and firm adhesions. The surface of the organ was slightly uneven, and indented by the ribs. It measured 12 inches in length, 9 inches in breadth, was 3 inches thick, and weighed 7½ pounds. Upon incision, it presented a mottled appearance, was reddish-brown in colour, very firm and tough, and was not impressed by the finger. Microscopical examination showed the normal elements, only they were more closely packed together. The increase appeared to be owing to proliferation of the cell-elements. The liver was not adherent to the abdominal wall; it was smooth on its surface, and, upon section, was of fair consistence, and a little pale in colour. The kidneys were enlarged; the right measured 5½ inches in length, and 3½ inches in breadth. The capsules were easily removed, the exposed surface being pale and smooth. On section, the cortical portion was increased, at places to half an inch in thickness. The suprarenal capsules were large; the right measured 2¾ inches in length, and 1½ inches in breadth. The mesenteric and lumbar glands were enlarged, the largest being fully half an inch in length. The pericardium and pleuræ contained clear yellow serosity. The heart was small and loosely contracted. The muscular tissue was pale and soft. The valves were normal. The coagula were greyish, and, when examined microscopically, were found to be composed entirely of colourless blood-cells. The lungs were emphysematous, especially at the anterior and lower borders. There was no tubercle. The bronchial glands were enlarged. The thyroid gland was not larger than usual. The glands in both axillæ, in both inguinal regions, and on both sides of the neck, were enlarged. The largest gland in the right inguinal region measured three inches in length. On section, the glands were pale, mottled, and were soft and watery-looking. The cortical substance was particularly swollen, in some to the thickness of one-half or three-quarters of an inch. The microscope showed that the increase was entirely due to an excessive formation of cells, nuclei, and granules, similar to those of the normal glands.

Remarks.—The interest of this case is the association of the enlargement of the spleen with the enlargement of the lymphatic glands, peripheral and central, and with the condition of the blood, designated leucocythæmia or leukhæmia, in which the white corpuscles are in excess. The anatomical characters of the lymphatic system, however, being so markedly predominant, the case has been recounted under the title of lymphæmia, as a more appropriate term than leucocythæmia, the latter being regarded as expressive of the condition of the blood alone, and not necessarily associated with hypertrophy of the spleen or other blood-glands. The abdominal tumour, from its immobility, if the physical signs had not been carefully interpreted, might have been regarded as an enlarged left kidney, and not an enlarged spleen, the supposition of its fixation being clearly verified at the necropsy; the tenseness of the adhesions indicating old localised inflammation of the peritoneum in the neighbourhood of the spleen.

# SELECTIONS FROM JOURNALS.

## MEDICINE.

The Pathology of Diphtheria.—In a paper in the *American Journal of Obstetrics* for February, Dr. Jacobi, says the *New York Medical Record*, differs in many essential points in his views concerning the pathology of diphtheria recently advanced by some of the more prominent writers upon the subject. He does not regard croup and diphtheria as independent diseases. Only such differences exist as prevail generally between the sporadic and epidemic forms of the same disease. The membrane is regarded as essentially an epithelial product, and the peculiar granular amorphous material, which according to Oertel and others represents the essential element in the disease, and consists of bacteria, is believed by Jacobi to consist of detritus and fat-molecules, which are the products of degeneration of the epithelial cells. The author descants with disfavour upon the enthusiasm with which the bacteria doctrine in diphtheria has been generally adopted. He says, speaking of the anatomical relations of the tissues affected in diphtheria, that diphtheria of the mucous membrane preserves, generally speaking, certain distinct characteristics in different locations. Trendelenburg found by an experiment upon a rabbit that diphtheritic matter, when transplanted from the tonsil, where it was firmly and deeply embedded in the tissue, caused by the trachea deposits which were loosely attached to the mucous membrane. Where elastic tissue abounds, as in the trachea, it is to be supposed that the resistance to a deep penetrating of the diphtheritic process will be great; in case the elastic tissue becomes involved, recovery will become difficult. The kind of epithelium which is most readily affected by the diptheritic process is the pavement. Hence, beside the prominent situation of the tonsils, the presence of this epithelium predisposes them to diphtheria. Ciliated epithelium belongs to a higher grade of organic development, and hence is less liable to be destroyed. Moreover, the muciparous follicles affect the course of the pseudo-membranes in that their secretion tends to loosen the deposit and detach it. This effect is particularly seen in the trachea and in the respiratory part of the Schneiderian membrane. The vocal cords readily afford lodgment to foreign substances, since they form the narrowest opening in the passage to the lungs. They are covered with pavement-epithelium, which is the most liable to be attacked by the diphtheritic degeneration, and they have no muciparous glands. Thus, if there be any organ predestined for diphtheria, it is the vocal cords. Where there is not poison enough for a thorough infection, there is still enough for a local deposit limited to these structures. Where diphtheria has died out as an epidemic, the stray cases with limited infecting power will be known for years or decennia as so-called sporadic membranous croup, as we would speak for a generation of an occasional case of sporadic cholera, or a stray case of variola.

Inoculation of Varicella.—Professor Steiner of Prague has lately performed inoculation of varicella in several cases, and has arrived at the following results. The experiments were undertaken in consequence of the opinion being still held by some that varicella is only a modified form of variola. 1. The contents of the varicella-vesicle are inoculable. Of ten cases of inoculation, eight were successful, and two failed. 2. After inoculating varicella, varicella and not variola was always produced. 3. In all the children that were successfully inoculated, the stage of incubation was eight days. 4. In four cases, the general health of the children remained unchanged during the period of incubation, and the eruption of varicella-vesicles appeared suddenly, without any premonitory stage. 5. In four cases, a distinct prodromal stage of four days' duration was observed; the symptoms being, rise of temperature and increased frequency of pulse, with distinct exacerbations in the evening and remissions in the morning, restless sleep, dulness, loss of appetite, and redness of the mucous membrane of the mouth and fauces. 6. The greatest rise of temperature—when it occurred—generally coincided with the eruption. 7. Defervescence was generally rapid and complete; intercurrent rises of temperature in rare cases attended the appearance of fresh vesicles. 8. Vaccination had no influence whatever on the form of the exanthem. Of the eight children successfully inoculated, five had been vaccinated, and three had not. 9. Varicella does not protect from variola. Dr. Steiner saw a child die of confluent small-pox fourteen days after an attack of varicella.—*Wiener Medizin. Wochenschrift*, April 17th.

## BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1875.

SUBSCRIPTIONS to the Association for 1875 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, MAY 8TH, 1875.

## PROVIDENT INSTITUTIONS AND HOSPITALS.

### III.—OUT-PATIENT REFORM.

WE have devoted much space to the description of the Northampton Dispensary, because it embraces in its scheme so many of the rules in force at Manchester, that it will in consequence be unnecessary to recapitulate them. Our readers must therefore remember that in the following account of the Manchester District Provident Dispensaries, we shall only detail those rules which differ from the ones in force at Northampton. It was decided to establish the Manchester Provident Dispensaries at a meeting of the representatives of the medical charities of Manchester and Salford, held at the Royal Infirmary in 1873. Since this time, we believe, six district dispensaries have been opened, each district comprising a population of not more than 30,000 persons admissible as members. The objects the founders had in view were to relieve the medical charities of improper applicants, and to make provident sick societies acceptable to the medical profession and the working classes. After much anxious consideration, although the subcommittee appointed to draft an acceptable scheme on the above basis were decidedly of opinion, that provident dispensaries ought to be self-supporting, they ultimately came to the conclusion that, until these institutions are generally known and accepted by the working classes, it will be necessary to include honorary or subscribing, as well as ordinary or free members in their formation.

With these objects in view, it has been decided to entrust the management of the whole scheme to a council consisting of (*a*) two representatives from each medical charity joining the scheme; (*b*) two representatives from each provident dispensary; and (*c*) additional members elected by the council themselves. Manchester and Salford have been divided into districts, and a provident dispensary has been, or is in process of being, established in each district, so that medical relief, upon the provident principle, will soon be placed within the reach of each member of the class eligible for membership, throughout the whole of this large area, comprising a population of nearly 400,000. The duties of the council are to assist in establishing these provident dispensaries, and to form a federation of such medical charities and provident dispensaries as may agree to be guided by the principles embodied in the scheme, viz., that no medical charity shall receive as an in or out-patient, any person residing in any district in which a provident dispensary is established, except upon the recommendation of such dispensary, unless the case is exceptionally urgent; that the existing system (ticket) of affording relief to out and home patients at hospitals and dispensaries shall be abolished; and that every member of a provident dispensary shall be entitled to hospital treatment, or to a consultation at the institution most suitable to the case, providing the medical man in attendance recommends such a course. Surely here we have a practical scheme suited to our purpose; and, if it were adopted universally throughout the country, in conjunction with other improvements which we have to suggest, the much-talked of abuse of hospitals, which continues to occupy so large a share of public attention, would be abolished for ever.

Each dispensary is managed by a committee consisting of five honorary members, five ordinary members, and two members of the medical staff. Here, as at Northampton, an annual subscription of £1 1s. or a donation of £10, constitutes a person an honorary member or governor of these dispensaries. The free members have the following additional privileges at Manchester. Any applicant may be admitted a member *when actually suffering from sickness*, upon payment of a fine of 5s., the whole family joining at the same time, and paying a month's subscription in advance; every adult male member of six months' standing, whose subscription is not in arrear, may vote at the annual meetings of the dispensary, and be eligible to serve on its committee. Another point of difference is, that the wives of members may be attended in their confinements by a medical man or a midwife on payment of a sum varying from 15s. to 7s. 6d., according to which of the two they select. There is also a wages limit, which is fixed at an average of not more than £2 per week; and every married man or woman is ineligible for admission, unless all their children under thirteen years of age join at the same time. Any sick person unable to pay the dispensary charges is referred to the Poor-law officers, or is recommended to one of the medical charities, according to the circumstances of each case. Thus it will be seen that an attempt has honestly been made by the founders of these dispensaries to combine as far as possible, in the interests of all classes, the three great systems of medical relief, as suggested by us in the first article of this series. The number of medical officers is unlimited; any medical man, qualified to practise under the Medical Act, upon applying to have his name placed upon the staff of the provident dispensary in the district in which he resides, is so placed by the committee at their next meeting, upon his undertaking to discharge the duties set forth in the rules for a year at least. No medical officer is, however, allowed to have more than 1,500 members or families on his list. No medical officer is allowed to depute an unqualified assistant to see his dispensary patients; but in "cases of necessity" he may depute a qualified man to act for him. Each medical officer is required to give three months' notice before resigning his appointment and giving up his work. Only half the gross sum subscribed by the (free) members is divided amongst the medical officers, and this amount is distributed on a similar plan to that pursued at Northampton. Members of these dispensaries have also the advantage of having the service of duly qualified dentists placed at their disposal, these gentlemen being paid according to a scale of fees approved of by the committee of management. Finally, the reports of all the dispensaries are drawn up upon a fixed plan, so that the whole work done is easily shown by the council at the end of each year, and the accounts of income and expenditure are clearly given, each item being plainly stated under its proper head. It will thus be seen that an endeavour has been made to establish a good working scheme upon an equitable basis; and while the drawbacks of the Northampton Dispensary have been guarded against or removed, many great practical improvements have been introduced. We do not for a moment think any one will be found to object seriously to the Manchester provident scheme, and we believe a few years' experience will prove how popular such institutions, when wisely governed, become with the working classes, and how large a share of hospital abuse may thus at the same time be obviated.

There is one class of dispensaries to which we must refer briefly, and it is that of those supported entirely by voluntary contributions. At these institutions the ticket system is in full force, and the patients are seen at the dispensary and their own homes by the paid medical officers, or, in some cases, by a honorary and paid staff. We have known cases in our experience where the tickets have been purchased by a subscriber, probably a small tradesman or publican, for a customer who gave him the money he expended for this purpose, and who afterwards used the ticket for himself or for a member of his family. It cannot be doubted that the system pursued at these institutions is a bad one, and that they are in consequence considerably more abused than the out-patient departments of our hospitals. We have remonstrated with patients before now, who we knew were able to pay for private medical attendance, because we found they were being attended by a dispensary surgeon, and the reply has invariably been, "If I can get attended at my own home for nothing, why should I pay for the services of a medical man?" This statement is not over-coloured, for so demoralising has our present system of medical relief become, that respectable people do not consider they are doing anything wrong, if they obtain by its means the medical assistance their cases require, for which they ought to pay just as much as for the ordinary necessaries of life. Of course it is obvious that the appointment of resident surgeon to a dispensary, especially in the provinces, is a popular one with the younger members of the profession, because, with the class of persons who come under their care, they are frequently enabled to form the basis of a good general practice. Most of these provincial dispensaries have an available income greatly in excess of their ordinary expenditure, and as a consequence, their invested property steadily increases. We refrain from quoting any special instance, though one might easily be given, as we hope the managers of these general dispensaries will bestir themselves, and either amalgamate with other medical charities in their district on some such basis as the one we have shown to be in force at Manchester, or at once take steps to insure that no improper cases are admitted into their respective institutions. It is a lamentable fact, that the profession has done so much gratuitous work of late years that the general public, we fear, consider it no disgrace to defraud the profession, by abusing the generosity which prompted us to labour gratuitously in the cause of the poor and suffering.

The above remarks are directed chiefly against the provincial dispensaries, but in London, especially in the central districts, these institutions are abused, though in a different sense. The subscribers receive a large number of tickets, which are distributed in the main amongst the very poor. The consequence is, that the tickets get into the hands of persons who really ought to be attended by the parish medical officers, and the medical men connected with these dispensaries practically do in this way a large portion of work which ought to devolve upon the poor-law officials. Most of these institutions are not justified, by the support they obtain from the general public, in endeavouring to discharge all the work they undertake, and consequently so large a share of the available funds is absorbed in medicine, appliances, and management, that the profession has again to bear the brunt, the sum set apart for the remuneration of the medical staff being most inadequate. The physicians and surgeons receive no payment whatever, and the resident medical officer is paid, comparatively speaking, so nominal a sum, that he is scarcely able to support himself upon it during his tenure of office. No doubt the reason why so many of the poor flock to these dispensaries is, because they consider the advice they receive at them far superior to that they are likely to obtain by means of the poor-law system. This idea arises, no doubt, from their knowledge, that many of the honorary staff of the London hospitals are connected with these dispensaries. The resident medical officers are, as a rule, selected from the pick of the London schools, as many gentlemen willingly take these appointments when first qualified, to enable them to live in London, and to read for their M.B. and F.R.C.S. examinations, and also because they at the same time obtain an insight into some of the details of private practice. We mention this fact, because we wish to do full justice to all concerned, and at the same time to urge the managers of these institutions to try to devise some means by which the poor-law cases may be relegated to their proper medical attendant, and a fair remunerative salary secured to a most deserving class of young professional men. If this be done, we hope that the committee of the Hospital Sunday Fund will devote a large share of the sum placed at their disposal to these dispensaries.

Returning for a moment to the provident institutions, we submit the following table, which shows at a glance the average amount of work done by, and the average payments made to, the medical staff of the fourteen provident dispensaries which existed in London at the early part of 1873, and during each of the years 1870, 1871, and 1872, as compared with the Northampton Dispensary in 1873, an exceptionally bad year, in point of numbers and payments, for the latter institution.

| Name. | Amount paid to Medical Staff. | No. of Medical Staff. | Patients seen. |
|---|---|---|---|
| Fourteen Provident Dispensaries in the Metropolis ......... | £2,023 16 0 ...... | 50 ......... | 100,000 |
| Northampton Dispensary ............... | 1,507 14 5 ...... | 3 ......... | 46,101 |

An accurate comparison of the amount of work done by upwards of fifty medical men in the metropolis, and the remuneration they receive, as compared with that done in a small provincial town by three members of the profession, and their payment, is here easily made. We think comment on our part is almost unnecessary; and, if tempted to dwell at length on the facts here brought to light, want of space compels us to abstain from so profitable a study—at any rate, for the present. Let our readers, therefore, draw their own conclusions from the accurate and reliable data we have obtained, at considerable trouble, for the benefit of the profession and the public at large.

## MR. SIMON'S REPORT.*

THE volume which we now have under notice is one which we are sure will be received with pleasure by the medical profession, for it to some extent fills a blank which there has been for the last year or two in the world-famed reports of Mr. Simon, the Medical Officer of the Privy Council and Local Government Board. These yearly reports have been, by comparison with what they were before the change of the central authority for sanitary matters, of the most meagre description, forming but a small portion of a portentous volume given up mostly to figures relating to paupers, and to matters which have not a general interest, nor convey such instructive lessons as were to be learnt from the medical officer's annual reports of the old style. Latterly, this so-called report has consisted of a few pages recording, like the rest of the volume, not the experiences gained in the year, not the new lights thrown upon sanitary science by the investigations undertaken, but the mere fact that such inquiries have been undertaken. The withdrawal of this very useful and much sought for information, was a source of great regret to that section of the medical profession which takes an especial interest in sanitary work, and a great loss to the cause of public health. The publication of this supplementary report on some recent inquiries under the Public Health Act, 1858, will be read with interest by all who are engaged in promoting the public health, and in striving to amend the deplorable state of a large part of this country in regard of all that relates to health.

In our present notice, we cannot do more than give a general outline of the contents of this interesting report, which, is a fulfilment of a sort of promise, made in the last annual report of Mr. Simon, that he would give, separately, particulars of some of the recently made investigations which possessed more than the ordinary amount of sanitary interest; especially on three outbreaks of enteric fever which had formed the subject of special inquiry, and which proved very instructive. But, besides these three inquiries, there were two others undertaken, also of special interest; so that the appendix to the supplementary reports contains, *in extenso*, five reports on outbreaks of enteric fever. They are as follows:

1. Report by Dr. Blaxall on an outbreak of enteric fever in the town of Sherborne.

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* Report of the Medical Officer of the Privy Council and Local Government Board. New Series. No. II.

2. Report by Dr. Buchanan on an outbreak of enteric fever in Caius College, Cambridge.

3. Report by Dr. Ballard on an outbreak of enteric fever at Armley, in the borough of Leeds.

4. Report (also by Dr. Ballard) on an outbreak of enteric fever at Moseley and Balsall Heath, near Birmingham; and

5. Report by Mr. J. Netten Radcliffe and Mr. W. H. Power on an outbreak of enteric fever in Marylebone and the adjoining parts of London.

Of the above reports, three have already received public notice. One is the report by Dr. Buchanan as to the fever at Caius College, Cambridge, which, it was found, had been caused by the drawing of foul air from the water-closets into the service-mains, the fittings being for constant service, while the supply was at times intermittent. Another is the report by Dr. Ballard on the fever epidemic at Armley, where the fever first attacked a dairyman, and then spread to a large number of his customers. His well was found to be extensively contaminated with sewage. And the third, also by Dr. Ballard, is a report on an outbreak of fever, originating, like the last, at a dairyman's; where, by means of the water being forced by soakage from the privy into which the fever-evacuations were thrown, the fever was conveyed to the customers. The remaining two reports are of such special interest that they merit a more particular notice, which we shall bestow upon them at a future date.

The appendix contains, in a tabular form, 143 illustrations from inspectors' reports of results of inquires made locally with reference to outbreaks of zymotic disease; and in all, or nearly all, of these cases, there was enteric fever, either by itself or accompanied with other filth-engendered diseases, such as diarrhœa and typhus; also, in a few cases, there were inquiries as to measles and small-pox. In most of the cases, the prevalence was due to neglect on the part of the sanitary authority; no drains at all, or, what there were, disgracefully foul; polluted water, or none at all; excrement-polluted, saturated soil; soakage from cesspools into wells; while foul privies and middens appear largely as causes of the epidemics inquired into. We must, however, notice the description given (in 1870) of the sanitary state of Tredegar in the Bedwellty Union, viz., much overcrowding and very ill-constructed houses, imperfect sewerage, ill-kept privies and sewers, with insufficient water-supply. This being the description of the sanitary state of this place, it cannot be a matter of surprise that there should have been a severe epidemic of fever. The number of cases are said to be probably not less than 1,200 during twelve months.

There is one other report in this volume which is also worthy of a separate notice; and so we will content ourselves for the present with merely giving its title, "A report by Mr. J. Netten Radcliffe, on certain means of preventing excrement-nuisances in towns and villages". This is a matter of such general interest that we shall, at a future date, give a brief account of its most prominent features.

## COMMITTAL OF A MEDICAL MAN FOR NEGLECT.

A SHORT *résumé* of this case was given in our last number. In reverting to it, we have no intention of making any comment upon the evidence; our only object is to lay before the members of the Association a few abstracts of the evidence given by the three medical men summoned by the prosecution, in order that some of our members may be enabled to form an opinion of the kind of evidence they may expect some day to be brought under judgment by their professional brethren, should they ever have the misfortune to be placed in a similar position. We think the evidence of medical men in local actions cannot be too widely known, if the dignity and honour of the profession are to be maintained and its status raised. We regret to see a growing tendency on the part of professional men to appear in the witness-box and give testimony against their medical brethren. It is not long since we had an opportunity, in a trial that excited some interest at the time, of becoming painfully acquainted with the animus that seemed to prevail with some of the prominent witnesses, and the freedom with which they expressed their views to the general and necessarily ignorant public. "A house divided against itself cannot stand", nor can a profession be an exception to the universal law. We do not wish it to be thought that we are deprecating the evidence given in this particular case; for, as the case is *sub judice*, it would be, at this moment, out of place. We may perhaps, in passing, be allowed to remark that we think it as well that those medical men, who take upon themselves the invidious task of giving evidence against their brethren, should endeavour to realise how important it is not to allow any hasty or preconceived views to guide them when giving scientific testimony. Should they have had no opportunity in practice of seeing cases bearing on the subject, it would be perhaps better in many cases to decline to say anything about it; or, if that be not possible, in the space of time allowed them before coming into court, to make themselves thoroughly acquainted with the literature on the subject, as many times the views enunciated must, we fear, on calm reflection, have caused deep regret.

The first medical man who was examined was Dr. Lowe of Lincoln, who had made the necropsy. In the course of his evidence, the following are a few of the more important statements he made. "I have no hesitation in saying the rupture of the uterus was the immediate cause of death." (The woman had profuse *ante partum* hæmorrhage before delivery was attempted.) "I consider it the result of force at the time; it was not the result of natural labour. If that rupture had existed previously to delivery, the medical man would have discovered it on examination. In my opinion, from the rupture and from the hæmorrhage which had taken place previously to the delivery, Mrs. W.'s life might have been prolonged, but not saved. The rupture did not exist previously to delivery." One of the complaints was, that Mr. Wood made no examination after delivery, and only stayed by his patient for fifteen or twenty minutes. There was no hæmorrhage after delivery, and the patient did not collapse until about two hours after labour terminated; the nurse had, in fact, gone home, as she considered the patient was "not worse than women are under such circumstances". In cross-examination, Dr. Lowe said:—"It is a case of accidental hæmorrhage; one that is caused by the partial displacement of the placenta from the uterus, and that might be caused by accident in several ways." The position of the placental site was not stated. "I consider the rupture took place during the delivery. It was previously stated to be after. The operator might feel it, but have no sign. I should expect collapse to occur shortly after: in a few minutes. The symptoms of collapse would not be so marked in a woman in a low and weak state as in a strong and healthy woman. There would be nothing to call Mr. Wood's attention to the fact, that there was a rupture, only her low and weak state, as described by the women. The proper treatment would have been to treat her for collapse." Re-examined:—"A rupture would not be more likely to take place on account of previous hæmorrhage?" "No." Dr. Morris deposed that he concurred in all that Dr. Lowe had stated in his cross-examination. Mr. Sympson of Lincoln said, in cross-examination, that "the loss of blood and the rupture would inevitably cause death. The delivery was completed in a shorter time (ten minutes) than he should have expected to find, and with less pain." The women present had previously stated that the pain was slight and the force not great. "The shock to the nervous system would be greater than where delivery had been longer or pains greater." Re-examined:—"If rupture had existed before delivery, in all probability there would have been symptoms to show the fact, although there are exceptions." The reporter remarked, in conclusion, that the case was got up with efficiency, and that Dr. Lowe gave his important testimony with remarkable clearness and great ability.

In conclusion, we would only repeat our former remark, that it is important that medical men, before getting into the witness-box, should endeavour to make themselves accurately acquainted with the subject upon which they give evidence. We shall look forward to the evidence at the trial with deep interest.

The *soirée* of the Pharmaceutical Society at the South Kensington Museum, is fixed for Wednesday evening, May 19th.

Next Wednesday is Presentation Day at the University of London. The ceremony takes place at 2 P.M.

The distribution of prizes at the medical school of University College is appointed for Friday, May 14th, at 3 P.M. Dr. Storrar is to preside.

Dr. Sedgwick Saunders, the able Medical Officer of Health for the City of London, late Chairman of the Guildhall Library Committee, under whose auspices the building was opened to the public, has been presented with testimonials in recognition of this event at a numerous meeting of Aldermen and Common Councilmen and other gentlemen, held at the Mansion House, under the presidency of the Lord Mayor.

The annual dinner of the Pharmaceutical Society of Great Britain will take place at Willis's Rooms on May 18th. This is an occasion on which civilities are commonly exchanged between some leading members of the pharmaceutical and medical professions. Pharmacists have a shrewd eye to business; and they are a mixed class in education, as in aspiration. With many, pharmacy as a trade quite swallows up pharmacy as a profession; but the general influence of this Society has been admirable in raising the standard of education, and in promoting the adoption of satisfactory relations between pharmacists and physicians.

Some eminent naturalists and physiologists, including Mr. Darwin, Professor Huxley, and others, have been in communication with members of both Houses of Parliament to arrange the terms of a Bill which would prevent any unnecessary cruelties or abuse in experiments made on living animals for the purposes of scientific discovery. It is understood that these negotiations have been successful, and that the Bill is likely to be taken in charge by Lord Cardwell in the House of Lords, and by Dr. Lyon Playfair in the House of Commons.

Meantime Lord Henniker has brought into the House of Lords Mr. Hutton's Bill, which is in the main prohibitive of experiment and destructive of physiological research; and the Society for the Prevention of Cruelty to Animals have framed another, which is less objectionable in some respects, but still clumsy and mischievous. At a discussion on Wednesday in the Society's rooms, at which Dr. Burdon Sanderson,f Dr. Quain, Dr. Fothergill, and Dr. Pye-Smith were present, some o the principal defects of the Society's proposed Bill were pointed out, and the objections expressed were entertained with consideration.

We have received the first two volumes of what is to be an Anglo-American translation of Ziemssen's new *Cyclopædia of Medicine*. The whole is to consist of fifteen large octavo volumes. The translation appears to be mainly an American undertaking, and the sale in this country is to be by subscription through the agency of an American physician, Dr. Palmer, who brings introductions from well-known physicians of New York. The London publishers are Sampson Low and Co.

The discussion at the Pathological Society on Tuesday evening did not pursue the expected course. Some of those who were most naturally expected did not appear. Among these was Mr. Simon, who has himself studied the subject under discussion, and has been the cause of its being studied by others, but he was not present as anticipated. Neither did Dr. Lionel Beale make a sign. The honours of the evening were with Dr. Murchison and Dr. Charlton Bastian, who were practically each on the same side. Dr. Bastian's reply was very vigorous; he seemed to have so strong a conviction that he had altogether the best of the argument, that the audience were impressed with a sympathetic feeling of assent.

At the recent primary or anatomical and physiological examination for the diploma of membership of the Royal College of Surgeons of England, fifty-six out of the hundred and seventy-six candidates were "plucked". From one large school, fourteen were referred to their studies, and some of the smaller schools were no better off. This is a matter which concerns both teachers and students. There is, we imagine, not much to be said against the trustworthiness of the examinations at the College as tests; for a great deal of pains has been expended in bringing these examinations into more complete harmony with the modern methods of teaching and subjects of instruction. The badness of the examinations was at one time the common explanation of the defects of the candidates. They would pass a modern style of examination, it was alleged, but could not be expected to retail eighteenth century knowledge to octogenarian examiners in the nineteenth. Hitting high seems, however, to be even more painful than the old method of hitting low. The probable inference is, that there are too many tender places in the examined.

The annual returns of the year's rejections may be expected in July, and will show the rate of mortality at these examinations, classified according to schools, provincial and metropolitan. When we suggested the preparation, and official publication, of these returns, we had in our minds the power which teachers possess of preventing incompetent students from presenting themselves for examination at the College, by the simple process of drawing the pen through the words "to our satisfaction" in the blank forms furnished by the College of Surgeons, and which each student must present, signed by his teachers, before he is admitted to examination. In a well regulated school, no student can get his schedule signed by the lecturers until it is previously initialed by the dean of the school; and no dean should initial the schedule for signature until he knows that the student, having been examined by the tutor of the school, or by the teachers of the required classes, has satisfied them of the *bonâ fide* character of his study during the session, and that he has really attained the minimum of knowledge which will fit him to obtain at Lincoln's Inn Fields. Raw recruits should not be started on a march, in face of the enemy, till they have mastered the goose-step. Listening to the drill-master is not the same thing as going through the drill.

We publish in another column the names of those who passed the M.D. examination at the University of St. Andrew's on April 21st and 22nd. We have received, also, the questions for the first day—an eight hours' examination. They are very good practical questions, having a wide range in medicine, surgery, and obstetrics. The second day was devoted to a *vivâ voce* examination. Dr. Barclay and Professor Humphry attended as visitors from the General Medical Council. Of the eight examiners, six were Edinburgh men. This examination is by no means perfunctory, as is sometimes hinted, but we believe it to be a very sound and real test of knowledge.

This list of ten new M.D.s by examination will prove interesting to many of our correspondents who have been taking part in the discussion of "medical titles" lately in our columns. A very able correspondent, in reviewing that discussion, writes to propose a skeleton scheme, such as the following, which, he thinks, might solve the difficulties of both sides.

1. Annul the power of the existing Boards and Universities to grant medical and surgical qualifications. 2. Do not interfere with the Schools as teaching centres. 3. Let Government appoint a representative Board of Examiners in a manner whose details may be left for further consideration (say one Examiner, for instance, from each of the present Boards). 4. Make three standards—(*a*) for general practitioner, corresponding with the present L.R.C.P. and L.R.C.S. of Edinburgh, or the M.R.C.S. and L.S.A. of England, or the L.K.Q.C.P.S. of Ireland. Such men should have an ordinary and reasonable preliminary examination in general subjects, and they might proceed to examination after medical study of three winters and two

summers. They must be doubly qualified. (*b*) For pure physicians, M.D. Holders must have degree in Arts, or have passed an equivalent examination, such as the London Matriculation. The professional study should be like that for London, Edinburgh, Oxford, or Cambridge. I should make this come up to the present London University standard. (*c*) For pure surgeons, C.M., Chirurgiæ Magister. The examination should be precisely as for M.D., but greater stress should be laid on surgery. A degree in Arts, or its equivalent, should be necessary. The M.D. only should be 'Doctor, C.M. only Surgeon So and So; the general practitioner should be Mr. So and So. 5. The Examining Board should hold examinations at stated times in all places where qualifications are now granted. This would obviate the objection of "too great centralisation".

To carry such a measure would, we imagine, be hopeless at present. But we shall be glad to allow our able correspondent to develope his views at greater length presently, and explain his special grounds for each of his recommendations. There is no such thing as an insoluble difficulty in politics, although there are a good many impracticable politicians.

MR. WHEELHOUSE informs us that the report to which we last week referred, that he entertains an idea of candidature at this time for the College of Surgeons, is without foundation. The idea of such candidature has not crossed his mind, and, if further provincial representation in the Council were generally thought advisable, there are, he says, many Fellows in the provinces who have a far stronger claim to be preferred to a seat in the Council. Mr. Wheelhouse's disclaimer is unequivocal: the idea of his candidature must, therefore, have originated in a quite independent, and, we presume from the channel through which it reached us, a metropolitan circle.

### SUICIDES.

THE newspapers contain an account of a melancholy suicide of an officer at the Euston Hotel. A brother officer stated that the deceased had served in India, and, since his return from that country in September last, had been much depressed, saying that he was quite unfit for the service. He had shown strong suicidal tendencies, and his death was no surprise. Can anything be more lamentable than this? Although this unfortunate officer's condition is perfectly known, he is allowed to go at large without care or treatment, till he puts an end to himself; and this kind of thing we read almost daily. Surely the Commissioners in Lunacy ought to have the power, if they have it not, of calling to account those who may be responsible for letting lunatics commit suicide and homicide, as well as others who illegally detain persons who are insane.

### THE ALTERNATIVE SITES AT HAMPSTEAD.

THE permanent Committee of residents at Hampstead have offered the Managers of the Metropolitan Asylums Board a third alternative site for the purpose of erecting a contagious hospital. It is contended that this site is cheaper, more completely isolated from inhabited dwellings, and otherwise as eligible as the present site. That the offered site is cheaper and more completely isolated cannot, we think, be denied; but the objections which we have formerly urged against Mill Lane sites apply almost equally to this third alternative site; to wit, its proximity to two railways and a main shunt. As a writer in a daily paper says, "Are not the patients to be considered? Is their ultimate recovery of no importance? Are their lives of no value? Is their peace and comfort to be absolutely ignored? Why should the present quiet and well-considered site be given up, and another fixed upon in close proximity to two railways—a site abutting on a vast coal-siding, with the constant screeching of whistles, concussion of waggons, detonation of fog-signals, rumbling of trains all the long day and still longer night. We know that residents living near to lines of railways get used in time to all the noises consequent on railway traffic; but with fever-patients there is no time; absolute tranquillity is paramount; and I contend that, in building on the proposed site, patients will not have ten minutes' intervals of quietude during the day, and will be subjected to incessant disturbance during the night." This proximity of the railways, and especially of the main shunt, we consider to be a fatal objection to the adoption of the offered site. Another and we think strong objection to the now offered site is its great distance from the district which, in the event of an epidemic, would supply the greatest number of patients: a circumstance which would not only be injurious to the patients, but which would tend to hinder their being sent to the hospital, poor people not liking to send their relatives to hospitals far away from their homes, to places which, by reason of their poverty, they cannot visit. It may be replied to this, that access to Mill Lane is easy by railway; and that fares are cheap; which, as regards some people and their incomes, may be true; but there are many poor people who can no more spare sixpence than a thousand pounds. The result of having a hospital at too great a distance from the homes of those whom it is intended to benefit is, that many cases are detained at home which ought to be sent to hospital, often with bad results to themselves, and most certainly with bad results to their neighbours. We hope the Managers of the Metropolitan Asylums Board will not give way to an unreasonable and groundless agitation, which, if successful, will interfere with and obstruct all their future proceedings, and be an encouragement to every knot of self-interested individuals throughout the country. What the Hampstead Committee have been often challenged to do, but have never done, is to produce competent medical testimony that the erection of a hospital for the treatment of infectious diseases on the present site would endanger the lives of the inhabitants in its proximity. Until they do this—in other words, until they show that their opposition is based on real grounds—we do not think their case deserves serious consideration. As so much has been said of the danger to pedestrians in Haverstock Hill and the Fleet Road from passing the proposed hospital, it would be interesting to know how many of the many thousands who have passed the London Fever Hospital, on their way to Moody and Sankey's services, have contracted fever. As far as the Registrar-General's returns go, there appears to be no increase.

### THE GRESHAM LECTURES.

HAS the age for Latin lectures passed away? This question has been discussed from time to time at our Universities, and the conclusion is ever the same: that Latin, having ceased to be the common language of scientific men, must be replaced by a living tongue. Candidates for the degree of M.D. are no longer required to write a Latin thesis. The directions on our prescriptions are written in English; and even the Harveian Oration has, for several years, been delivered in English before the Fellows of the Royal College of Physicians, nor have we ever heard any regret expressed at the change. There is, however, another Foundation in London, of like antiquity, in which the Latin lectures (very properly ordained by the Founder as suited to the requirements of the learned who, in the days of "Good Queen Bess", flocked to London from all parts of Europe) are still delivered if an audience be found to listen to them. Audiences have not, however, very often been drawn together; and this fact alone might have suggested their discontinuance to the authorities of Gresham College. The Head Master of Christ's Hospital, in a very sensible letter to the *Times* a few days ago, conclusively shows that the maintenance of this "solemn comedy", the perfunctory delivery of Latin addresses to empty benches, can only tend to cast discredit on a valuable foundation. As regards the English lectures on physic, the present professor, Dr. Symes Thompson, has delivered a series of lectures on health preservation and on popular physiology (many of which have been published) to regular and appreciative audiences, numbering from one to three hundred; and there can be no doubt that the English lectures are of real service in the direction intended by Sir Thomas Gresham, although it would be a disappointment to him to find that what he intended to make the University of London is merely a College for the delivery of lectures. So far, however, as the Latin lectures are concerned, the sooner they are discontinued the better will it be for the reputation of the College.

### AGRICULTURAL DIETARY.

THE question as to what proper feeding really is, came before a bench of magistrates a few days ago, in a case of supposed breach of contract, for not supplying a boy labourer on a farm with proper and sufficient food. There was no evidence that the quantity was actually inadequate, and the case turned upon the nature of the food supplied. The lad admitted that porridge was provided for breakfast; bread, cheese, butter, treacle, bacon, and potatoes for dinner and tea; and the defendant, his wife, and servants declared that the boy had plenty to eat, and that he dined with them. Without indulging in absolute luxuries, the bucolic family regaled themselves on bacon, ham, or flesh-meat and pudding at least twice a week, and it was sworn that the dissatisfied youth had never missed having flesh-meat on Sunday, except once, when he was ill, and then he consented to put up with bread and new milk. To exemplify the usual fare, the last Sunday's dinner was stated to have consisted of boiled beef and rice pudding, while pork formed the *pièce de resistance* of the previous Sunday. It cannot be maintained that the complainant would be likely to suffer in health from either the character of the food or the want of variety, and, except in these days of unexampled prosperity in certain industries, such food might be held to fairly represent a liberal dietary for an agricultural labourer. Far better than the average diet of the Spitalfields weaver, the Manchester operative, or even than the models of specimen and proposed dietaries for the working classes put forward by the late Dr. Edward Smith, at the desire of the Poor-law Board, what could be the true nature of the complaint against the food provided? The reply of the lad to this query was so mysterious, that we fear the late inspector of the dietaries of the working classes never fully fathomed the more recondite depths of their most essential requirements. Nowhere in the voluminous reports upon the subject can we find any mention of the stomachic use of a basin full of "*pobs*" for breakfast, or of the dietetic necessity of "a good supply of *bagging* to take into the fields" for tiffin. Yet for the omission of these and other delicacies, specified in similarly incomprehensible terms, William Robinson, farmer of Crowton, was condemned to pay his own costs.

### FRIENDLY SOCIETIES' MEDICAL OFFICERS.

A MEETING of representatives of various friendly societies, representing about one thousand members, was recently held at Eckington, "for the purpose of placing the question of medical attendance on a more satisfactory basis". The object of the meeting was to consider the desirability of making a change in the present system. Several of the speakers thought that, considering the growth of friendly societies, and the large number of members in the district, it would be to their mutual advantage to obtain the services of a medical man of their own, rather than submit to many real and supposed grievances under the present system. Resolutions in accordance with the above were unanimously passed, and the meeting was adjourned till the 1st of June.

### THE CHOLERA IN INDIA.

WE regret to see a sad account of the reappearance of cholera in a part of India, where, during the last seven years, it has proved fatal to a large proportion of the population. Official returns show that 352,727 have fallen victims to the disease in that period. We fear the epidemic is only commencing, April being the beginning of the worst season of the year for cholera in the north-west provinces and Oudh. The sanitary commissioner with the Government of India, Dr. Cunningham, was congratulating himself on the disappearance of the disease, which was absent in 1874, and this he considered proof of its non-contagious character. It is to be hoped that the precautions which must now be taken by the Indian Government will not be guided by theoretical views of non-contagion, which have been condemned by all the other sanitary commissioners, and by the conference which assembled at Vienna last year. Any measures except those guided by the principle of contagion, or communicability from the sick to the healthy, will prove futile; and even these will be unable, in an open thickly populated country, to prevent a lamentable mortality. But much may be done by isolating the infected in suitable buildings with proper attendants, and avoiding unnecessary communication with the affected, by disinfectants, and by very guarded attention to the supply of water. The overcrowding of trains, which is so common in India, should be guarded against, and no one suffering from the active symptoms of the disease should be allowed to enter the trains; and a temporary cholera hospital should be in readiness to receive the affected. The transmission of cholera by rail was observed in 1867, during the Hurdwar epidemic. It is to be hoped some useful experience will be gained on this point, as it would prove valuable during the next epidemic in Europe.

### THE DEATH FROM ETHER AT MANCHESTER.

DR. EDGAR BARNES of Eye, Suffolk, writes to us as follows.

I notice in your last number a death from the administration of ether, and to my mind the account you publish concludes with a sentence pregnant with warning. "The ether used was Robbins's ether for local anæsthesia." The ether recommended by Mr. Haward of St. George's, and by those who have had most experience in its use, is methylated sulphuric ether of specific gravity .720. Robbins's ether is vaunted as being a compound ether of low specific gravity and boiling point, and is expressly made for producing local anæsthesia. Now, in this ether, when inhaled, I can well imagine we have elements of danger. Having some in my possession, I took its specific gravity, and found it .622, and, on comparing it with some of the ether I have mentioned, it was evidently far more volatile; in fact, though analogous to sulphuric ether, it is by no means the same compound, but we have instead a light compound ether, extremely volatile and diffusible, inhaled "more quickly than usual" by a patient who has some months before shown dangerous symptoms under chloroform. I hope it will be understood that I make these remarks in no hypercritical sense, but that my sole desire is to profit by the experience of others, and, if possible, to suggest the cause of so unfortunate an accident as a means of enabling others, and myself amongst the number, to avoid the danger into which Dr. Hardie has unwittingly fallen. I am far from asserting that any anæsthetic is or can be absolutely safe; but, in my humble opinion, sulphuric ether is the safest we possess.

### UNIVERSITY OF LONDON.

THE following gentlemen have been appointed examiners for degrees in medicine. Those marked * are new examiners. *Practice of Medicine*, Wilson Fox, M.D., B.A., F.R.S., and *Charles Murchison, M.D., LL.D., F.R.S.; *Surgery*, John Marshall, Esq., F.R.S., and W. S. Savory, M.B., F.R.S.; *Anatomy*, G. W. Callender, Esq., F.R.S., and G. Viner Ellis, Esq., F.R.C.S.; *Physiology, Comparative Anatomy, and Zoology*, *George J. Allman, M.D., LL.D., F.R.S., and William Rutherford, M.D., F.R.S.E.; *Obstetric Medicine*, J. Hall Davis, M.D., and W. S. Playfair, M.D.; *Materia Medica and Pharmaceutical Chemistry*, T. Lauder Brunton, M.D., D.Sc., F.R.S., and *Sydney Ringer, M.D.; *Forensic Medicine*, Arthur Gamgee, M.D., F.R.S., and Henry Maudsley, M.D.

### THE LEVÉE.

THE following members of the medical profession had the honour of presentation at the levée held by His Royal Highness the Prince of Wales on behalf of Her Majesty, on Monday week: Mr. C. C. Aldred, surgeon Norfolk Militia Artillery, by Lord Suffield; Surgeon-major W. Eddowes, Bengal Army, by the Secretary of State for India; Mr. J. Hamilton, surgeon in ordinary to the Queen in Ireland, by the Lord Chamberlain; Surgeon-major J. J. Henry, by the Adjutant-General; Assistant Surgeon Kiernan, 1st West York Yeomanry Cavalry, by Colonel Harvey, C.B.; Dr. Arthur E. T. Longhurst, 60th Royal Rifles, by H.R.H. the Duke of Cambridge; Surgeon-Major Landale, M.D., 3rd Dragoon Guards, by Colonel Sayer, C.B.; Surgeon A. R. Martin, West Kent Yeomanry Cavalry, by the Earl of Darnley; Surgeon Charles W. Owen, R.N., A.V., by the First Lord of the Admiralty; Dr. F. W. Pavy, by the Right Hon. R. Lowe; Surgeon-Major C. C. Piper, and Surgeon-Major R. K. Prendergast, by the Adjutant-General; Dr. Charles J. B. Williams, on appointment as Physician Extraordinary to Her Majesty, by the Lord Chamberlain.

### VOTING AT THE MEDICAL BENEVOLENT COLLEGE.

A DEPUTATION of governors and subscribers attended, by appointment, a meeting of the Council of the Medical Benevolent College on Wednesday afternoon, to present a memorial with 1342 signatures attached to it, setting forth the abuses of the present voting system, and protesting against the resolution already passed by the Council to the effect—"That the names of such governors as shall signify to the secretary in writing their objection to be canvassed be placed in the catalogue on a separate list." We have already stated our objections to this resolution of the Council, and exposed its fallacies. Its aim is, as set forth in the memorial, "to relieve those who object to be canvassed", and, to a certain extent, may accomplish this object; but, at the same time, while it only relieves those who are perfectly well able to help themselves, it leaves the candidates exposed to the wear and tear, to the expense, and, as regards a large proportion who never succeed, to the eventual increased disappointment and loss arising out of the system of canvassing. After all, it does not propose to deal with the great evils to which the memorial is designed to draw attention; namely, the expense, the harassing anxieties, and the waste of valuable time inflicted upon the whole of the long lists of candidates by the necessity of canvassing for the benefits to be conferred upon a few. In the present instance, there are forty-one candidates for four vacancies, and very many amongst them, after striving at a considerable outlay of money for five and six years, must retire from having passed the limit of age. But the most serious objection to the present system, as we have before pointed out, is, that it furnishes no criterion of the comparative necessities and qualifications of the candidates (necessities and qualifications which vary widely); but, on the contrary, that it enables those who have the wealthiest and most influential friends to succeed, to the detriment of the most helpless and friendless. It appears to ourselves, as it may to most thinking men, that the only possible remedy for this is, that the cases of all the candidates should be investigated and classified, as they already are in several other charities, and that canvassing be no longer permitted. The solution of this important question we commend to the consideration of the Council; but whether the memorial will receive the attention it deserves from this body is a matter of doubt; that is, if we may judge from the curt way in which it was dismissed by the Chairman, who seemed, we are told, to be anxious to bow it out after listening to the arguments adduced by the spokesman of the deputation.

### THE FIRST LONDON DISPENSARIES.

UNDER this title, the current number of *Fraser's Magazine* contains an interesting article explaining how the earliest dispensaries in the metropolis were set on foot by the College of Physicians about a hundred and eighty years ago. In tracing the steps which led to their formation, the writer has brought together many curious details concerning the practice of medicine in those days, and the rivalries of the physicians and apothecaries. The paper concludes with the expression of a wish that the College which was so ready to assist the sick poor in the reign of William and Mary, would exercise a little influence upon our modern medical charities—a wish in which we entirely concur.

### THE PUBLIC HEALTH BILL.

A MEETING of the Council of the Society of Medical Officers of Health was held on Tuesday last for the purpose of considering this Bill and the amendments which were necessary in order to fit it to meet the sanitary requirements of the country. A large number of amendments were considered, most of them suggested by the standing Committee of the Medical Officers of Health for combined districts, including the subjects of water-supply, sewerage, the abatement of nuisances, arrest of infectious disease, and organisation of rural districts. A feeling was, however, expressed that, looking at the value which the Public Health Bill, even in its present imperfect shape, unquestionably possesses as a consolidation of existing law, and as a basis for further legislation, and also at the possibility of its being so delayed that it could not pass during the present session if amendments involving much discussion were proposed, it was undesirable to press such amendments if the Government could be got to promise the institution of a comprehensive inquiry at the earliest possible opportunity with the view to further legislation during the ensuing session of Parliament. The urgent need for such legislation, especially in rural districts, was strongly dwelt on at the meeting, and the hope was generally indulged that the President of the Local Government Board, who has hitherto shown every willingness to consider any suggestions which have been placed before him, would adopt the course in question, which would greatly strengthen the hands of the Government, not only in passing the present Bill, but in preparing for future legislation.

### A NEW DANGER FROM SEWER-GAS.

LATE in the evening on the 1st instant, a violent explosion occurred in the Market Place at Leicester, which is described to have knocked down a number of persons who were passing at the time, but who fortunately escaped without more serious injury than a severe shaking. The explosion occurred close to a sewer-grating, and its cause is assigned to the accidental ignition of sewer-gas which was there escaping. The explosion appears to have done much damage along the course of the sewer, as, twenty feet from the supposed origin of the explosion, a granite kerbstone weighing three hundred weight was "hurled for some distance"; while, at a distance of forty yards, a "number of flagstones were upheaved as by an earthquake". Unless it should turn out that this explosion was caused by an escape of coal-gas from the main into the sewer, an additional powerful argument has been afforded by this explosion in favour of a better system of sewer-ventilation. A few explosions such as that which has recently occurred at Leicester, will probably conduce more to this desirable end than unnumbered reports of health-officers calling attention to the insidious nature of the poison which is admitted into many houses in the form of sewer-gas through the imperfect ventilation of our sewers.

### OBSTETRICAL SOCIETY OF LONDON.

THE discussion on the Relation of Puerperal Fever to the Infective Diseases and Pyæmia, opened by Mr. Spencer Wells, at the previous meeting of the Society, was resumed on Wednesday evening last. To judge by the attendance of fellows, the interest manifested was very great, the majority of the leading obstetricians being present, and the remarks from the various speakers being listened to with evident satisfaction. A letter from Dr. J. Matthews Duncan, dealing more fully with the subject of the proper conduct of midwifery practitioners in avoiding disaster to patients from puerperal infection, was read. The charge of homicide by infection he regarded as a new one in the history of law, and in the present state of science and practice not substantiated. In ordinary circumstances, he regarded giving up practice for a time, with a view to preventing the spread of puerperal fever, as unnecessary. In nearly thirty years of obstetric experience, in private, in hospital, and in consultation practice, he had not, as a precaution, given up work for a single day. The grand precautionary measures for obstetric practitioners to adopt were; 1, avoidence of the duties of nurses; 2, avoidance of using the hands in *post mortem* investigation; 3, antiseptic cleanliness of the hands and of the dress. The difficulties of determining the proper conduct of obstetricians were not to be solved by officious coroners foolishly sending threatening messages to practitioners, nor by judges giving decisions without due consideration; but by discussion in such a society as the Obstetrical, and by matured professional opinion. Dr. Barnes, on opening the adjourned discussion, remarked that he had listened to the letter of Dr. Duncan with considerable satisfaction. If prosecutions went on, it would not be safe to practise. Respecting puerperal fever, he thought the cases might be divided into two great classes: 1, Heterogenetic; and 2, Autogenetic. If the excretory organs were in a good state, the patient might resist the effects and throw it off. Mr. Squire thought it was an error to call every case of disease in the lying-in woman puerperal fever. Dr. Brunton thought that, if the poison of infectious diseases were so powerful in producing puerperal fever, it was curious he had not seen it in his own practice. He had before now attended patients in their labours where children were lying ill in the room with scarlet fever, and the parturient woman escaped without any trace of fever. Dr. R. E. Huntley (of Jarrow-on-Tyne) had experienced an outbreak of puerperal fever in his practice ten years ago. Small pox was very prevalent in the neighbourhood at the time; but he had never been able to associate scarlet fever with puerperal fever. Dr. C. R. Brown (of Beckenham) had witnessed cases of patients who had never had scarlet fever being exposed to its influence during their lying-in, without showing the least symptom of it. Dr. Swayne (of Clifton) thought Dr. Duncan's letter was calculated to do much good. He had noticed that cases of puerperal fever occurred more in the practice of some men than of others. As a precautionary method, he thought, a warm bath-washing with carbolic acid soap, and a Turkish bath the next day, and a complete change of clothes, to be all that was necessary. Dr. Graily Hewitt thought that puerperal fever was essentially a form of blood-poisoning, of pyæmia. He entirely disbelieved in a form of fever sufficiently definite or precise to merit the name of puerperal fever. There were two classes of cases. In one class there was evidence of the introduction into the system from without of a distinct animal poison, inoculation in fact, conveyed in many cases by the hand. Another class of cases was autogenetic, where the contagion was not introduced from without. Concurrently with puerperal fever the involution of the uterus was retarded and the contraction of the uterus failed, and thus allowed the pyæmic poison to find easy entrance. Mr. Callender thought there were many points of resemblance between erysipelas, septicæmia, etc. It was a pure matter of speculation to assert that it was due to the influence of some septic matter or poison. He thought it very important that all wounds should be kept strictly from contamination of other wounds. A patient was tolerant of suppuration set up in his own wound, but intolerant of contamination from other sources. Antiseptics were of great service, but cleanliness was equally important. The discussion was again adjourned to the next meeting of the Society in June.

### THE MEDICAL SOCIETY OF LONDON.

On Monday evening last, this Society held its annual *conversazione* in its rooms in Chandos Street. There was a large gathering of the Fellows, including Dr. Routh (the President), Drs. Habershon, C. J. Hare, Symes Thompson, C. T. Williams, Farquharson, Paul, Burdon Sanderson, Russell Reynolds, Milner Fothergill, Wiltshire, Messrs. Bryant, W. Adams, C. Maunder, and Davy, together with Drs. Crichton Browne (Wakefield), Heaton (Leeds), and others from the provinces. The annual oration, originally announced to be delivered by the late Dr. Anstie, was delivered by Dr. G. Buchanan. Its subject matter was Some Points of Importance Relative to Modern Hospitals. The orator commenced by illustrating the association which existed betwixt the lack of sanitary arrangements in hospitals and the terrible mortality in them in days past; the prevalence of jail fever previous to the labours of Howard; and the comparative immunity from typhus enjoyed by soldiers who, in consequence of the hospitals being full, have had to lie in tents in various campaigns. In illustrating the progress recently made by sanitary science, he contrasted the mortality from typhus in the Crimean campaign, especially in the French hospitals on the Bosphorus, with the comparatively slight number of deaths from typhus in the late American Civil War, and the still more recent Franco-German War of 1870-71. He then insisted upon the necessity for providing some official who shall be responsible for the working of the various sanitary arrangements of large hospitals, instead of leaving these matters, as at present, to be somebody's or nobody's business, as the case may be. He pointed out the loss of valuable lives from inattention to these matters, and feelingly alluded to the circumstances under which Dr. Anstie met his death; concluding with an eloquent panegyric on that gentleman, whose untimely death had led to his own delivery of the oration. The address was of high merit, and was listened to throughout with the most careful attention. The President's proposition that Dr. Buchanan be requested to publish the address was carried unanimously and enthusiastically. After this, the company adjourned to the refreshment-room, where they remained a brief period. The usual exhibition of pictures, photographs, casts, microscopic slides, new inventions in surgical instruments and appliances, etc., was not beneath those of previous occasions. On the whole, the venerable society exhibited a vigorous vitality; and, after a centenarian existence, manifested none of the signs usually associated with senile decay.

### THE UNIVERSITY OF LONDON.

At the Meeting of Convocation of the University of London on the 11th instant, the votes of Members of Convocation will be given for one or other of the three graduates nomineted as being suitable for a seat on the Senate of the University of London. The three members nominated are J. G. Fitch, M.A.; Farrer Herschell, B.A.; and Sir William Jenner, Bart. It is generally understood that, on the present occasion, it is the turn of an Arts graduate; so that Sir Wm. Jenner is brought forward rather with a view to future than to present election. The name of Mr. Farrer Herschell has within the last few days been substituted for that of Mr. Julian Goldsmid, in consequence of this gentleman having been directly selected by the Crown to fill a previous vacancy in the Senate. In the election, which will take place next week, the Crown will select one of the three persons nominated by Convocation; and, as on previous occasions, this person will doubtless be the graduate who receives the largest number of votes. There can be little doubt, therefore, that the strong present claims of Mr. J. G. Fitch for a seat on the Senate will be recognised, and that he will be returned at the head of the poll.

### RECENT URBAN MORTALITY.

During last week, 5,772 births, and 3,766 deaths were registered in London and twenty other large towns of the United Kingdom. The average rate of mortality was 25. In Newcastle-on-Tyne it was 20; in Nottingham and Edinburgh, 22; Wolverhampton, Leeds, London, and Dublin, 23; Portsmouth, 24; Sunderland, 25; Sheffield, 26; Liverpool and Bristol, 27; Birmingham, Bradford, and Leicester, 28; Manchester and Norwich, 31; Salford and Glasgow, 32; and Hull and Oldham, 33. The zymotic death-rates in Norwich and Hull were 6.3 and 7.0 respectively. The fatality of scarlet fever continues excessive in Hull and Bradford, and the deaths from measles were somewhat numerous in Manchester and Bristol. In London, 2,449 births, and 1,532 deaths were registered. The births were one below, the deaths 80 above the average. The death-rate was 23. To the seven principal zymotic diseases 194 deaths were referred, being 45 below the average. There were 96 fatal cases of whooping-cough; and not a death from small-pox. The deaths referred to diseases of the respiratory organs were 375, being 104 above the average; 217 resulted from bronchitis, and 104 from pneumonia. The mean degree of the humidity of the air, which during the last seven days of April had averaged so low as 65, complete saturation being represented by 100, rose on Saturday to 97, when .37 of an inch of rain was measured. The mean temperature of the air was 52.1, or 3.2 above the average.

### THE NEW YORK CASE OF CONIUM POISONING.

The results of Dr. Walker's trial of conium in large doses for the relief of facial spasm have attracted general attention. The sensational circumstances connected with his death quite account for such attention. Our readers will remember that he died suddenly, shrieking "Water, water", after having dictated to his wife, who took down what he said in writing, the different sensations which he felt, and what were thought to be the symptoms of the effects of conium. He took in two hours, 180 drops of ordinary U. S. A. extract of conium; then, after an interval of four hours, he took 150 minims of Dr. Squibb's extract of conium, in fifty-minim doses, at intervals of half an hour, and died an hour and a half after the last dose. In their verdict, the jury said, "Moreover, we find that, from some inappreciable cause to us, the medicine acted with extraordinary potency".

Dr. John Harley of Upper Berkeley Street, whose writings were repeatedly referred to at the inquest, writes us to the following effect.

"I fully concur in Dr. Squibb's statement, that 150 minims (of his extract) is not a deadly or even a dangerous dose to a person in a fair state of health, such as Mr. F. W. Walker was assumed to be in. In a healthy individual, the quantity would have caused only a moderate degree of coneism, and such as would be appropriate to the treatment of the inveterate form of spasm of the facial muscles with which the patient was afflicted. The evidence indeed, shows, that the specific action of the drug was not excessive in Mr. Walker's case. He was not, in fact, under the complete influence of the drug at the time of his death, for, if he had been, he would have been incapable of the acts evidenced by his son during the last five minutes of his life. His son states, that he 'recognised' him, 'pressed' his hand, 'pointed' to his throat; called for electricity, and was able to articulate the difficult word, 'Faradaic', clearly enough to be understood. And it is further stated in the evidence of his son, that he tried to apply the current a few moments before he fell back dead. A person under the mortal influence of hemlock would be incapable both of speech and of motion. Further, this condition of complete palsy of the voluntary acts would precede death by a considerable interval. The *post mortem* examination revealed the fact that he had nearly come to the end of his days, and that very little was needed to precipitate him into the grave."

### ROYAL COLLEGE OF PHYSICIANS.

A MEETING of the Fellows was held on April 29th, the President occupying the chair. The Baly Medal was awarded to Claude Bernard of Paris, the eminent physiologist, who will be invited to receive the medal in person, upon the usual day of its presentation, viz., the day upon which the Harveian Oration is delivered. It was decided, upon the proposition of Dr. Quain, that, in replacing the windows of the College with plate glass, the blank window under the portico should be filled up and replaced by a niche, and that in that niche and the niche at each side of it, statues of three distinguished members of the College should be placed. On the left will be the statue of Harvey; that of Linacre will occupy the central niche; and Sydenham will be represented on the right. Small subscriptions are invited from the Fellows to cover the cost of this improvement. The Registrar gave notice of his intention to move for a change of the bye-law by which an alteration would be made in the time for the election of Fellows and Officers of the College, with a view to suit the time and convenience of the Council.

## SCOTLAND.

AT the last meeting of the Glasgow University Council, Sir W. Stirling Maxwell was unanimously elected to the vacant office of Chancellor of the University.

IN connection with the Extra-academical School, two new names are added to the constantly increasing list of lecturers on the various branches of professional study; namely, that of Dr. J. Batty Tuke on Psychological Medicine, and Dr. C. E. Underhill on Midwifery and the Diseases of Women.

A PORTRAIT of Sir Robert Christison, Bart., Honorary Vice-President of the Royal Society of Edinburgh, was uncovered at the meeting of the Society on Monday, May 3rd. The portrait, which is an excellent likeness, has been executed by Mr. George Reid of Aberdeen.

IT has been decided that the memorial statue of the late Sir James Simpson, which is in course of execution by Mr. W. Brodie, R.S.A., is to be placed in the East Princes Street Gardens, Edinburgh, between the Scott Monument and the statue of Professor Wilson.

AT the Glasgow University, on April 29th, the oath was administered to those students who had taken the degree in Medicine. The chair was occupied by Dr. A. Buchanan, and among those present at the ceremony were Professors Allen Thomson, G. Buchanan, Gairdner, and others. Professor Simpson, in the course of the annual address, urged the students to extend their studies beyond medicine, as it was expected and desired that they would combine with professional knowledge the accomplishments of educated gentlemen.

ANOTHER victim to disease caught in the discharge of professional duties has just been found in the person of Dr. W. Hammond of Edinburgh, who died last week of typhus, contracted while working in connection with a parish appointment to which he had recently been appointed. Dr. Hammond had been seventeen or eighteen years in practice; the first twelve in the town of Brechin; the remainder in Edinburgh, where his loss is lamented by a large circle of friends. At the time of his death, Dr. Hammond was Master of one of the principal Freemason lodges in the city, in the proceedings of which body he took great interest.

### POOR-LAW MEDICAL RELIEF IN SCOTLAND.

ON Saturday last, a large number of Scotch members of Parliament and other influential persons waited on the Chancellor of the Exchequer in reference to the Poor-law medical relief and education grants in Scotland. Mr. Cameron, M.P. for Glasgow, who introduced the deputation, said that it was the desire of the parochial boards of Scotland that the grant made in aid of medical relief should be placed on the same basis there as in England. In England, the grant was one-half of the total sum expended; while in Scotland it had hitherto been a fixed sum for the whole country, namely, £10,000. The sum expended in medical relief in Scotland amounted now to £35,000 annually; and, applying the English principle to Scotland, the sum paid by the Treasury should be £17,500. The expenditure had gone on increasing in Scotland, just as it had done in England, where it was this year as high as £127,000, a larger amount than had previously appeared in the estimates. Moreover, there were additional items in the estimates in connection with the Poor-law medical relief, under the heads of salaries, travelling expenses, etc., which raised the sum paid by the Treasury to £142,000 for England this year; while Scotland only received the fixed sum, as stated above. It was the prayer of the deputation, who represented a great number of parochial boards and at least half the population of Scotland, that this state of things might be remedied, and the two countries put on an equal footing. Several other gentlemen addressed the Chancellor, who promised full consideration to the representations that had been made.

### THE EDINBURGH UNIVERSITY SUMMER SESSION.

THE summer session of the Edinburgh Medical School commenced on Monday week, and promises to be a highly successful one, and to fully keep up the rising numbers of the school. There are two courses of more than usual interest to be delivered in connection with the medical teaching of the University; namely, the course of Natural History by Professor Huxley, in the absence of Professor Wyville Thomson, who is absent in charge of the *Challenger* expedition; and a second course of Natural Philosophy in its relation to Medicine, and intended for medical students, by Professor Tait, which, from his well known lucidity and accuracy of exposition, cannot fail to be of the utmost value to the students and younger members of the profession.

## IRELAND.

A SMALL-POX patient in Mullingar, last week, whilst suffering from delirium, threw himself out of the bedroom window, falling about thirty feet on to the flagway, and received such injuries as terminated shortly in his death.

THE favourite writing-table and arm-chair of the late Charles Lever have been presented to Trinity College, Dublin, by his daughter, Mrs. Neville, and arrived safely last week from Trieste.

### PAYMENT OF SUBSTITUTES FOR MEDICAL OFFICERS.

A MEETING of the medical profession was held in Cork, last week, for the purpose of protesting against the recent refusal of the board of guardians to pay substitutes for dispensary medical officers, unless a certificate were produced, signed by three medical practitioners, that they were suffering from contagious disease contracted in the discharge of their duties. Resolutions were passed protesting against the conduct of the guardians, and repudiating the insinuations contained in this unjust regulation.

### THE COST OF MEDICINES IN THE DUBLIN DISPENSARIES.

WE recently informed our readers that an inquiry had been conducted by Dr. Croker King, one of the Medical Inspectors of the Local Government Board, into the cause of the remarkable difference which existed in the expenditure upon medicines in the North and South Dublin Unions, it being much higher in the former than the latter. Dr. King having reported, the Board has communicated the result of the inquiry to the guardians of the North and South Dublin Unions. The following is a summary of the conclusions arrived at by the Board.

"1. A number of medicines being ordered in the north district, which were not contracted for, as before observed, and for which high prices were charged. 2. Surgical instruments having been obtained in the north district during the year, none having been applied for in the south district. 3. The very large and possibly excessive quantity of lint used in the north compared with the apparently insufficient quantity used in the south district, where the total consumption was only 20 lbs. for all purposes, 152 lbs. being used in the north district in the year. 4. The free use of gutta percha tissue, which is not used at all in the south district. 5. The large quantity of linseed-meal and mustard for poultices and sinapisms, being £50 in excess of the south district. 6. Excess to the amount of £30 in north over south in the use of hog's lard. 7. The free use of chlorodyne, not contracted for, and supplied at a very high price. 8. Much larger quantity of sulphate of quinine and other preparations of bark and of iodine—all expensive medicines. 9. The free use of tinctures and ethers in the preparation of ordinary mixtures. All these circumstances combined are sufficient to account for the difference of expenditure between the north and south dispensary districts."

It also appears that the cost of medicines per ticket in the North Union is 6½d., whereas in the South it is only 1d. A great deal of the difference in the cost between the two districts depends upon the methods by which the contracts are made. In some cases, Dr. King ascertained that drugs had been supplied at prices so low that the articles furnished could not possibly have been pure. The Local Government Board is of opinion that,

"On a review of all the circumstances elicited at the inquiry which has been made, it appears to the board that the distribution of drugs and surgical appliances is too limited in the South Dublin District, and rather free in the North. It would probably be of advantage to the sick poor if more liberality in prescribing were adopted in the south district; and the expenditure in the north district may admit of considerable curtailment without detriment to the sick poor, and with considerable relief to the ratepayers."

The guardians of the North Union received the communication from the Board with the greatest respect, and appointed a committee to consider and report upon the matters referred to. The guardians of the South Union received the communication in a very different spirit; and on the motion of Mr. Byrne, a Dublin pawnbroker, a very discourteous answer was sent to the Local Government Board; and, in his speech, he made the following remarks with regard to Dr. King's report.

"He thought that their practice was so good that it required no improvement or suggestion from the Local Government Board. As far as they were concerned, he believed the inquiry was an *ex parte* one, and he saw that Dr. King had the temerity to state in the report that he was of opinion that the use of drugs was too limited in the South City dispensaries, and that was not so. The applicants at the dispensaries got first class advice and the necessary medicines."

We prefer the opinion of Dr. Croker King to that of Mr. John Byrne; and we protest against such language being used by a pawnbroker about so highly respected a member of our profession as Dr. King. We only wish that the Local Government Board of Ireland had more inspectors of the class of Dr. King, and that Dublin had fewer guardians of the pawnbroker and publican type. The "necessary medicines" cannot be supplied for a penny per ticket, in spite of Mr. Byrne's opinion.

### THE APPROACHING ELECTIONS AT THE ROYAL COLLEGE OF SURGEONS.

LARGE numbers of candidates are in the field for the various seats on Council and Board of Examiners to which election will be made on the first Monday in June. Mr. Edward Hamilton, the outgoing Vice-President, will, as a matter of course, become President. The surmises as to Vice-President for the ensuing year have hardly taken a definite shape. We are glad to state that not a single rumour has reached us of similar acts being practised to those which we had to condemn on a former occasion. We have no wish to see any material change in the Council or Board of Examiners. The work of the College has gone on successfully and smoothly during the past year, and we anticipate a favourable report from the outgoing Council.

### THE CORONERS' (IRELAND) BILL, 1875.

THE Council of the Irish Medical Association recommend the omission of section 32 and section 33 of the Coroners' Act, 1846, and the insertion of clauses to the following effect in this Bill. 1. When an inquest shall be held upon the dead body of a person, who had been attended recently before death by a legally qualified medical practitioner, the coroner shall employ him as the medical witness. If no practitioner have been in attendance, the medical officer of the dispensary district in which the death occurred, or the dead body had been found, shall be employed, except in cases of death in hospitals and public institutions of that character. In such case, the coroner shall employ the medical officer of such institution, provided that if any person shall state upon oath, before the coroner, that, in his or her belief, the death of the deceased individual was caused, partly or entirely, by the improper treatment or neglect of any medical practitioner, or other person, such medical practitioner, or other person, shall not be allowed to perform, or assist at, the *post mortem* examination. 2. The medical witness shall be entitled to receive from the coroner a fee of one guinea for his attendance and evidence at an inquest, or any adjournment, with travelling allowance, at the rate of sixpence per mile, to and from the place where the inquest was held to the residence of such medical witness. 3. The medical witness shall be entitled to an additional fee of two guineas for making a *post mortem* examination, if directed so to do by the coroner; and whenever it shall appear to the coroner that a *post mortem* examination has been necessarily difficult and prolonged, the coroner may pay to such medical witness a fee not exceeding five guineas; and in the event of the coroner deeming it necessary that a chemical analysis should be made of the contents of the viscera of any dead body, the coroner shall pay a fee of five guineas to the qualified practitioner, selected by him and the majority of the jury, for making such analysis. 4. Should a legally qualified medical practitioner have been summoned to attend and give professional evidence, and it should subsequently be deemed unnecessary to hold such inquest, the medical witness shall be entitled to receive a fee of one guinea, with the travelling allowance. 5. No person shall be qualified to act as medical witness, or make a *post mortem* examination at any inquest, who shall not be a legally qualified and registered medical practitioner. 6. Immediately after the conclusion of an inquest, the coroner shall deliver to the medical witness the amount of his fees and travelling allowance.

### THE LIFFEY NUISANCE.

DUBLIN'S troublesome river is again giving its annual contributions to the many city stinks. It appears that, the main drainage scheme having come to a dead lock through the persistent mismanagement of the Dublin Corporation, and the Government, up to the present, having rightly refused to give any further powers to the local authority until it proves its competence, the said authority wishing to do something, is about to go to law to compel a neighbouring authority to do its work. The matter stands thus. The Liffey belongs to the Dublin Port and Docks Board, an exceptionally good corporation, which has given Dublin a fine harbour, splendid quays, and, in fact, has done everything that could be done to improve the port of Dublin. The City of Dublin belongs to the Dublin Corporation, an unusually bad corporation, which have done nothing, or next to nothing, to improve the city. The Dublin Corporation puts all its dirt into the Liffey by means of the city sewers. This is, no doubt, committing a nuisance on the premises of the Port and Docks Board; but what does the Dublin Corporation propose to do? Nothing less impudent than to take legal proceedings against the Port and Docks Board to compel it to remove the nuisance from its premises. We have heard of conflicts between local authorities, but certainly this exceeds them all in its absurdity.

# REPORTS OF SOCIETIES.

## PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MAY 4TH, 1875.

G. POLLOCK, Esq., in the Chair.

### THE GERM-THEORY OF DISEASE.

THE adjourned discussion on Dr. Bastian's paper on the Germ-Theory of Disease was continued.

Dr. MURCHISON: Mr. President, not having much personal knowledge on the subject of bacteria, it was not my intention to take part in this debate; but, having been requested to do so, I will make a few remarks, suggested by the observations of previous speakers, and by my own experience of those diseases in which bacteria are believed to play so important a part. And in the first place I would advert to the very interesting speech of Mr. Jonathan Hutchinson at the last meeting, who endeavoured to draw a distinction between so-called virulent and contagious inflammations and the acute specific fevers. He maintained that "their phenomena and their clinical history prove that they are specific; that they run a definite course, protecting the organism afterwards; that they breed true, which is the test of specificity; that they seem to require that the germs which have produced them in one individual shall be applied, and that they are producible by no other means." For this class of diseases Mr. Hutchinson expounds the germ-theory in its entirety, and he maintains that "these diseases are only produced by a germ, in the sense of a seed, just as we may sow a definite crop in the ground, and should know that we could not get a crop unless we sowed the definite seeds." But with regard to the acute specific inflammations, Mr. Hutchinson is of opinion that these facts do not at all apply to them. He thinks that it is unnecessary that for the spreading of them there should be any germs at all, and he rather seems to think that the products of inflammation are in the diseases, the medium of contagion. In support of this view, he states that the resulting disease very often differs, according to the nature of the pus which is selected for inoculation. Now, while fully admitting that there are differences between some of the acute specific fevers and contagious inflammations, my own experience is quite opposed to the view that, as regards the question under discussion, there is that radical difference between them which Mr. Hutchinson would have us believe. In fact, I have long been in the habit of teaching that even among the acute specific fevers themselves there is not that agreement which Mr. Hutchinson and other authorities would ascribe to them, and that these diseases may from an etiological point of view be subdivided into groups, which differ from one another quite as much as the acute inflammations differ from some of them. One or two illustrations of this I may mention. Relapsing fever is one of the acute specific fevers; it is, under favourable circumstances, eminently contagious, and yet we know that one attack of it confers not the slightest protection from a subsequent attack of the same disease; and the same might be said of diphtheria, of cholera, and of other diseases belonging to this class. Then, again, there are differences as to their degree of contagiousness, and as to their mode of propagation. Some, undoubtedly, are very contagious, others again are very slightly so; some are propagated through the atmosphere as well as by inoculation, others are propagated by inoculation alone; some are propagated only in the presence of glaring defects of hygienic arrangements, others are propagated quite independently. Then as to the argument that the resulting disease differs in its severity, according to the nature of the poison, a character which Mr. Hutchinson argued was peculiar to the acute specific inflammations, I must confess that it is a character with which I have long been familiar in many of the acute specific fevers. No doubt, in the acute specific fevers the resulting disease is more influenced by the constitution than in the case of the acute specific inflammations, simply for the reason that they are on the whole of a more general and a less local nature than the acute inflammations to which Mr. Hutchinson specially adverted. But in that very protean disease, typhoid fever, I have long observed, and have been in the habit of pointing out, that the type of the disease, and even the symptoms and the complications, vary according to the source of the poison. And even in the case of scarlet fever we all know that different epidemics, occurring at the same time, vary very greatly in their type and in their malignancy. Lastly, I certainly for one must join issue with Mr. Hutchinson, when he says that none of the diseases coming under the head of the acute specific diseases are producible, except by germs, derived from a person already affected with the same disease. The evidence which can be adduced to prove the contagiousness of such a disease for example as diphtheria or as dysentery—and here I may mention that dysentery holds a place among the acute specific diseases very closely allied to typhoid fever and cholera—is to my mind certainly quite as good as the evidence of the contagiousness of enteric fever; yet I say that the evidence of these diseases being produced *de novo*, appears to me to be so strong that I can scarcely fancy its being rejected by anyone whose mind was not already prejudiced in favour of the germ-theory of disease. For these and other reasons I cannot agree with the view which Mr. Hutchinson expressed, that there is a great distinction between the acute specific inflammations and the so-called acute specific fevers. I think that if the germ-theory be applicable to the one, it is applicable to the other; and if it is to be rejected for the one, it ought to be rejected for the other; and moreover, it must be remembered that propagation by means of germs has been claimed for the one as well as for the other. And this brings me to say one or two words in reference to the germ-theory of disease. If I understood my friend Dr. Burdon Sanderson aright, he told us that not much good could be expected to arise from discussing theories on this matter, and that we ought to confine ourselves to the discussion of facts; and the fact on which he specially insisted was this, that during the infective process in the course of the different infective diseases, there was a great development of bacteria, but he refused to commit himself to an opinion as to whether these bacteria were to be looked upon as causal, or whether they were pathological results. Now, this way of viewing the matter is all very well for a man of Dr. Sanderson's scientific caution; but unfortunately these observations, the discovery of bacteria in various infective diseases, and even Dr. Sanderson's own observations, and those made under his immediate superintendence, have been used by other writers as strong arguments in favour of the germ-theory of disease, and also as supporting views having very great practical importance. In corroboration of this statement, I may call to the mind of the Society the letter upon typhoid fever, which was published by Professor Tyndall in the *Times* a few months ago, in which it was announced that "Dr. Klein has recently discovered the very organism which lies at the root of all the mischief, and to the destruction of which medical and sanitary skill will henceforth be directed." I am sure that Dr. Sanderson himself would be the first to repudiate any such construction of the observations of Dr. Klein; and I am quite sure of this, that most of those who have attended the discussions of the two previous meetings must be satisfied that no such announcement was justified by Dr. Klein's discovery of bacteria in connection with the lesions of typhoid fever; and they will also be satisfied that this discussion will do good, if it do nothing else than help to correct such erroneous notions. With regard to bacteria, the following facts appear to me to have been established. In the first place, bacteria may be injected in large numbers into the blood of the lower animals, and they suffer nothing. In the second place, bacteria exist in large numbers in certain tissues of the living bodies in a state of health. Thirdly, they are said to multiply very greatly after death in persons who have not died of any infectious disease. In the fourth place (it seems to me that this is a very important observation), we have been told that bacteria are developed in large numbers in a vesication on the skin produced by a chemical irritant. In the fifth place, it is also said that, in certain contagious fluids, the more the bacteria multiply, the less virulent the fluid becomes. Then, lastly, there is the statement, made on good authority, that neither bacteria nor bacterial germs can be found in certain fluids eminently contagious. I forget whether this last statement was made in the discussion, but it was first made very strongly a few years ago by Dr. Beale, in one of his contributions to this subject. These facts, it seems to me, go a long way to throw doubt upon the causal relation between bacteria and the infective diseases. On the other hand, however, arguments have been brought forward tending in an opposite direction. In the first place, it is argued that, although some bacteria may be perfectly harmless, it does not follow that other bacteria may not be very injurious indeed; but it seems to me that this argument has been very well answered by an experiment of Mr. Lister's, who showed that the same bacteria might produce very different results, according to the circumstances in which they are placed. It appears to me that, if this observation be correct, the result depends not so much upon the bacteria as upon the surrounding conditions. Then, in the second place, it is stated that in erysipelas bacteria are found chiefly in what is called the spreading zone, and not in the interior of the diseased part; but really this does not appear to me to tell much one way or the other. I really do not see that this fact is incompatible with the notion that the bacteria may be pathological results. And, thirdly, it is stated that in certain diseases, and especially in relapsing fever and in sheep-pox, there are peculiar forms of bacteria—bacteria which are only found in these diseases, specific they may be called. But, although no doubt this is the case, it seems to me that these peculiar forms may be accounted for by that peculiar soil in which what may be called the native bacterium of the individual is made to grow, because we also know this, that with regard to these minute growths the most varied forms are assumed, according to the soil in which they are cultivated. Now, it appears to me that this view of the case is confirmed by what we see and what we know of the so-called spirilla of relapsing fever. These minute bodies which are found in the blood make their appearance in large numbers during the primary paroxysm of fever, but before the crisis they disappear; they are absent entirely during the intermission, and with the relapse of the fever they return, and they again disappear with the second crisis. It appears to me that these appearances of spirilla, and their sudden annihilation twice over, are best accounted for by the reason that the germ-theory is untrue. There can be no doubt that a great many arguments may be brought forward in its favour. Many of these arguments were ably stated at the last meeting by Dr. Maclagan; but it seems to me that the more important arguments are arguments founded upon analogy rather than upon fact. With regard to the facts of pyrexia to which Dr. Maclagan referred, it seems to me that they can be quite as easily explained independently of germs as with them. And then there was one fact to which Dr. Maclagan attributed great importance as an argument in favour of the germ-theory; it was this: he seemed to think that the cutaneous eruptions and the local complications of the various infectious diseases were best explained on the germ-theory, because, as he has argued, the vital germs found in the organs, which became the seat of lesions, the second factor necessary for their multiplication and growth. This is an argument, however, which to my mind certainly has very little weight, for we find that arsenic exhibits very much the same sort of selection. You find that inflammation of the stomach, and inflammation of the rectum, will be produced by arsenic, whether it is introduced into the intestinal canal or into the vagina, or the nostrils or the skin, and it is to this predilection of certain medicines for certain organs and tissues of the body that we look for some of the greatest discoveries in therapeutics;—some have already been made, many others, no doubt, will be made. There is one other argument to which, it appears to me, a great deal too much stress has been given in favour of the germ-theory. It is alleged that the germs of disease show that they are vital by the length of time that they will retain that power, notwithstanding their being subjected to the most destructive chemical and physical influences. Now I must say that I think this argument has been too much strained. There can be no doubt that the germs of small-pox and scarlet fever will retain their vitality for a very long period indeed, under favourable circumstances; but I myself know no facts that will show, even with regard to two such contagious diseases as scarlet fever and small-pox, that the germs will retain their vitality for any length of time if they be freely exposed to atmospheric air; and I think myself that this is an argument which has too often been overlooked, a strong argument opposed to the omnipresence of vital germs of disease, which is a necessary element, you must remember, of the germ-theory. There can be no doubt, however, that the strong argument in favour of the germ-theory of disease is the multiplication of the poison. It is this which has been aptly compared to the multiplication of living germs. It is contended that in chemistry there is no such process, that there is no existence in chemistry of a body which excites a chemical change, being itself multiplied. Now it does not follow, however, that although no such process in chemistry may have hitherto been discovered, no analogous process to that of contagion may not yet be discovered; and in reference to this, I hold in my hand a letter which I have received from Dr. Lyon Playfair, calling my attention to one process which, at all events is somewhat similar to what takes place in the multiplication of contagion. The substance he refers to is the substance oxamide. This substance, it is well known, is decomposed when it is boiled with acids or with alkalies into oxalate of ammonia, and if the acid selected be oxalic, as Dr. Playfair says, a small proportion of this oxalic acid will convert an infinite quantity of oxamide into oxalate of ammonia; in other words oxalic acid, the substance which excites the change, will itself be independently multiplied, quite independently of the presence of any vital germs. In speaking of this matter, then, it seems to me that it is not right to speak, as is commonly done, of the poison multiplying itself; this in itself conveys a theory, and it is far more correct to say that the poison is multiplied, which is all in fact that we really know. It may so happen that it may hereafter be discovered that these diseases are propagated neither by germs nor by any chemical process; but that they may be propagated by minute particles acting by contact in producing other similar particles, just as we find in the case of tubercles or pus. This, however, is for the present a conjecture. There are two arguments, however, which have always appeared to me to be of great weight, as opposed to the germ-theory of disease. The first is this: the fact that the great majority of persons attacked with these infectious diseases recover. It seems to me very difficult to account for this on the germ-theory. I know that it is said that they recover, because the germs have exhausted all the material in the body necessary for their production and growth; but it seems to me that what occurs in relapsing fever is opposed to this explanation. In relapsing fever we have, in the first place, a febrile process lasting a week; then there is a complete intermission of another week, and then there is a relapse, similar to, but somewhat shorter than, the first attack. Now if the germs exhausted all the material necessary for their growth in the first attack, whence comes the material necessary for their growth in the second attack, in the relapse? This material cannot be produced by the febrile process, because on the germ-theory the febrile process is itself the result of the germs. And then the last argument is one to which I have already referred, namely, the circumstance that many of these infective diseases arise independently of a pre-existing cause. The germ-theory renders it impossible to admit such a possibility, and, in fact, it may be said that those who uphold the germ-theory practically deny that it is possible for any of these diseases to arise *de novo;* but as I have already said, it seems to me inconceivable that any one weighing carefully the evidence on this point, in reference to such diseases as pyæmia, erysipelas, diphtheria, cholera, dysentery, and typhoid fever, can come to any other conclusion than that such a thing is possible, as the generation *de novo* of these diseases, unless their minds be already preoccupied by the germ-theory of disease.

Mr. WAGSTAFFE: I shall not venture, sir, to express an opinion upon the explanations that have been given by the great English observers upon this subject, as to the cause, the nature, and the meaning of these organisms; but I think the subject may be advanced somewhat by any record of the facts which go to point to the conditions under which these organisms are found in the human body. The most important of these observations have already been referred to by Dr. Sanderson and by previous speakers. They are particularly those to which Dr. Murchison has just referred: the spirilla in relapsing fever, the rods in the blood in splenic fever, also the micrococci found in the tissues in sheep-pox and in small-pox. These observations, however, seem to have hardly received full attention, or the notice that one would have expected, at the hands of Dr. Bastian; and I had hoped that in the course of this debate we should have had the opportunity of hearing the experience of some of those who have paid attention to the conditions under which these organisms appear. During the last two years I have been engaged in looking at the secretions of the blood, particularly of certain classes of patients, partly in conjunction with Dr. Sanderson, partly independently; and it may be interesting and not unprofitable to state the results which have been arrived at, at the end of these observations. I would divide the results into two classes: negative results and positive results. With regard to negative results I may state a most important fact, one which has been proved before, that during health no organisms of any kind are usually seen in the blood; but under certain conditions, which it is very difficult to understand, organisms of certain kinds, which we are not able to distinguish from those found in disease, are found in what we may look upon as a healthy state. For instance, a man named Marks was a curious example of this kind. He came under my notice while I was examining a number of cases of erysipelas. He was in an erysipelas ward. His blood was full of these organisms, as many as from ten to twelve being in every field of the microscope, actually moving about. I examined his blood under other conditions, when he was quite well; he was still in the same ward—at times he was well, and at times he was ill, and he always showed a large number of these organisms.

Dr. BASTIAN: May I ask which organisms?

Mr. WAGSTAFFE: Small micrococci, active moving granules, dumb-bells, and sometimes beads. This case has its parallel in a case referred to by Dr. Sanderson in his lectures, in which a person in apparently complete health had in his blood a number of organisms; but Dr. Sanderson does not mention whether they were actively moving; whether they were like the ordinary micrococci that are seen in putrefaction. Then there is another class of negative cases. In a very large number of cases of subacute and chronic inflammatory disease, there were no organisms whatever found; and it is an important point, I think, to notice that even in the pus of a chronic or subacute abscess none of these organisms were found in some cases that were examined, not by myself alone, but also by Dr. Sanderson. There is another case to which I would particularly refer, that of a woman in whom there were symptoms of what appeared to me to be pyæmia, but which turned out afterwards to be not true pyæmia at all, but simply suppurations in different parts of the body, and particularly in certain joints. In that case, the pus from the joints was examined, the blood from the finger was also examined, and in neither case were any of these actively moving organisms found. Taking also a number of other cases indiscriminately, it was found, on examining the whole of the side of a large ward, that none of these patients, suffering from very different diseases, showed any definite signs of these organisms in the blood. Some of these patients were suffering from acute and subacute diseases; in some the temperature was standing at 102 deg., but in the majority the temperature was low. Some had open wounds, some had no wounds at all; and none of these cases, taken indiscriminately on a certain day, showed any of these organisms whatever. Then, with regard to positive observations, the first point to which I would refer as the result of those observations is, that pus from an open wound always contained these microzymes, these small actively moving particles. Then, with regard to the blood of patients suffering from suppurative fever, it always showed these microzymes. (I use that term as a general term, including chiefly small actively moving particles, and also dumb-bells and chains apparently of the same bodies running together.) Then a third class of cases, in which I nearly always found these particles, was the class of strumous diseases particularly affecting the bone. Here the particles varied apparently in number, according to the intensity of the constitutional disease and the inflammatory process. In cellulitis also the same results were seen. Out of twenty-four cases examined, as many as twenty showed in the blood the same moving particles, the number varying with the intensity of the disease. Then, in all cases of pyæmia examined, the blood contained these particles, chiefly dumb-bells and chains; and, in addition to these, usually a number of bodies not actively moving, apparently small plastic bodies, some actively moving, but the majority of them quiet. This observation particularly differs from that which Dr. Bastian has mentioned in his address. But I have recently had the opportunity of comparing the microzymes present in the pus of a pyæmic abscess, and those present in the blood of the same patient, and these bodies were apparently identical. Another class of cases in which they were nearly always found were cases of acute syphilis; and in those cases another appearance presented itself, which is rather curious. Large plates of plastic matter, extremely granular, were seen in the field of the microscope, and the number of these particles varied with the intensity of the constitutional disease. In cases of another kind, not surgical, cases where there was no wound at all, cases of general fever, particularly of acute pneumonia, the same particles were also found in the blood, but in much smaller numbers. Lastly, I may refer to the progress of an ordinary case of a large wound of amputation. In some instances, I have been enabled to follow the appearance of the blood from day to day. In one case, that of a boy, whose thigh was amputated, five hours after the amputation, the temperature being 102, there were as many as from twelve to twenty microzymes actively moving in each field of the microscope; and when it is remembered to each field represents only a very small portion of a drop of blood, and that each drop represents not more than a hundred thousandth part of the body, we may assume that these particles are extremely numerous in the body in such a case. On the second day, the temperature being 101.2 deg., there were as many as twenty or thirty in every field of the microscope. On the third day, when the temperature was 101.6 deg., they were reduced to three or four in each field. On the fourth day, the temperature being the same, they were reduced to one or two, gradually diminishing in number, until three weeks after the operation, when they increased in number, with the appearance of an abscess in the thigh; after this they diminished and disappeared entirely. This is one of several cases which we have examined that follow on the same course. These facts seem to show a very close relation, as no one will hesitate to allow, between the appearance of these bodies and the active changes which are going on in the body—between the bacteria (using the term as a general one) and the inflammatory process. I do not wish, however, to venture an opinion upon these theories, or on the explanations which have been given, but I have laid these facts before the Society, in the hope that they may be supplemented by other observations, which I know have been made by members in the same direction.

Dr. GOODHART: The observations which have been made are exceedingly interesting to me, because they somewhat clash with some observations which Dr. Moxon and myself have been making during the last two years; and, inasmuch as positive facts are better than negative ones, although my facts may not be of much value, it will be as well to detail them to the Society very summarily, so that they may go for what they are worth. Dr. Moxon and myself during the last few years have been particularly engaged in examining in the same direction as Mr. Wagstaffe. We have taken all classes of fevers, including cases of erysipelas, one or two cases of typhus, cases of measles, scarlatina, and one case of variola. The conclusion to which we came was this: first of all, that it did not apparently seem to matter very much as to what the condition was that produced the fever; whether it was a specific fever or a case of pyæmia, or surgical fever, or what not, all the cases seemed to have very much the same appearance. As contrasted with healthy blood, the appearance we noticed was, that there was a very large amount of granular matter in the blood. In no case have we found any moving particles in the blood when the patient was living; that has been our great objection to calling what we found "bacteria". We found a large number of granules which had very much the appearance of refracting granules seen in degenerating blood-corpuscles; they had a tendency to aggregate into masses; sometimes there were large masses which corresponded almost precisely to which has been called zooglœa, and in a large number of cases there were beaded chains. In no case during life did we find anything like a rod-like particle; they were only these rounded spheroids, as they have been called, or the compound spheroids, chains, or aggregated masses; we never saw them moving. Those were very much like the granules one sees in the blood, and we were hardly disposed to call them bacteria at all, more especially as, on applying the caustic potash test, they nearly always disappeared. These experiments appeared to us to coincide exactly with the observations made by Dr. Bastian, and which were laid before this Society in 1869; they only differ in this, that he at the time found rod-like particles in the blood, and so far, I suppose, these particles which Dr. Bastian found might have been called bacteria. I do not think that, in that particular communication to the Society, he called them bacteria, but they were rod-like particles. We found nothing of the kind. I thought very likely that the difference between his results and ours might depend upon the fact that, while we examined the blood immediately it was removed from the body, he, as far as I understood, waited some five or six hours, which I thought was sufficient to develope bacteria. That is all I have to say with special reference to the blood. Dr. Sanderson threw out a suggestion that, if bacteria were not present actually, they were potentially; that is, I suppose, that under favourable circumstances bacteria would develope more readily in pyæmic blood, or in the blood of fever patients, than where there was no such fever. To test that, we removed some blood in various cases and kept it in capillary tubes for a certain length of time, and with greater readiness than in healthy blood the bacteria did appear and were moving certainly. We also carried out a further branch of the same experiment in this respect, that pus and inflammatory products were removed from serous membranes and from abscesses, and they also appeared to develope very rapidly into these rods, spheroids, and beaded chains; so that, as far as our experiments went in that direction, they perfectly confirmed Dr. Sanderson that there was apparently some greater tendency to the formation of bacteria in these fluids than there was in healthy blood. The next series of experiments rather went to show, or were intended to ascertain, if there was any relation between the spreading conditions of erysipelas and bacteria. We removed blood from the spreading edges in cases of erysipelas, and in those cases we could come to no conclusion whatever that there were any bacteria—that is to say, in the juices we removed we could not find bacteria. We found in the blood of fever-patients the same beaded chains, dumb-bells, and spheroids, but no rods, no moving particles. Lastly, we examined cases of closed abscesses, and also discharges from wounds, sores, stumps, and so on; and there we can coincide with Mr. Wagstaffe that in all cases in discharge examined from stumps and sores, moving bacteria in chains and rods, and also in spheroids and dumb-bells, were present in large quantities. In closed abscesses, also in pyæmic cases, we did certainly in five or six cases find bacteria present. I think these are the principal observations we made during the past two years. There is one case I should like to narrate in relation to a case mentioned by Mr. Wagstaff just now, in which he said that pus removed from a knee-joint contained no bacteria. That case, again, is rather in opposition to what I had supposed. It is, of course, very difficult to get pus from joints in cases of pyæmia during life; at least, it has not fallen to my lot; but a case happened the other day which I will state, as it was exceedingly interesting to me. There was a case of scarlatina in Guy's hospital, and only separated by a partition, a current of air running along so as to pass from one bed along the side of the other, there was an oldish man admitted for some nervous symptoms, which in a woman would be called hysteria. There was no wound on the patient at all, and otherwise he was perfectly well. He, however, became ill and feverish, with a temperature of 104 deg.; a slight blush appeared on one wrist, and one knee-joint rapidly filled with pus; he had certainly pyæmia. I examined his blood very carefully two or three times, but could not find any bacteria. I requested our house-physician, Mr. Paul, a most competent microscopist, to examine the fluid immediately the patient died. He did so, and there were a large number of still bacteria there, but no moving ones. That would quite coincide with what I observe in other cases, that there is a great rapidity in the formation of bacteria in the inflammatory products in serous membranes; but, as far as I have had an opportunity of observing, parenchymatous inflammations are not nearly so likely to form bacteria.

Dr. PAYNE: I have very few observations to present to the Society; but I should be glad to call attention to some of the facts of morbid anatomy which are observed both in relation to certain diseases which form the subject of this discussion, and also in relation to the presence of what are called bacteria in the body. But before doing so, I would be allowed to dwell upon the importance, which it appears to me there is in this discussion, in attempting to draw a distinction, if there really be one, between bacteria, such as are found in putrefying animal substances (or as we may call them putrefactive bacteria), and those which are found under various circumstances in disease. Dr. Murchison, and others who have taken the side of opposition to the germ-theory, have seemed to consider that question as of comparatively little importance; but it appears to me that we have to consider it both in relation to the appearance of these organisms, and to the effects which they apparently produce. It is of course exceedingly difficult for any one who is not in the habit of familiarly examining structures so small, to be able to form an opinion as to their specific distinctness; and therefore we may, to a certain extent, invoke authority, and I may remind the Society that a very distinguished botanist, Prof. Kohn of Breslau, who is, I believe, regarded as perhaps the greatest living authority on cryptogamic botany, and who, not being a pathologist, must be considered in such a matter as this impartial, has distinctly admitted that the micrococci and other forms observed in various diseases are distinct from the forms which are observed in ordinary putrefaction; and whether these forms are, under particular circumstances, convertible into one another or not, is not really of so much importance, because, as has been pointed out, these minute plants very often go through a series of transformations, but their appearance and also the effects they produce, and the mode of life even in different parts of their series, are very different; therefore supposing that these were different forms, and different series of development, they would still be as distinct in their effects as if they were original untransmutable distinct specific forms. Then let us suppose that the ordinary bacteria, such as are found in putrefactive substances, are sufficiently distinct to be recognised; it is then very interesting to inquire under what circumstances this particular form of organism is met with in the body, either during life or in death. It seems to me generally agreed that such organisms are very rarely and exceptionally formed in the interior of the body (using that term in a very strict sense) during life. Dr. Bastian, in his introductory address, laid considerable weight upon the fact that bacteria are present in the healthy body in particular places, and, as he said, they are present through the whole of the alimentary canal, very often on the mucous membrane of the air-passages, and on the skin in various conditions, and on open wounds. But with regard to the presence of such organisms in the alimentary canal, that, it appears to me, is a very different thing from their being present within the substance of the body; for this reason, that man like other animals is a hollow animal, and the alimentary canal is in one sense still outside the body; and if we consider how frequently organisms of this kind must be present in the alimentary canal, and in enormous numbers, especially as many animals like ourselves are in the habit of feeding on positively putrid substances, it is certainly clear that the mucous membrane of the intestinal canal must have some considerable power of resistance to the entrance of such organisms into the blood, otherwise they would be exceedingly more common than they are. Therefore, I think after all it is true that, meaning by the inside of the body the blood or the solid tissues, such organisms, that is to say, ordinary putrefactive bacteria, are not found in the body during life, unless exceptionally and rarely. Now what is the case with respect to their being present after death? They are, as Dr. Bastian justly pointed out, there present within a certain time, within a variable time—he said sometimes a few hours, sometimes not in any quantity till several days. Now, I will just recall to the memory of all those who have made a great many *post mortem* examinations, that there are some conditions in which these particular forms of bacteria are present in enormous numbers, and so shortly after death as to suggest at once that they must have been present even immediately before. There are those cases which are known as *post mortem* emphysema, where the body sometimes, as I have seen it even during a hard frost, when decomposition of the ordinary kind must have been quite arrested, swells up in a very few hours—less than six after death—to a considerable size, many parts of it being filled with small cavities containing gas, and this not only in the subcutaneous tissue, but more especially in the liver, spleen, and kidneys. Now, if we examine that part of the organ which is in this condition of *post mortem* emphysema, we see at once that the gaseous cavities are merely developed out of pale softening spots, that the gas is produced in these pale softening spots; and, if we examine the spots, they are really nothing in the world but tissue possessed of the commonest ordinary rod-like bacteria—the ordinary bacteria of putrefaction. There is no doubt, I suppose, that the same changes are taking place in such a body as that shortly after death, as not unfrequently take place after a considerable time. Well, what conditions give rise to this *post mortem* emphysema? I think, in the great majority of cases—I am not prepared to say in all, but very nearly, if not quite, in all that I have seen—there has been before death some part of the body in a state of positive death; either there has been a gangrenous limb, or some considerable extent of bruised tissue, or, as in more than one case I have seen, there has been urinary infiltration either from rupture of the urethra, or as a consequence of some operation. Well, in such a matter, of course positive proof is not to be had, but surely what is immediately suggested by such a relation of things is this: that this portion of the body, any gangrenous portion, any portion which has been severely bruised, is, we know, filled with common bacteria, such as we find in putrefaction; and also when a part of the body, such as the scrotum or subcutaneous tissue, is infiltrated with urine from rupture, and is at the same time in communication with the air, we there find that the ordinary bacteria of this kind swarm. Therefore it appears very reasonable to suppose that from that part of the body they have passed into the blood. Why then, it may be said, did they not produce during life the same changes which they produce after death? Well, to explain that I simply accept the fact which has been insisted upon against the germ-theory, namely, that a particular kind of soil is necessary for the development of a particular species of bacterium, and possibly to some extent to determine the specific character. I suppose that these putrefactive bacteria in the healthy body cannot or do not germinate or live, and that, nevertheless, when a part of the body is in a gangrenous condition, they are liable, although not certain, to be circulated through the body, and to be waiting there till death causes the change in their tissue, which permits their more perfect germination, this germination and development causing the evolution of gas, and producing the condition I have mentioned. Now, if this be at all true, it would be confirmed by an observation which Dr. Bastian also brought forward, that the bacteria of ordinary putrefactive fluid may be injected into the body without causing any very striking symptoms. For instance, Dr. Sanderson finds that in the putrefactive fluids he has been able to separate the fever-producing substance from the bacteria, and finds that the bacteria are not fever-producing substances. Then we have to ask again whether the organisms, micrococci or whatever we call them when they exist in the body, do resemble in their history and in their associations these putrefactive bacteria; and here I do not refer so much to their presence during life as to appearances which are seen in connection with them after death, because that is the occasion where I have chiefly observed them. I think it is certainly true, as was, I think, first pointed out in an emphatic manner by Heger, that although in many cases of pyæmia no organisms of a special kind are to be found in the blood, still they are to be found after death in those parts of the body which have been the subject of pyæmic lesion; they are found, apparently, when they can be easily traced in the primary seat of injury or disease, and they are found also in the secondary seat of disease, being more particularly found in the tissues of cells, and also in the blood. What are these organisms which are thus found if they are organisms? They are simply spheroidal granules, which show an extreme degree of resistance to alkalies and acids, and are, therefore, quite insoluble in potash, and are distinguished from the albuminous granules resulting from the breaking up of blood-cells or from fatty granules. Now, if these organisms, or whatever they are, if these small particles were the same as the substances in a dead body which are commonly associated with putrefaction, we should expect that, being present as they are in great numbers, they would produce putrefaction in the parts surrounding them; nevertheless, I think that is distinctly not the case. When we examine a pyæmic case after death, we do not find the evolution of gas and other signs of active putrefaction in the place where the pyæmic lesions occur, although, on examining, we do find these particular organisms; therefore, I think this is a physiological proof of the truth that these things, whatever they are called, are not the same as putrefactive bacteria, and physiological proof, if I may say so, in addition to the morphological difference adduced by several observers. Therefore, it does appear to me that one can, to a certain extent, trace particular forms associated with particular disease in those parts of the body where the disease has occurred, and it is not the same as common putrefaction. Now, of course, it is easy to see this fact may be interpreted on other hypotheses. It may be said that these forms are products of the disease in the parts of the body affected; it may be said by others that they are the cause of the morbid processes which have been going on in these particular parts, and there is no evidence on the face of it why one should be more true than the other. Whether there is any proof of that, must come from other considerations into which I do not enter now. I would only just say, in conclusion, that the argument I draw from this is not one directly in favour of the germ-theory of disease, but rather directed against some of the objections to it; and to some of these I think it applies with a great deal of force, because it shows that the negative results which have been obtained with respect to common bacteria, such as those which occur in putrefaction, cannot be applied immediately, and certainly to specific organisms, which are alleged to be the cause of disease; and, therefore, many questions which have been argued and supposed to be solved with respect to the putrefactive bacteria would have to be argued again, and on quite independent grounds with respect to these.

A MEMBER referred to some experiments in which he had added laudable pus to sweet wort, preparation of grain, and also sugar preparations, and had obtained very active fermentation in the ordinary space of time. On all occasions the pus-cell had broken up. The result was similar to the action of yeast. There was a considerable quantity of alcohol, but only half the quantity that would be formed by yeast; there was always a certain quantity, from 7 to 9 per cent. and 12 per cent. of alcohol from the action of the pus itself.

Dr. BASTIAN: I think the Society may congratulate itself that the debate did not end prematurely at the last meeting, in the first place, because we have had an opportunity of hearing the very able speech of Dr. Murchison, and also because many additional observations have been made by members of the Society. I think it will facilitate matters if I first of all refer to questions touched upon in the debate this evening. With regard to Dr. Murchison's speech, I have no particular comments to make, because his remarks almost entirely accord with those which I should be inclined to offer myself, only that on many subjects, of course, he possesses a knowledge I do not possess, therefore I am only too pleased to have heard his voice on this subject. With reference to Mr. Wagstaffe's observations on blood in various diseases, I am anxious to make a few remarks. In the first place, I may say that in the years 1869 and 1870 I did submit a very large number of specimens of blood of various diseases, mostly acute diseases, to long and careful observation, and I have detailed notes of each examination; I may say on each examination I expended sometimes an hour or an hour and a half, and I made very careful notes and drawings afterwards. In all these examinations, made in cases of typhus fever, erysipelas, and all sorts of affections, I never once saw a single object which I could put down as a bacterium, or which I, in my own experiments, could have ventured to cite as a bacterium. I saw, of course, many times, a number of granules in the blood, more especially in cases of fever, where granular matter is extremely abundant, and in many cases the granules would possess a much more active motion than the granules of the blood usually do. I do not pretend to understand what is the cause of that active motion of these granules, but I would not venture to say that these were independent organisms at all, and I have never yet seen in the blood of any living animal independent organisms. I have examined the blood from pyæmic patients, patients dying of pyæmia, with the greatest care, over and over again. Last year, I renewed the examinations, and never was able to find a trace of anything like a bacterium in the blood of a living person suffering from pyæmia. A very great number of observations have been put upon record with regard to the presence in the blood of these micrococci. I have a distinct objection to that word "micrococci", because it means a mere granule, a thing with no specific or definite form at all; and I have the same objection to the word "microzyme", because that has been used in precisely the same sense, and means nothing. I would never venture to say in any given case that the blood contained organisms, unless I saw that it did contain organisms having a definite shape. We get granules everywhere. Let anyone boil a little albuminous urine, and look at the granules there—you get it swarming with micrococci. You may say that these are organisms. I know no means of distinguishing between these mere granules of precipitated albumen and the mere granules which often pass as micrococci; and, therefore, unless the things do possess a definite form, I should be very reluctant to say that they were organisms at all. Then, Mr. Wagstaffe mentions acute syphilis. I have many observations recorded of syphilis, acute and chronic, and have never been able to trace anything in that disease which had the least appearance of bacteria in the blood; so far, my observations seem entirely to accord with those which have been made on this subject; and they accord with those of Professor Stricker, Professor Billroth, and many other observers, even as regards pyæmia, for these observers have failed to find bacteria in the blood of living patients suffering from pyæmia; and the same accord also with the observations made by Dr. Goodhart and Dr. Moxon. Dr. Goodhart mentioned that I brought some observations to the notice of the Society in 1869, in which bacteria were found present in the blood, but I really do not recollect that myself. I know I have mentioned elsewhere the fact that bacteria are found abundantly in the blood in cases of persons dying with a very high temperature, say 109 deg. or 110 deg.; that bacteria then occur in all the vessels in different parts of the body in the greatest abundance; and this leads me to remark upon a certain statement made by Dr. Payne. Dr. Payne says that he placed no significance upon the occurrence of bacteria in the alimentary canal. He says, truly enough, we are hollow animals, and bacteria may well get in from without. But it is not only in the alimentary canal that these rod-like or ordinary septic bacteria are met with; they are found just as abundantly within the epithelium and the ducts of the skin, and in other places, and they are invariably found in all parts of the body after death. It is only a question of time, and that question of time again is a question of temperature. If the temperature be high, organisms are formed very rapidly indeed, within a few hours even in the different organs of the body. If the temperature be low, organisms are formed more slowly. There is again, it is true, another disturbing condition, and that is the state of health of the patient. If the patient die in full health, these fluids and tissues of the body may be less prone to undergo this change, the bacteria are not found anything like so frequently; but if a patient die who has been half starved and subjected to a very high febrile temperature, or in whom gangrene has occurred in a certain portion of the body, and whose blood may therefore have been poisoned, then the fluids of that person's body are devitalised, as it were, made more akin to organic fluids existing outside the body, and they are proportionately prone to pass over into putrefactive changes in which, as I maintain, bacteria are bred as a mere natural consequence. I will now pass to the consideration of questions which have been raised in previous debates; and, first of all, I would make some reference to the remarks of Dr. Sanderson. Dr. Sanderson commenced by reiterating, as it were, certain facts which are not at all denied, and he rather repudiated anything like belief in the germ-theory of disease as a theory. Still, I am compelled to say that this theory is his theory practically, because in all his writings, from 1870 onwards, to those which have been published even within a few months, he speaks in this manner. He says that the phenomena of the multiplication of contagia within the body are of such a kind that they seem only explicable on the notion of organic multiplication and reproduction. Well, if they be produced by organic multiplication and reproduction, it must either be the organic multiplication of fragments of living matter which have come from the persons suffering from the disease, or they must be independent particles, independent organisms, bacteria in fact. The members of this Society heard the curt way in which Dr. Sanderson dismissed it as a matter that could not for a moment be entertained. The supposition has been advanced by Dr. Beale, that these are particles which have been thrown off from the living body subject to disease; therefore what remains for Dr. Sanderson, if the phenomena of contagions could only be explained on that supposition? There is only one conclusion which remains for him, that they are independent organisms, and I may say that the tenour of all his writings, from 1870 onwards, has been to promulgate that opinion. In support of that, I would refer to the Blue Book recently published by the Medical Officer of the Privy Council, in which he speaks of Dr. Sanderson's researches, which of course were made under the direction of the Medical Officer of the Privy Council, and this is the view the medical officer takes of his researches. He says, speaking of Dr. Sanderson's observations in 1870: "At that time, the general conclusions already seemed justified, first, that the characteristic shaped elements which the microscope had shown abounding in various infective products are self-multiplying organic forms not congeneric with the animal body in which they are found, but apparently of the lowest vegetable kind; and, secondly, such living organisms are probably the essence, or an inseparable part of the essence, of all the contagia of disease." Then, "In the first paper, Dr. Sanderson brings down to the present time an account of the microphites of contagion"; and, further on, Mr. Simon says, in reference to the observations of Dr. Klein on sheep-pox, "Dr. Klein has been able to identity the contagious particles of that infectious fever as definite microphytes growing and fructifying with vast rapidity in the canals and tissues of the infected skin". In the Blue-book, No. 2, he made as definite a statement concerning typhoid fever; so that we need not go even to the letter of Dr. Tyndall to the *Times*. Mr. Simon himself expresses the opinion that Dr. Klein has discovered the contagium of typhoid fever in these microphytes which he has recognised in the intestines. Then, again, Mr. Simon speaks of common diarrhœa as being produced by the common septic ferment. Again, he even goes so far as to speak of the origin of phthisis—tuberculosis—in this common septic ferment. He says, speaking of experiments which have been made concerning the artificial production of tuberculosis, that "certain of these experiments have shown that a locally originating cause or contagium appears to be the common septic ferment, or a ferment not yet separable from the septic". Now, I maintain that, when we find that the papers of Dr. Sanderson deal with what he calls the facts of coexistence, that he builds up these facts of coexistence; that they appear in blue-books issued by Mr. Simon, and that Mr. Simon takes this most definite position, there seems to be but one conclusion to be drawn. The remarks I have now read may be taken as an answer, if any answer were needed to the remarks which were made at the last meeting by Dr. Maclagan, when he said that there ran through my opening address the assumption, that germ-theorists believe that a causal relationship existed between bacteria and the morbid processes with which they were associated. He further added that that was the position which I had created for the germ-theorists, and not they for themselves. Now, that did surprise me very much, and, after what I have read from this blue-book, and after what anybody may read in French, German, or American literature, it must surprise anyone who is conversant with the subject. That being the case, it does seem to me a little curious to find Dr. Sanderson anxious to waive all these particular questions, which can alone throw any light upon the real relationship existing between the organisms and the morbid processes. But, however I might have been surprised at this, I was still more surprised to hear him state that these questions were wholly beside our pathological mark. If this were really true, it would have been something like a censure upon the Council of this Society, and upon me, for bringing forward questions which ought not to be brought forward in this Society; but I trust that the Society will feel that I did bring forward questions which were really of pathological interest. The definite position which I set myself to prove was one that I held to be of immense importance: the position that bacteria were not causes of disease; that they were consequences of disease; that they were, in fact, actual pathological products engendered within the fluids and tissues of the body. I was the more surprised to hear these statements by Dr. Sanderson, when I recollected what he had said in 1870. At the close of his paper "On the Intimate Pathology of Contagion", he reserved certain important problems for future discussion, and the fourth, I think, of these important problems was worded thus: "The question whether microzymes or bacteria can arise *de novo* in living tissues, in mere consequence of impaired activity of nutrition." Well, without pretending to reconcile these discordant statements, I can only say that I prefer Dr. Sanderson's opinion of 1870 to the opinion which he has uttered here in 1875. Then I have been asked by Mr. Jonathan Hutchinson why I attempted to discuss at the same time the question of the relation of organisms to virulent inflammations and specific fevers. This question has been, to a considerable extent, answered, and answered very ably by Dr. Murchison, but there are a few additional remarks which I may make also upon this subject. Mr. Hutchinson believes in the applicability of the germ-theory to specific fevers, although he does not believe in its applicability to contagious inflammations. I, however, repeat it for both, and I simply took it up because it had been asserted for both, and because I considered that a great many considerations, which were inimical to the theory in one case, were inimical to it in the other; and that therefore one might dispose of both, and attempt to dispose of them at the same time. Mr. Hutchinson, I think, will bear me out in that, though he does not believe in the applicability of the germ-theory to the contagious inflammations themselves; that is a view which is upheld by very many, both in this country and on the continent. We have heard, for instance, what Mr. Simon says; we know the views of Professor Lister, and we know the views of many on the continent; so that it is in fact brought forward by some pathologists as much in relation to these inflammations as it is in relation to specific fevers. Still there are perhaps many who might be inclined to take the same view as Mr. Hutchinson on this point, and I would like to make this further observation. The whole question comes to depend upon what view you take of the specific nature of these organisms. It is supposed that in the case of contagious inflammations we have to do with non-specific or common ferments, and in the case of specific fevers that we have to do with specific organisms. Well, that is a point which I do not at all recognise, and which most people who have looked at the question from my point of view do not recognise; they do not believe in fact in bacteria or organisms having anything like a distinct species in the ordinary sense of the term; they believe, indeed it is admitted by Dr. Sanderson, that they are organisms of the lowest kind, changeable to the very highest degree, capable of being modified by almost every change and every environment. On this subject I may say for the most part the germ theorists do not go into the subject very closely, but those who have, and notably Professor Hallier and also Professor Lister are bound to admit that these organisms do exhibit a most protean variability. And with regard to the changes which the observations of Professor Lister upon bacteria in different media have revealed, I should like to read the following sentences from his paper on the natural history of bacteria. Speaking of the wonderful changes which take place in bacteria under different circumstances, he says: "Hence, any classification of bacteria hitherto made from that of Ehrenberg to that of Kohn, based upon absolute morphological characters, is entirely untrustworthy. In order to determine the species of any specimen, it is necessary to take into account not merely its appearances, but also the character of the medium in which it occurs. This mere morphological character will often entirely fail us, unless we are able to ascertain the physiological characters; and even these appear by no means constant, for we shall in the present paper see reason to believe that one and the same bacterium may differ at different times in its fermentive effects, in one and the same organic solution." I ask anybody, what can you make out of that which will at all accord with the notions of anything like distinct species? It seems to me it is subject to this interpretation, that you have the lowest kind of living matter taking on different forms in accordance with the different media in which it exists. If it take on one form in one medium, and if the medium undergo change, and it then take on another form, so long as the medium remains the same, it breeds true, as it said; that is, it reproduces its like, because the reproduction of these organisms is nothing more than a process of discontinuous growth. It is growth, not reproduction in any complicated sense of the term. Therefore, if you bring back the medium to its original condition, what more natural than to suppose the bacterium itself should revert to the original condition. In fact, I may say that there does exist an enormous amount of evidence to show that all the forms depicted upon the diagram before us may slide into one another—that you may get all sorts of gradations before the torulæ and the typical bacteria. Torulæ may grow out as torulæ indefinitely, or under other conditions they may may grow more continuously and branch out into fungoid filaments; or some of these bacteria may elongate into more or less divided filaments according to the rapidity with which the process of segmentation occurs. You may produce these forms at will. If you take an ordinary organic infusion and expose it to a high temperature, and leave it alone, it will produce these ordinary rodlike bacteria. If you add a drop of acetic acid, you will get bacteria of a large size; add two drops, and a change takes place very rapidly, and the organisms, instead of multiplying as they did, grow continuously into filaments. This does not rest upon my observation; it is an observation which has been made by numerous observers. If, therefore, upon the ground of mere peculiarities of form, I am asked to believe that the corkscrew-like spirilla found in the blood of relapsing fever is the cause of this disease, I most certainly decline to accept that view. I should prefer agreeing with Dr. Murchison, that changes taking place in the fluids and tissues of the body, as the result of destitution, are the real cause of the disease. I would further add, that these changes which take place in the fluids of such a person, are changes most favourables for the production of organisms. Then again there is an enormous amount of evidence which has been brought forward by Dr. Murchison and others, tending to show that this relapsing fever, in which characteristic organisms are found, is a disease which is generable *de novo*. We heard Dr. Crisp also express a strong belief that splenic fever, another disease in which organisms are found in the blood, was also generated *de novo* under the opposite condition; that is to say, under the condition of plethora or overfeeding; and it is only by ignoring the possibility of an independent origin for this disease and for the other diseases that Dr. Sanderson finds reason for his hypothetical views as to the latent life of contagion; but just as typhus may be generated by overcrowding, so it would appear that relapsing fever and splenic fever may be engendered in other conditions. But typhus fever is a fever in which it so happens that organisms are not engendered. Relapsing fever and splenic fever, on the other hand, are diseases in which the changes in the blood are such as to favour the appearance of organisms. Nor is this all. There is other evidence of the same kind to be brought forward. It is a well established fact, that one of the most fatal diseases ever known to occur in silkworms, muscardine, can be generated *de novo*. This fatal disease—a disease in which fungoid elements are found in the blood, even growing through the tissues of the body—elements, too, not at all dissimilar from some of the elements in ovine small-pox, may be produced quite easily by shutting the silkworms up in a glass bottle or box, and by overfeeding them for a little time. Under these conditions, the blood soon swarms with this disease, and the fungus grows through all the tissues of the body, and, when it is there, that animal is capable of spreading the disease to thousands of silkworms with which it may be brought into contact. That is an eminently contagious disease; and, if we look at sheep-pox itself, the facts seem irreconcilable with the notion that the organisms found in the diseased tissues are themselves the cause of the disease; for, after the first local contact of the contagium with the body, it is supposed that the contagium is disseminated through the body by means of the blood. But, on the other hand, it is a well attested fact that inoculation with the blood of an animal suffering from ovine small-pox does not produce the disease in another animal. How can those who believe in this germ-theory for ovine small-pox account for this fact? With facts like these before us, then, we are asked to believe in a germ-theory of disease, because the phenomena of specific fevers are supposed to be alone capable of explanation by reference to the multiplication of hypothetical organisms within the body. But, as Dr. Murchison has already said, it seems to me that these facts are equally capable of being explained in other ways. At the last meeting, too, we heard Dr. Maclagan's attempt to support a theory of this kind on grounds which seemed to me to be not a little fanciful, if not actually erroneous. Febrile heat surely cannot be accounted for by the growth of the protoplasm entering into the composition of his hypothetical germs, for it is a well recognised fact that the growth of living matter is synchronous with the disappearance of heat, not with the production of heat; and I thought also it was a well attested fact, pathologically, that the heat in a febrile case was due to the increased disintegration which occurs in febrile processes. But why should I further attempt to criticise Dr. Maclagan's remarks? It would be perhaps ungracious in me to do so, seeing that he admits my two main propositions. He admits, on the one hand, that I have established the position that bacteria are pathological products; and, on the other, that, if any advocate of the germ-theory ever thought that the connection was causal, he must now give up the idea; for, if the question is to be discussed by evidence, we must acknowledge that Dr. Bastian has proved that no such relationship exists. What more can I wish, at all events? Turning now for a moment to virulent inflammations and their sequelæ, I may say, in reply to Mr. Jonathan Hutchinson, that I used the term "virulent" advisedly. I, moreover, used that term rather than the term "infective", because I thought that the notions of infection are at present being ridden to death. I think that multitudes of processes are put down to infection, which, in the strict sense of the term, have no right to be placed in any such category. These doctrines and modes of expression have been based upon the result of experiments with rodent animals. The results, too, are commonly referred to specific infections, even though it is found that in a certain number of cases a precisely similar result may be produced by non-specific irritants, the mere introduction of a seton, for instance. Then, again, with regard to the facts of coexistence, cited by Dr. Sanderson, concerning erysipelas and diphtheria, I see nothing in these facts which is at all more favourable to his view of the matter than to the opposite view. They are, after all, mere facts of coexistence, and, with the evidence which I have already laid before the Society on the subject, I am disposed to look upon these cases as typical cases of what I shall call bacterial degeneration—that is, that the organisms which are found there are consequences of previous morbid changes, and not causes of those morbid changes. I will not detain the Society any longer at this late hour. I will only say that there is a practical outcome of such views as those which I have been endeavouring to place before the Society. We tie ourselves down to no exclusive theories. The views of contagion teach us, whilst accepting the facts of contagion, not to be pure contagionists, but rather to look abroad and around us, and seek the conditions and the origin of contagious diseases. And as I have elsewhere said, the ravages of typhus in our crowded cities and our gaols have been enormously curtailed, not so much because of its diminished spread by contagion, but rather because we have learned what are the causes which engender it, and are therefore better able to prevent its occurrence. Let us strive, therefore, to acquire a similar knowledge concerning other specific contagious fevers, in order that we may as far as possible oppose the conditions which favour their origin. We shall then endeavour, in the most efficient manner possible, to check the ravages of these now almost ever-present pestilential diseases.

The meeting then passed a vote of thanks to Dr. Bastian and adjourned.

# ASSOCIATION INTELLIGENCE.

## SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.

The next meeting is appointed to be held at the Union House, Dartford, on Friday, May 21st, at 4.30 P.M.: F. B. Jessett, Esq., F.R.C.S., in the Chair. Dinner will be provided at the Bull Hotel at 6.30 P.M.

A paper is promised by E. Bellamy, Esq., F.R.C.S.; also one by the Chairman on Ostitis and Periostitis; and specimens of Scirrhus of the Breast and of Intussusception will be exhibited.

Frederick J. Brown, M.D., *Honorary Secretary.*

Rochester, May 3rd, 1875.

## BORDER COUNTIES BRANCH.

The spring meeting of the Branch will be held at Carlisle on May 12th, 1875. President, Dr. Green, Kendal; President-elect, Dr. W. A. F. Browne, Dumfries. Gentlemen intending to read papers, or be present at the dinner, are requested to give notice to the Secretaries.

Carlisle, April 13th, 1875.
Henry Barnes, M.D.
J. Smith, M.D.
} *Hon. Secs.*

## BATH AND BRISTOL BRANCH.

The sixth ordinary meeting of this Branch will be held at the York House, Bath, on Thursday evening, May 13th, at 7.15 P.M. F. Mason, Esq., President.

Bath, April 1875.
R. S. Fowler
E. C. Board
} *Hon. Secs.*

## EAST YORK AND NORTH LINCOLN BRANCH.

The annual meeting of this Branch will be held at the Hull Infirmary on Wednesday, May 26th, at 1 P.M.

Gentlemen intending to read papers or show cases, are requested to give notice to Robt. H. B. Nicholson, *Hon. Sec.*

Hull, May 5th, 1875.

# CORRESPONDENCE.

## ETHER AND CHLOROFORM.

Sir,—I have just perused the notice by your Liverpool correspondent of Dr. Fifield's demonstration of the American method of administering ether as an anæsthetic. I have no objection to find with the method or its results; but I beg to question some statements said to have been made by him whilst addressing the students and those assembled in the theatre of the Royal Infirmary in this town.

Dr. Fifield states that he has no prejudice either for or against chloroform, and that he had enjoyed ample opportunities of "witnessing" the use of both chloroform and ether. In the first place, as to his ample opportunities of witnessing the administration of chloroform: if they were chiefly limited to Boston, I question the ampleness—aye, anywhere in the States—where, according to his own account, there exists the greatest amount of intolerance and prejudice; where, to use his own words, chloroform "was almost *proscribed*".

In the summer of 1873, I was in Boston, when I called upon my old and much esteemed friend Dr. Alexander D. Sinclair, one of the visiting physicians to the Boston City Hospital, and, if I mistake not, a colleague of Dr. Fifield, who is one of the visiting surgeons to the same hospital. In reply to a question which I put to Dr. Sinclair, if he ever used chloroform now in hospital or in private practice, he informed me that "it was as much as his life and reputation were worth to attempt to administer chloroform in Boston, or almost anywhere in the United States". Dr. Sinclair, on being asked by me what he meant by his "life being in danger", informed me that, if a patient died under the influence of chloroform administered by him, he would "certainly be tried for manslaughter", and that it would go very hard with him, "as public opinion was so strong against chloroform being used, he dare not venture to use it under any pretence".

These statements were made to me in enlightened New England, which boasts its stars and stripes, its superior liberty and intelligence, and, above all, its personal independence! Now, Sir, "would you be surprised" if I told you that Dr. Fifield is surcharged with this same purblind American prejudice against chloroform, in spite of what he says? Like every form of prejudice founded on fear, on patriotism—and shall I say on ignorance?—it is contagious. He is "surprised" at chloroform being used here instead of his favourite ether; and I am equally surprised at ether being used in North America, when, in my opinion, chloroform is infinitely its superior, which they, our American cousins, found to be but too true on the field of battle during the late war. In time of peace, however, their old prejudices returned, and it is just possible, if not highly probable, that one foundation for their unreasoning prejudice lies in their self-love. Ether is an American discovery; hence the national memorial being raised to Wells, the discoverer of its anæsthetic properties, and deservedly. Honour to whom honour is due. Chloroform, being the discovery of British brains, is a secondary thing, and is necessarily "proscribed". We do not proscribe ether or anything which may have its use; but, in America, it would appear that they manage things differently—whether better is another matter—and yet they tell us they are not prejudiced as regards chloroform or ether; believe it who may, I for one am decidedly of another opinion.

In the next place, "witnessing" chloroform and having the entire responsibility in one's hand are very different things. It depends very much on the party administering it what kind of lesson an on-looker may learn. Out of hundreds whom I have witnessed administer chloroform in Edinburgh, London, Liverpool, and elsewhere, there are not six from whom I would take it.

Dr. Fifield observes, on the employment of anæsthesia in labour in the States, "that it was gradually dying out", because, when flooding occurred, "the helpless and unconscious state of the anæsthetised woman rendered her incapable of responding to appeals to second, by her own volition, attempts to cause uterine contraction". It is evident that Dr. Fifield is either misrepresenting the experience of North American accoucheurs of celebrity, or their practice of anæsthetic midwifery admits of very considerable improvement; or, a much more likely solution is to be found in the fact, that their patients much prefer the pains of labour to being stunk out of (pardon the coarseness of the expression) the comforts of house and home by so vile a smelling substance as that of sulphuric ether, during the many hours it may be necessary to give it.

Lastly, as regards chloroform and ether, they both have their uses, and I am free to acknowledge that I have a great preference for chloroform, from conviction of its immense superiority over ether as a general anæsthetic. That there are particular cases in which ether is superior, there can be no doubt whatever; and if I may be allowed to draw the line, it is as follows. In all operations on the head and abdomen (the teeth and jaws and plastic operations excepted), ether is best. In all cases where there is good reason to suspect the integrity of the heart, as in aged and infirm persons, and in very young children, ether ought to be preferred. In all other cases, during peace or on the field of battle, and in midwifery in particular, chloroform is undoubtedly the safest, the most economical, the most manageable, the most agreeable, and the best in reliable and practised, but not in prejudiced, hands. I have now used chloroform almost exclusively in every form of practice since it was discovered in 1847, and I have never lost a case, although I have seen a few apparently *in articulo mortis*, but this latter state only in surgical practice. I would as soon trust the captain of a ship who had never seen a storm at sea, as an anæsthetist who had not seen such cases, or who did not know how to meet them when they occur. I will only add, that if there be one practice more objectionable than another, it is that of mixing anæsthetics: the only diluent admissible being atmospheric air of the purest and coolest quality.—I am, sir, yours truly,

Liverpool, March 22nd, 1875. THOMAS SKINNER, M.D.

## PROVIDENT DISPENSARIES AND OUT-PATIENT REFORM.

SIR,—It will be allowed that there has been a considerable change in opinion during the last few years respecting the advantages of provident dispensaries and the benefits derived from the out-patient system at our large hospitals. That change of opinion may be observed to have occurred both to the supporters of the institutions and to many of our profession. If we were to examine honestly the question of the origin of the out-patient system, which has gradually been found to be attended with many evils, I am inclined to think it would appear that, to a great extent, these have been encouraged by ourselves and not by the public at large. It is our duty, if this be true, to take active steps to attempt to support some effort towards reform. It is quite unnecessary to prove the injurious effects of the out-patient system upon our younger hospital medical officers, as well as upon the patients themselves. There are some whose interests prevent them from expressing independent opinions on this question, and who are the unwilling victims of such a system.

The object of this letter is to suggest, that the principle of provident dispensaries should be promoted as far as possible; and, as a preliminary step, it is most desirable that conformity of regulations and concerted action should be secured by the medical officers of these provident dispensaries which exist in and about the metropolis.

One of the first steps I would recommend would be the publication of the localities of all such provident dispensaries; and, as I have lately observed a decided desire on the part of the governors of such institutions and of the clergy in whose neighbourhoods they are established to support them in every way, it would be a great assistance to those who are attempting to limit the out-patient system at hospitals, to have ready means for providing proper medical and surgical advice for the cases they refuse. As the medical officer of a large special hospital where some reform is earnestly desired, I can freely express the desire our staff entertains to refer to provident dispensaries many cases which, we think, might fairly attend them. In return for this, we only ask that perfect confidence and good faith may exist between ourselves and them, and that they will support us by material aid and by taking advantage of the special knowledge to which we not improperly pretend, by which all concerned may be benefited.

If Mr. Fairlie Clarke would undertake the organisation of such a scheme, the expense of which would not be great, and which, I am sure, would be shared readily by the dispensary authorities, one step would be taken towards a solution of some of the difficulties which at present surround the subject of out-patient reform, and the promotion of provident dispensaries.—I am, yours truly,

A PRACTICAL SUGGESTION.

## SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

SIR,—I am desired to inform you that at the annual meeting, held last Friday, the following resolution was carried unanimously.

"That a vote of thanks be given to the Editors of the Medical Journals for their great kindness in giving publicity to the proceedings of the Society in every possible way."

I am, Sir, your obedient servant,

May 5th, 1875. JOS. B. BLACKETT, Secretary.

## THE QUALIFICATIONS OF HOSPITAL MEDICAL OFFICERS.

SIR,—The article in the JOURNAL, for April 10th, on this important subject will no doubt commend itself to many of its readers; but there is another way of looking at the matter which deserves, I think, some consideration, and, with your permission, I shall point it out as briefly as I can.

With reference to hospitals and infirmaries, provincial towns may be divided into two classes, viz., those which are large enough to attract one or more gentlemen, in connection with these institutions, practising purely as physicians; and those which are not large enough to have any such special practitioners. I need not stop to say anything of the latter, save that in them the duties of any existing hospital are probably performed by the resident medical men without any distinctive appellation of physician or surgeon. The rules regulating the number of physicians to be appointed to the different hospitals were no doubt made at a time when, owing to various bygone conditions, the proportion of consultants to general practitioners was much greater than it is at present; and were made, probably, as it has always seemed to me, more with reference to the number of pure physicians then resident in the place, than with any reference to the real wants of the institution to which they were to be attached. In any case, the determination of the number must have been purely arbitrary, and, therefore, no institution need necessarily suffer by the specified number not being complete. I feel sure that, with two or three exceptions, the care of the medical in-patients in any provincial hospital could be easily and satisfactorily carried out, if necessary, by one man; and, with regard to out-patients, what is wanted is some scheme which would relieve medical charities of the crowd of confirmed drug-consumers always borne upon their books, rather than one which would afford facilities for their increase. Take away from the medical out-patients of any institution the victims of tea-dyspepsia and chronic rheumatism, and it is only the very few remaining who require any special attention. There is too much unpaid work done by the profession as it is; and the obvious course for the governors of any institution hampered by medical out-patients, is to appoint a paid house-physician to attend to them. This would be quite as good an arrangement for the patients as the appointment of general practitioners to look after them; for if they, the general practitioners, have the "extended experience" resulting from a large private practice, they certainly cannot spend much time with the out-patients; and if they have not had the extended experience, the patients would certainly be no worse off in the hands of a paid official. The fact is, as is well known, that hospital out-patient work on the medical side is, to a great extent, an useless expenditure of labour on the part of those who have to attend to it, and of the funds of the different institutions; these, the labour and the funds, are too often expended upon patients who, on the one hand, may be quite capable of contributing to a provident dispensary, or even of paying a medical man; and, on the other hand, upon those who, from their social surroundings, are incapable of receiving benefit from the advice and medicine given. In addressing you, however, my chief object is to point out that it is a manifest injustice to the whole body of general practitioners in any town to appoint one or two of their number with the distinctive appellation of physician to the local hospital or infirmary, so long as the one or two chosen are allowed to remain competitors for general practice, and, it may be, even for club practice. I have very little doubt that the general voice of the profession would affirm this, and equally little doubt that this was the reason why the rule was first made limiting hospital physicians to special work. It may be answered, no doubt, that the same rule should apply to surgeons; but the cases are not at all parallel, for this reason, that in most provincial towns purely surgical work can form but a comparatively small portion of any man's practice; and, in the far wider field of medicine and midwifery, hospital and non-hospital surgeons are on an equal footing.

In conclusion, I would merely say that, if "one of the main uses of having a physician in a town is that his colleagues may from time to time have the benefit of his advice and assistance in cases where they experience difficulty", it is equally clear, I think, that a system which would make him at the same time consultant and general-practice-competitor, would be regarded at least with suspicion by many, and would be of doubtful advantage to few.—Your obedient Servant,

A Hospital Physician.

# MEDICO-PARLIAMENTARY.

### *HOUSE OF LORDS.—Friday, April 30th.*

*The Pollution of Rivers.*—The Marquis of Salisbury, after directing attention to the state of the law regarding the pollution of rivers, laid a Bill on the table to provide a remedy for the present objectionable state of things. With this object, he proposed to refer all cases of alleged pollution to the County Court, to prohibit the pouring of noxious matters into rivers hereafter, and to compel those who now exercised the right of doing so to render the matter as innocuous as possible. Power was also given to the Local Government Board to sue the local sanitary authority, where it neglected, to enforce the law in such cases.

*The Artisans' Dwellings Bill* was read a third time.

### *Tuesday, May 4th.*

*Vivisection.*—Lord Henniker presented a Bill for regulating the practice of vivisection, and it was read a first time.

### *HOUSE OF COMMONS.—Monday, May 3rd.*

*Army Medical Exchanges.*—Mr. Hardy, in answer to Mr. O'Leary, said that, in certain instances, exchanges had been refused to army medical officers who had been a long time at home, and where the foreign service was disproportionately small. No reasonable application had been or was refused.

*The Vaccination Act.*—Mr. Sclater-Booth, in reply to Mr. B. Denison, who asked whether his attention had been formally called to the systematic evasion of the Vaccination Act by the Skipton and Keighley Boards of Guardians, and the consequent greatly increased death-rate from small-pox, said that he had received no report of the systematic evasion of the vaccination laws at Skipton, where only one death from small-pox had occurred during the last quarter; but they stated in their last report that the guardians had stated it to be their intention to proceed against defaulters. At Keighley, there had been thirty-seven deaths during the last quarter from small-pox, and the guardians had distinctly refused to instruct their officers to enforce the provisions of the Vaccination Act. The Local Government Board had, therefore, given directions that measures should be taken for an application to the Court of Queen's Bench to enforce the provisions of the law.

### *Tuesday, May 4th.*

*Medical Officers of the Army.*—Mr. George Browne asked the Secretary of State for War whether it was his intention to recommend an increase in the half-pay of medical officers of the Army after twenty years' service, as had been recently done in the Navy; and, if so, when a warrant on the subject was likely to be issued.—Mr. Hardy said that the complaints of the medical officers of the Army were receiving full consideration, but it would be premature to express an opinion upon one part of the case. He was informed that the hon. gentleman had not correctly represented what had been done in the Navy; but, at all events, he was not at present in a position to answer the question.

*The Proposed Hampstead Hospital.*—Mr. Coope has given notice that he will call attention to the action of the Metropolitan Asylums Board with reference to the proposed erection of a permanent hospital for contagious diseases near Hampstead Heath, and move for a Select Committee to inquire into and report upon the clauses of the Metropolitan Poor Act (30 Vic., c. 6), giving powers to the managers of asylums to take, hold, and dispose of lands and other property for the purposes of the Act; and Mr. Torrens will propose to add to the amendment that the said Committee shall specially report whether any new general hospital for infectious diseases in the metropolis is desirable or necessary.

# UNIVERSITY INTELLIGENCE.

## UNIVERSITY OF CAMBRIDGE.

Examinations.—The examinations for medical and surgical degrees will commence on Thursday, June 10th, at the Old Anatomical Schools. Candidates are required to send their names and certificates to the Regius Professor of Physic (Dr. Paget) on or before June 1st. In the case of candidates for the First M.B. examination, a fee of three guineas is to be paid to the Registrary of the University.

Report on Museum and Lecture Rooms.—The Museum and Lecture Rooms Syndicate have issued their ninth annual Report. They draw attention to the insufficient accommodation for examination purposes, the insufficiency of space for the students in comparative anatomy, in the hope that, as these matters are being considered by a special Syndicate, the deliberations of that Syndicate may result in something being done without more delay than is absolutely necessary. Considerable use has been made during the past year of the Cavendish laboratory, which is being rapidly fitted at the expense of his Grace the Chancellor, the Duke of Devonshire, with the apparatus required for physical research. The classes of Dr. Michael Foster, the Trinity Prælector in Physiology, have been as well attended as the size of the rooms allow; but here, again, the want of proper accommodation is painfully evident, as those rooms are neither sufficiently large nor sufficiently well lighted for class rooms. They acknowledge with thanks the liberality of Miss Strickland in endowing a curatorship for her brother's collection of birds, and they are happy to think that the first curator is so eminent an ornithologist as Mr. Salvin. The donations made to the different collections have been numerous. They call especial attention to the bequest of G. R. Crotch, M.A., late of St. John's College; to the munificence of Viscount Walden and Professor Newton in presenting important collections of birds; and to the acquisition, through the promptness and liberality of the latter, of a nearly complete skeleton of the extinct Urus (*Bos primigenius*) from the Fens. The gift of seventy-two type specimens of Cambrian fossils by Dr. Henry Hicks, by whom the Woodwardian Museum has already been much enriched, also calls for special mention. The reports of the various professors detailing the work done during the past year, and a long list of donations to the various collections are appended.

# MEDICAL NEWS.

Royal College of Physicians of London.—The following gentlemen were admitted Members on April 29th, 1875.

Bowles, Robert Leamon, M.D.Brussels, Folkestone
Goodhart, James Frederic, M.D.Aberdeen, Finsbury Square
Lees, David Bridge, M.B.Cambridge, Manchester
Turner, Francis Charlewood, M.D.Cambridge, St. Thomas's Hospital
Warwick, William Rollinson, M.D.St. Andrew's, Lambert Road

Admitted Licentiates on April 29th, 1875.

Alford, Frederick Stephen, 25, Haverstock Hill
Barron, Thomas Walter, Sunderland
Boulter, Harold Baxter, St. Bartholomew's Hospital
Bradford, Peter, University Hospital
Brown, Walter, Tetbury, Gloucestershire
Bull, William Henry, St. George's Hospital
Burgess, Edward John, St. Bartholomew's Hospital
Edwards, David, Mold
Evans, Henry, Bramley Hill, Croydon
Garlick, George, University Hospital
Granger, Farington Marsden, Public Dispensary, Leeds
Hallett, Henry Arthur, 8, Southwood Terrace
Johnston, Wingate Kidd, 24, Beverley Road
Kennedy, William Adam, Newcastle-on-Tyne
Lattey, Arthur, Willingham, Huntingdonshire
Morrisson, Stammers, 1, Albert Square
Smith, Charles Edwin, Royal Infirmary, Manchester
Watts, Fred, 25, Bartholomew Close

Royal College of Surgeons of England.—The following genlemen passed their primary examinations in anatomy and physiology at a meeting of the Court of Examiners on the 30th ultimo, and, when eligible, will be admitted to the pass-examination.

Messrs. Alfred Pain, R. A. Birdwood, C. T. K. Shand, Henry Dismore, W. F. Hearnden, W. D. Stamp, and A. G. Collington, students of Guy's Hospital; W. R. Nicholson, F. W. S. Culhane, Robert Heald, J. R. Salter, and A. E. Broster, of University College; E. W. G. Goodridge, E. J. Loader, and F. R. Barker, of St. Thomas's Hospital; A. P. Young and H. J. L. Bennett, of St. George's Hospital; H. N. Pendleton and P. S. Jakins, of St. Mary's Hospital; W. P. Tritton and C. B. Lewis, of King's College; Morgan Davies, of the London Hospital; and W. B. Rigby, of St. Bartholomew's Hospital.

The following gentlemen passed on the 3rd instant.

Messrs. J. F. McCrea, A. S. C. Buxton, H. L. Manby, Walter Strover, W. L. Chubb, J. W. Callington, Alfred Burt, and C. St. J. Wright, of Guy's Hospital; J. P. A. Gabb, Tom Sayer, W. J. Steventon, John Webster, and John Mortimer, of University College; T. W. Coffin, E. C. Watts, and N. S. Foster, of King's College: G. E. Crallan, B.A.Cantab., and J. R. Thomas, of St. Bartholomew's Hospital; R. H. Campbell and R. D. G. Hall, of St. Thomas's Hospital; S. H. Creah and W. H. F. Young, of St. George's Hospital; C. A. Bradley, of the Manchester School; E. P. Evans, of the Middlesex Hospital; and J. S. Battams, of St. Mary's Hospital.

The following gentlemen passed on the 4th instant.

Messrs. A. B. Harris, Frank Marsh, R. R. Tudor-Risk, F. H. Corbyn, H. E. F. Cross, and T. F. Ensor, of King's College; F. S. Goulder, R. G. Buckley, James Hudson. S. R. Corder, Peter Cooper, and Lewis Fabien, of University College; Edward Lynn, J. T. Hinton, Roger Lee, and H. J. Shepheard, of Guy's Hospital; and Henry Thomas Hamilton, of the Charing Cross Hospital.

Out of 176 candidates examined, 55 were rejected.

Apothecaries' Hall.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, April 29th, 1875.

Cambridge, Thomas Arthur, 40, Gower Street, W.C.
Farnell, Henry Dawson, Westgate Terrace, Kensington.
Foster, Henry George, Crane Hill, Ipswich.
Hallett, Henry Arthur, Highgate.
Harris, Stanford, High Ardwick, Manchester.
Smith, Rowland Dunn, York House, Chatteris.
Tomkins, Henry, Great Berkhamstead, Herts.

The following gentlemen also on the same day passed their primary professional examination.

Broome, Stephen Bernard, Marischal College, Aberdeen.
Garbutt, John Gilliott, St. Mary's Hospital.
Mahony, Laurence, London Hospital
Wade, Arthur Breadon, St. Mary's Hospital.
Wickham, Henry, St. Mary's Hospital

University of St. Andrew's.—The following gentlemen received the degree of M.D. on April 21st.

Bird, William, M.R.C.S., L.S.A., York
Devereux, Daniel, M.R.C.S., L.S.A., Tewkesbury
Jones, Thomas Eyton, M.R.C.S., Wrexham
Kesteven, William B., F.R.C.S., L.S.A., London
M'Vail, John C., M.B., C.M., Kilmarnock
Ryott, Frederick E., F.R.C.S., L.S.A., Newbury
Sedgwick, James, M.R.C.S., Boroughbridge
Sweeting, Thomas, M.R C.S., L.S.A., Basingstoke
Wolston, Christopher, M.R.C.S., Bournemouth

## MEDICAL VACANCIES.

The following vacancies are announced:—

BETHLEM HOSPITAL—Two Resident Medical Students.
BINGHAM UNION—Medical Officer for the Workhouse.
BIRMINGHAM GENERAL DISPENSARY—Resident Surgeon. Salary, £130 the first, £140 the second, and £150 the third year, with furnished apartments.
BRADFORD INFIRMARY AND DISPENSARY—Physician. Applications to be sent on or before June 12th.
BROADMOOR CRIMINAL LUNATIC ASYLUM—Assistant Medical Officer. Salary, £200 per annum, with furnished apartments, coals, gas, and attendance.
CHELTENHAM GENERAL HOSPITAL AND DISPENSARY—Junior House Surgeon. Salary, £80 per annum, with board and residence.
DENTAL HOSPITAL OF LONDON—Dental House-Surgeon. Salary, £40. Applications on or before the 13th instant.
EVELINA HOSPITAL, Southwark Bridge Road—Registrar and Chloroformist. Salary, £50 per annum.
GREAT YARMOUTH HOSPITAL—House-Surgeon. Salary, £100 per annum, with furnished apartments, coals, gas, and attendance. Applications on or before May 12th.
HOUGHTON-LE-SPRING UNION—Medical Officer for the Rainton District. Salary, £25 per annum.
KILCHRENAN AND DALARICH, Parish of—Salary, £80 per annum. Applications, on or before May 1st, to the Chairman of the Local Board.
LUTON UNION—Medical Officer for the Workhouse. Salary, £30 per annum.
MILFORD UNION—Medical Officer for the Colloney Dispensary District.
NEWMARKET UNION—Medical Officer for Nos. 1 and 3 Districts. Salary, £85 per annum.
NEWBURY UNION—Medical Officer for the Second District. Salary, £140 per annum. Medical Officer for the Fifth District.
NOTTING HILL PROVIDENT DISPENSARY AND MATERNITY—Resident Medical Officer, with furnished apartments, coals, lights, and attendance. Applications on or before the 20th instant.
PENISTONE UNION—Medical Officer for the Penistone District and Workhouse.
QUEEN CHARLOTTE'S LYING-IN HOSPITAL—House-Surgeon.
ROYAL FREE HOSPITAL—Honorary Surgeon. Applications on or before the 24th instant.
SALOP AND MONTGOMERY COUNTIES LUNATIC ASYLUM—Assistant Medical Officer. Salary, £100 per annum, with board and apartments. Applications on or before the 14th instant.
SCARBOROUGH DISPENSARY AND ACCIDENT HOSPITAL—House-Surgeon. Salary, £120 per annum, with apartments, gas, and attendance. Applications on or before the 17th inst.
ST. GEORGE'S (Hanover Square) DISPENSARY—Physician. Applications on or before May 8th.
SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY—Assistant House-Surgeon. Salary. £65 per annum, with board, lodging, and washing.
SPALDING UNION—Medical Officer for the Gosberton District. Salary, £40 per annum.
TORBAY INFIRMARY—House-Surgeon. Salary, £100 per annum, with board and lodging.
TORONTO ASYLUM, Canada—Medical Superintendent. Salary, £411 per annum, with furnished apartments, fuel, light, and furnished table for family. Applications on or before May 15th.
TOTNES UNION—Medical Officer for the Ninth District. Salary, £20 per ann.
ULVERSTONE UNION—Medical Officer.
WANGFORD UNION—Medical Officer for the Bungay District. Salary, £90 per annum.
WHITEHAVEN AND WEST CUMBERLAND INFIRMARY—House-Surgeon and Dispenser. Salary, £130 per annum, with furnished apartments and attendance. Applications on or before June 1st.

## MEDICAL APPOINTMENTS.

*Names marked with an asterisk are those of Members of the Association.*

Aveling, Edward B., B.Sc.Lond., appointed Lecturer on Comparative Anatomy at the London Hospital Medical College.
Davies, Francis P., M.B., appointed Senior Assistant Medical Officer to the Kent County Lunatic Asylum.
Ewens, John, L.R.C.P., appointed Consulting Medical Officer to the Milton Abbas Cottage Hospital.
Latimer, Henry A., M.R.C.S.Eng., elected Medical Officer for out-door patients of the Swansea Hospital, *vice* Jabez Thomas, L.R.C.P.Ed., resigned.
*Mickley, George, M.A., M.B., late Senior Assistant Medical Officer of the Three Counties Asylum, Baldock, appointed Medical Superintendent to St. Luke's Hospital.
*Mules, P. H., M.D., appointed Surgeon to the Royal Manchester Eye Hospital.
*Skerritt, E. Markham, B.A., M.D., appointed Physician to the Bristol General Hospital, *vice* T. E. Clark, M.D., resigned.
Stephens, Augustus E. R., L.R.C.P.Lond., appointed House-Surgeon and Secretary to the Kidderminster Infirmary, *vice* A. C. Horner, M.R.C.S.Eng., resigned.
Williams, Trevor W. W., M.R.C.S.Eng., appointed House-Surgeon to the Brixton Dispensary, *vice* W. K. B. Welsh, Esq., resigned.

Bequests.—The late Mrs. Eliza Foulston of Compton Gifford, Devonshire, and the Boltons, South Kensington, bequeathed £100 Government stock to each of the following institutions: the Royal Free Hospital; the Metropolitan Free Hospital; St. Mary's Hospital; the Cancer Hospital; St. Peter's Hospital; the London Fever Hospital; the Middlesex Hospital; the Royal London Ophthalmic Hospital; the Hospital for Women; the British Home for Incurables; the Small-pox Hospital, Upper Holloway; the West London Hospital; University College Hospital; King's College Hospital; St. John's Hospital for Skin-Diseases; the Metropolitan Convalescent Institution; the South Devon and East Cornwall Hospital; the Hospital for Diseases of the Skin, Blackfriars; and the Hospital for Incurables, Putney Hill.—Mr. George Jeremy, late of Lincoln's Inn and Axminster, left, among other gifts, the following to medical charities: the Devon and Exeter Hospital, and the Taunton and Somerset Hospital, £1,000 New Three per Cent. Annuities each; to the Hospital for Incurables at Putney, £500.—The Royal National Hospital for Consumption located at Ventnor has received a bequest of £1,000, duty free, from the executors of the late Frederick Henry Leaf, Esq., formerly treasurer to the institution.

## MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Dr. Wickham Legg, "On the Histology of Nutmeg Liver"; Mr. Henry Lee, "On Excision of the Ankle-Joint"; Dr. Galabin, "On a New Form of Cardiograph"; Mr. Gay, "On the Treatment of Nasal Lupus by Excision".

FRIDAY.—Clinical Society of London, 8.30 P.M. Mr. Jonathan Hutchinson, "Rare Form of Malformation of the Head, with Proptosis"; Dr. T. Henry Green, "Case of Fatty Degeneration of the Heart"; Dr. Broadbent, "Absence of Pulsation in both Radial Arteries, the vessels being full of blood"; Dr. George H. Evans, "Dilated Heart from Valvular Disease; Right Ventricle tapped by error; not only without harm, but with relief of symptoms".

## OPERATION DAYS AT THE HOSPITALS.

**MONDAY** ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

**TUESDAY**......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

**WEDNESDAY**..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

**THURSDAY**....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Roya Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.

**FRIDAY**.........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

**SATURDAY** ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

## NOTICES TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

### ALLEGED PREVALENCE OF SMALL-POX IN HASTINGS AND ST. LEONARDS.

SIR,—I beg to assure your correspondent H. B. D., that there is no foundation for the report he has received to the effect that small-pox is raging in Hastings or St. Leonards. Having made inquiries among many of the medical men, I cannot hear of a single case. The registrar of deaths for seven out of the nine parishes of the borough, including a population of 23,000 out of 30,000, informs me that no death has occurred from this disease during the last five years; and, further, that the death-rate from zymotic disease during the last quarter has been exceedingly low.—I remain, Sir, yours faithfully, F. BAGSHAWE, M.D. Cantab.

St. Leonards, May 4th, 1875.

SIR,—Will some of your readers kindly inform me where I can obtain former examination papers in classics, chemistry, etc., for the Preliminary Educational Examination for the Fellowship of the Royal College of Surgeons?—I am, etc.,

NAMOR.

### PUERPERAL PERITONITIS AT CREWE.

WE have received a letter from Mr. Haughey, in whose practice all the cases, with one exception, occurred.

He states that he only had three cases of fatal puerperal peritonitis, and that he attended three women between the second and third case who made good recoveries. Of these three, one woman was a stranger to the town, and was said to have had a rash over her body before confinement; the other had symptoms of peritonitis before delivery, which became aggravated afterwards; the last had apparently quite recovered from her confinement, the attack coming on nine days afterwards, with choleraic symptoms. He says he can trace no possibility of conveying infection either on his or his assistant's part. The number of women confined by him during the month was forty. Of those non-puerperal, and according to a copy of the registrar's books, there were nine who died under Mr. Haughey's care. Mr. Haughey mentions two cases of pneumonia; one occurring in a month after delivery; and another where a woman aborted at seven months, from pneumonia of fourteen days' standing, without any uterine symptoms. It is a pity the causes of death in the other four cases are not given. While Mr. Haughey was having these cases, another practitioner had one. There were three other deaths during the month from exhaustion after flooding: in all, thirteen deaths in childbed, or shortly afterwards, out of a district not numbering 30,000 inhabitants. The mortality of childbed, as we have on a former occasion stated, is much higher than is commonly accepted. Dr. Matthews Duncan called particular attention to it in his address at the British Medical Association Meeting at Norwich last year. If medical men would only have the courage to return all the deaths that occur during the first six weeks after delivery, under a puerperal heading, it would do much to dispel the present ignorance on that subject; and it is really to their own interest to do so.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, twelve o'clock.

### ALLEGED EXEMPTION FROM CHOLERA.

SIR,—Would some member of our Association kindly inform me if it be a fact that, in the last cholera epidemic, the inhabitants of large towns living in the vicinity of tan-yards, slaughter-houses, and rag-and-bone-stores were free from the disease? I remain, etc., ARTHUR T. H. KERR.

309, North Road, Preston, May 4th, 1875.

### ON THE RIGHT MANAGEMENT OF THE PUERPERAL STATE.

SIR,—If it be true that the safety of the patient during childbirth depends essentially on tranquillity of mind, and a body warm and perspiring, then it must follow that, having regard to the further security of the patient, the conditions favourable to such a state of extreme bodily relaxation must, when the labour is completed, be entirely reversed. And just as by the universal adoption during labour of the principles I have advocated, parturient women would be saved an infinite amount of danger and distress; so, likewise, the same beneficial results would assuredly follow were the corroborative measures which I have suggested to be used immediately after delivery also universally employed. Then, too, I venture to predict, the occurrence of any febrile condition during the puerperal state would be as rare an exception as, under an opposite plan of treatment, it is now the reverse.

"I presume", says Dr. Richardson, "there is no such thing (at any rate, the exceptions are very rare) as a case of delivery which is not followed by some slight febrile state." "There is always", he continues, "this simple surgical fever similar to that which occurs after a surgeon has removed a limb"; and as an illustration of the latent danger of this universal condition, he informs us that, in one case, where "there was a simple rise of temperature of four degrees", he has "witnessed a fatal result".

What words, then, I ask, can more powerfully express the absolute necessity of systematically adopting, *as measures of prevention*, such means as are best calculated to restore the healthy tone and temperature of the body during the time the patient remains in this most critical condition? By the free admission into the chamber of sunshine and fresh air; by encouraging the patient to take, from the very beginning, her ordinary diet, instead of slops and other unsatisfying food; and by her speedy removal from the bed to the sofa, this "simple surgical fever" will be made to vanish. Then, too, in almost every instance, recovery will be well-nigh established—the use of the cold bath being all that is necessary to complete the cure. So true is this, that any medical man who may be honestly desirous of carrying out this simple but beneficial programme, will experience the greatest opposition from the interested and prejudiced persons usually surrounding the patient, and with whom, unfortunately, he is often compelled to accept a divided authority. And if further proof were needed to establish the correctness of these views, it might be sufficient to draw attention to the fact that, under such a system of management, patients—so far from being satisfied with the meagre dietary recommended by Dr. Leishman*—will often take, with advantage, considerably more nourishment than at any other period of their lives; that not unfrequently they are able to satisfy their infants with breast-milk the day after delivery; and that the lochia, never excessive, ceases within a week.

With regard, then, to the four forms of puerperal fever mentioned by Dr. Richardson, allow me to remark that the first (or "simple surgical fever") arises purely from exhaustion, and requires a generous diet both for its prevention and its cure. The second form of fever (the bilious remittent) has its origin not unfrequently in some irregularity of diet coupled with other conditions unfavourable to healthy digestion (mental agitation; hot and close air, for example); and it seems probable that the more or less frequent occurrence of this kind of fever in former times, gave origin (by a perverse process of reasoning) to the system of low diet after childbirth. I have already offered a few comments on a case exemplifying the third form of puerperal fever (in which the patient was poisoned by a retained placenta); that, and the fourth variety, point, in the strongest manner, to the necessity of adopting, in every instance, a thorough system of hygiene very different from that ordinarily pursued. In the midst of winter, whilst the snow was lying thick upon the ground, I have had a patient (who only a few hours previously had been delivered), amply protected with warm clothing, lying in bed, and enjoying the fresh air coming in from an open window.—Yours, etc., M.D.

Harlesden.

* "It will be quite proper", says Dr. Leishman, "after the first day, at least, in the great majority of instances, in which the patient has had some sleep, to give chicken-soup, or beef-tea, in addition to the dry toast, gruel, arrowroot, and sago, which are properly given at this stage, as being substances easy of digestion."

I. H. P.—There are no means of directing nutrition to particular parts of the body except by good general nutrition and local functional activity. Thus in paralysis by electricity, by kneading the muscles, etc., their tone and nutrition are maintained; and when power is returning, exercise further developes their nutrition. There is no direct connection between the veins and lymphatics of the skin and the adipose tissues or muscles immediately beneath them; any application of cod-liver oil, etc., to the skin, aids general, but not local, nutrition to the parts beneath. The rubbing over the muscles might affect them locally, but that is all. There are no known means of arresting nutrition locally, except by the atrophy which follows enforced rest.

L. M. S.—Mr. Francis Mason delivered the Oration at the Medical Society of London in 1870.

### CAPSICUM IN DELIRIUM È POTU.

SIR,—With regard to the remarks of a correspondent in the JOURNAL for April 10th, as to the good effects of capsicum in the treatment of "tippling", I would say how useful I have found the same drug in the treatment of the insomnia and restlessness arising in cases of *delirium è potu*. I have found it of the utmost service in procuring quiet, soothing sleep. In one case in particular, I had tried chloral, opium, morphia, and all the other *direct* sedatives, but in vain; but on ordering capsicum (which I generally prescribe in the form of pills, made up with extract of gentian), my patient slept soundly, and was much better the next morning. As to its *modus operandi*, I do not pretend to speak; but I should be glad to hear if any of my medical brethren have found this drug equally efficacious in the treatment and alleviation of the above disease. L'HEUREUX BLENKARNE.

Buckingham, April 19th, 1875.

H. MORTIMER.—The celebrated Abernethy was born in 1765, and died in 1831. Percival Pott, who was also surgeon to St. Bartholomew's Hospital, was born in 1713, and died in 1788. Archdeacon Pott, of Kensington, was his son.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

### Provident Dispensaries.

A CORRESPONDENT, P. L., asks: "Why should not every general practitioner or L.R.C.P. who desired it, have his own provident dispensary? It struck me, if each medical man had his own dispensary, the advantages would be great in several ways.

"1. He could limit the number of members as much as he liked.

"2. He could have them at a convenient distance.

"3. It would be his own fault if he admitted or retained improper members.

"If the practitioner had no assistant, he could arrange with a chemist in the neighbourhood to receive the weekly contributions, and dispense the medicines prescribed. If he had, the assistant could do that. All that would be required would be some cards printed after the pattern enclosed, and a few *hand-bills to make the thing known.*"

The italics are our own. We give the scheme of our correspondent for what it is worth; but if its impracticability, for other reasons, were not assured, we are convinced the additional opportunity it would afford for the practice of medical advertising, which we have so often condemned in these columns, would render it most distasteful to the large majority of the profession. No; what is wanted is an *unity of action* on the part of the members of the profession in the large towns, in favour of provident institutions; and then, before many years were passed, patients would be arranged in classes, and each medical man would be able, as a rule, to judge how much each patient could afford to pay; and, in addition, the members attending the hospital out-patient departments would be reduced to something like reasonable proportions. If the various Branch Associations would set on foot a movement to promote the advancement of provident institutions throughout the country, much would be done; and we hope before long to be able to report that this subject is occupying the attention of many members of the Association.

### Hospital Sunday Fund.

ON Friday, April 30th, at a meeting of the Council, it was decided to "summon a meeting of the clergy of all denominations, and two lay members of their congregations, to consider the resolutions carried at the meeting of the 8th of March, and to determine the future constituency of the fund". This meeting of representatives took place yesterday afternoon, too late, however, for us to give any account of the proceedings in this week's issue. We were glad to find there was an unanimous feeling amongst the members of the Council on all points, if we except Messrs. Fry and Glover, who were, of course, in favour of the views advocated by a contemporary, and who displayed much anxiety to convince the Council of the wisdom of abolishing the method hitherto pursued, of deducting the payments by or on behalf of the patients from the basis of award. It is gratifying to find that the prevailing feeling amongst all classes of the clergy is in favour of the views of the Distribution Committee. In fact, we have reason to know that, so far from detracting from the discretionary power of the Distribution Committee, the clergy, as a whole, show the strongest disposition to add thereto; to support Sir Sydney H. Waterlow; and to retain, not only his name, but also the names of the medical officers who gave such valuable assistance to the Committee when determining their last year's award. Surely the specialists will see the wisdom of pursuing a more liberal policy than that they recently adopted. We are convinced, with a few more years' experience, those managers of hospitals (general and special) who are at present so discontented, by a closer attention to efficient management, and to strict economy, will deserve and receive at the hands of the Council of the Fund, not only larger grants, but equally fair and generous treatment. "Justice to all" is the motto which will ensure for this movement a successful future; and we have no hesitation, therefore, in saying that, judging the Council by their past acts and conduct, its ultimate success is fully assured.

ASSOCIATE, KING'S COLLEGE.—The following are the salaries of the Medical Department of the Local Government Board:—Mr. Simon, F.R.S., £2,000; Dr. Seaton, £1,100; Drs. Mouatt and Buchanan, £1,000 each; Dr. Stevens and Mr. Radcliffe, £800 each; Dr. Thorne Thorne, £600; and Drs. Bloxall, Beard, Ballard, and Airey, £550 each. Mr. A. B. Farn, of the Vaccine Department, receives £282 *per annum.*

### Magnetine.

SIR,—Referring to your statement in the JOURNAL of April 17th, allow me to say that my name has been withdrawn from the pamphlet of Messrs. Darlow and Co., the inventors of magnetine. I send you enclosed their recent issue.—Yours,

M. C. SOUTTER.

8, Cumberland Terrace, Finsbury Park, N., 5th May. 1875.

A COLLECTOR (Plymouth).—There is a very good engraving of Dr. James Sims. He was an Irishman of learning and great good humour, but strangely tinctured with vanity about his person, which he thought irresistible. The following epitaph was written on him.

"Here lie in repose
The visage and nose
Of James Sims, from the Lake of Killarney.
Had I deem'd it my duty
To call him a beauty,
You'd have thought I was dealing in Blarney."

### Mr. Napier's Calculus Instruments.

SIR,—Will you be so good as to allow me, through the medium of your JOURNAL, to inform those members of the profession who may be desirous of obtaining my instruments for the detection and removal of vesical calculi, or self-retaining catheters, that they may all be procured on application to Messrs. S. Maw and Co., 11, Aldersgate Street, E.C.; and, at the same time, to offer my apologies to those who, owing to mechanical difficulties connected with the manufacture of the India-rubber portion of the instruments, have not, until now, received acknowledgments to their applications to be supplied with them?

But for the valuable assistance rendered by Mr. Jacques, representative of the firm of Messrs. Warne and Co., Tottenham, who has devoted much time and personal attention to bringing the original conceptions to maturity. the instruments must have been much longer of completion. And to his unfailing exertions I am greatly indebted for the perfection of finish that has been attained.

I am, Sir, faithfully yours, WILLIAM DONALD NAPIER.

22, George Street, Hanover Square, April 20th.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

FESTIVAL OF THE FELLOWS OF THE COLLEGE OF SURGEONS.—We are requested to state, in reply to several inquiries made by medical officers in the Army and Navy, so desirous of paying their respects to Surgeon-General Longmore, C.B., by acting as stewards, that their applications should be addressed to William Allingham, Esq., 10, Chandos Street, Cavendish Square. The dinner takes place the same evening after the annual election in July.

ONLY A COUNTRY FELLOW.—If you will write to the Secretary of the College of Surgeons, he will supply you with the blank forms to be filled up for a seat in the Council of that institution, in July next.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Lincolnshire Herald; The Crewe and Nantwich Chronicle; The Scotsman; The Glasgow Herald; The Folkestone Express; The Sunderland and Durham County Herald; The San Francisco News Letter and Californian Advertiser; The Western Gazette; The Derbyshire Times; The Shield; The Morpeth Herald; The Worcestershire Chronicle; The Cork Examiner; The Rugby Advertiser; The Crewe Guardian; The Free Lance; The Manchester Guardian; The London Mirror; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Mr. T. W. C. Anderson, London; Mr. H. C. Burdett, Greenwich; Dr. Bagshawe, St. Leonards; Mr. E. Gaylor, Belper; Mr. J. Leigh, Liverpool; Mr. J. B. Blackett, London; Dr. E. Symes Thompson, London; Mr. H. Wotton, Bingham; Dr. E. H. Maul, Southampton: Mr. M. C. Soutter, London; Dr. Billing, London: Dr. De Chaumont, Woolston; Mr. E. B. Aveling, London; The Secretary of the Positive Life Assurance Company, London; Dr. Huntley, Jarrow-on-Tyne; Mr. T. M. Stone, London; Mr. C. J. Plumer, Glasgow; Mr. S. S. D. Wells, Haulbowline; Dr. J. C. Murray, Newcastle; Mr. John Lowe. Merthyr Tydfil; Our Dublin Correspondent; Mr. A. T. H. Kerr, Preston; Mr. E. Owen, Bangor; Mr. Wheelhouse, Leeds; Dr. W. H. Sandham, Cork; Dr. Risdon Bennett, London; Dr. E. G. Barnes, Eye; Dr. Blandford, London; Dr. George Johnson, London; Dr. Pratt, Paris; Dr. Hughlings Jackson, London; Dr. Grigg, London; Dr. Edis. London; Dr. McCall Anderson, Glasgow; Mr. Noble Smith, Paddockhurst; Dr. John Harley, London; Dr. Fothergill, London; Mr. H. J. Stump, London; Dr. F. T. Bond, Gloucester; Mr. F. Copplestone, Crewe; Dr. A. D. Davidson, Aberdeen; Mr. H. Langstone Jones, Liverpool; Dr. Lionel Beale, London; Dr. A. Stoecker, Wildungen; Dr. A. Vintras, London; Dr. C. Kelly, Horsham; Mr. Tallerman, London; The Secretary of the Pharmaceutical Society of London; Dr. E. J. Tilt, London; Mr. Balmanno Squire, London; Messrs. Pearson, Robertson, and Findlay, Edinburgh; Dr. H. F. Smith, London; Mr. Henry Sewill, London; Dr. A. H. Hassall, Ventnor; Dr. J. Birkbeck Nevins, Liverpool; Mr. G. Griffith, London; Dr. Corby, Cork; Mr. Cameron, Edinburgh; Mr. Allerton Robertson, Edinburgh; Dr. A. Johnson, Ambleside; Dr. Marcet, Cannes; Dr. J. W. Eastwood, Newcastle-on-Tyne; Mr. P. E. Hill, Crickhowell; Dr. Alexander, Bradford; Dr. F. Needham, Gloucester; Dr. W. Lauder Lindsay, Otago, New Zealand; Mr. E. W. Thurston, Ashford; Dr. G. H. Philipson, Newcastle-on-Tyne; Dr. Haughey, Crewe; Dr. J. K. Spender, Bath; Dr. F. J. Brown, Rochester; The Secretary of the Hospital for Women and Children, Westminster: Mr. S. H. Evans, Belper; Mr. J. Robson, London; Mr. E. R. Morgan, Neath; Mr. W. Fairlie Clarke, London: Mr. J. S. Wilson, Inverurie, N.B.: Dr. A. Inglis, Worcester; Mr. F. Manby, East Rudham; Dr. J. W. Walker, Spilsby; Dr. I. B. Yeo, London; Dr. R. M. Mann, Manchester: Mr. Boddy, Manchester; Mr. R. G. Griffiths, Dinapore; Dr. Samuel Wilks, London; Dr. Ebenezer Duncan, Glasgow; The Secretary of the Medical Society of London: Dr. Nicholson, Stratford; Dr. W. B. Carpenter, London; Dr. Batty Tuke, Edinburgh; Dr. G. Buchanan, London: Dr. Jeremiah Dowling, Tipperary; Mr. S. W. North, York; Mr. W. S. Oliver. Halifax, Nova Scotia; Mr. Foote, Kington; Mr. Skeet, Ulceby; Dr. Angus Fraser, Aberdeen; Dr. Matthews Duncan, Edinburgh; Mr. C. S. Barter, Bath; Dr. Griffiths, Sheffield; Dr. W. Wilson, Belfast; Dr. R. Lord, Crewe; The Secretary of the Royal College of Physicians, London; Dr. J. W. Palmer, London: Mr. W. E. Vaughan, Crewe; Mr. J. Atkinson, Crewe; Dr. J. D. Hulme, Wigston Magna; Dr. Hinds, Birmingham; Dr. A. Shewen, London; Dr. C. E. Underhill, Edinburgh; Dr. Copeman, Norwich; The Treasurer, St. Thomas's Hospital, London; Mr. Henry Morris, London; Dr. Wiltshire, London; Mr. G. Abbott, London; Dr. T. Claye Shaw, Leavesden; Dr. J. W. Cousins, Southsea; Mr. K. Dickson, Buxton; Mr. R. P. Roberts, Rhyl; Mr. J. E. Schon, Kilburn; Dr. C. Parsons, Dover; Mr. T. Keat, Edinburgh; Fleet-Surgeon W. Richardson, H.M.S. *Indus*; Dr. S. O'Sullivan, Cork; Mr. F. Marsdin, Eastbourne; Dr. L. W. Sedgwick, London; Dr. E. Symes, Skipton; Dr. Willett, Shrewsbury; Mr. R. S. Fowler, Bath; Dr. T. Radford, Manchester: Dr. J. H. Scott, Edinburgh; Dr. T. E. Jones, Wrexham; Mr. R. H. Lloyd, London; Dr. Moorhead, Weymouth; Mr. H. Turner, Norwich; Dr. T. Patterson, Oldham; etc.

## BOOKS, ETC., RECEIVED.

Death Tribute of England to India. By F. J. Mouat, M.D. London: C. and E. Layton.

European Life in India. From the Annual Report. By Surgeon-Major W. R. Cornish. London: C. and E. Layton.

# ABSTRACT OF CLINICAL LECTURES

DELIVERED AT

# ST. BARTHOLOMEW'S HOSPITAL.

BY

SIR JAMES PAGET, Bart., D.C.L., LL.D, F.R.S.,

## I.—On Gout in some of its Surgical Relations.

In his opening remarks, Sir James Paget said that, in giving a short course of clinical lectures without having any cases with which to illustrate them, and where his hearers were completely taught all that had any bearing on the practice of the hospital by the active surgical staff, he thought that, if he could do any good, it would be by lecturing on some cases which, if they did not occur more frequently in private than in hospital practice, yet of necessity were more fully studied. And in that view he had chosen gout in some of its surgical relations: not that he recommended the study of gout in its surgical more than in its medical aspect, but because it was only in this connection of the disease that he could hope to teach anything; for, in the ordinary practice of consulting surgery, gout, in its typical form as an acute inflammation of this or that joint, was very seldom seen. In that form, gout passed into the hands of the physician or the general practitioner, and the surgeon was much more frequently consulted upon a group of cases which illustrated the modifications produced in ordinary diseases by the gouty constitution of the patients in whom they occurred. Then, again there was a large number of comparatively trivial diseases which belonged to a gouty constitution, and which commonly passed under the name of incomplete, or anomalous, or suppressed gout. He proposed to speak of both these views of gout; namely, of gout as it affected the ordinary consequences of injury or of diseases other than itself, and then of those minor and incomplete forms of gout which were constantly, and in large numbers, met with in consulting surgical practice. But a few words must be said about the reasons for speaking of gout as thus modifying the effects of other diseases, or appearing in forms which were not commonly noted in descriptions that were given of typical gout. The occurrence of these anomalous forms was chiefly to be explained by the fact, that gout was perhaps more commonly than any other disease derived by inheritance. Certainly it was very rare for the offspring of any well marked gouty parentage to pass the middle or elder periods of life without manifesting some degree of the gouty constitution, either in the form of well marked gout or of some of the anomalous or incomplete varieties that were often seen in surgery. Now, in passing by inheritance from parent to offspring, gout, like all other hereditary diseases, suffered a variety of modifications. First, for example, it might be taken as a rule that all hereditary diseases would tend to decrease in intensity by transmission. Then, again, the affection was modified or diluted in its transmission, if a gouty parent married with one who had no tendency to gout; so that the offspring might be expected to manifest the disease in a much less intense form than the parent did. Then, more important still, gout was greatly modified when it was mingled with other constitutions—with the scrofulous, the tuberculous, the cancerous, or any other. It was, therefore, only so much as we might reasonably expect when we found gout, which was almost invariably hereditary, widely modified in its transmission from parent to offspring.

Speaking first of some of the influences which gout might have on common injuries, the lecturer said that one of the most frequent events was, that injury, as the expression was, brought out gout. A person with a gouty constitution had a fall, or received some other form of injury, and in a few days there came a fit of gout. There were persons who lived with an attack of gout always imminent, and in such the occurrence of an accident determined the appearance of gout. The pathology of this seemed to be, that a large number of persons, perhaps all of us, lived, as it were, just balanced; that, so long as the right nutrition of our several textures was not interfered with, they held their usual course, but that when anything occurred which interrupted the process of nutrition, which made the various textures feebler, or which tended to bring out any degeneracy, then there came out the special form of disease; for what happened in the gouty happened, only not so frequently, in most other constitutional diseases. For example, a child fell and hurt his knee, and scrofulous inflammation followed in the joint. Another person, with a proneness to cancer, received a blow on the breast, and then there came cancer: the single pathological fact evinced in all these cases being, that there was so exact a balance of nutrition in our ordinary health that, if there were any well marked constitutional predisposition to any disease, the smallest disturbance of the balance would let the disease appear, or would prompt the disease to stamp the following morbid process with its own special character. Now, in this way, an injury of any kind might, as the expression was, bring out gout, or rather, might permit the appearance of gout in any part. But there was another group of cases in which the injury determined not only the access of gout, but the place of it also. If a person, on the point of being attacked with gout, struck his foot, it was almost certain that the foot would be the part in which the gout would appear; if he wrenched his wrist, the attack would come in his wrist. And this rule was general if the injury were inflicted on any of those parts that were the usual seats of gout—the hand, the foot, or any of the smaller joints. It might be said, as it were in parenthesis, that these consequences of injury were still more commonly seen in what was called rheumatic gout than pure gout. Thus chronic rheumatic arthritis or rheumatic gout was commonly produced in a joint by injury. This was especially apt to happen in cases of blows on the hip-joint in elderly persons prone to rheumatic arthritis, and few cases could be more troublesome to manage than these. While speaking of injured joints and their treatment in gouty subjects, the lecturer took occasion to offer a caution as to the employment of arnica as a local application. Without attempting to say whether arnica was as useful as some believed, he could state, from many observations, that gouty persons were singularly liable in those parts that were rubbed with arnica to the occurrence of that which was called erysipelas, and which consisted in acute attacks of inflammation of the skin, with vesication and severe pain, and was followed by desquamation. He was inclined to believe that this effect of arnica was only found in those who were of a gouty constitution.

Again, gout might modify all common inflammatory processes; for instance, all would be familiar with such terms as gouty bronchitis, gouty periostitis, gouty inflammation of the sclerotic or the iris: all indicating the same fact that, in a gouty person, an inflammation, whencesoever derived, might have what was termed a gouty character; and it was very important to learn by what signs such gouty modifications of common inflammations could be detected. Sudden variation in the amount of pain was one of these. Instead of a fixed degree of pain, paroxysms of intense suffering, such as characterised a common attack of the gout, were often met with. Even the most intense forms of inflammation might be paroxysmal in gouty persons. The lecturer recalled the case of a patient, in whom the operation for the ligature of hæmorrhoids had been performed, and who was attacked with a furious inflammation of the great toe, diminishing in the daytime and recurring with increasing intensity at night, after the fashion of typical gout. But, at the end of a week, a large abscess formed deep in the foot, and this, with other symptoms, suggested the true nature of the case. It was one of a comparatively trivial form of blood-poisoning, in which the ordinary features of inflammation were modified by the gouty disposition of the patient.

The remote, as well as the immediate, consequences of injuries in gouty persons deserved to be carefully noticed. These patients repaired injuries of their joints much more slowly than those who were healthy, and were apt to remain long subject to paroxysmal pains and stiffness, and inability to move or use the damaged joint, and this whether they were affected with chronic rheumatic arthritis or with what appeared to be only the ordinary process of inflammation. It might be taken as a rule in practice that, if a patient in middle or more advanced age did not recover in the usual time, according to the intensity of his injury, and if the part remained specially painful, particularly if the pain were very severe, or if there were abiding stiffness or unreadiness to move, gout should be suspected, and the general treatment appropriate for chronic gout be adopted. In such cases, if there were no fever and no heat of the joint, movements, shampooing, and frictions, should be employed locally.

Gout was sometimes found mingled with scrofula; not in cases in which the children of gouty parents were attacked with an inflammation of a foot or of a hand. Such affections were often called by the relatives of the child gouty; for they could not endure to believe them scrofulous; still they were, with extremely few exceptions, scrofulous, and not gouty. There were, however, many cases in which gout and scrofula were mingled; but they were met with, not in the young, but in the elderly. A gouty inflammation in a man who also had scrofula by inheritance, might drift into true scrofulous inflammation. Such cases were very important, and were very likely to be misunderstood. They began as unquestionable and well developed gout; but week after week would pass, and, although the intensity of the gouty inflammation might subside, still the part remained hot, swollen, tender, and unfit for use; especially it continued tender and œdematous, and at length the affection proved well marked scrofula. Such cases had been observed in the tarsus, in the carpus, in the metatarsal bones, and in the elbow-joint. It was most important that the altered features of these cases should not be allowed to escape detection; for the treatment required for scrofula differed, of course, radically from that fit for gout. Instead of the douching, shampooing, and exercise that were right, if the case were one of gout, the limb should now be restrained with splints and be kept free from disturbance, and the constitutional means of treatment also must all be changed.

In another way, but much more rarely, a severe attack of gout, accompanied with sharp fever, might lead to the appearance of scrofula. Here it acted as any acute disease might. Thus it was, for instance, common for typhoid fever to be followed by scrofulous periostitis of the ribs. The patients passed through the ordinary process of the fever, and then there followed swellings over one or more of the ribs, with the genuine well marked scrofulous inflammation of the periosteum and surface of the bone. The same thing was very common in children after scarlet fever, in the form of scrofulous inflammation of the lymphatic glands or of the hip-joint. All might be brought under the broad general rule, that any feverish disturbance, or perhaps more exactly, any degeneration produced by fever, might bring to light the constitutional disposition of the patient in whom the fever had occurred.

Another group of cases similar to these was that in which persons who had long been gouty, and had passed into that general decay and degeneracy of texture which belonged to gout, showed at last scrofula here and there. A case had recently occurred in which a person who had long been gouty, and whose textures had all become degenerate, was at length attacked with well marked scrofula, which he had escaped in early life.

A very bad inheritance was that in which gout and scrofula were transmitted together, as, for instance, when one parent was markedly gouty and the other markedly scrofulous. A crowd of troubles was developed in the course of a life thus begun; but they were chiefly exaggerations of such as had been already mentioned. The gouty inflammation of such a person in later life was very apt to drift into scrofula. Gout in him, if very acute, might produce such an intensity of fever as might let scrofula appear in some distant part, and, as his textures decayed and degenerated in the long-continued stages of gout, so scrofula, even in old age, was very likely to be developed.

Then, as to the influence of gout upon gonorrhœa and upon syphilis: an occasion would be taken in some future lecture to speak about urethritis and gouty inflammation of the bladder and the genital and urinary organs generally; but it was well known that there was a great number of cases in which those who had gonorrhœa were very apt to have, at the same time, inflammations of the joints and inflammation of the sclerotica. Now certainly a considerable proportion of that cluster of diseases was due to a gouty inheritance. For these complications were often well marked in members of the same family. Thus he had known three members of a family, every one of whom had this triplicate of diseases. Each of them, in his turn, had gonorrhœa; and each, with his gonorrhœa, had inflammations of his joints and sclerotitis. Thus it might be taken that this complication of diseases—urethral inflammation, inflammation of the sclerotica, and inflammation of the joints—was especially prone to occur in persons who had a gouty inheritance.

As to gout mingled with syphilis, the more important complications were seen in the secondary and tertiary stages. The extreme diversity in the phenomena attending what was termed tertiary syphilis was a very interesting subject for study. How was it that, in the later stages of this affection, one person had a perforating ulcer of the septum nasi; another, rupial sores; another, chronic synovial inflammation of the joints; another, a peculiar psoriasis of the tongue? Doubtless all these might have been derived from syphilis; but the syphilis had, in every instance, been planted in a different constitution, or, at least, in a different personal condition. Syphilis inoculated in a person with a tendency to scrofula or tuberculosis, would produce a very different series of events from that which the same poison would produce in a person previously healthy, or, again, in one who was gouty.

This subject, namely, the great varieties that were produced in the series of syphilitic affections by the peculiar constitution of the person inoculated, seemed to have been too little studied in the general pathology of the disease. It might, for instance, be doubted whether syphilis implanted in any other than a tuberculous or scrofulous person, would ever produce destructive ulceration of the soft parts of the nose. That form of syphilis was almost certainly the syphilis implanted in the tuberculous constitution; and there was certainly a group of cases which was very characteristic of syphilis implanted in the gouty. Some of this group were among cases of syphilitic periostitis. He would not say that that extremely painful form of syphilitic periostitis belonged to any special constitution of the person in whom it is found; but it seemed certain that chronic synovitis, which was associated with tertiary syphilis, was, in the majority of cases, to be found in the gouty. So, too, a large proportion of the syphilitic psoriasis of the tongue was to be found in gouty persons; and the same was true of a considerable proportion of the later tertiary syphilitic eruptions.

It was difficult to state this opinion in any but general terms; but it was a subject that should not be lost sight of either in study or in practice; for, in its later stages, the forms that syphilitic disease assumed depended almost as much upon the constitution of the person affected as upon the original nature of the poison itself. An important point in the treatment of syphilis was associated with this fact. It was often said that mercury and iodide of potassium were uncertain in their effects upon syphilis; and this was true, if they were given without any consideration of the constitution of the patient. Large doses and long courses of mercury would do a tuberculous or scrofulous person more harm than would result from leaving his syphilis altogether without treatment. But, to speak only of the gouty constitution as mingled with syphilis, it was necessary, in the treatment of every gouty syphilitic person, to consider his gout as well as his syphilis. Iodide of potassium should be prescribed, largely diluted with any of the alkaline waters that are useful in gout. Small doses would, when given in this way, do more good than much larger doses prescribed alone. The physicians at Aix-la-Chapelle, Wiesbaden, and other health-resorts on the Continent, had gained a great reputation for the cure of syphilis in its later stages. Their treatment consisted generally in the employment of mercurial inunctions, combined with the use of baths and the drinking of large quantities of alkaline and other sulphurous waters. They had, besides, the wisdom of requiring that their patients should be much in the open air, and should live on a full diet. Much of their success, no doubt, depended on the fact, that their treatment was beneficial not only to the syphilis, but also to the general constitutional condition of their patients.

The relations of gout to cancer were next considered. Those affections were found to exist together without modifying each other in any appreciable degree, except that a person with cancer, and who was also subject to gout, was likely to suffer more than an usual amount of pain, and this was of the same paroxysmal kind as was experienced in gout. It might be too much to say that gout affected the cancer itself; but it was certain that cancers in gouty people were unusually liable to be attacked with inflammation of their texture, and such inflammations were attended with severe paroxysmal pain. And here the rule of treatment given above should be followed. The cancer and the gout must be considered together. There was a popular belief that liquor potassæ would cure cancer. This, of course, was an error. Yet certainly it sometimes did good by relieving pain; and the persons in whom it thus acted were those in whom there was a well-marked tendency to gout.

## THERAPEUTIC MEMORANDA.

### TREATMENT OF CHOREA BY ARSENIC IN LARGE DOSES.

I can confirm what Dr. Eustace Smith says about the value of arsenic, when given in comparatively large doses, for the treatment of chorea. I go even further in the same direction, and say, that acute chorea may be now and then beneficially treated with this medicine. On Monday evening, March 8th, I was sent for a few miles distant to see the adult daughter of a farmer, who was extremely ill with acute (but nonfebrile) chorea, brought on mainly by overwork and irregular meals in a draper's establishment, where she had been employed as an assistant. During four days, I tried various approved remedies with so little success, that I became alarmed as to the possible result of the case. The movements were incessant and most violent, nor could any sleep be obtained. On the following Friday afternoon (March 12th), I began the administration of arsenic, in a dose of seven minims and a half of *liquor arsenicalis* four times a day. There was scarcely any amendment until the Sunday night, when she slept well, and awoke on Monday morning with her malady virtually gone. Once or twice, the remedy has been discontinued, owing to some irritation of the bowels; but almost immediately some choreic symptoms reappeared. She is still taking the *liquor arsenicalis* in a dose of six minims twice a day, guarded by a little laudanum; and a grain of powdered opium at bedtime promotes sleep. I have seen my patient to-day (May 3rd), and she seems quite well in every respect.

John K. Spender, M.D. Lond.

# CASE OF ANEURISMAL DILATATION OF THE OCCIPITAL ARTERY, TREATED BY LIGATURE OF THE COMMON CAROTID.

By JAMES R. LANE, F.R.C.S.,
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THE following case affords an example of arterial lesion in a very unusual situation, and presents features of interest both from an anatomical and a surgical point of view, which render it, in my opinion, worthy of a somewhat detailed record.

G. H., aged 37, carpenter, was brought to me by Dr. Felce in September, 1873. He was then suffering from a very loud pulsating *bruit* in the region of the mastoid process of the temporal bone of the left side, of the origin of which he gave the following account. Four months previously, while getting off an omnibus, he fell and struck his head against the conductor's footboard, thus causing a small scalp-wound in the parietal region, about four inches above the mastoid process. He was stunned by the blow, but soon recovered himself, had his wound dressed at a druggist's shop, and went home. On the morning after the fall, he began to notice a pulsating buzzing noise in the left ear. This was at first slight, but gradually and steadily increased in intensity, until, at the time when I saw him (four months afterwards), the sound heard through a stethoscope applied over the mastoid process resembled that made by the forcible blowing of a large pair of bellows, varying occasionally into a kind of musical whistle. It was, in fact, the loudest arterial or aneurismal *bruit* to which it has ever been my lot to listen. The noise could be heard with scarcely diminished intensity at any part of the cranium. It prevented him from sleeping at night, the sensation being aggravated when he laid his head on his pillow, and it caused him so much anxiety and annoyance as seriously to injure his health and to prevent him from following his occupation. There was no external swelling, but a faint pulsation was perceptible by the finger applied just behind the mastoid process, and it was found that pressure on this spot completely arrested the sound. It was also controlled by pressure on the common carotid artery in the neck.

The sudden appearance of these symptoms made it pretty certain that the lesion, whatever it was, had its origin in the blow which he received when he fell from the omnibus; and it seemed also clear that the occipital artery must be the vessel affected, close to the point where it emerges from the groove under the mastoid process, and where it is covered by the sterno-cleido-mastoid, splenius, and trachelo-mastoid muscles. The vessel here lying deeply against the bone, to which it is firmly bound down, might be supposed not unlikely to suffer injury from the concussion and vibration caused by a blow on the cranium three or four inches above. The diffusion of the sound over the head was doubtless due to the good conducting power of the cranial bones, and did not depend upon any injury to the vessels within; for he had never had any headache, giddiness, or other symptom of intracranial mischief.

The question of the exact condition of the diseased vessel at the time the patient came under my notice was more difficult to determine. Was it a sacculated aneurism of small size, not projecting externally on account of the resistance of the thick muscular layers by which it was covered, but, perhaps, making its way more readily inwards by causing absorption of the bone in the direction of the mastoid cells? This appeared to me to afford the most probable explanation of the symptoms. Mr. Holmes, who was kind enough to examine the patient at my request, thought the exact nature of the lesion doubtful, whether an aneurism in the strict sense of the term, or a partial laceration of the internal coats, causing some dilatation of the vessel, and the lacerated parts projecting into the stream and producing the peculiar *bruit*. He thought, however, that in any case it was an aneurism of the occipital, either formed or forming, and that the dilatation, if unchecked, would result in the formation of a sacculated aneurism.

My own view, now, judging by the light of subsequent events, is that the coats of the artery were injured by the blow, to what extent, or in what precise way, I will not undertake to specify; that the vessel became dilated in consequence; and that the loss of resiliency in its coats and the resisting character of all the surrounding structures gave rise to the very loud and remarkable *bruit*. I think, with Mr. Holmes, that, though probably not as yet actually an aneurism, it would have resulted in that condition had it not been interfered with.

The patient was admitted into St. Mary's Hospital on September 30th, 1873; and, in consequence of the complete manner in which the symptoms could he arrested by compression behind the mastoid process, the effect of direct and continuous pressure at that spot was first tried by means of an instrument contrived by Mr. Blaise, which completely arrested the *bruit*, and which the patient was able to wear continuously without much inconvenience. This instrument was worn for six weeks, being removed occasionally to test the progress which had been made. Whenever it was removed, a faint noise began to be audible after a short time, and speedily increased in force. The result at the end of six weeks was that, when the pressure was discontinued for a day, no perceptible advantage had been gained.

I decided, therefore, with the approbation of my colleagues, to ligature the common carotid artery, and performed that operation on November 12th, 1873, in the usual way, the ligature being applied above the omohyoid muscle, and about an inch below the bifurcation. Carbolised catgut was used for the ligature, both ends of which were cut off short. There was complete cessation of pulsation and *bruit* as soon as the ligature was tied. Some suppuration took place in the wound, which retarded his recovery, and the wound itself was afterwards very slow in healing; but with these exceptions no untoward circumstances occurred as the result of the operation.

The effect of the ligature of the main artery on the disease appeared at first all that could be desired; the symptoms being entirely arrested for three days. At the end of that time, however, he thought he noticed some return of the sound, which was also found to be faintly audible through a stethoscope. Compression behind the mastoid process was, therefore, again resorted to; and this was carefully regulated by the patient himself, whose sensations at once informed him if the instrument slipped or the pressure was insufficient. But, whenever it was discontinued, the sound was distinctly heard, though greatly modified from its original intensity. The question, therefore, arose as to how the diseased vessel was supplied with a sufficient current of blood to produce this effect—the complete obstruction of the main trunk being evidenced by the absence of all pulsation in the temporal and facial arteries of that side. Careful examination seemed to point to the ascending branch from the subclavian, the profunda cervicis, as its source. This vessel arises from the subclavian, passes backwards between the sixth and seventh cervical transverse processes, and then ascends at the back of the neck, resting on the semispinalis colli and covered by the complexus, giving off muscular branches as it goes. When it reaches the upper border of the complexus, it forms a distinct and constant anastomosis of considerable size, with a descending branch from the occipital called princeps cervicis. This branch arises very regularly from the occipital shortly after that vessel emerges from the groove beneath the mastoid process. The term "princeps cervicis" shows the importance attached by the older anatomists to this channel of communication, which probably, as this case tends to show, takes a considerable share in the establishment of the collateral circulation after ligature of the common carotid artery.

I could feel below the mastoid process the pulsation of a vessel taking this direction, and evidently communicating with the spot where the sound could be heard, for pressure upon it completely arrested the *bruit*: I concluded, therefore, that blood was conveyed through this communication into the diseased part of the occipital, and thence into the branches of that vessel on the scalp. It seemed clear that the blood must be flowing in this direction, because pressure on the occipital further on had then no effect on the sound. It was evidently important, therefore, to intercept this ascending current; and with this view, on December 17th, five weeks after the ligature of the carotid, I passed a needle transversely beneath this branch about three quarters of an inch below the seat of disease, hoping thus to obliterate it on the principle of acupressure. The pressure of the needle, however, proved insufficient, for the patient could still hear and feel the pulsation. I, therefore, applied a twisted suture round the ends of the needle, so as to compress the vessel firmly between the needle and the skin. This seemed at first to be effectual, for there was complete cessation of the *bruit*, but in a few hours afterwards it was again slightly perceptible. I left the needle and suture *in situ*, hoping that the inflammation and swelling that would ensue might help to obliterate the vessel. On the third day, however, as there was rather free suppuration along the track of the needle, and it was causing much pain with swelling of the surrounding parts, I thought it better to remove it.

The result of this procedure was, on the whole, satisfactory, for there was a marked diminution in the pulsation; and, though the *bruit* continued to be audible through a stethoscope, it was not heard by the patient himself, and caused him no inconvenience. Under these circumstances, further interference seemed unadvisable, and treatment was discontinued, in the hope that the symptoms would remain stationary, or perhaps ultimately disappear altogether, which hope has since been fully realised.

He left the hospital on December 23rd, and a month afterwards was able to resume his ordinary work as a carpenter, which he has continued without interruption to the present time. The pulsation and *bruit* slowly but steadily diminished, till, in October 1874, they ceased altogether. Since that time he has been perfectly well; and, when I last saw him (in April 1875), I could discover no trace of his disease remaining.

There is a point worthy of remark which I noticed soon after he left the hospital. I have already stated that, before I applied acupressure to the ascending branch of communication, pressure on the occipital beyond had no effect on the *bruit*. Afterwards, however, I found that the sound ceased equally when pressure was applied below, and when it was applied to the occipital beyond; thus showing, I think, that the force of the ascending current of blood through the diseased vessel had been so far diminished by the acupressure that, when free circulation through it was interrupted by pressure beyond, the sound was arrested, whereas previously the impulse of the ascending current was sufficient to produce its effect, notwithstanding the same interference with the onward flow.

It may be asked why I did not, in the first instance, tie the occipital artery in the neck, as was in fact suggested to me, instead of resorting to the apparently severer measure of ligaturing the common carotid. In the first place, I believe that ligature of the occipital would have been insufficient to cure the disease, in consequence of the free communication which that vessel has in the scalp with the temporal and posterior auricular of its own side, in addition to its anastomoses across the median line, which latter, of course, remain open in either case. Secondly, the dissection required to expose the occipital artery in the neck is one of great difficulty; it is no easy matter to find the vessel in the dead body, and in the living I believe the procedure would probably involve greater danger than the ligature of the main trunk. The occipital artery lies far from the surface, ascending along the posterior belly of the digastric muscle, and somewhat overlapped by it, covered also by the sterno-mastoid muscle and the parotid gland. It is a very difficult thing to find a vessel of that limited size in a deep dissection in the neck, especially as there are no very definite landmarks, and the artery is not very constant in its course, or in the level at which it takes its origin from the main trunk. I believe, therefore, I did right to tie the common carotid, and this conclusion appears to have been borne out by the result.

The only other alternative would have been to expose the vessel at the seat of the disease, and ligature it there. This idea I rejected, because it would have involved a division of the sterno-mastoid, splenius, and trachelo-mastoid muscles, and a search for the vessel against the under surface of the temporal and occipital bones, besides the disadvantage of applying the ligature to an unhealthy vessel. Had it been possible to expose it and secure it on both sides of the disease, this might perhaps have been the best course to pursue, but it was impracticable, because the dilated part almost certainly extended along the groove under the mastoid process, and was therefore quite out of reach.

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# ON CHOREAL MOVEMENTS AND CEREBELLAR RIGIDITY IN A CASE OF TUBERCULAR MENINGITIS.

By J. HUGHLINGS JACKSON, M.D., F.R.C.P.,
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THE following case is clinically interesting, whatever the explanation may be of the rare symptoms presented. The movements this child had were exactly like those of a case of acute chorea. By merely watching the patient, no one could, I think, have supposed it was anything else. It *was*, indeed, for a while a case of chorea; but its pathology was unusual. I took careful notice of the movements; they were not mere tremors, nor vague starts, but movements quite indistinguishable from those of scores of patients I have seen with choreal movements. My friend Mr. G. E. Herman, who has along with me taken notes of about eighty cases of chorea, quite agreed with me in my opinion. Dr. Ferrier saw the patient with me, and he was so good as to examine the brain for me. It will be noted that no plugs were found in the vessels.

The diagnosis of tubercular meningitis in this case was made by the history. The existence of swelling of the optic disc would, I think, have shown that it was not an ordinary case of chorea.

I must say what I mean by the expression "cerebellar position", used by me in the following notes. In some cases of disease of the middle lobe of the cerebellum, the patient lies on his back, with his legs and feet extended, the latter a little turned in; the arm is acutely flexed at the elbow; the wrist is flexed, and the palm is turned towards the front of the upper arm. The head may be thrown back. The spasm is tonic. In some cases of tumour of the middle lobe of the cerebellum, besides this permanent set of the limbs and body, there occur paroxysms of spasm very like those of ordinary traumatic tetanus.

The reader will find interesting remarks on the pathology of tubercular meningitis in Rindfleisch's work (New Sydenham Society's translation, vol. ii, p. 312). Speaking of "the tubercular degenerations of the vasa propria of the brain", he says: "These extend to the very edge of the centrum of Vicussens, causing mechanical impairments and lesions of the cortical substance, not only by obstructing the vessels, but mainly by the numerous extravasations to which they give rise." He says also: "I have a case on record in which the cortical substance around the fissure of Sylvius was in a state of 'red softening'; and this change could be readily traced to countless punctiform hæmorrhages from the tuberculous blood-vessels of the brain-tissue. Rokitansky also alludes to extravasations caused by the growth of tubercle." I suppose these extravasations are the result of plugging of vessels—a now well recognised cause of the hyperæmia and extravasations of ordinary red softening.

I regret that I have not the name of the clinical clerk to whom I am indebted for the following notes. I only saw the patient twice.

W. E. B., aged 4½, was admitted February 27th, 1873. The child was supposed to be well until the morning of Christmas-day, when he had no appetite for breakfast or dinner. In the afternoon, he was put to bed. When he got up in the evening, he complained of pain in the abdomen and chest. For two or three days, he lay on his back, with his legs drawn up; or, if put on his feet to walk, "he walked about doubled up". He took very little food; the bowels were open about once in two days; his stools hard, and small in quantity. He never had any diarrhœa, and never passed any blood or slimy fæces. He was very hot, and perspired a great deal while asleep. This continued for about three weeks; then the child improved for a few days, but relapsed into the former state. He had continued ill, "on and off", ever since.

On admission, the child appeared very emaciated; abdomen flaccid and sunken. He complained of pain in the abdomen. He had not had his bowels open for eight or nine days, and had been sick for nearly a week. He was very irritable in manner.

March 5th. His mother said he had not known her since five o'clock this morning. She thought he could not see, and could not speak. His temperature this morning was 100. Choreic movements appeared during the night. Dr. Hughlings Jackson saw him in the afternoon and made the following note. "He appears to be quite insensible. The movements are now very decided; affect both sides, but left side rather more than right. Arms, face, and legs are all working, and in degree according to the order given. The most frequent movement in the face is one like a sneer on the left side." The movements were too rapid for certain computation. The left arm moved about forty-seven times in one minute, and sixty-seven times the next. In the evening, the temperature was 100.4.

March 6th. He went to sleep at 2 A.M., and had been still since. His temperature in the morning was 100.1. There is no note as to his general condition, except what is to be inferred from the statement that he ate an egg. At tea-time, the right optic disc was decidedly swollen; the veins were very dark. The left disc was almost normal, but the veins were very dark. Evening temperature, 100.15.

March 7th. Morning temperature, 100.15. He now lay quiet, and did not move. His mother reported that, except a twitter of the arms, he had not moved all day. His face was placid. Dr. Hughlings Jackson made the following note. "His two arms are now in the 'cerebellar position'; and so, I am told, they have been all day and night, except that once he moved the left downwards. The arms are tremulous; the tremor is occasional, and as if on attempt at slight movements. There is no frown on his face. His masseters are very rigid. His legs are kept straight out; feet extended (he was lying on his back). His belly is much retracted, but the abdominal wall is not stiff. He occasionally puts the left arm down slowly and vaguely, but it soon goes up again. The right arm is rigid. The elbows are kept to the side." There was no discharge from either ear. On account of movements of his eyes, ophthalmoscopic examination was impossible. The nurse said he never moved again. He died on the 9th, at ten o'clock in the morning.

*Necropsy.*—The child was very much emaciated. There was seen, on removing the dura mater, a large quantity of serum. At the base, there were the usual signs of tubercular meningitis. The optic nerves were imbedded in lymph. The pons, medulla, and the upper and under *surfaces of the cerebellum* were much affected. The lungs were crammed with very fine miliary tubercles. No tubercle was found in the liver, spleen, nor kidneys. The intestines were not opened. No cheesy matter was discovered in any part of the body. The following was Dr. Ferrier's report of the part sent to him.

The base of the brain (including all the structures comprehended in the circle of Willis) was involved in a semipurulent mass enclosed in meshes formed by recent adhesions. The lips of the Sylvian and longitudinal fissures were glued together, and the cortical matter softened by similar tuberculous exudation. On dissecting down and tearing through the adhesions, the circle of Willis and its branches were found to be thickened with tubercular thickenings of the adventitia, and embedded in semipurulent matter. The exudation accompanied the anterior and middle cerebral arteries in almost their whole extent. The gyrus fornicatus, the island of Reil, and the convolutions overlapping it on each side, were coated and softened with tubercular matter. The posterior cerebral arteries were similarly involved, and the exudation extended round the crura cerebri on to the superior surface of the cerebellum. The membranes on this situation were studded with miliary tubercles, especially on the right side. The blood-vessels were pervious apparently in their whole extent. The vessels of the corpora striata were not occluded; but both corpora striata were considerably congested, especially the right. The torn-out vessels were filled with fluid blood. No embola could be detected. The spinal cord was not examined.

## THE TRUE AND FALSE CROUP OF FRENCH PATHOLOGISTS.

By GEORGE JOHNSON, M.D., F.R.S.,
Physician to King's College Hospital, etc.

In the last number of the JOURNAL, Sir John Rose Cormack reiterates his statement that the "faux croup" of the French is synonymous with our English terms "laryngismus stridulus" and "spasmodic croup". "It is," he says, "a neurose, and not an inflammation." And, on the same page of the JOURNAL, Dr. Risdon Bennett maintains that Sir John Rose Cormack is right, and that I am wrong in denying his accuracy. Let us, then, look at the evidence in proof of this position. Sir J. R. Cormack quotes several French writers; and first he gives from the *Dictionnaire de Médecine*, etc., a passage, the essential part of which I venture to translate as follows.

"STRIDULOUS LARYNGITIS, OR SPASMODIC CROUP, OR FALSE CROUP.—Stridulous laryngitis, a disease apparently bordering on croup as regards the age of the patient and the attacks of suffocation which characterise it, is only *a neurosis of the larynx grafted upon an acute laryngitis.*"

Now, upon this passage I remark, that the name of the disease, "stridulous laryngitis", implies that it is an *inflammation* of the larynx; and Sir J. R. Cormack's statement, that it is a neurosis, and not an inflammation, is in direct opposition to the passage which I have placed in italics.

The second authority quoted I translate thus:

"STRIDULOUS LARYNGITIS. Syn.: False croup (Guersant); stridulous angina (Bretonneau); spasmodic laryngitis (Rilliet and Barthez). The spasm of the larynx which constitutes, properly speaking, one of the elements of stridulous laryngitis, may exist alone, and differs from it then only *in the absence of the primary or concomitant laryngeal catarrh.*"

Here, again, we have the disease named and described as an inflammation of the larynx complicated with spasm, as we know that acute laryngitis—in children especially—usually is. No one surely would maintain that the spasm without the laryngeal catarrh is the same disease as catarrh with the addition of spasm.

I propose now to refer briefly to those unquestionable French authorities on this subject upon whom I rely in support of my statement that their "faux croup" is *not* identical with our spasmodic croup or laryngismus stridulus, as Sir J. R. Cormack and Dr. Bennett maintain. I suppose it will be admitted that the "true croup" of the French pathologists is by them defined as a diphtheritic membranous laryngotracheitis. It will be conceded that, upon this subject, Trousseau is as high an authority as can be quoted; and he describes "true croup" as a product of diphtheria. What, then, according to Trousseau, is "false croup"? His lecture on this subject will be found in the third volume of his *Clinical Medicine* (p. 72, New Sydenham Society's translation). The title of the lecture is, "Stridulous Laryngitis, or False Croup". Will Sir J. R. Cormack and Dr. Bennett maintain that the subject of that lecture is what we in England call spasmodic croup or laryngismus stridulus? Will they deny that the disease there described is an acute catarrhal laryngitis—what we in this country should call simple inflammatory croup, as distinguished from diphtheritic croup? The disease which we English call spasmodic croup, and sometimes false croup, is described by Trousseau as a neurosis in connexion with infantile convulsions, under the names of "laryngismus stridulus" or "thymic asthma" (vol. i, pp. 354-5, New Sydenham Society); and all French authorities of eminence are entirely in accord with Trousseau as to the pathology and the nomenclature of these diseases. On a disputed question of this kind, it is not usual to quote, as Sir J. R. Cormack has done, a grinder's cram-book.

Dr. Risdon Bennett quotes a passage from Guersant on "stridulous laryngitis" or "false croup", and assumes that the disease there described is laryngismus stridulus or spasmodic croup; whereas, to any one who will take the trouble to read the context, it must be obvious that Guersant is referring to simple inflammation of the larynx, which he contrasts with the specific diphtheritic membranous inflammation. Is it conceivable, that any French pathologist would describe a pure neurosis of the larynx under the name of laryngitis? Dr. Bennett's misinterpretation of the term "false croup", which Guersant states that he first proposed as a substitute for that of "the acute asthma of Millar", has probably been favoured by his erroneous belief that "Millar's asthma" is synonymous with "thymic asthma" or laryngismus stridulus". With reference to this mistake, I quote the following from Trousseau (New Sydenham Society's translation, vol. i, p. 355). "I need not remind you of the *distinction* between *thymic asthma* and the *acute asthma* of Millar; the latter is stridulous laryngitis, in which the spasm of the larynx which characterises it is due to an inflammation of the respiratory tract."

If, then, I am wrong in my statement that the stridulous laryngitis or false croup of French pathologists is an inflammatory disease, with or without spasmodic complication, and not a purely spasmodic laryngismus stridulus, I err in the very respectable company of Trousseau and Guersant, and I may add, of Bretonneau, whose doctrine is identical with theirs. I would ask Sir J. R. Cormack this question: If the disease which the French writers designate stridulous laryngitis or false croup be not identical with our catarrhal laryngitis or inflammatory croup, under what name do they describe our English inflammatory croup? Do they omit it entirely, as he omitted it from his proposed nomenclature of diseases allied to croup?

With regard to the relation between croup and diphtheria, Dr. Bennett says, "The absence of all reference to paralytic symptoms in the older writers is remarkable". Still more remarkable is the absence of all reference to these symptoms in the elaborate and for the most part accurate and exhaustive memoirs of Bretonneau on *Diphtheria*.

Before I conclude, I desire to point out a mistranslation which, to English readers of Trousseau's *Clinical Medicine*, may be very perplexing. In the second paragraph from the bottom of page 477, vol. ii, reference is made to "the cough of laryngismus stridulus or false croup". Here the term *laryngismus stridulus* is the translator's erroneous substitution for *laryngite stridulense;* so that, by the mistranslation of this passage, it is made to appear that Trousseau employs the term laryngismus stridulus as a synonym for false croup. No argument is needed to show that the conversion of the French *laryngite* into the Latin *laryngismus* is unauthorised and misleading. The sound is somewhat similar; but the sense is as different as that implied in the words "inflammation" and "spasm". The passage in the original French occurs in Trousseau's lecture (xix) on Diphtheria, vol. i, at the top of page 342, 2nd edition.

## A NOVEL TREATMENT OF OBSTINATE VOMITING IN PREGNANCY.

By EDWARD COPEMAN, M.D., F.R.C.P.,
Senior Physician to the Norfolk and Norwich Hospital, President of the British Medical Association.

In furtherance of the views I expressed at our last annual meeting of the Association, *that practical knowledge should be freely communicated to the profession through our* JOURNAL, and which I still urge upon the attention of our members as a valuable means of effecting improvement in the treatment of disease, I forward three cases which have occurred recently in my own personal experience, and which, if further corroborated, may open a wide field of usefulness in the treatment of a very obstinate, rebellious, and sometimes fatal form of sympathetic disorder. The disease to which I refer is urgent sickness in connection with pregnancy, which is now and then so severe as to render premature delivery necessary to save the life of the mother. During a long professional life, I have had much experience of this troublesome affection, and amongst medicines have found calumba and oxalate of cerium the most beneficial; but these and all other medicines often fail, and the treatment suggested by the following cases, discovered by accident as it were, and never, as far as I know (although nothing is new under the sun), employed before, promises some chance of our being able with more certainty to overcome this very threatening concomitant of pregnancy.

On June 9th, 1874, I was summoned to a lady, thirty-five years of age or thereabouts, to consult with two other practitioners already in attendance. She was about six months gone in pregnancy, and was so reduced by almost incessant vomiting that great fears were entertained as to her safety. I noticed there was slight uterine action accompanying the sickness, and, on examination, I found the os uteri partially dilated so as readily to admit the finger. I thought it right under the emergency to advise bringing on labour without delay; the gentlemen present, however, expressed no little apprehension as to whether or not she would have strength to undergo the effort of parturition on account of the very depressed and exhausted state of her system. They nevertheless concurred in the advisability of the course I recommended, and asked me to perform the operation. I at once dilated the os uteri as much as I could with the finger, and could feel the membranes and the head of the child. I tried to rupture the membranes with a telescopic female catheter (the only instrument at hand), but they were so flaccid and the head offered so little resistance, the catheter shortening itself also on my making pressure, that I could not succeed; and, thinking it wise to wait awhile before resorting to any other expedient, we retired to another room for further consultation. In about an hour, we saw the patient again, and were surprised to find that a longer period had elapsed without sickness than before; and we again waited, in the hope that she might be able to take a little nourishment, and so be better prepared to undergo any further proceeding. We waited another hour, and another, but there was no return of vomiting; and we spent the rest of the night in watching, during the whole of which time she was improving, and we determined to let well alone. I left her early in the morning, and had a favourable account of her a few days afterwards. There was no return of sickness; she went on to the full period of pregnancy, was then delivered of a healthy child, and made a good recovery.

This case made a strong impression on my mind; and I wondered whether the relief to the vomiting, so urgent and threatening to her life, could have been effected by my having dilated the os uteri, and thus removed any undue tension that might be producing sympathetic irritation. It was not very long before I was called some distance into the country to consult about another case of vomiting during pregnancy of great urgency, occurring about the second month. The surgeon in attendance had adopted the best acknowledged medical treatment, and had arrived at the conclusion that artificial delivery would be necessary to save her life. With the full recollection of the former case, I examined the uterus, and found some degree of anteversion and the os patent enough to admit the end of my finger. I forthwith dilated it as much as I could, passing my finger all round, removing all puckering and making a smooth edge. She vomited only once slightly after this proceeding, and we left her with the understanding that, if the sickness continued, I should be summoned again in a few days to bring on abortion. This summons never came; but in about a fortnight I had a letter from the husband, stating that his wife began to get better an hour or two after I left, and that the sickness had entirely ceased. I have heard several times since that the patient is going on remarkably well, and I believe she expects to be confined some time this month.

A third opportunity has since offered itself for a trial of this novel (as far as I know) treatment. On the 6th of this month (April 1875), I saw, in consultation with a very intelligent country practitioner, a lady in delicate health just entering the eighth month of pregnancy. She was the mother of nine or ten children, and her life was valuable. Generally during early pregnancy, and sometimes for several months together, she had been troubled with vomiting; but during the last three weeks, the sickness had been almost incessant; she could keep nothing down, and was in a very feeble and emaciated condition. She had moreover a considerable amount of albumen and some pus in the urine, a few casts also; and fears were entertained of there being extensive kidney-disease. There was, however, no dropsy, and our opinion was somewhat modified by the knowledge that the urine does often, during pregnancy in the latter months, contain a good deal of albumen. The patient was so ill, that she would willingly have consented to artificial delivery, if really necessary. I examined the uterus, and, as in the other cases, found it patent, puckered, and dilatable, and I dilated it as much as I could with my finger in the hope that the sickness might cease after such a proceeding. I should say that the usual remedies had been carefully employed without producing the desired effect. A few days after my visit, her husband called upon me to say that his wife had no return of sickness after I left, and was now able to take food without inconvenience, although he still thought her very weak and ill, and feared she would not recover.

On the 23rd, I received a very satisfactory letter from the surgeon in attendance, to the following effect. "I am exceedingly glad to tell you that Mrs. — was confined yesterday. I should think it is not more than an eight months' child, still it looks healthy and strong. You may most certainly add her case to the others you related to me. *There was never any urgent sickness after you dilated the os uteri*, and the last week Mrs. — has frequently taken with relish and no inconvenience solid food, such as boiled mutton, with asparagus, and drank home-brewed beer. This morning she was going on quite well; she was not even faint or at all exhausted after her labour. I am very glad I called you in, for I now know how to proceed with cases of sickness in pregnancy. Should I meet with any more patients, I will either ask you kindly to meet me again, or report them to you."

This subject appears to me of so much importance, that I send my cases for publication without waiting for further experience or attempting to explain the *modus operandi* of the treatment suggested. It is my intention to communicate further on the matter when I have more thoroughly digested it myself; and I will not fail to report any future success or failure that may come under my observation. I trust, moreover, that others who may be induced to pursue the same plan of treatment will report their experience for the guidance and instruction of the profession.

## ON PUERPERAL FEVER.

By PERCY BOULTON, M.D.,
Physician to the Samaritan Hospital.

The discussion on Puerperal Fever, which is now taking place at the meetings of the Obstetrical Society, is likely to spread over at least two more months, and even then it will be impossible for many to speak. Thus far the debate has been, I think, disappointing. The ground does not seem to have been at all cleared, and remains in much the same state of confusion as before; no sparks of fresh light have been struck, nor has any definite scheme been suggested which would be likely to lead to a result hereafter. My colleague Mr. Spencer Wells wished, I think, to elicit either definite opinion or conjecture on certain heads; but the speakers have not specially addressed themselves to these, or adhered to any plan, and the consequence is that, unless there be a genius lurking somewhere, who will come to the fore and illuminate our darkness, the debate seems likely to end where it began. For the sake of lying-in women, and also for the honour of the Obstetrical Society, it is to be hoped that some advance may be made before the subject is closed.

My own experience is so limited, that I should not have stated it, had there not been such a want of definite opinion; but perhaps I may shortly express the little I have to say. All the cases which I have seen have been in consultation, and all have been sporadic.

They have all presented the following sequence:—1. Inflamed or torn uterine sinuses or veins, followed by clot, pyæmia, and secondary congestion (phlebitis); 2. Lymphangitis, either septic, producing septicæmia, or subserous, followed by peritonitis, as described by Dr. Tilt (*Obstetrical Transactions*, vol. xvi, page 163, etc.); 3. A combination of the two.

I have never seen puerperal fever in its epidemic form. I am convinced, however, that, whatever the cause, the result is inflammation of some of the parts employed in parturition. Is the fever or the inflammation the first step? This is a question which should be answered definitely, and I may say that my own view is that, if autogenetic, that is, caused by something local, as retained clot, or placenta, or phlebitis, or lymphangitis, the inflammation is primary and the fever secondary. In the epidemic form, probably several factors come into operation, amongst which are the following:—A state of blood peculiar to the puerperal state, *plus* all that poverty, dirt, scarcity, overcrowding, ill-ventilating, and general want of sanitary arrangement, can produce; a condition prolific of fever and of erysipelas after operation, as of puerperal fever after confinement. Hence it is most common amongst the poor and in hospitals, where several parturient women are collected, and in cold damp weather, when vitality is low. All this, in short, may be summed up in a state of blood, a state of temperature, and a state of atmosphere. The first may produce a predisposition; but either exposure to cold air, or an atmosphere charged with poison, is still necessary.

The following poisons, frequently afloat at times of puerperal epidemics, are said to produce this fever; viz., scarlet fever, measles, typhus, typhoid, erysipelas, small-pox, as also *post mortem* effluvium and the poisonous emanations of puerperal cases. While air charged with fever-poison is unwholesome, and, no doubt, especially so to a parturient woman, I believe that the specific fevers "breed true", as it is called; and it is quite one of the questions for debate whether small-pox, for instance, ever produced puerperal fever. I am quite aware that cases can be cited where it apparently has been so; but many more must occur where women are confined in the midst of specific fevers, and no puerperal symptoms follow. I can remember instances under my own care, and few general practitioners are ever free from some infectious case; and yet puerperal fever is happily not so common as it should be were such the rule. Typhus and erysipelas are often frequent at the time of epidemics of puerperal fever; but do not they all come more or less from a common cause; viz., destitution, dirt, overcrowding, etc.? Where sanitary affairs are bad, surgical wards will be full of erysipelas, and lying-in hospitals contain cases of puerperal fever.

There is, however, another factor necessary to clear up the difficulty of one obstetrician having all the cases of puerperal fever in a town, while the patients of other men are exempt. This unfortunate practitioner cannot have the misfortune to meet with a sequence of patients specially predisposed, and all surrounded by poisoned air, while other medical men in the same town are privileged; and it is impossible to meet the difficulty, except by the supposition, that the attendant either exhales a poison from his own skin or carries it from one patient to another. In either case, scrupulous care and cleanliness are necessary; for I believe that the hands alone are the means of inoculation, and that frequent use of the nail-brush and disinfectants are means to a desirable end.

It is important that nurses should always be able to use the catheter; so that, when necessary, the medical man in attendance need not constantly charge his fingers with what is at times a deadly poison. The Obstetrical Society will do well not to certify any nurse who is incompetent in this respect.

Bacteria are undoubtedly concerned in the production of puerperal fever; but I shall not presume to explain how, further than to say, with Dr. Burdon Sanderson, that "liquids which are the products of inflammation, or of putrefactive decomposition of blood, muscle, or other animal tissue, may be called pyrogenic liquids". They all contain bacteria, and, when introduced in minute quantities into the blood of a living animal, they produce fever.

Antiseptics hold, therefore, the same valuable place here as in surgery, and, when necessary, they should be injected into the uterus. Probably vaginal pessaries of carbolic acid and gelatine would be serviceable in disinfecting the lochia, and thus diminishing the risk of contamination from these discharges.

In short then, I believe that puerperal fever is either traumatic or infective; that its spread is to be prevented in the same manner as erysipelas would be in surgical wards; that, in the epidemic form, and sometimes in sporadic cases, contagion through a pyrogenic liquid containing bacteria is the rule, and antiseptics are local agents to be employed with advantage.

## CLINICAL MEMORANDA.

### CROUP AND DIPHTHERIA.

In one of the exceedingly interesting series of communications on croup and diphtheria that appeared in this week's Journal, the writer appeals to those in general practice for their experience on this subject. I happen to have seen many cases of diphtheria, and a lesser number of so-called croup. My earlier experience of the latter would support the view of Drs. Cumming and Bennett; while, if I were to rely upon what I have seen the last few years, I would *almost* say the two diseases were synonymous. I say almost, because within the last three months I have seen and treated an undoubted case of the inflammatory disease. Here there was not the slightest evidence of any diphtheritic affection of the throat, and the child was rescued from imminent death by the orthodox remedies. About fourteen or fifteen years ago, I saw many such cases, and when the remedies (including venesection and calomel) were applied early and decidedly, I felt not the slightest hesitation about the result. Soon after this, diphtheria became epidemic; and since then, on close inquiry as to the history and strict examination of the fauces, I have, as I have said, almost uniformly been convinced that the cases were really cases of diphtheria. I have never yet performed tracheotomy for true croup (laryngitis), neither have I had an opportunity of seeing the parts *post mortem*. I agree with Dr. Wilks, that this is the real matter in dispute, and that it must be settled by strict clinical observation, including a careful history of the case, and a proper examination of the parts after death. With regard to nomenclature, croup ought to be no more a medical term than jaundice; and we should, in a scientific discussion, stick to the terms, spasm of the larynx (spasmodic croup, laryngismus stridulus); laryngitis, simple, etc.; membranous and diphtheritic laryngitis, herpetic and malignant. I may also add, in reference to a remark of Dr. Bennett's, that I have known a case of diphtheria followed by the usual paralysis to have occurred in 1829; thus identifying the (?) new disease diphtheria and the (?) old putrid sore throat.

William Bruce, M.D., Dingwall, N. B.

### CROUP AND DIPHTHERIA.

The classification of croup and diphtheria, suggested by Dr. Risdon Bennett in the Journal of May 8th, seems to me as simple, complete, and practical an one as can well be found. That inflammatory croup, or membranous laryngo-tracheitis, should be placed in a distinct class from diphtheritic croup is a conviction that my mind cannot resist. Inflammatory croup appears to me a disorder akin to plastic bronchitis. In this disease, small fibrinous casts of the bronchi are coughed up by the patient; these being fibrillar in nature, and mixed with exudation corpuscles. Rarely does this complaint extend towards the trachea, but I have met with a case of bronchitis where an adult expelled a fibrinous cast of the trachea, making a good recovery. Why some constitutions tend to fibrinous and others to purulent formations, seems a matter due to the particular nutrient tendencies of each. In diphtheria, it seems as if the fibrinous part of the blood were poured out on certain mucous surfaces, somewhat as the serous element of blood is poured out in cholera; both these being specific blood-diseases. The fibrin may be deposited on any part of the mucous membrane; commonly we see it first on the tonsils and velum palati, but it may be exuded into the larynx, trachea, bronchi, or intestine. A sore on the skin, made by a blister possibly, may, in a diphtheritic case, be covered with the peculiar exudation. I have, before I knew better, in a few instances, used blisters in croup, but I never saw a membrane like diphtheria form on their surface. The occurrence of loss of vision, albuminuria, or paralysis, in connexion with pure inflammatory croup, is a point on which we as yet have no information.—John C. Thorowgood, M.D., F.R.C.P.

### ORIGIN OF TYPHOID FEVER.

The notice of Mr. Whitgreave's remarks on the origin of typhoid fever in the British Medical Journal of April 10th recalls to my recollection a couple of cases that I attended in the year 1869, which, to my mind at least, seemed to arise *de novo*. On referring to my visiting-list for that year, I find that I commenced attendance January 28th on Luke B., a stout well-conditioned man, previously in the enjoyment of good health, labouring under a severe form of typhoid. The house in which he lived was a one-storied two-roomed dwelling, standing by itself, and without any other within a distance of some hundreds of yards; and, although Dewsbury was at the time supplied with the town's water, the supply did not reach the premises. At the rear of the house was a deep well, from which, by means of a rope and bucket, the water used for drinking and domestic purposes was drawn. The family consisted of the man, his wife, and a niece, a young woman about seventeen years of age. My attendance on the man continued to March 23rd, when he was convalescent. On the 25th of the May following, I was requested to visit the niece, who was suffering from the same form of disease, but of a milder type. One morning during the first week of my attendance on this case, the aunt called my attention to a thin flat bone, which, she said, had been found floating on the surface of the water drawn from the well. I saw at once that it was the parietal bone of an infant's skull, and advised the immediate emptying of the place. This was done; and, at my succeeding visit on the day following, were shown to me an arm, a leg *minus* some of the toes, and the remaining portions of the body of a full-grown child, completely converted into adipocere. The integuments of the face and chest were entire; those of the neck and abdomen were wanting, having been, as it seemed, dissolved away. The heart, liver, and kidneys were thoroughly saponified. The limbs could be broken as easily as wax candles. How long the body had remained in the well, there was no satisfactory means of judging; but, inasmuch as two of the three members of the family were attacked by the fever, and these persons used only the water from this source, my very strong impression is, that the cases arose *de novo*. I may as well state that the pit was filled, and has not been since reopened.

Matthew Hinchliffe, M.D.

## ON THE EFFECT OF SWALLOWING ALCOHOLIC DRINKS BEFORE INHALING ANÆSTHETICS.

THE death under anæsthetic ether at Manchester should not, I think, be added to statistics against sulphuric ether. The two liquids are sufficiently unlike, as pointed out by Dr. Edgar Barnes in last week's number, to require to be considered separately. There is another point in the case to which I would call attention. The boy is reported to have drank an ounce of brandy previously to being placed on the operating table. As the patient was much exhausted, this was quite in accordance with the practice of many surgeons, but I believe it added to the danger. Brandy at first exhilarates and assists the anæsthetic to produce sleep, but when the latter happens to have been given so freely as to cause choking, or to stop the movements of respiration, it begins to be dangerous; for, if artificial respiration be not immediately established, the alcohol continues to be absorbed from the stomach whilst it cannot escape by the lung, and to surcharge the blood with an agent which has a similar effect to the anæsthetic on the nervous centres. At this crisis, the alcohol no longer stimulates but depresses the heart's action, as well as increases the difficulty of exciting the medulla oblongata. Moreover, when the patient is lying on his back during the performance of artificial breathing, the vomiting of fluid strongly charged with brandy would be dangerous, not only by mechanically obstructing the throat, but because of the alcoholic vapour which would enter the lungs, even if the liquid did not do so. It is true that we have no evidence in the Manchester case that the heart continued to act after the breathing ceased; but it is probable that a slow circulation through the vessels of the stomach would continue a short time, although no radial pulse could be felt. This subject was forced on my attention by a case of prolonged apnœa after inhaling nitrous oxide. Artificial respiration was required for ten minutes, and the patient breathed as if suffering from apoplexy afterwards. On recovery, he admitted he had swallowed two glasses of gin just before inhaling, and to this I attribute the slowness of his recovery. If chloroform had been the anæsthetic used instead of nitrous oxide, I think he would not have recovered. I hope what I have said will induce those who have to report cases of difficulty from anæsthetics, to mention what the patient took before inhaling.—JOSEPH T. CLOVER.

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# REPORTS
OF
# MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

## MIDDLESEX HOSPITAL.

### CASE OF PELVIC CELLULITIS AFTER ABORTION: EXTENSIVE SUPPURATION: RECOVERY.

(Under the care of Dr. HALL DAVIS.)

[Communicated by Dr. DAVID W. FINLAY, Resident Obstetric Assistant.]

H. S., a married woman, aged 43, was admitted into hospital on the 22nd of June last, with the following history. She had had nine children, and two miscarriages. Of these latter, the first occurred about five years ago; the second, about three months ago, was the cause of her present illness. The patient, who was then about four months pregnant, was persuaded by an unprincipled midwife to allow her to induce abortion; this was effected by injecting warm water into the uterus. The operation was performed at 10 A.M.; at 3 A.M. on the following morning, the patient awoke with great pain in the hypogastrium, and much vomiting; at 2 P.M., she miscarried, with considerable hæmorrhage. For the next three days, she felt pretty well, but was then attacked with violent pain throughout the abdomen (most severe in the right iliac region), and with frequent rigors. Subsequently, she suffered from fever, the pain continued more or less severe, and the rigors recurred at intervals. She went out for a drive on June 8th, and became worse. About that time, she first noticed a swelling in the right lumbar region, and had difficulty in extending the right thigh.

On admission, she appeared very anæmic and weak; her legs especially were much wasted; the right thigh was flexed at right angles to the trunk. Pulse 132; temperature 100.7 deg. Her tongue was coated; the bowels had not acted for a week. The abdomen was distended and resonant, except on the right iliac region; in the right lumbar region, between the last rib and the crest of the ilium, was a tense resistent swelling, very tender on pressure.

The patient was ordered a castor-oil enema; poultices to be applied over the tumour; and four grains of quinine, to be taken every four hours. Fifteen grains of chloral were to be given at night, if required.

June 24th. The patient was restless at night, and perspired profusely. The tumour in the right flank was more defined; it was still very hard; but when the patient lay on her back, fluctuation was perceptible. On vaginal examination, the os uteri was found patulous, but there was no fulness in Douglas's fossa. The patient's general condition was unaltered.

June 26th. The swelling had increased. The patient still complained much of pain in the right lumbar region. The sweating continued. The quinine was increased to ten grains every four hours, with ten minims of tincture of opium.

June 29th. Pulse 108, very small and weak. The quinine was reduced yesterday to six grains every four hours, on account of cinchonism having been induced.

July 1st. The patient seemed weaker. She had been much troubled with sickness during the last few days; she could take only a little milk by the mouth, but had had enemata of beef-tea, brandy and eggs, thrice daily. As fluctuation was now very distinct over the tumour, the aspirator was introduced midway between the last rib and the crest of the ilium, and eight and a half fluid ounces of pus were removed.

July 6th. Since her admission, the patient's bowels had only acted after enemata; but during the last three or four days, they had been relaxed, and the stools had contained pus. The general condition remained much the same. There was now fulness and fluctuation in the right groin, above Poupart's ligament. The abscess in the flank was reopened, and a probe passed downwards towards the groin, with the intention of making a counter-opening there, and passing a drainage-tube through from one opening to the other; but no direct communication between the two abscesses could be found. The tube was, however, left in the upper opening, and covered with carbolic gauze.

July 9th. There had been very abundant discharge of pus through the drainage-tube during three days, but it was now diminishing somewhat. The patient was still very weak, with a pulse of 112 to 120, but her temperature had been normal since the operation; her tongue was clean, and her appetite was returning.

After this, the patient improved slowly but steadily. The tube was removed on July 31st, and, on August 15th, she was discharged convalescent. On vaginal examination, the uterus was then found to be bulky but mobile; there was some thickening and bulging to be felt high up on the right side of the pelvis. The patient presented herself in the early part of this year, quite well, and again pregnant.

In the course of a clinical lecture on this case, Dr. Hall Davis remarked that bad cases of pelvic cellulitis were common in hospital practice, the patients seldom presenting themselves for admission until the inflammation had spread widely, and suppuration was already established. It was, however, surprising to find how, in the great majority of cases, nature found a safe outlet for these large abscesses; they discharged themselves through the abdominal wall, or into the vagina, rectum, or bladder. The patient might die of pyæmia or of some other complication superadded to the exhaustion due to the copious and long-continued discharge; but death, directly due to the abscess, was exceedingly rare. Among the very numerous cases of cellulitis which had come under his care during many years, he had met with one case only in which the abscess burst into the peritoneum, causing fatal collapse. Still, the possibility of such an occurrence must be remembered, and an early exit secured for the pus, with the aid of the knife, when it could be done with safety. In the case just related, the opening of the abscess had afforded immediate relief to the patient. The case had at first seemed very unpromising; but it had been treated in accordance with the general principles of medicine, and with an encouraging result.

## TOWN'S HOSPITAL, GLASGOW.

### CASES OF PUERPERAL FEVER, SCARLATINA, AND MEASLES, AFTER LABOUR; OCCURRING NEARLY CONSECUTIVELY.

By ALEX. ROBERTSON, M.D., Physician and Superintendent.

THE prevailing general interest in puerperal fever and other diseases of the zymotic class following parturition induces me to place on record the following cases, which have recently occurred in this institution.

CASE I. *Puerperal Fever: Death.*—M. A., aged 21, a stout, healthy girl, was delivered, on March 13th, of her first child, after a labour of fifteen hours. The placenta came away naturally; there was no rupture of perinæum nor abrasion of external parts. She was apparently progressing favourably till about twenty-four hours after delivery, when she had a rigor, which was followed by considerable constitutional disturbance and pain in the uterine region. Next day, she was worse, the pain in the abdomen being greater and more general. (Up till this time, besides feeling the pulse, I had not touched the patient; and after this, I refrained from going near, simply observing her condition from the distance of several feet. The necessary examinations and the treatment were carried out by my assistant, Mr. Ross, to whom I am indebted for the notes from which this and the following cases are condensed.) The disease advanced rapidly; the temperature became high; the pulse was rapid and small; delirium set in on the third day after the rigor; the abdominal pain and tenderness continued; the lochia, however, remained nearly natural in appearance and quantity till near the end. Death occurred on the 19th, six days after delivery. There was no pain in the throat nor rash on the skin. No *post mortem* examination was obtained.

CASE II. *Scarlet Fever: Recovery.*—F. M., aged 26, a stout country woman, was admitted on March 13th, shortly after the delivery of M. A.; and they occupied adjoining beds. After a somewhat severe labour of eighteen hours, she gave birth to a child, stillborn, but healthy, and apparently not long dead.—March 15th, 8 P.M. She had been progressing favourably till this afternoon, when she had a rigor, followed by nausea, general *malaise*, and occasional abdominal pains; temperature in axillæ, 102 deg.; pulse, 100.—March 16th, morning. There was a bright red rash on the face, neck, trunk, and partially on the extremities; she had a strawberry tongue; the throat was red, and slightly sore; temperature 103.4 deg.; pulse 120. Her breasts were full. She complained of abdominal pain. The lochia were scanty, but healthy. It was a well-marked case of scarlatina.—March 17th. Temperature 104.2 deg.; pulse 130, small. The abdominal pain was considerable in the morning, but was relieved in the evening after the application of poultices and the action of castor oil.—March 18th. Temperature 104 deg.; pulse 120. The abdominal pain was almost gone. The skin was slightly moist; the throat and edge of the tongue were very red.—March 19th. Her condition was less favourable. Temperature 104.4 deg.; pulse 124, small and weak; tongue dry. There were several small petechiæ on the legs. Besides the milk-diet she had been getting, she was ordered to have beef-tea and four ounces of wine daily; the skin to be sponged with tepid water.—March 20th. She felt better; temperature 104 deg.; pulse 100. The throat was still sore and irritable. Carbolised spray (1 to 120) was applied to the throat by Siegle's inhaler.—March 21st. Her general condition was satisfactory. The eruption, which had stood well out, was now fading. The urine, though scanty, contained no albumen.—March 24th. Desquamation was general. The urine was slightly albuminous, but contained no cells. She complained of some pain in the lumbar region. There was slight fulness below the eyes. She was ordered to have poultices applied to the loins, and to have a saline aperient. After this, she progressed favourably, except that albumen continued in the urine for a few days, but it quickly disappeared on the administration of gallic acid, in six-grain doses, every eight hours. On April 23rd, she was dismissed cured.

CASE III. *Scarlet Fever: Recovery.*—(I am indebted to my senior assistant, Dr. Barlow, for the reports of this and the following case; but I corroborated the diagnosis in both cases.)—M. M., aged 19, a robust girl, was delivered on March 21st of a healthy child, after a natural and easy labour. She continued well till the 23rd, when she had a rigor, followed by vomiting and sore throat.—March 24th. Temperature 103.3 deg.; throat still sore; ordered carbolised spray to it.—March 25th. There was a bright scarlet rash on the neck, chest, and upper extremities; strawberry tongue; the throat was improved.—March 26th. She had an eruption over the whole body.—March 29th. The lochia were diminished. She had pain in the hypogastric region. She was ordered to have a turpentine stupe applied to the abdomen, and half an ounce of castor-oil and twenty minims of tincture of opium internally.—March 30th. She was improved; the lochia were more abundant; the rash was disappearing.—April 6th. Desquamation was progressing favourably.—April 8th. The urine contained a small quantity of albumen with pus; no casts.—April 26th. The urine was now healthy. She was dismissed cured.

CASE IV. *Measles: Recovery.*—A. M., aged 26, stated that she had never measles before. After five days' residence in the ordinary wards of the establishment, she was delivered of a healthy child on April 15th, the labour being easy. Next day, the eruption of measles appeared on the face. She was then removed to the ward for that disease. The rash was copious over the entire body. The catarrhal symptoms were severe for some days, and the constitutional disturbance was great. She, however, made a good recovery, and was dismissed cured on May 5th.

REMARKS.—On referring to the register of the establishment, I find that, since the beginning of 1859, until the first of the cases now recorded, there have been 1,855 births. Two deaths occurred among them from puerperal fever, the last being about seven years since, and several years after the earlier case. There had been none from scarlatina or any other zymotic disorder; and, from my own recollection, I can say that there has been no case of any of these diseases in the puerperal state. Our recent experience has, therefore, been very remarkable. The occurrence of scarlet-fever and measles may, perhaps, be explained by the fact that there have been many cases of both of these affections among the children in the institution since the beginning of this year; though the exact channel of communication cannot be traced. The source of the puerperal fever, if it had one beyond the patient's own body, is more obscure. Without hazarding any hypothesis, I will only say, on this point, that careful consideration of the whole course of the disease, and of all the circumstances bearing on its causation, does not lead me to think that it was due to the poison of scarlatina.

Directly after the first two cases occurred, they were placed in separate rooms, and Mr. Ross was appointed to superintend their care. Another ward, with a new nurse, was opened for fresh cases; and Dr. Barlow, who had not been near the puerperal fever case, was charged with its management. The first patient admitted into this ward (Case III) was seized with scarlatina. I then had a third ward opened in a building about a hundred yards distant, with new nurse, etc., and attended myself to the cases, three in number, that occurred during the next twelve days. They all made excellent recoveries. Meanwhile, the original ward had been thoroughly disinfected, and was standing empty for about a fortnight. It was then reopened, and the usual nurse returned to duty. The patient first delivered (Case IV) took measles. As I have stated, she was removed; and I had her bed and all that had touched her disinfected as carefully as possible, but the ward was not closed. Since then, there have been ten cases of labour, and all the patients have made, or are making, good recoveries.

I have been agreeably surprised with the issue of the scarlatinal cases. Never having previously met with a case of that fever in the puerperal condition, the knowledge I had of it from others had led me to dread the result. Happily, however, my anticipations were not realised. The fever was doubtless of considerable severity, but was certainly not worse than is found in average cases of scarlatina anginosa. Further, in Case II, there was a temperature of from 104 deg. to 104.4 deg., for three successive days. In the hyperinotic condition, Dr. Richardson justly spoke of which, at the recent discussion in the Obstetrical Society, as an element in the puerperal state that disposed to an unfavourable termination of zymotic disease, such a temperature, though not an extreme one, might of itself have been feared. Not much, of course, can be founded on two cases; still they are sufficient to lead me to doubt if the so-called puerperal fever is often produced by the scarlatinal poison, and even to ask if cases of puerperal fever may not sometimes be considered and recorded as scarlet fever, when they are really of uterine septic origin. I am led to put this question, not simply from the recovery of these patients, but also from the fact that, in the second of the former cases of puerperal fever in this institution, there was, early in the disease, a dusky blush on the surface, especially in the neighbourhood of some of the joints, which had some resemblance to an imperfectly developed scarlatinal rash, but was really, I concluded, pyæmic in its origin, and due to the disposition often observed in pyæmia, to the development of local inflammations.

## COLUMN FOR THE CURIOUS.

A CURE FOR THE BITE OF A MAD DOG.—The receipt (says *Notes and Queries*) is to be found in the Add. MSS., B. M. Camb. Cott., vol. ix, p. 21. "An infallible cure for the bite of a mad dog, brought from Tonquin by Sir George Cobb, Bart. Take twenty-four grains of native cinnabar and sixteen grains of musk. Grind these together into an exceeding fine powder, and put it into a small teacup of arrack, rum, or brandy; let it be well mixed, and give it the person as soon as possible after the bite. A second dose of the same must be repeated thirty days after; but, if the symptoms of madness appear on the persons, they must take one of the doses immediately, and a second in an hour after; and, if wanted, a third may be given afterwards. N.B.—The above recipe is calculated for a full-grown person; but it must be given to children in small quantities in proportion to their ages. If in the madness they cannot take it in liquid, make it up into a bolus with honey; after the two first doses, let it be repeated every three or four hours till the patient is recovered. This repetition is to be omitted unless necessary. *Note.*—Take all imaginable care that the musk be genuine."—*London Evening Post*, July 4th, 1754.

# REPORTS OF SOCIETIES.

## OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, MAY 5TH, 1875.

W. O. PRIESTLEY, M.D., F.R.C.P., President, in the Chair.

### THE RELATION OF PUERPERAL FEVER TO THE INFECTIVE DISEASES AND TO PYÆMIA. (*Continued from page* 522.)

THE PRESIDENT: It will be in the recollection of the Society that the discussion commenced by Mr. Spencer Wells was adjourned at the last meeting, on the motion of Dr. Barnes, seconded by Dr. Squire; and it will, therefore, be continued this evening. Before the discussion commences, I may state that Dr. Matthews Duncan has forwarded a letter of explanation in reference to a letter read at the last meeting. He understood that adverse comments had been made on his published letter, and he is very desirous of making some explanation regarding it, which I am sure will be interesting to the meeting. The letter was as follows:

*To the Secretary of the Obstetrical Society of London.*

Edinburgh, May 3rd, 1875.

My dear Sir,—As I think my former note to you was too short, I beg now to supplement it to a small extent.

One of the most important points for discussion by the Obstetrical Society at the present juncture is the conduct proper to midwifery practitioners, with a view to avoid disaster to patients from puerperal infection; and I expect much advantage from our great Society taking up this difficult question. At the same time, I feel called upon to deprecate premature decision; for the matter, in both its scientific and its practical aspects, is not ripe for more than intelligent, prudent, and fearless discussion. Observing recent trials of our humble and unlicensed female fellow practitioners, I think there have been precipitancy and rashness, believing, as I do, that Mrs. Dymond and Mrs. Marsden have been severely, and probably also unfairly, dealt with. I judge from the meagre reports regarding the cases of these midwives in the weekly medical journals.

The charge of homicide by infection is, I believe, a new one in the history of the law; and I am further of opinion that, in the present state of science and practice, such a charge cannot be substantiated. I know that Mrs. Marsden is now in prison enduring penalty for homicide by infection, and that this is an example of the charge being sustained; but, while I grieve for this sufferer, I feel sure that the case would have broken down had it been tried in a proper manner.

The public, and to some extent, also, the professional mind, is not well informed on the subject of puerperal mortality and puerperal infection; and there is much excitement abroad regarding the prevention of disease generally. Under these circumstances, error is easily fallen into, even by authorities, when brought face to face with the terrible facts, probably for the first time.

I shall say nothing about the amount of puerperal mortality, presuming that many of the members of our Society have read some remarks on the subject in my last year's address at the Norwich meeting of the British Medical Association. But I may remind you that such high and justly respected authorities as Miss Nightingale and Dr. Wm. Farr have promulgated far too favourable views as to the smallness of this amount; and that exaggerated notions of the innocuousness of childbearing are fostered by the careless talk of many experienced medical men, asserting, as they are often heard to do, that they never lose a case. If it be believed, as these would have it, that there are very few deaths, it is easy to understand the panic excited by the actual facts.

On another point there seems to be still greater misunderstanding on the part of the public and of the profession, namely, the precautions taken or considered necessary by the profession to avoid communicating disease to patients. For the prevalence of this error, I can cite the evidence of the *Times* newspaper, whose utterly erroneous statement I now give as I find it in a leading article of that great organ of public opinion. "It is the invariable practice of medical men" (says the *Times*), "if they attend a case of this (puerperal) fever, to hand over the whole of their midwifery practice to other persons, for at least two or three months; and it has been shown, by ample experience, that this course is absolutely necessary to preserve the lives of their patients." Anything more inconsistent with truth it would be difficult to find. It is this error, thus widely promulgated, and no doubt entertained, that I wish to point out; but I may be allowed to add that, were this true, I would never have a chance of being in practice. I would be perennially on the shelf; and so would every one who had a large practice, especially if that practice involved hospital duty and private consultations.

The difficulties of determining the proper conduct of obstetricians are not to be solved by officious coroners foolishly sending threatening messages to practitioners, nor by judges giving decisions without due consideration; but by discussion in such a Society as ours, and by matured professional opinion. Were the conduct of the coroner in Mrs. Dymond's case, and of the judge in Mrs. Marsden's, to be held as good precedents, there is not one among us who would be secure for a day against the most terrible charges. No surgeon having a case of pyæmia or of erysipelas could go safely to any other patient. No physician having a case of scarlatina could go elsewhere. The lying-in woman, no doubt, requires special care; but such care does not differ in kind from the care of other patients. Homicide by infection may be as easily brought home to the surgeon or physician as to the midwife.

I regard the recent prosecutions of midwives as injudicious; because I believe it would be difficult to find a physician or surgeon who might not, on the same kind of grounds, be cast into prison. The crime—so-called—of Mrs. Marsden is to be found, almost every week lately, confessed by ingenuous practitioners writing in our journals. Moreover, I would have preferred that some *man* should have been first charged with this crime, and not a poor and comparatively defenceless woman; and, as I have said, it will be easy for the authorities to find a criminal man. Where is the physician or surgeon who has not many many times exposed his patients to some risk of infection with dangerous disease? Is a physician to be found guilty of homicide who exposes his patients to no greater risk than is that of those dearest to him at his home?

The medical profession, with one voice, proclaims the necessity of extreme care and prudence on the part of medical men, and the utter abnegation of selfish views in their conduct of practice. But there is danger of the public, and of many professional men, being now led to seek for and expect a degree of safety which can in no ordinary circumstances be reached, and to entertain views as to the conduct of practice which are based on error, and lead astray from the line of expediency and prudence.

Absolute safety can in no way be attained. As practice is at present conducted by careful practitioners, I believe it is nearly as safe as it can be. Among the necessary precautions in ordinary circumstances, I do not place giving up practice for a time; and I may say, for myself, that in nearly thirty years of obstetric experience in private, in hospital, and in consultation, I have not, as a precaution, given up work for a single day. And I venture to say that it would not astonish me were it demonstrated that as much disease and death come from patients to practitioners and nurses, as go from practitioners and nurses, ordinarily and duly careful, to patients.

I must draw to a close without having said nearly all I wish to say, and merely name the following grand precautionary measures for obstetric practitioners:

1. Avoidance of the duties of nurses.
2. Avoidance of using the hands in *post mortem* investigation.
3. Antiseptic cleanliness of the hands and of the dress.

One case of infection by a practitioner is as heinous as a series of cases. One homicide is as bad as four. The chapter of accidents may bring a series of cases to one practitioner, who is really careful and innocent: and the series may appear to be the result of infection. I have never had a series of cases, not even two near one another, in my private experience; and I believe such an occurrence would drive me away from my practice, whatever my theoretical views might be. Many practitioners have, in such circumstances, persisted in practice, and do so now, just as Mrs. Marsden did, in my opinion, foolishly, though not criminally, persist. If homicide by infection be a good charge of manslaughter, it is as good in a case of one infection as in a case of four, however appalling the latter may be. There are few practitioners in any department of medicine against whom such a charge might not be set up.

Allow me to express my regret at forced absence from your meeting, and believe me, dear Sir, yours faithfully,

J. MATTHEWS DUNCAN.

DR. BARNES: I shall be quite willing to cede my right of priority to any visitor who may be willing to address us. We, who are in the habit of attending here, have spoken so often that I think we must be almost tired of hearing our own voices; and one great advantage of this particular discussion I take to be, that it brings into our Society the views entertained by persons who do not usually come here, especially of men practising in different departments of medicine. I have been in the habit of saying that in obstetric practice we may see at least the germs or the illustrations of almost every problem in medicine and surgery. We want, nevertheless, to have the advantage of the additional light thrown upon these problems from all sources. Of late years, owing to the enormous growth of the metropolis, and the enormous number of medical men practising in different departments, the tendency to cut up medicine into sections is attended with this disadvantage, that we cannot, except on rare occasions like this, get the benefit of the varied experience of men bearing upon one particular department. We should be glad to have the advantage of hearing those who practise surgery and medicine; at the same time, I think that the problems of pyæmia and fever may receive some of the most valuable illustrations in the practice of obstetric medicine. I heard the letter of Dr. Duncan with considerable satisfaction. I think it places the grave and great difficulty which oppresses medical practice before us in a most striking manner. If prosecutions are to go on as they are now doing, I do not know how it will be safe for any one to practise at all. It is becoming a most serious matter. We are governed by the ignorance of the law and the ignorance of the judges. The public are taught improperly. Instruction upon this matter, as Dr. Duncan rightly suggests, ought to come from us; and that is one of the advantages, I hope, of a discussion of this kind. The lawyers and the public must receive, or ought to receive, medical opinions from the medical profession, from experts, those who are skilled and know what they are talking about. It will be dangerous to the public at large, unless this principle be carried out more fully than it is. With regard to the great question of puerperal fever, of course for many years as an old teacher I have had to consider this question; and I have been trying and struggling to put my ideas into a definite form, capable of being understood and taken up by others. I have felt the difficulty expressed by Dr. Leishman at the last meeting; still, after debating the subject in my own mind, I have come to something like an outline of definite ideas, which, of course, I am ready to change to-morrow, or even to-night from what I may hear, as I quite admit the propriety of holding the mind perfectly free and untrammelled, ready to receive any kind of opinion, from whatever source it may come, and especially to study facts and the bearing of those facts. The leading idea, which tends to simplify the investigation of the subject, is one which I took some pains to illustrate some years ago in a series of lectures published in the *Lancet*, but never finished; that is, that we may at any rate divide the cases of puerperal fever into two great classes, and, having got as far as that, we can proceed a little further with the analysis, and perhaps pursue each series of cases ultimately to their true source. I think we may lay down this proposition, that we cannot discard the term puerperal fever. Notwithstanding the respect I have for my friend Mr. Hutchinson, whom I look upon as one of the most enlightened authorities of the day, I cannot see my way to discard the term. The meaning attached to it is simply this—fever in a lying-in woman, the general term expressing a number of perfectly different conditions. Having admitted that it simply means fever in lying-in women, we may proceed to analyse it, and to trace the different varieties. I think we may here divide it in this way. We must all of us see examples of it every day. There is the form of fever in the lying-in woman which is the direct result of infection or contagion produced by some zymotic poison, as scarlet fever (perhaps the most common of all), or erysipelas, or measles, or typhoid. All those things we see and know, and we cannot for a moment dispute them. Well, then, we have a large class of cases, perhaps the most numerous, which we may call heterogenetic, the result of something which has arisen outside the patient's body, and been put into her. Then there is another class of cases, which may perhaps admit of more dispute —a class of cases which I should call autogenetic—in which all the conditions of the fever exist or arise in the patient's system, with which infection or contagion from without has nothing to do. That class of cases I am as convinced about as I am about the cases of scarlet fever; they are manifest to every one. But the objection has been raised, and has occurred to most of us: How is it that lying-in women are especially prone to scarlet fever? Like other persons, the great majority of them have had scarlet fever at some previous period of their lives, and may be supposed to be more or less protected, and how is it that their protection all of a sudden breaks down under the trial of childbirth? It is said, again, that scarlet fever can give nothing but scarlet fever, just as an acorn can give nothing but an oak. That may be true to a certain extent. I have seen cases in women traced to scarlatinal poison in which the usual symptoms of scarlet fever were absent; no particular sore throat, no swelling of the glands, no rash, and yet the cases have gone on to a fatal issue. Then, if we go a little further, we see what was alluded to by Dr. Richardson, who was, I think the only speaker at the last meeting who hit upon the right key. If we look at what a lying-in woman is, we there see a peculiar constitution, ready to receive poisons, and ready for those poisons to ferment and go on to a disastrous issue, while in another case the poison has no such effect. Then there is a peculiar condition following labour, where the system has been loaded with matter. There are the involution of the uterus, the discharge of superfluous blood, the milk process coming on—a state which is just treading on the verge of fever; at any moment, the slightest excitement or the slightest noxious matter carried into the blood is ready to ferment and set up a fever. It does not matter what the poison is. I think that one observer in his investigation showed that even a case of cancer in a ward was the starting point of a series of puerperal cases. It may be said that a cancer-germ will produce nothing but cancer. It will produce fever in a lying-in woman; so will scarlet fever always manifest itself in the usual way which we see in non-pregnant and puerperal women. This peculiar constitution is one which we may recognise in the range of surgery and medicine as well as in obstetrics, although in obstetrics we get the most striking illustrations of this, as in many other pathological forms. In surgical practice, for example, we may see sometimes that there are persons, adults especially, who cannot be vaccinated with impunity; we all know cases of that kind; the blood is in a ferment at once. This simple, mild, laudable poison, which we may call vaccine lymph, will set up a ferment and the patient may die. Sir Benjamin Brodie used to tell us of a man who was killed by the sting of a bee, so great was the irritation set up by the poison; but that argued a peculiar state of the system. We know there are persons who cannot scratch themselves without a fester; all going wrong in a moment. Well, all that condition exists in an exaggerated degree in the lying-in woman, no matter what the poison be, whether you call it scarlet fever, or measles, or anything else. This is more especially observed in cases where the symptoms are manifested earlier than they are in the other class of cases where the poison arises in the patient's own system. The fever breaks out in twenty-four hours, or in two or three days, whereas in the other cases it comes on later. With regard to scarlet fever, it is enough to set up any mischief in a lying-in woman, and produces all the mischiefs of any other form of poison. We all know that scarlet fever poison, whatever pathological change it produces in the woman herself, can propagate scarlet fever. Then I would pass to the autogenetic cases. These cases are as distinct in their origin as many cases of infection. For example, you see a woman in the country away from all sources of infection; a little bit of the placenta is retained, a clot of blood is there, or some change takes place in the uterus, and there is an element of infection; it runs along the veins or the lymphatics, is absorbed in the mucous membrane; then you get the blood tainted, and the slightest matter will set it going; the whole system is in ferment, just as it was from the poison of scarlet fever or anything else; you may call it pyæmia or septicæmia, the result is about the same. These cases came on a little later than those which have a zymotic origin, and they can often be arrested by washing out the uterus and bringing away any superfluous matter there. Many women will succumb at once, or rapidly, to a single dose, no matter how small it may be; but others can resist to a certain extent; their excretory organs may be in good working order, and they may throw off a moderate dose, or two moderate doses; but they cannot go on surviving repeated doses. If you can wash out the uterus, you may prevent the process from going on, and stop the disease. That principle has recently come into vogue again. It was practised and taught with success by Harvey, who, if he had not been the greatest physiologist living, would have been perhaps the foremost obstetrician in the world. This mode of infection is one of very great importance for us to consider. There was a case referred to by Dr. Wilson, a gentleman in the country, who believed that infection was due to the skin. I believe it may be propagated by the breath of a medical attendant or a nurse; we must all be conscious sometimes of taking in poisons by coming into contact with poisonous patients. I have gone away from a craniotomy case with a foul brain, stinking of it; my breath smelling for a day or two. So with other diseases. In a case of dysentery I had shivering, diarrhœa, and foul breath from the odour of dysentery stools two or three days after being in contact with a patient of that kind. So with other diseases. A man may walk about charged with infectious disease, and those who are susceptible, with whom he comes into contact, may catch it; those who are not, may perhaps have a little dose, which they can throw off, the system being in good working order and there is an end of it; but if a patient be in a lying-in state, with the blood ready to ferment, such a person would be ready to be attacked. There is the secret of the difference. A medical man, who has seen a case of scarlet fever, comes into contact, in the course of the day, with twenty or thirty patients, and it is perhaps only the lying-in woman who takes the disease; not that he is necessarily longer in contact with her, but there is a greater liability on her part. I had a letter this morning from the son of an old member of the Society, a former vice-president, who calls my attention to a work by his late father, Dr. U. West. He gives one example, which is instructive, and I thought you would like to hear it. He had an outbreak of puerperal fever in his practice. He had to deliver a woman, to whom he went straight from a case of erysipelas, and this woman had erysipelas the next day. He went afterwards to another patient, whom he did not examine, and that woman escaped. The next day he went to another case, and the woman died. That is the history of a great many of the epidemics in the German lying-in hospitals, where they have the faculty, as it seems to me, of manufacturing puerperal fever on a large scale. Those women who are lucky enough (one would consider the most unfortunate) to be confined in the streets on their way to the hospital, escape puerperal fever. It is only those who are examined repeatedly that catch it. That has been observed over and over again. If I might be permitted a moment or two longer, I could give you the history of a series of cases occurring in the practice of one midwife in a short time, while all the surrounding neighbourhood was at the time pretty free. I will now only sum up my conclusions in reference to the questions submitted by Mr. Spencer Wells. "Did you ever see a case of puerperal fever which is not really a case of scarlatina or rubeola, or erysipelas, or traumatic fever caused by the bruising or tearing of parts?" I do not think there is any fever caused by bruising the parts. If there be a little scratch, no matter how small, and the poison be conveyed in that way, that is a different case. That is the way in which wounds act so badly, no doubt. We are not to suppose that there is a puerperal fever which runs a definite course like scarlet fever. We get a fever which is fatal, and that is serious enough to be considered as a case of puerperal fever. As to the question, whether there is a real form of puerperal fever which is not scarlatina or any of those conditions specified, I will say that there is, and I have called it excretory puerperal fever. We have albuminuria at the end of pregnancy, and those cases are extremely apt to go into puerperal fever: the blood is peculiarly overcharged, the liver and the kidneys cannot act, excretion is at an end, and then the poison runs in without any further injection of poisonous matter from without. That is pure puerperal fever which the patient herself can generate. Then, how can the spread of the disease be prevented? I can only say, by careful isolation of the patient. The conditions of practice are sometimes incompatible with that. There was a case that I met with Dr. West; he was on the point of going away, and there was no one to take his place. The patient sent for him, and would have him, and she fell a victim. That happens to everyone in the country; he cannot get away when he likes. With regard to the question of bacteria, as I know nothing about it, I had better say nothing; but I may reserve my doubt with Dr. Richardson, and wait till the bacteria doctrine is proved by those who understand it. With regard to the value of antiseptics, in order to keep hospitals free, I think that to keep hospitals free from puerperal fever is an extremely difficult matter,—more difficult than it is in a surgical hospital to keep it free from pyæmia. You cannot keep a series of patients in a hospital isolated, in the proper sense of the word. You have the same nurses attending them. You have a variety of poisons acting upon one or two patients, and the consequences may be radiated to others. There is only one secret for safety, and that is to have the woman confined at her own home, where she can have her own nurse, who has not been anywhere in the way of infection, and her own medical man, who is free from infection. Then, the chances are, that she will go on favourably and happily. Without that, there is no security. A lying-in hospital is not now, by any means, so serious a matter as it used to be; still, it is always like sitting on a volcano, which will explode at any moment.

Dr. SQUIRE: I am sorry that the limitation of time has made the valuable observations of Dr. Barnes a little hurried. I must say that, agreeing with him much, I was a little surprised to hear him support a statement of Dr. Richardson's as to the very febrile condition of lying-in women, an idea which, I thought, was derived from the depths of his inner conscience, and not as the result of bedside experience. In the course of a very large inquiry, I have failed to find that febrile disturbance in the majority of women in well-to-do circumstances. This important subject was ably brought before us for discussion under two divisions. It is to the queries under the first of these divisions that I wish to reply; and it is to the second question that I intend to confine myself more particularly. I presume that there *is* a fever after child-birth caused by a morbid poison communicable by infection; and, while admitting a large class of infection associated with puerperal fever, I hope to show that the whole class of acute specific diseases may be set aside. It may be one extreme of error to deny the existence of puerperal fever; it is certainly the other extreme to call every *post partum* illness by that name. Almost any febrile attack in the puerperal state will cause suppression of the lochia, arrest of the lacteal secretion, and other common symptoms; so that we have to separate many febrile ailments, as well as what may happen from retained placenta or other causes of metritis and phlebitis, from the disease under consideration. Our first duty in meeting with such cases is not to call them by the name of puerperal fever, but to diagnose their nature. Many of them we can soon relieve, and in all be sure of carrying no infection to others; while no case of puerperal fever is without this risk. Question 2 deals with the relations of puerperal fever: first, to the specific infective diseases; and second, to the traumatic fevers and septicæmia. Clear as was the introductory statement, I noticed that, in repeating the question, Mr. Wells transposed erysipelas from the second category to the first. I do not mean to deny it a place there; but, for the present purpose, I prefer to keep to the terms of the original proposition. I am then able to answer the second part in the affirmative; and to give to the first part a denial as precise and distinct as possible. I go beyond this, and say that no form of puerperal fever is to be referred to attacks of the specific infective fevers. The *Transactions* of our Society, abounding in excellent materials for the subject in debate, furnish more commentaries against the view I take than in its support. In the very carefully prepared paper in vol. iii, I find it stated from the chair that "any of the agents which produce zymotic maladies might cause puerperal fever"; and, again, in vol. x, the President, among remarks of high value, says "it can be caused by the contagion of typhus, measles, and scarlet fever". At the last meeting, this opinion seemed general. This view has led some to look upon this disease as merely the puerperal form of scarlet fever, or to consider it typhus. This view I controvert, and assert that not only is puerperal fever not typhus, typhoid, small-pox, measles, diphtheria, nor even scarlatina, but that these diseases are little modified by the puerperal state and retain their distinctive characters, so as to be recognisable; they ought to be diagnosed under this, as under other conditions, and called by their own names, and not by that of puerperal fever. Moreover, though pregnancy and puerperal fever may prejudice the prognosis in such complications, and abortion happen in some of them, yet the puerperal accidents are not always so grave as is supposed. I will first take typhus. Of 1,000 typhus patients admitted to the London Fever Hospital, 16 were far advanced in pregnancy; they miscarried, and the majority made good recoveries. This is very different from the results of abortion in typhoid, where, however, the fatal result is owing to the serious importance of this accident to the fever, and not to the development of puerperal mischief. Though it is quite possible for puerperal fever or purulent infection to occur after abortion, even in the earlier months, so we see nothing in typhus to cause puerperal fever. Yet I have a good authority against me. Sir Henry Marsh, in the fourth volume of the *Dublin Hospital Reports*, says: "The true character of epidemic puerperal fever seems to be typhus." This is founded on the experience of Dr. Johnson, Professor of Midwifery to the College of Surgeons of Ireland, who states that the wardmaids of the Dublin Lying-in Hospital caught typhus from patients received there. Typhus was prevalent at Dublin, and this shows how typhus may find its way into a lying-in hospital. Twenty years ago there was typhus in Leeds. A friend of mine attending to midwifery in the Leeds School of Medicine met with a case of typhus at childbirth; the fever was well marked, it commenced before delivery, and the characteristic mulberry rash occurred. It was not communicated to any other of numerous patients consigned to his care, though some cases of puerperal fever were met with in the practice of other students. It is not contended that small-pox is modified by the puerperal state. Vaccination saves us from meeting with it in the severe form; but I have one instance where it was easily recognised, and did not produce puerperal fever. When I saw the patient, she was in severe pain; she had gone her full time; she looked ill, and the temperature was 104 deg.; that being utterly different from anything I had found in an ordinary case of labour, and being what occurs in no other ailment besides, I was led to question what happened. I found that a young man, sickening with small-pox, had been removed from a house in which she was. The next day, labour pains came on, and in the night she was delivered. The spots of small-pox came out on the following day. The child was removed, and vaccinated at the same time. The woman made a good recovery, without any puerperal symptoms whatever. Now if the poison of small-pox can produce puerperal fever, that was a case in which it ought to have occurred. In measles it is rare to find parturient women unprotected by a previous attack; but when so protected, I have seen a mother nurse her child in measles without the least injury up to the time of delivery. Lately, I saw such an instance where the poison must have been concentrated in the room, for the baby had a rash a fortnight after birth, the mother being quite well. Therefore, the statement that measles will convey contagion to parturient women seems doubtful. I will quote one instance from the Sidney papers, of measles at parturition in a woman. Lady Sidney was sickening for measles when, on the third day, with severe cough and full rash, "she is brought to bed of a goodly fat son"; the child was also full of the measles, mostly in the face, yet it sucked the nurse as well as any child could. Both did well. With respect to scarlet fever, no one has a more wholesome dread of it than I. Every means of isolation should be used to keep it out of families. Once it happened to me to see in the family of a physician who devotes his time to the study of how to prevent disease, scarlet fever in a little girl, whose mother had just been delivered. Not only were there no ill symptoms, but not a trace of puerperal disease; but the progress was favourable. The mother had never had scarlet fever before, yet it is quite certain the infant took the disease and did well. Dr. Braxton Hicks, in his admirable paper, in vol. xii of our *Transactions*, gives the most valuable support by his cases, though we differ in the conclusions to be drawn from them. Of his 89 cases, but one is entered as truly puerperal fever; and of the 39 cases of scarlet fever, there was no difficulty in the diagnosis, 20 of them having well marked rash. The great point demonstrated by these cases is the special liability of puerperal women to scarlet fever; infection is resisted up to the time of delivery; then they succumb to three or four doses. Diphtheria has given me much anxiety; and, to my surprise, soon after delivery, the exudation, instead of extending, had cleared off, and an obstinate ulceration was healed. On turning to our *Transactions* for a case of *post partum* diphtheria, I find it headed "Mild Puerperal Fever". When we come to erysipelas, the case is very different. Dr. Rigby noticed that the children born during an epidemic of puerperal fever had erysipelas. I do not mean to say puerperal fever is erysipelas, but this shows its connection with that and hospitalism and purulent infection, and probably cancer. I believe we can connect this closely with that class of infectious diseases which the investigations of Billroth and Lister have not only enabled us to understand, but to control. I believe there is danger in those dissecting attending midwifery cases. I have seen a dissector suffer from peritonitis after operating on a bad part; and I believe he might have been the means of conveying infection to those whom he attended.

Dr. BRAXTON HICKS: A remark fell from Dr. Squire with respect to the rash accompanying puerperal cases of scarlatina. I think he will find no large number of such cases. Certainly my observations have gone to show that there is no rash, and that there are none of the prominent symptoms of scarlatina where scarlatina has been unquestionably mixed up with the case.

Dr. J. BRUNTON: As a general practitioner, I think that this subject of the power of carrying infection from one patient to another is of vast importance to all who are in the habit of attending all sorts of infectious diseases, and at the same time attending midwifery cases. If the poison of contagious diseases be so productive of puerperal fever as it has been pronounced to be by many of the speakers in this assembly, I cannot help saying that, in my own practice, I have certainly failed to find it such. The reason for it is this. I come forward as a practical man. Theory is all very well; but, when we come into general practice, one must look at what is seen in every day's work. The first midwifery case I ever attended was in the small-pox ward of the Royal Infirmary, Glasgow. The patient was in the full bloom of small-pox, and aborted about the seventh month. She recovered without any puerperal symptom of any kind. Then, as Dr. Leishman has said, the students at the University of Glasgow, during the time they are dissecting, are in the habit of attending midwifery cases. I did the same, and I know some gentlemen in the room who were fellow-students of mine, who also did the same, and, during the whole time of our practice, we had no puerperal fever at all. Then I came to practise in London, and I went to see a lying-in woman who had two children lying ill with the scarlet fever; she made a good recovery, with not the slightest feverish symptom whatever. Then, again, general practitioners are in the habit of making *post mortem* examinations. They meet with cases of sudden death, and the coroner calls upon them to perform *post mortem* examinations. I have done it over and over again. I have gone on with my obstetrical practice all the time, and I have not had, in the whole course of my practice, one single case of puerperal fever. I saw one case of scarlet fever many years ago, where the patient went through the whole course of the disease, with very putrid discharges, as offensive as could well be, and yet she recovered. The skin peeled off; she had the usual affection of the kidneys, and so on, and yet did well. My evidence in this discussion is decidedly negative. It appears to me that, if scarlet fever, typhus, measles, and small-pox are to be reckoned such very strong producers of puerperal fever, I ought to have had a great deal of it in my practice; but that has not been the case. I will read a note that I received the other day from Dr. Caskie. "A few months ago, I was sent for to see Mr. P. I found him covered with the scarlet fever rash, and by his side his wife in bed, three days previously confined. Her labour had been natural. The husband was taken away, and she made a good recovery. Her own children escaped, but the children of the landlady in the house took the fever, and two of them died." Now, if scarlet fever in that case were so deadly, Mrs. P. ought to have taken it and passed through the usual course, or died. I cannot help referring to the remark made by Dr. Richardson and Dr. Barnes about the peculiar physiological condition of lying-in women. It is said that at that time their blood is in a peculiar condition. Certainly that is the case; but I look upon it from another point of view. While there is an excess of fibrin and a diminution of blood-corpuscles, a diminution of solids, and an excess of albumen, I look upon this as Nature's preparation for the casting off of the ovum. I look upon the excess of fibrin as Nature's safeguard against hæmorrhage. I also look upon the excess of fibrin as one of the means for the easy production of the lacteal secretion to follow. Mention was also made of the feverish condition that is said to follow the immediate birth of the child. Since the last meeting, I have had the opportunity of speaking to Dr. Richardson, and I have made observations on this point, and in only one case have I been able to find any increase of temperature worth speaking of, except in one case which was not attended by myself, and in which the lady desired not to suckle her child. There, while the pulse remained at 72, the temperature was as high as 104; the breasts were very hard, showing some sort of rapid tissue-change at all events. What appears to me to be the nature of puerperal fever, as far as I can theoretically make out, is this: that it is simply autogenetic; that it begins in the uterus of the female who has very lately had hæmorrhage, or is weakly, and there is an imperfect contraction of the uterus; a clot remains, that clot decomposes, and then you have pyæmic poison; then I do not deny that the poison coming off the excreta from the woman in this pyæmic condition may be infectious to others. I regard such a woman as being in a similar condition to one who has had a thigh amputated. We know that, if pyæmia occur after such an operation, the dressers are not allowed to dress the wounds of any other patients. No doubt, as Dr. Barnes has said, during this process of pyæmia, the poison may be absorbed and then excreted by the lungs of the individual who is in attendance, and be carried to another patient, and there set up a similar form of disease. While Dr. Barnes was speaking, I came to the conclusion, from what he said, that, if the contagious diseases be so productive of puerperal fever, and if the medical man be a focus of infection by exhaling the poison, the judges at the present day should look upon a man as a criminal if he attend obstetric cases while he is attending a fever case. I must say that my experience is exactly the opposite of that.

Dr. HUNTLEY (Jarrow): As my experience has been somewhat peculiar, of a nature that does not occur to many medical men (perhaps not a single member here present has had a similar experience), I may be allowed to give rather freer expression to my opinions than otherwise I might do. I will briefly describe the experience to which I refer. About ten years ago, in December 1864, I had an outbreak of puerperal fever in my practice. I was then a very young man, and the anguish of mind which it caused me was something which I shall never forget. In the course of two months I attended fourteen cases of fever, five of which died. All the cases that I attended were not affected by the disease: at intervals two or three escaped; however, at the end of two months, I think, two patients died. Then I was obliged to cease practice, having come to the conclusion that the disease was in some measure connected with myself; for, although there were four other practitioners in our district, not one had a case of the kind. I was forced to the conclusion that coincidence could not account for such a continued sequence of cases, and that I was the cause of propagating the disease. But how could I propagate it? That was a matter that exercised my mind for many a day. We had small-pox very prevalent at the time in our midst, but no other infectious disease. I was then attending a case of severe burns with great suppuration, but that I only dressed for a few days, and I think it is very unlikely that the infection could be carried from such a source for two months continuously. If it were so, I think such instances would be very frequent, and I could not but consider it absurd in the extreme to think that for weeks, considering all the precautions which I took, frequent ablution, and change of clothes, I still kept the disease. It seemed to me then, and I have no reason to change my opinion now, that the disease was somehow or other reproduced; and the only source from which I thought it could be reproduced was from some poison generated in malassimilation, or in some defect in the secretory or excretory system. Arguing from analogy, I see no reason to doubt that many infectious diseases are propagated in this way, and not from clothing. Suppose a nurse is attending a case of scarlet fever for weeks, and does not have the germs of scarlatinal poison entering her system and being exhaled from it, we cannot suppose that the disease will be communicated. There is no proof at all that the clothes communicate the disease always. Perhaps there are instances in which they do. In the case of washerwomen it has been communicated in that way; but I think it is just as reasonable to suppose that vitalised material will be allied with the poison as unvitalised. But it was not chiefly to relate this experience that I came here to-night. I had an impression, from reading the report of the last meeting, that opinions were expressed which were very far from correct. The opinions to which I refer are those chiefly discussed by the two previous speakers. I think it was Dr. Braxton Hicks who asserted that scarlatina was a very prolific source of puerperal fever. But in tracing infection in such a way, you are very likely to drift into error; for, if you approach the subject with any fixed opinion of your own, the wish is apt to become father to the thought, and you are brought to a conclusion not in accordance with facts. I have never in my own practice been able to associate scarlatinal poison distinctly with puerperal fever. On the 12th November last, I was attending two severe cases of scarlet fever occurring in children. The mother of these children took scarlet fever, and the symptoms in her case differed not in the least iota from those of the children. I can call one or two other instances to mind where such has been the case. So with small-pox. I have seen two or three cases of small-pox in parturient women, but they have always manifested the characteristic eruption, and there could be no doubt about stamping them as small-pox. In the case of scarlet fever to which I referred, I may say that the woman had no symptoms of inflammation of the uterus, or anything at all to distinguish it. I think what we should really do is not to argue from a particular case to a general conclusion, but to take general facts and deduce particulars from them. I regret to say that the returns of the Registrar-General are not useful in this respect in assisting us to arrive at a satisfactory basis. The returns of puerperal fever, I think, are annual, and extend to counties. If these returns were given quarterly in particular districts, we should then we able to see whether scarlet fever occurred synchronously with puerperal fever, and then we should have a safe guide.

Dr. BROWN: About six weeks ago I was engaged in attending a patient in her confinement. At that time a child in the house (her own house), was taken ill with a rather severe attack of scarlet fever. She was under great apprehension at the time of her confinement, expecting daily that she would suffer from scarlet fever. About a fortnight after the rash came out on the child she was confined, and did perfectly well, without a bad symptom. The infant had no sign of scarlet fever. About ten days after that another child in the house had scarlet fever badly. I attended another similar case about two months ago. The patient had never had scarlet fever herself—she was quite positive of it. In another case I attended a woman while her own child was ill with the scarlet fever in the house. In some days she was laid up for her confinement, and she got up without a bad symptom. She had never had scarlet fever. I may mention that I attend on an average three or four midwifery cases a week, and I have never had a case of scarlet fever in which I could say that I had conveyed the disease to the patient.

Dr. SWAYNE (Clifton): I think the letter read at the beginning of this meeting is calculated to do great good, especially as regards the unfounded statement that appeared in the *Times* that medical men could retire from practice for two or three months. The statement has in some places created a panic that is becoming quite a nuisance. I will give an instance that occurred to myself. About the 16th of March last, I consented reluctantly to see a bad case of puerperal fever. I listened to the solicitations of the husband, but I only saw the patient once. A gentleman whose wife I had engaged to attend at the beginning of this month happened to hear of it, and wrote to me requesting me to release him from the engagement, which, of course, I did. She is not yet confined. As to the mode in which the infection of puerperal fever is conveyed, I think it is generally conveyed by the person of the accoucheur, more than by the clothes or any other way. Some men are peculiarly unfortunate in this respect. It is often observed that all the puerperal cases in a district are limited to a few practitioners. It is not only that they have the run of them at a particular time, but even after a long interval, it is the same men who get them. Some men, I believe, have the power of absorbing and exhaling these poisons to much greater extent than others; and from remarks I have made in my own experience, I am inclined to think that the poison is much more likely to be given off by the skin than by the breath of the practitioner. I have come to the conclusion that men who have moist perspirable skins, especially moist hands, are much more likely to exhale it than those whose hands are generally dry and cool, especially if they have to make frequent examinations during labour. With regard to the precautions to be taken to prevent the spread of puerperal fever, I cannot think that it is necessary for a medical man to seclude himself for more than a week at the outside from midwifery practice. If he be unfortunate enough to have a bad case, probably by that time the poison will have passed out of the system. He should also take the precaution of not wearing the same clothes. I am not aware of having conveyed anything of a puerperal kind to a patient except one; that was in a case of scarlet fever. As a general rule, I now refuse to go to a case of scarlet fever, unless, of course, it should occur to a lying-in woman. I refuse to see children with scarlet fever, on account of the danger of conveying it. Some years ago I did not do so. I was attending a child with scarlet fever, and I attended a lady at the same time. About a week afterwards the rash came out, with sore throat; she did perfectly well, and did not show any symptoms of puerperal fever. But the worst case of scarlet fever I ever saw was in a lady, who, about a week before her confinement, called at a house where the fever was; the children were ill, and she was afraid to go in, but most imprudently the mother came out directly from the sick room to report how they were going on, and she put her head into the carriage to talk to this lady. In that case the scarlet fever came on *pari passu* with the labour. I attended her about 10 o'clock at night. I observed that the face became red, and at the latter part of the labour the speech was rather muffled. The redness of the face did not excite particular attention, as it generally comes on at the second stage of labour. On the next day I found she had been delirious; she was covered with a thick rash, had a sore throat, and died in two days. Immediately after seeing a case of puerperal fever I go home, and before going to bed, take a warm bath, and wash myself with carbolic soap; and, on the next day, I take a Turkish bath, which, I think, is an excellent way of eliminating the poison and cleansing the skin. I need hardly say that, with every accoucheur, personal cleanliness is of the greatest possible importance. We know that cleanliness is next to godliness; we cannot be too particular about it, especially after seeing cases of this kind; and we should be very careful not to wear the same clothes. With these precautions, in a few days, there will be little or no danger of conveying the poison from one patient to another.

Dr. GRAILY HEWITT: The subject which is now before the Society is one which has on many occasions interested me very deeply. I have seen a great deal of this disease, in public and in private, and it has been my duty not only to learn what the disease is, but to endeavour to combat it, and to teach others in the best manner I could how to deal with it. I think this discussion is extremely opportune, and that it is likely to lead to very good results. Our thanks are due to the President and to Mr. Spencer Wells, who have endeavoured to bring the matter before this great Society. Now, I will not dwell further on preliminaries, but go at once *in medias res*. The opinion which I have formed with respect to puerperal fever is, that it is essentially a form of blood-poison. Seven or eight years ago I read a paper before this Society, in which I detailed the experience which had occurred to me in the British Lying-in Hospital, with which I had been connected for some time. I brought forward a considerable number of cases, and in giving my conclusion, in reference to the nature of the malady, I expressed myself in these words. "It is impossible to escape the conclusion that puerperal fever consists in nothing more nor less than an injection into the general circulating fluid of a poisonous material of animal origin—that it is a form of pyæmia for the production of which the minutest portion of the morbific agent may prove sufficient." I was very early impressed with a lecture, published by the late lamented Sir James Simpson of Edinburgh, I think, about 1859, in which he strongly advocated the doctrine that puerperal fever is a form of pyæmia; and what I had seen at that time, and what I have seen since, has certainly led me to endorse that view of the matter in the strongest manner possible. I may say that I entirely disbelieve in the existence of a form of fever which is sufficiently definite and precise to receive a distinctive name, in the same sense that we speak of typhus fever, or typhoid fever, or measles, or scarlet fever, or small-pox, each of which has a definite and well-determined course. I can see nothing in puerperal fever which at all resembles this. I think all the clinical evidence producible on the subject is entirely opposed to that view, and, therefore, I have no hesitation in answering that part of the question put by Mr. Spencer Wells in the way I have done. I think it would be profitable to divide the cases of puerperal fever, or puerperal pyæmia, into two classes. There are the cases in which there is very distinct evidence of the introduction into the system from without of a morbid animal poison; there are, in the second place, cases which do not resemble these, in which the evidence is wanting of the introduction from without of such a morbific poison; and I will endeavour to make my remarks under those two heads. In the first place, in reference to the cases that occur from the introduction of poison from without, after what has been said on this occasion, and on former occasions, there can be no question that it has over and over again happened that the disease called puerperal fever has been produced by inoculation (the word seems to me to be suitable), in those unfortunate cases where the medical man himself conveys the disease, and in those cases where the midwives are equally efficacious in communicating it. It is to that class of cases that I would first call attention. It is my impression from all that I have seen that the manner in which this communication takes place is, in a large proportion of cases, by means of the hand; and I believe that the spaces beneath the nails and under the skin which covers the nails, are exceedingly liable to harbour these animal destructive products. I do not say that they are limited to those parts; the skin of the fingers may also be their habitat. We know what sometimes takes place after a *post mortem* examination, when it is exceedingly difficult to get rid of the smell of the corpse from the hands, cleanse them in whatever way you will. I am speaking now more particularly of what happened some years ago, before carbolic acid and other disinfectants were much known or used; it is not so difficult now as it was; at all events, I believe, that the nails and the neighbourhood of the nails are the parts more particularly liable to harbour these infecting materials. It seems to me rather unlikely that the clothes carry infection so readily. Of course, in cases where a person allows the cuffs of his coat to be dipped in putrescent material, and then makes an examination of a patient in childbirth, something may happen after that. On the whole, I think the hand is particularly efficacious in this matter. I share the opinion that some previous speakers have expressed, that very great attention should be bestowed on cleansing the hands, in all cases where they are to be used in midwifery practice. A good deal has been said of late years in reference to the *armamentaria* that medical men should be provided with, and I think an useful addition would be a pot of carbolic ointment, and a nail-brush. In the next place, I would remark that it has seemed to me that any animal poison introduced from without may produce what we term puerperal pyæmia, the same as may be produced by a student who is handling surgical wounds in the hospital, and attending midwifery cases. I have seen instances of this in the case of a medical practitioner going from one puerperal case to another. I see no difference in the attack produced in these two different ways; there is nothing whatever different in regard to the clinical features of them. Another mode in which the poison is introduced from without is due to the carelessness in washing the patient, or an improper method of washing. I think water never ought to be used for cleansing the perinæum in the case of a recently delivered woman. I think it is far preferable to use a dry clean rag, or dry cotton-wool, This plan secures greater immunity from the passage of *débris* from without. Then, there is another method by which poison may be introduced from without, that is, in case of laceration of the perinæum. I think this mode of introduction is not very uncommon. I recollect being called into consultation to see a lady who was suffering from puerperal pyæmia. Very great care had been taken with her to keep her exceedingly quiet, and she had not been allowed to be moved from her position (lying on the back) for some days after labour. The perinæum had been slightly torn. Now, in this case, the discharges were putrescent. It seems hardly possible to escape the conclusion that in such cases as this there is a pool of putrescent material in the vagina constantly in contact with the abraded perinæal surfaces; is it to be wondered at if some of this is absorbed? I think it is bad practice in all cases to maintain the patient too persistently in this position on the back. I think there is an advantage in turning her from side to side occasionally, in order to allow the escape of putrescent *débris* from the vagina, not that it will produce pyæmia in all cases, but if there be a laceration of the perinæum it is more likely to do so. So far for the cases which come under the first category. I will now proceed to discuss those which are more difficult to define and particularise—those in which the affection does not apparently depend upon anything introduced from without. This class corresponds to the cases denominated by Dr. Barnes autogenetic. In the first place, I would remark that it is exceedingly easy to produce pyæmia in the non-puerperal woman by handling the uterus in a certain way. I have seen acute pyæmia produced by the action of a sponge-tent at the os uteri, left in too long, and producing violent inflammatory symptoms, and death in a few days. It is well known that this event may happen. The uterus is so constructed that it is exceedingly easy for pyæmia to occur in it, and in its tissues; the walls are very thick, the vessels are very large, and they communicate very freely (I am now speaking of the uterus in the non-puerperal state), and a slight wound may at any moment set up pyæmia. I have always been unable to see any precise difference between an attack of pyæmia in a puerperal state, and in a non-puerperal state; the symptoms are precisely identical, they only differ in degree. I do not wish to give my remarks the semblance of a lecture, but I thought it might be interesting to bring a specimen representing the healthy uterus immediately after delivery, in order to show the condition of the organ at that moment. I have also here a plate exhibiting the condition of the uterus after delivery. Doubtless, most teachers of midwifery are familiar with it. It will serve as a peg on which to hang the remarks to which I shall call your attention in the next place. In the uterus, after delivery, we have an organ precisely analogous to a sponge. It has large interstices, large spaces freely communicating, and moreover, these spaces open into the uterus through the vessels which have communicated with the placenta, and these openings are filled up by certain clots. The natural event after labour, of course, is that the uterus becomes contracted. A progressive diminution occurs in its size. This is the safeguard, and this is the important vital phenomenon which belongs to the after period of childbirth. Now it is my belief and conviction, from all I have seen, that if we wish to obtain a clue to the manner in which puerperal pyæmia is produced, we must regard this process very attentively, and notice particularly the deviations from the normal physiological process which are liable to occur. It is some years now since my attention was first directed to the fact, but it is a fact which I have been able to confirm by repeated observation since, and which I deem to be of the greatest importance in reference to this matter, that concurrently with the commencement of the attack of puerperal pyæmia, the uterus is found to be enlarged, in other words, in a state in which its involution is absolutely retarded. I have never seen a case of puerperal pyæmia in which this condition of the uterus was absent, and absent at the very commencement of the malady. It seems to me, if this be a fact, that it is an exceedingly important element in the explanation of cases of puerperal pyæmia, of whatever kind they may be. It has seemed to me, in endeavouring to carry out explanations of these cases, that the thing which fails is the contraction of the uterus. That is where the breakdown originally occurs. The woman has a large bleeding, for instance, at the time of childbirth. The want of contraction in the uterus acts in precisely the same way as if all the locks of a house were taken off and ingress allowed to any burglar who wished to enter the premises. This is precisely what happens, in fact, after a labour. The contractile power of the uterus fails to a certain extent. The expulsion of the *débris* ceases, and there occurs a suction-action in the uterus, by which the *débris* is taken up into the circulation. I explain in this way those cases in which these scarlet fever-poisons and other fever-poisons apparently produced disease. They destroy the vitality of the patient to a certain extent; they take away the safeguard; they abolish the contraction of the uterus, and they produce a paralysis of the organ for the time being; and when they have once produced this paralysis, the rest of the explanation is sufficiently simple. The pyæmic process immediately passes into the uterine sinuses, and it is a question whether the patient will survive, or whether the injuries in this manner will end in speedy death.

Mr. Callender: I came here to listen and to learn, but, as you have called upon me, I feel bound to offer some remarks on the subject under consideration; and I do so the more willingly, because I quite agree with what fell from Dr. Barnes with reference to the fact that, although we may be all engaged at various points of what I may call the professional circle, yet we are all attracted to one common centre, and at that centre I read the words, "prevention and cure of disease". I must be allowed to draw upon my experience as a surgeon in referring to this matter, and I feel that you will be the more indulgent to me when I recall the fact already referred to by several speakers, that there seem to be many points of resemblance between affections such as erysipelas and septicæmia, which are constantly coming under our notice, and the disease of puerperal fever, which is at present under discussion, and which has been held by many speakers to be, in many instances, due in its origin to septic causes. I think that, amongst others, one speaker said that at least three-fourths of the causes were traceable to such an origin. With regard to one's experience of septicæmia, I prefer to limit myself to this term; for if I venture to speak of other affections of which I have heard spoken, and which are closely allied to this disease, such as those in which the veins are implicated, I fear, after the remarks that have been made by Mr. Jonathan Hutchinson, I should be regarded as almost a heretic if I ventured to propagate the views I hold as to the part that the veins have in these affections. I confine myself to septicæmic affections; and I say that, so far as I can judge from practical experience, we must consider them with reference to two distinctive sets of signs, those which may be spoken of as speculative, and those which may be regarded as facts. With regard to these speculative matters, I think it is purely a matter of speculation (although there seems to be a common consensus that such is the case) that these affections are due to the influence of some septic matter or poison. Then beyond this, it seems to me quite a matter of speculation as to whence that poison is supposed to come. There are some who hold the idea that the poison is to be found in germs which come from without the patient; there are others who seem to hold the view that the septic poison is greatest in the woman herself, as the result of the production of decomposition; and there are yet others who say that the septic material is due directly to the products of inflammation. All these, I hold, are mere matters of speculation; and what I should like to put before the Society is the question, how far we have a series of facts to bring to bear upon these various speculations which have been offered to us. Speaking entirely from a practical point of view (people must be allowed to speak from their own experience), there are certain points which have forced themselves on my attention—certain negative facts, such as these. I hold that, in the treatment of patients in a hospital ward, the first point we have to attend to is, that there must be no foulness about the wounds; the wounds must be absolutely clean; directly we see anything unpleasant about them, we must take care to remove it. The point is that no foulness must be capable of being recognised; the wounds should be most carefully kept from any contamination from other wounds, both by the nurses and dressers; and in regard to sponges and such like materials, all possibility of contagion from this source should be avoided. This leads me to remark that, in the treatment of wounds, a patient will be tolerant enough of decomposition which may be set up in a wound on his own body, but will be intolerant of poison conveyed to him or her from any other wound. That is another point of which we must be extremely careful. It is a fact that is constantly forced upon one's notice, the possibility of a wound being contaminated from another wound. Then the patients should as far as possible be isolated. It is easy enough to do this in a surgical ward, where a case in which there is an open wound may be surrounded by cases not suffering from wounds, so that they can be, for all practical purposes, isolated. Then no discharge should be allowed to accumulate in a wound, not merely the discharge resulting as a consequence of the ordinary inflammatory process, but the discharge thrown out of the wound during the first few hours after it has been inflicted. I know nothing more irritating or acrid, than the fluid in a wound immediately after an operation, if it be allowed to accumulate. Then, again (and I think this is another point of great negative moment), there should be no movement of the part; the wound should be kept absolutely at rest, allowed to heal from the beginning, and not permitted, by jars and jolts, to reopen, so as to create new wounds, through the cracks and fissures of which putrid or other foreign matters can enter. It is by such means as these that I have learned how to banish, for all practical purposes, such affections as those commonly called pyæmic (though I prefer the term septicæmic), from surgical wards, except now and then when we make errors, and trouble arises in consequence. No such thing as pyæmia exists in the hospital wards under my immediate care. By the experience we get from these facts, we have some light thrown upon the worst of the suspicions that I spoke of, namely, the suspicion that these cases of septicæmia are in some way connected with the presence of a poison. I think, also, we have some light thrown upon what is patent to us all—that which has been ably spoken of this evening by Dr. Graily Hewitt, the sort of common sense rule that should guide us with regard to the treatment of women in a puerperal state, such as the maintenance of absolute cleanliness and absolute quietness. In addition to this, we do not, from these facts, get much light thrown upon what I further spoke of as a matter of suspicion regarding the cause of the disease. I do not at all see my way clear as to the exact source of the poison; it may be in the air; it may be brought to the patient through her attendant; it may possibly be in the festering of a wound, or be present in the direct products of inflammation, but I do not see my way to the absolute cause. All one can see from the collection of facts surrounding one's cases, extending over a considerable time, is that septicæmia is a disease which, in surgical practice, may be absolutely prevented. Here I should like to answer one of Mr. Spencer Wells's questions, whether the disease can possibly be produced. I entertain myself no doubt that pyæmia and septicæmia can be produced. If, after I had performed an operation upon a patient in otherwise good health, I left that patient unprotected by all the many means that one is bound to adopt to ensure, as a matter of certainty, that a patient shall be conducted towards a successful termination, it would be a mere matter of chance whether that patient did or did not suffer from pyæmia. I say a matter of chance, because people differ very much among themselves; a patient may be strong and robust, and resist any poison brought into contact with the system, or the patient may be feeble, and readily succumb to the slightest dose of poison. With reference to another question, I would say, before I sit down, that I hold that antiseptics are of very great use to surgeons. I think they are of the very greatest possible use in surgical practice; and I take this opportunity, as it is a public one, of saying that, although I may have seemed to differ very much from Mr. Lister with regard to carrying out his principles of antiseptic treatment, I am entirely at one with him as to that matter, and I fully acknowledge the great benefit he has conferred upon us by his advocacy of the antiseptic treatment. All I wish to show is that the treatment should be carried out on a more simple plan, without that elaborate attention to detail which Mr. Lister has thought necessary.

The discussion was again adjourned.

## PATHOLOGICAL SOCIETY OF DUBLIN.

Saturday, March 13th, 1875.

Robert McDonnell, M.D., F.R.S., President, in the Chair.

*Calculous Pyelitis.*—Dr. Walter G. Smith laid on the table several of the viscera from the body of a woman, stout, dark complexioned, forty-eight years of age, who for the last six or seven years had suffered from recurrent œdema of the feet and face. She was temperate. Two months ago, she caught cold, and anasarca of the lower extremities set in. The urine was scanty and high-coloured. Vomiting and gastric irritability were also present. When admitted to hospital, the patient was extremely anasarcous, the urine was loaded with albumen (sp. gr. 1015), and contained much blood and some pus. Ascites necessitated tapping, when 112 ounces of serum were drawn off. The countenance was dusky; ecchymoses, vesicles, and bullæ formed; the respirations rose to 40 per minute, and the temperature to 101.7 deg. At the necropsy, there was found to be œdema of the brain, especially of the cerebellum, but no effusion into the ventricles. The heart was small and softened; the valves were perfectly healthy. The lungs were slightly emphysematous. No trace of peritonitis existed. The right kidney weighed six and a half ounces, its pelvis was distended, and a number of secondary loculi communicated with the distended cavity. The sacculation of the organ depended on an obstruction of the ureter by a calculus, composed exclusively of phosphates, and chiefly of triple phosphate. The left kidney weighed ten ounces. The liver was small, weighing only twenty-eight ounces, and was in an advanced stage of cirrhosis. The Spigelian lobe was racemose in appearance, and a biliary aneurism on the anterior surface of the liver apparently owed its origin to the constriction of a bile-duct by the advancing cirrhosis. Notwithstanding those extensive changes in the structure of the liver, the spleen was not much enlarged, and an excessive quantity of fat was deposited in the integuments.

*Cerebral Abscess.*—Dr. C. J. Nixon showed the brain of a girl aged fourteen, who was admitted to hospital early in February, suffering from typhus fever. This disease was followed by an attack of tonsillitis; the inflammation extended to the ear through the Eustachian tube, and otorrhœa set in. The girl was subsequently attacked by symptoms resembling those of the cold stage of ague. She also rolled her head incessantly, had green vomiting, but was conscious and free from headache. Rapid emaciation took place, the tongue became dry and brown, and pemphigoid blebs and petechiæ formed over the surface of the body. Suddenly a discharge of blood and pus took place from the affected ear, her pupils became dilated, and the patient fell back dead. Two abscesses were discovered in the middle lobe of the right cerebral hemisphere. They contained thick greenish yellow pus, and close to one of them the dura mater was partially detached from the right temporal bone. The roof of the tympanum was carious. A third small abscess in the posterior part of the left cerebral hemisphere probably resulted from contamination of the veins.

*Influence of Rest in uniting Fractures: Vascular Membrane laid down in Disused Joints.*—Dr. E. H. Bennett presented the bones of the leg of a Swedish sailor, specimens from whose body were laid down before the Society at the meeting of February 27th. (See British Medical Journal, March 13th, 1875, page 361.) There was a transverse fracture near the centre of the tibia, the upper fragment being displaced outwards. The fibula was broken in two places near the upper and lower ends of the bone. The tibial fracture remained ununited for months, but when the man was admitted to hospital the limb was put up in a starched bandage, and within six weeks union was completed. The compact tissue of the bone was seen, on section, to contain large vascular foramina; the medullary canal was closed at the ends of both fragments. In the ankle-joint, a condition, described by Cloquet, Aston Key, and Goodsir existed; less than six months of inaction had developed a vascular membrane, which occupied the entire surface of the joint. The cartilage was extensively absorbed.

*Enchondroma.*—The President exhibited a cast of the right hand, also the index and little fingers of the same hand, of a girl aged between sixteen and seventeen years. The fingers were covered with tumours, which had first appeared ten years previously. Similar growths existed on the left hand, foot, and ribs. They were beautiful specimens of enchondroma as first described by Johannes Müller. The articulations of the fingers were perfect. The heads of the metacarpal bones were covered with irregular bosses, so marking the extension of the disease. The growths consisted of hyaline cartilage, with bony structures in places. The President considered that the specimens were illustrative of the two forms of enchondroma, homologous (taking its origin from an original matrix of cartilaginous structure), and heterologous.

# REPORTS AND ANALYSES
AND
# DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

## NEW FOODS FOR INFANTS, CHILDREN, AND INVALIDS.

The natural result of Dr. Bartlett's evidence before the House of Commons as to the purely starchy character of some of the most popular foods for invalids and children has been the introduction to public notice of some new forms of food, which combine nitrogenous with starchy elements. A food called *Farina Vitæ*, which has, we believe, been devised by a medical man, has been forwarded to us by Messrs. Edwards, Allen, and Kitching. It is certified by Dr. Bartlett in the following terms.

"The sample of food, bearing the name *Farina Vitæ*, which was submitted to me for analysis, has been examined with the utmost minutiæ, both chemically and microscopically. I find it contains the most nutritious parts of no less than eight cereals and leguminosæ. These are so blended and prepared as to unite, in the most scientific proportions, the readily soluble albumen, the strongly flesh-forming legumin, the glutinous modification of fibrin, and, indeed, every known nitrogenous principle in its most digestible and easily assimilable form. The natural salts and mineral constituents are present in a higher degree than in any food I have yet examined, and of these the most valuable—the phosphates—are even more exceptionally rich. . . . Regarded as a whole, *Farina Vitæ* fulfils all the conditions attainable in a vegetable food, and is in itself more nutritious than any animal diet. The combination of essentials of so many kinds must tend to guard against the inertia of the bowels, commonly termed constipation, which frequently arises from the monotony of effect produced by the constant repetition of any single flour or meal.

"I am of opinion that the best possible results will follow the frequent use of such a food by every class of the community; and, in confirmation of my view, I append the chemical composition of *Farina Vitæ*:—Water, 10.77; albumen, gluten, and fibrin, 16.47; starch, 49.58; sugar, gum, etc., 6.28; fat, 2.98; cellulose, 8.20; salts, 5.63; loss in analysis, .09."

Another food has been devised by Dr. Hassall, whose early experiments in the analysis of food opened up the whole question of food-adulteration, and whose successful and bold exposure of trade frauds, as the analyst of the *Lancet*, undoubtedly laid the foundations of the Adulteration Act. Of Dr. Hassall's competence in this matter, there can, therefore, be no doubt; and this new food is very skilfully compounded. It assimilates in its nutritive value closely to milk, the natural food of infants; it has, besides, the valuable digestive principles diastase and cerealine; and it is of unusually pleasant flavour. These facts, together with Dr. Hassall's just reputation for sound knowledge of the chemistry of food, would probably induce most persons to give a trial to this food, where it is required for children or invalids.

## ARNOLD'S PATENT CLINICAL THERMOMETER.

Messrs. Arnold and Son have improved their clinical thermometer by setting it in a small pencil-case with a bayonet catch, which is very firm and convenient. The scale is indelible, and, being coloured red, shows up the index much more clearly and plainly than the old style, coal-black. The one which we have examined is very accurate; and we believe they are all carefully adjusted. It is an extremely neat and useful form of instrument. A clinical thermometer is now, perhaps, the most indispensable pocket-companion of the general practitioner.

## OREZZA WATER.

We have received from the Vichy Water Company a sample of the mineral water of Orezza, a spring near Bastia in Corsica. These waters, it appears, are highly esteemed in Corsica and Italy, for their efficacy in gastralia, sluggishness of the liver, *fluor albus*, and gravel. According to a report and analysis of them, prepared by M. Poggiale, professor of Chemistry and Pharmacy at the school of Val-de-Grace, and laid before the French Academy of Medicine, these waters may be considered as a kind of ferruginous seltzer-water, and are remarkable for the high proportion of carbonic acid and carbonates of iron and manganese contained in them. M. Constantin James has also investigated the thereupeutic properties of the Orezza water, and reports in the most favourable manner of its beneficial effects in cases of chlorosis, amenorrhœa, hæmorrhagia, anæmia, leucorrhœa, gastralgia and chronic diarrhœa. These effects he ascribed to the quantity of protoxide of iron and carbonic acid, which are detected, by analysis, in their composition.

# SELECTIONS FROM JOURNALS.

## SURGERY.

Excision of the Scapula.—Professor Fischer has extirpated the scapula in two cases on account of tumours. In one case, an enchondroma weighing about 7 lbs. 10 oz. was the cause of the operation; in the other, there was an ossifying myxochondroma as large as a head. One patient was aged 34, the other about 40. In both cases, the operation was performed in the same way. The incision was made along the spine of the scapula; and, after exposing the tumour, the neck of the scapula was sawn through and the bone removed, each bleeding vessel being at once tied. Lister's antiseptic method was used during the operation and in the after-treatment. The traumatic fever was moderate, and there was little suppuration. After four and five weeks respectively, the patients left the hospital. In both, there remained flattening of the shoulder, limitation of movement at the shoulder-joint. The arm could be raised to an angle of 50 degrees in one case, and of 60 in the other. One of the patients was able to perform laborious agricultural work. Dr. Fischer believes that an incision along the spine of the scapula makes a comparatively small wound, and at the same time affords sufficient room, and allows the muscles to be preserved.—*Deutsche Klinik*, No. 1, and *Wiener Medizin. Wochenschrift*, No. 16, 1875.

## MIDWIFERY AND DISEASES OF WOMEN.

Extrauterine Pregnancy.—Conrad relates in the *Correspondenz-Blatt für Schweizer Aerzte*, No. 5, 1874 (abstract in *Centralblatt für die Med. Wissensch.*, No. 49, 1874), three cases of extrauterine pregnancy which occurred in Professor Breisky's practice. In the first case, the woman had not previously borne children. At the third month, after moderately severe symptoms, the existence of abdominal pregnancy was diagnosed, originating in tubal pregnancy on the left side. The fœtus formed a round encapsuled tumour, which could be felt through the thin abdominal wall. About four and a half months after the passage of the fœtus into the abdomen, an opening in the wall of the latter formed, through which escaped rudiments of fœtal membranes and bones (ribs, cranial bones, and diaphyses), together with an offensive discharge. Six months later, the fistulous opening was closed, the patient was in good health, and a small painless tumour lay to the left of the uterus. In the second case, the pregnancy was complicated with the discharge of a mole; and the fœtus is described as presenting indications of calcification. This patient also survived. In the third case, peritonitic symptoms appeared at about the third month of pregnancy. The diagnosis during life hesitated between sacculated pelvi-peritonitis and retrouterine hæmatocele—the possibility of an extrauterine pregnancy being also admitted. A puncture through the rectum from two and three quarters to three inches above the sphincter ani gave exit to some coagula, and a little more than an ounce of fluid blood. Eight days afterwards, sudden collapse set in, and the patient died. A decomposing sac was found, apparently formed only of the lymph by which the intestines were adherent; it contained the bones of a three months' fœtus, and communicated by an opening with the rectum.—Dr. Bandl relates in the *Wiener Medizinische Wochenschrift*, No. 32, 1874, the case of a woman, aged 35, who was admitted into hospital under the care of Professor Braun, with two distinct enlargements of the abdomen. The larger one, which lay to the left, contained a living fœtus; the nature of the second, to the right, was not obvious. The uterus was empty. In the third month of pregnancy, the patient had felt symptoms which indicated the passage of a fœtus into the abdomen. The patient refused operation, and died in severe pain; there was high fever. Five minutes after death, Dr. Bandl removed a child weighing nearly nine pounds; it was in a state of asphyxia, and died in ten minutes. The cavity in which the fœtus lay was formed in front and behind by the abdominal walls, which were covered with a thick false membrane, also by the small intestines, which were matted together, and by the ascending and descending colon; below, it was formed by the pelvic viscera, which were also matted together. The uterus lay to the left, and was five inches long. The tumour which had been felt towards the right side, was found to contain the placenta. The membranes had become entirely retracted from the fœtus, and formed a brown-yellow wrinkled envelope to the umbilical cord near the placenta.

## BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1875.

SUBSCRIPTIONS to the Association for 1875 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, MAY 15TH, 1875.

## PROVIDENT INSTITUTIONS AND HOSPITALS.

### IV.—OUT-PATIENT DEPARTMENTS.

WE now proceed to consider the management of the hospitals which have endeavoured to associate with their systems some portion of the provident scheme. In doing so, it may be well to state that, although we have spent considerable time in ascertaining, as far as practicable, where this has been attempted, still it is quite possible that some really good work may have been overlooked. Should such be the case, we shall be glad to receive full particulars of any such scheme or schemes, if the managers of the institutions in question will kindly forward them to the office of the JOURNAL.

First, then, we must refer to the Scotch hospitals, because they are really an exception to other similar institutions in the United Kingdom in respect to the amount they annually receive from the working classes. Scotchmen have a world-wide reputation for thrift; and it is most satisfactory to find that the working classes in Scotland set a noble example to their fellows in other parts of the country, by the liberal and hearty manner in which they recognise the claims which hospitals have upon their sympathy and support. The Royal Infirmary, Glasgow, received from establishment (working men's) subscriptions, in the year 1873, no less a sum than £7,358, which, with £126 received from captains and crews of steamers and harbour officials, is slightly in excess of the amount received in the same year from annual subscriptions, and constitutes more than *a third* of the whole annual expenditure. It is satisfactory to be able to record that the income from this source has steadily increased from the first (1842), when the amount received from workmen's subscriptions was £346; and it is now nearly three times as great as the sum received ten years ago, viz., £2,973. The Royal Infirmary, Edinburgh, received from the working classes, in 1873, £361; and generally the Scotch hospitals are well supported by the working men in their respective districts. The means of collection adopted at Glasgow are exceedingly simple, and are similar to those pursued at other Scotch hospitals. Subscription-sheets are sent by the cashier to each of the establishments in Glasgow employing bodies of workmen, with a short circular thanking the men, through their foremen, for their past efforts on behalf of the Infirmary. At the head of each sheet is a view of the hospital, together with a tabulated statement of the amounts received from annual subscriptions and the sum raised by working men in the previous three years. The manager, cashier, or foreman, in the establishment in which the sheet is left, is requested to take charge of it, and to collect the subscriptions at the most suitable time of the year. They are also invited, if found more convenient, to extend the collection over several pay-days, and to retain the sheet until "the year's amount is complete". It is also stated that the privileges obtained by such subscriptions are, "if any of those who contribute, or if any of their family, during the year require the benefit of the Infirmary, the representative of the workmen appointed by themselves can give 'admission-lines', at the rate of one for every guinea of subscription raised amongst them". In November, the cashier issues another short circular to all the works from which subscription-sheets have not been sent in, requesting the foremen to make arrangements for the workmen's contributions for the year "being collected and sent in as early as possible". By this simple means, as we have before stated, the magnificent sum of £7,358 was raised by *the workmen of Glasgow alone* in 1873—which large amount has never been collected from the working classes in one year, by means of direct subscription or "Hospital Saturday", in any town in the United Kingdom. We recommend this great fact to the serious attention of hospital managers throughout the country, in the hope that they will be enabled to stimulate the working men in their respective districts to go and do likewise.

Not a few of the provincial hospitals have appealed from time to time directly to the working classes for support; and, as a result, many of them number amongst their subscribers the workmen of several firms. The Leeds Infirmary, for instance, received, in 1873, £880 in donations from the working classes; and here also the receipts from this source have steadily increased, and the amount raised last year was upwards of £1,000. We think the experience of this and similar institutions shows that, if the working classes have the claims of the hospitals fairly placed before them, and if they at the same time have confidence in the persons making the appeal, their response will invariably be liberal, increasing, and eventually become a permanent source of income.

One provincial Infirmary, the North Staffordshire, at Hartshill, which has recently been rebuilt, and now has accommodation for two hundred in-patients, has successfully established a workable scheme which enables the working men in the Potteries to secure for the members of their families, by certain fixed and regular payments, skilled medical treatment at the Infirmary as in- or out-patients, according to the requirements of their individual cases. *No one is, however, entitled to admission as an in-patient, unless a member of the medical staff of the Infirmary certifies that the nature of the case renders such a course necessary.* The following is the plan pursued. Each establishment subscription is considered a joint subscription of the persons contributing it in the manufactory or other establishment from which it is paid, and entitles them as a body to the same privileges as the ordinary subscribers of a similar sum. The scale of privileges, which was revised to meet the increased cost of maintenance in 1872, is now fixed as follows.

| Annual Subscriptions. £ | s. | d. | Out-Patients on the Books at a time. | In-Patients in the course of the year. |
|---|---|---|---|---|
| 1 | 1 | 0 | 1 | 0 |
| 2 | 2 | 0 | 2 | 0 |
| 3 | 3 | 0 | 1 | 1 |
| 4 | 4 | 0 | 2 | 1 |
| 5 | 5 | 0 | 3 | 1 |
| 6 | 6 | 0 | 2 | 2 |
| 7 | 7 | 0 | 3 | 2 |
| 8 | 8 | 0 | 4 | 2 |
| 9 | 9 | 0 | 3 | 3 |
| 10 | 10 | 0 | 4 | 3 |

Establishment subscriptions are received on the following conditions, all of which have to be complied with.

1. Each person who earns upwards of eighteen shillings per week must contribute *not less* than one penny weekly; each person who earns upwards of seven shillings per week must contribute *not less* than a halfpenny weekly; and each person who earns not more than seven shillings per week must contribute at least one farthing weekly. The subscriptions have to be paid for every working week all through the year.

2. Persons who are subscribers, their children and step-children under fourteen years of age, and wives (not employed in the manufactories or collieries), are alone entitled to relief by virtue of an establishment subscription.

3. The master of an establishment which subscribes, or a person whose authority to represent the workpeople is certified by the master, is alone entitled to recommend patients, or to vote as a governor of the Infirmary.

4. Only one vote is allowed on behalf of each establishment, no matter how large the subscription may be.

5. Each establishment and each subscriber has the privilege of

having one fever-patient constantly on the books, provided one guinea is paid with each patient.

Special fever-wards are provided in a separate building, and no communication is allowed with other parts of the Infirmary.

We are at a loss to understand why some similar system has not been adopted at most of the hospitals in the large manufacturing districts. If we examine closely the results which have been arrived at by the working of this system at Hartshill, we must admit they are not only satisfactory, but very hopeful for the future prospects of the working classes generally, and most creditable to those classes in the Potteries, who have evinced a self-reliance and independence of character worthy of imitation by their *confrères* in all parts of the country. We are informed that the number of patients in the year 1873, exclusive of those on the books and in the Infirmary on October 25th, 1873, was, in-patients, 1,093; and out-patients, 3,867; and of these, about 400 in-patients and 1,900 out-patients were sent by virtue of establishment subscriptions. Each in-patient cost the Infirmary during the same year £5 : 5 : 3 nearly; and each out-patient, for drugs, etc., 2s. 2½d. It follows, as a matter of course, that the actual outlay for these establishment patients amounts to £2,150 in round numbers; viz.:

| | |
|---|---|
| 400 in-patients, at £5 : 5 : 3 per head . . | £2,105 : 0 : 0 |
| 1,900 out-patients, at 2s. 2½ per head . . | 210 : 0 : 0 |
| | 2,315 : 0 : 0 |

We find, on the other hand, that the working classes paid into the Infirmary exchequer, during the same year, £2,777. Thus the workmen of the Potteries not only paid for their own maintenance and support during their stay in the hospital, but gave in addition the sum of £462 as a thank-offering. How many other hospitals in the United Kingdom, who are relieving annually many thousands of the working classes, get even £462 in subscriptions from this source? Nor is this all; for these Staffordshire workmen have an honest homely independence about them, which no doubt accounts in no small degree for the balance in favour of the Infirmary, and which causes them to remain out of the hospital as long as possible, because "they do not care to be admitted into the wards of an institution which they regard as being specially provided for the admission of cases of charity". This feeling, coupled with the fact that each case has to wait its turn to be admitted, and consequently has to remain in many instances for a long time as an out-patient, limits, we are informed, the number of admissions, although the establishments are practically at liberty to recommend any number of patients, their subscriptions in most instances being very large. We have already stated, we are convinced, if the working classes be taught provident habits, they will naturally grow to like them, and will persuade their fellows to be thrifty also. This is the case at Hartshill, and the contributions from the working classes have steadily increased. The subscriptions from this source in 1873 are £225 in excess of those received in 1872; and they show an increase of £728, as compared with the year 1866. Surely what has been done at Hartshill can be done elsewhere.

Doubtless some people will say that a system like the one we have just explained is greatly abused in practice, and that the apparent benefits conferred are far outweighed by the real abuses which exist. We have particularly and carefully examined the working of the Hartshill system, and we are bound in fairness to state that, so far as we have been able to ascertain, very little, if any, abuse attaches to it. In the year 1872, we personally inspected this Infirmary, and, while struck with the good order of the wards and the advantages of the general arrangements, we noticed that the discipline amongst the patients was not so perfect as it ought to have been. This, we believe, was owing to the fact that the Committee did not at that time recognise the importance of strict discipline, and consequently did not support the officers as strongly as they ought to have done in their efforts to enforce it. Latterly, however, a marked improvement has, we are informed, taken place; and, with altered arrangements and a strict adherence to the rules, the discipline is now very satisfactory, and the patients are perfectly amenable to it. Besides, the Committee strictly enforce the rule which enacts that "no patients be admitted whose circumstances enable them to pay for medical attendance, except establishment subscribers". It is satisfactory to record that the Committee of Management are fully alive to the importance of excluding improper cases; and we quote with much pleasure the following paragraph, which is taken from the last published Report (1873). "The Committee desire to perfect the efficiency of the institution by adopting a better means of ascertaining the fittest subjects for in-patient treatment." Surely, if we judge this Committee by their work, they may with confidence be left to protect the interests of their important institution from abuses of this and a similar character. It would be unjust to conclude this article without bearing testimony to the anxiety to afford to others the fullest particulars of the working of the institution, which Mr. Ralph Hordley, the Secretary, invariably displays. This gentleman has laboured assiduously to promote the interests of the Hartshill Infirmary and of the working classes, and his success in both respects is fully established by the account we have given above.

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## PREVALENCE OF ERYSIPELAS IN THE RADCLIFFE INFIRMARY, OXFORD.

At a time when the conditions under which the contagious forms of inflammation appear to originate and to spread are being widely discussed, special interest attaches to a report lately issued on a prevalence of erysipelas which took place in the wards of the Radcliffe Infirmary at Oxford, during the summer and autumn months and the beginning of the winter of the past year. Twenty-six patients who had been admitted into the infirmary for other forms of disease, or for injuries, were attacked with erysipelas, and of these five died in consequence. All the patients but one were either surgical cases or had required surgical interference, and in the exceptional instance the patient had been removed to a surgical ward.

A prevalence of traumatic erysipelas of this character must, under ordinary circumstances, be held to afford the most significant indications either of the unhealthiness or of the mismanagement of the wards of the hospital in which it occurs; but, in this instance, the disease first appeared and principally spread in the Accident Ward, which is universally admitted to be "a model of hospital construction", and to be in several details unrivalled. The infection of such a ward with erysipelas was naturally viewed with a considerable degree of astonishment and of disappointment; and the hospital authorities deemed it advisable under the circumstances to make an application to Mr. Netten Radcliffe, of the Local Government Board, requesting him to examine into the causes under which the prevalence of this disease had taken place. This request was complied with; and, in a communication addressed to the committee of management, Mr. Radcliffe has dealt with the whole subject in a manner which gives special value to his report at the present time. Every detail relating to the construction and the management of the hospital, and to the general sanitary conditions to which the patients were exposed, has been subjected to minute investigation, and the facts elicited appear fully to support the conclusions at which Mr. Radcliffe in the end arrived.

With regard to the accident ward where the disease first broke out, Mr. Radcliffe begins by pointing out that the accumulation in the same ward at the same time, of several cases of grave suppurating injuries, each contributing largely to the pollution of its atmosphere, and together fouling it to an injurious extent, must be a fertile source of traumatic infection; and he then shows that at the time when the first case arose, the ward contained a larger number of lacerated wounds than had been admitted into it in the corresponding periods in the four preceding years. And, in addition to this, he indicates a series of special circumstances which together must have co-operated in producing an unhealthy condition of the ward, by the fouling of its atmosphere.

In the first place, it would appear that the position of the laundry was such that the atmosphere given off from it, and which, being moist, must often have been largely laden with organic filth from the foul linen, could freely enter the ward, where its influence cannot have been other than harmful. Then, again, the screening of the house-refuse of the establishment was carried out just beneath the windows of this ward, and the fine dust arising during this operation must necessarily, in Mr. Radcliffe's opinion, have found its way into the ward. And to show the mischievous influence upon injuries which is produced by an atmosphere charged with the effluvia or the dust of mixed ashes and house refuse, a striking example of results thus occasioned is quoted from Mr. Campbell De Morgan's experience in the Middlesex Hospital. Certain undesirable conditions of the principal drains in the immediate vicinity of the accident ward are next adverted to; and it is shown how, under imperfect conditions of the general town-drainage, these local defects would probably result in some fouling of the air within the hospital. Mr. Radcliffe then proceeds to show further, that during the colder months impure air must have been delivered into the ward by means of the arrangements for warming it. The accident ward is partly warmed by a hot air shaft which passes longitudinally along the centre of the ward, and which has openings in it at intervals. This shaft does not appear to have been cleaned out ever since it was constructed, and hence surface-dust, containing organic matter in suspension, has doubtless been frequently delivered into the ward by the current of air passing along the shaft. But another circumstance of far more importance in connection with the outbreak under discussion, is the fact that the air-supply for this shaft is obtained at a point, in the immediate proximity of which the dirty and infected ward-linen is placed before it is taken to the laundry. The shaft, indeed, "obtains its air from the one spot in the infirmary premises, where the atmosphere is most fouled, and is most liable to be fouled"; and, when Mr. Radcliffe was in Oxford, he found at this spot the bed-linen used for a case of erysipelas. Under such conditions, the air of the ward can scarcely have failed to become vitiated in a most injurious manner.

But erysipelatous diseases had at the same date been seriously prevalent in the city of Oxford generally, and hence it was important to inquire how far the concurrence of the outbreak in the infirmary with that in the city, could be explained by conditions common to both. One special condition does appear to have been operative in this direction, namely, the drainage of the city, which for some time past has been notoriously inefficient. Investigation into the condition of the infirmary outfall showed that, throughout the whole period of the development of erysipelas which formed the subject of inquiry, the solid filth from the infirmary and from other buildings, including the Clarendon Press, had been slowly accumulating in an old sewer. Thus the infirmary was, by means of its drains, connected with what constituted a gigantic cesspool, in which decomposition was rendered the more certain and rapid by the warm condensing water poured into it from the Clarendon Press engines. To place reliance on the trapping of drains connected with such a sewer is obviously absurd; and in view of the imperfections already adverted to, trivial as they were when compared with those often found in ordinary dwellings, it is stated that there can be but little doubt that foul sewer air did find its way into the infirmary. Indeed, the atmosphere about and within the infirmary differed little, in Mr. Radcliffe's opinion, from that which existed in other parts of the city where the drainage and sewerage were imperfect. In other words, it is shown why the infirmary was not exempt from the common prevalence, as it probably would have been had its hygienic arrangements been such as they were believed to be.

The disease once existing in the infirmary, there were, in addition to the constantly recurring local opportunities afforded for the fouling of its atmosphere, other means by which the transmission of the infection to different parts of the building was facilitated. In the rotation of night service, every nurse was in turn placed on duty in the accident ward, hence each one came into contact with the cases of erysipelatous inflammation, and then became a carrier of infection to the other parts of the hospital. And, unfortunately, the dresses which the nurses wear when on duty are often made of absorbent materials, "each nurse being allowed to wear what kind of dress she likes in the ward if it admits of being washed". This improper dress is by no means limited to the ward attendants of the Radcliffe Infirmary; it is often used by nurses elsewhere; and even in the instances of some charitable ladies who have formed themselves into sisterhoods, that they may be the more ready at any moment to nurse the sick, thick and loosely woven woollen dresses are worn whilst patients who are suffering from the most infectious diseases are being nursed. Many an institution might learn a lesson in this matter.

We have only noted the principal points brought out by Mr. Radcliffe in a most exhaustive report, but we have said enough to show how forcibly the principal circumstances of this outbreak point to the necessity for the exercise of a never ceasing and minute care in endeavouring to cope with what has been termed the "fundamental difficulty" of hospital management; that, namely, of providing throughout the most perfect cleanliness not only of objects within the wards, but, perhaps above all things, of the air by which the patients are surrounded. Whenever there is the slightest appearance of the special forms of malignant inflammation of which erysipelas is a type, then, above all other things, should this matter of cleanliness within and without be most carefully examined into; and every inquiry should be made to ascertain whether the atmosphere of the hospital can in any way be vitiated, either from sources of foulness outside, or from the presence of infective material inside the walls.

The value which has been attached to this report by those to whom it was in the first instance addressed, may be judged of from the fact that a special resolution has been passed by the infirmary authorities for presentation to the Local Government Board, to the effect that it is desirable that the services of the medical inspectors of that Board should be available whenever the circumstances of a hospital point to the necessity of such an investigation as that on which we have commented.

## DRUGGISTS AND MEDICAL CERTIFICATES.

FROM evidence given at a recent inquest held in Manchester by the City Coroner, it appears that medical certificates of the cause of death are there issued by a medical practitioner in cases which have been only attended by his unqualified assistant. This assistant, who is a druggist in Manchester, stated that, whenever a certificate was required relating to any of the patients attended by him, he obtained one from a surgeon to whom he said he had acted as assistant for seventeen years. This medical practitioner, whose name we advisedly omit, was said to be in the habit of filling up these certificates from information supplied by the unqualified assistant, without having even seen the case himself. This is, if true, an evasion of the spirit of Section 20 of the recent Registration Act, which enacts that these certificates shall only be issued "in case of the death of any person who has been attended *during his last illness by a registered medical practitioner*". It is, moreover, difficult to imagine how the practitioner could feel justified in filling up and signing a certificate commencing with the words, "I hereby certify that I have attended", in cases which he has not seen. It is so manifestly to the interest both of the public and of the medical profession, that the practice of unqualified practitioners should be discouraged, that we can only express surprise and regret if a duly qualified practitioner should afford facilities for a druggist to practise, by granting him certificates of the cause of death, on the doubtful plea of his being an "assistant". The inability of an unqualified practitioner to give a certificate in case of death, serves as a wholesome check upon the practice of such men; but, if they can obtain certificates from qualified practitioners, as alleged in the Manchester case, this check becomes nugatory. The registrars are instructed, in accordance with the recent Act, to accept for insertion in the death-register the certificates of *registered* practitioners only; they are also instructed that, "on receiving a certificate purporting to be under the hand of a registered practitioner, it is no part of the registrar's duty (except he has reason for believing the signature to be a forgery) to raise the question whether the case was at any time attended by such practitioner". It would be obviously inconvenient if registrars were instructed to raise such a point with reference to certificates produced to them and signed by registered practitioners, who are alone to blame if, under any pretext, they give sanction to the practice of unqualified men by granting certificates for their patients.

WE publish in another column a report of the first of a short series of clinical lectures by Sir James Paget. Interesting as applications in practice of principles already enunciated for the most part elsewhere, these lectures will, we feel sure, be welcomed by a wider circle of readers than the students for whom they were originally intended.

PROFESSOR CORFIELD'S Lectures at University College on Hygiene and Public Health will commence by a Public Introductory Lecture on Tuesday, May 25th, at 4 P.M.

IT is stated that Lady Smith, widow of Sir James Edward Smith, the President of the Linnæan Society, this week entered her 103rd year. Lady Smith is in perfect health.

DR. LUSH has given notice that on an early day he will call the attention of the House of Commons to the condition of the medical officers of the army with respect to position, honours, and emoluments, and move a resolution.

THE Hampstead Hospital question has been at last finally settled by the Metropolitan District Asylums Board. At a fully attended meeting, they decided almost unanimously not to accept the site in Mill Lane, to adhere to the present site, and to decline the consideration of any other place.

THE annual meeting and dinner of the Birmingham Medical Benevolent Society will be held at the Hen and Chickens Hotel, on Friday, May 28th, at three o'clock, under the presidency of Mr. J. V. Solomon.

THE President of the Odontological Society has issued cards for a *conversazione* in the new rooms of the Society at the Dental Hospital, Soho Square.

THE Society for the Promotion of Scientific Industry opens to-day an interesting exhibition of appliances for the economy of labour and of sanitary inventions, at Cheetham Hill Road.

IN consequence of Mr. Stansfeld's opposition to the College of Surgeons Bill, it can no longer be brought on after twelve o'clock at night, in accordance with the standing orders of the House of Commons as to opposed Bills. The result is that, unless the Government give a night, it will be impossible to carry it through this session. It is, in the present state of parliamentary business, not in the power of a private member to carry an opposed Bill through the House, except with Government aid. No doubt, however, the Government will give that aid, as they are unquestionably in favour of conjoined examinations. It will be noticed as a strange feature in Lord Sandon's reply to Mr. Waddy's question, reported in another column, that he intimates that "the attention of the Government has only recently been called to the subject of the legislation desirable with a view to remedy the present system of half-qualifications by nineteen competing bodies". Mr. Forster and Lord Ripon would have told a different story.

HERE, however, is matter for the consideration of the Medical Reform Committee of our Association, whose energetic chairman, Dr. Waters, has, we believe, given close attention to the parliamentary position of the subject, and has held conferences with the Committee and with friends in parliament during the session, but with what result for this year does not at present appear. The political position is, indeed, one of very considerable difficulty. The Scottish bodies by no means approve of unification of examinations, and their influence is considerable; and Mr. Cowper-Temple and Mr. Stansfeld seem determined to defend another set of interests, which are likely to complicate any future attempts at a general scheme of medical reform.

MR. FITCH was nominated for the Senate of the University of London on Tuesday last by a large majority of votes.

THE recent minutes of the Senate of the University of London contains an interesting report by Dr. Burdon Sanderson on the working of the Brown Institute during the past year. He refers to the valuable researches made during the year by Dr. Klein on sheep-pox; by Dr. Buchanan Baxter on the relative values of carbolic acid, potassium permanganate, chlorine, and sulphurous acid, as disinfecting agents in counteracting various contagions, among which was the contagion of glanders; and by Dr. Creighton on the earliest textural changes with which cancer begins in its primary and secondary manifestations. Most of these investigations have been carried on at the expense of the Government, and at the instance of the Medical Officer of the Privy Council. Dr. Sanderson observes: "In all of these researches, even when the primary object has been to obtain a more exact knowledge of the particular disease investigated, this object has been pursued with a constant reference to the more important purpose of elucidating the nature of those great pathological processes which are common to man and to the lower animals. Throughout, the principle has been recognised, that it is only by acquiring an accurate understanding of the origin and nature of these processes, that real progress can be made in the arts of preventing and curing diseases. Bearing this in mind, we have considered it our special function, not so much to concern ourselves with the technical details of animal therapeutics, as with the groundwork of knowledge on which all rational therapeutics are based."

ON the subject of grouse-disease, Dr. Burdon Sanderson makes some very valuable remarks, worthy of the attention of sportsmen and proprietors of moors, in his capacity of Superintendent of the Brown Institute. He says: "Setting aside for the moment the question how far wild animals are included in our scope, it appears to me that pathological questions of such interest are involved in the determination of the nature of the grouse-disease, that we should on this ground alone be justified in devoting the means at our disposal to its investigation. The inquiry, if undertaken, would necessarily be divided into two parts, of which the first would relate to the nature of the disease, the other to its cause and to the circumstances determining its prevalence. We do not as yet possess any knowledge of practical value on either of these subjects. Dr. Cobbold has investigated the intestinal parasites of the grouse with great accuracy and completeness, and has probably learnt most that is to be learnt with respect to them; but he is unable to tell us whether they stand in any special relation to the disease. To settle the question of the nature of the malady, it is necessary to have the opportunity of observing the birds in the living state, for which purpose specimens might be sent to London for examination; but, as regards the investigation of the causes and circumstances which determine the prevalence of the disease, it appears to me clear that the only useful course would be to send a scientifically qualified person to the moors for the purpose of obtaining information by local inquiry."

THE value of the Brown Institute for the purpose of carrying on inquiries intended to improve our knowledge of the diseases of animals, and to arrest the destructive epidemics which decimate our stock, is not sufficiently appreciated; and on this subject Dr. Sanderson says: "It is perhaps desirable that it should be more generally known than it is at present, that the Committee are willing to further the prosecution of any similar investigation either by private individuals or public bodies, provided that such investigations relate to the diseases of animals useful to man, and are of such a character as to be likely to yield valuable results. By way of indicating one of the directions which might be given to such inquiries, I would refer to the fact that there are several of the diseases which are most destructive to stock in this country, in respect to the nature and causes of which much remains to be discovered by systematic study. It appears to me to need no argument to show that diseases of this class have a stronger claim than any others to our attention; and I therefore feel it to be a matter of deep regret that, in consequence of the difficulty we have experienced in bringing our institution into relation with the agricultural interest (without whose support no investigation of this nature could be attempted), three years have been allowed to pass away without accomplishing anything in this direction. Whether the necessary co-operation can be obtained, or not, I am not able to say; but I would suggest that, at all events, we should not fail to make it known that we are willing to do our part, if those who are interested in the matter give us the opportunity."

THE following is a syllabus of lectures on State Medicine to be delivered before the Society of Apothecaries, at their Hall in Blackfriars, by Surgeon-Major F. De Chaumont, M.D. Lecture I, May 15th: History of Sanitation, particularly in this country within the last thirty years, since the publication of the Report of the Health of Towns Commission. Lecture II, May 22nd: General and Special Hygiene—Division of the Subject—Air-Supply and Ventilation—Legal Enactments, existing or desirable—Arrangements of Habitations. Lecture III, May 29th: Water, its Purity and Supply—Duties of the State with regard to it. Lecture IV, June 5th: Soil in its relation to Health—Sewage and Disposal of Effete Matters—Disposal of the Dead. Lecture V, June 12th: Food and Beverages—Adulteration—Relation of Food to Work—Exercise—Limitation of Work through State Interference, according to Age, Sex, etc. Lecture VI, June 19th: Prevention of Disease—Laws of Propagation of Disease—Epidemics—Statistics, their Methods, Objects, and Importance—Conclusion.

AT a recent public meeting at the Shire Hall, Hertford, for the further consideration of the proposed formation of a Seaside Convalescent Home, Mr. T. F. Halsey, M.P., in the chair (in the absence of Earl Cowper), it was resolved, "That an independent Seaside Convalescent Home be formed for the poor of the county of Hertford; and that contributions to the endowment fund, and annual subscriptions, be solicited from those who have not already subscribed."

### UNIVERSITY OF LONDON.

PRESENTATION-DAY passed off with *éclat*, Lord Granville presiding, and Mr. Lowe delivering a warm defence of competitive examinations. At the First B.Sc. Examination, 63 candidates presented themselves, of whom 29 passed. Mr. J. M. H. Munro won the Exhibition in Chemistry. At the Preliminary Scientific M.B. Examination, out of 156 candidates 93 passed. For the First M.B. Examination there were 42 candidates, of whom 27 passed. The medallists and exhibitioners were: C. R. B. Keetley, Medal in Anatomy; N. I. C. Tizard, Exhibition and Medal in Physiology, Histology, and Comparative Anatomy; R. E. Carrington, Exhibition and Medal in Organic Chemistry, and Materia Medica and Pharmaceutical Chemistry; and C. R. B. Keetley, Medal in Organic Chemistry, and Materia Medica and Pharmaceutical Chemistry. The M.B. scholars and medallists were: A. P. Gould, Scholarship and Medal in Medicine; A. Duncan, Medal in Medicine; A. P. Gould, Scholarship and Medal in Obstetric Medicine; A. Duncan, Medal in Obstetric Medicine; H. R. Crocker, Scholarship and Medal in Forensic Medicine; and A. P. Gould, Medal in Forensic Medicine. The scholars and medallists in the B.S. Examination, for which five entered, all of whom passed, were: A. P. Gould, Scholarship and Medal in Surgery; and P. T. Duncan, Medal in Surgery. For the M.D. Examination there were 19 candidates, of whom 14 passed, viz.: B. Addy, G. H. Barfoot, T. Barlow, G. Bomford, J. A. Cockburn (medal), H. Colgate, S. Coupland, W. Dyson, A. T. Gibbings, W. S. Greenfield, J. A. Harris, E. Mackey, E. M. Skerritt, and C. T. Vachell.

### DEATH AT THE POST OF HONOUR.

A GLOOM was thrown over St. Bartholomew's Hospital at the beginning of this week, through the death of a dresser from a disease contracted while fulfilling his duties in the wards. Mr. Hubert Martyn Floyer of Horncastle, Lincolnshire, after attending a case of diphtheria in the wards of his hospital, where tracheotomy had been performed, complained, on the evening of May 7th, of slight indisposition, and was so much worse on the next day as to be unable to attend to his patients. On Sunday, the 9th, symptoms of diphtheria set in, accompanied by diffuse cellulitis of the neck. On the evening of May 10th, his condition became desperate, and it was considered necessary to perform tracheotomy. The operation was accordingly undertaken by Mr. Langton. But, unfortunately, it proved unavailing; and he died at half-past eight o'clock on the evening of the same day. Mr. Floyer had for the last few months distinguished himself for the great assiduity with which he fulfilled his clinical duties, and had thereby impaired his health to a considerable extent previously to the disaster which finally overtook him. He passed his preliminary examination in arts, etc., at the Apothecaries' Hall in January 1872, and only in January last passed with great credit his primary or anatomical and physiological examination for the diploma of membership of the Royal College of Surgeons.

### HOW FEVER CAME AND SPREAD.

A TRUE history of "how the fever came and why it spread", written by the mistress of every house where it appears, would help us much to prevent fever from effecting lodgment among us. The subjoined communication is an example which shows how important and instructive such little historiettes may become. It is worth some long sanitary reports.

"Our immediate social circle has been somewhat disturbed lately by the outbreak of scarlet fever amongst us. The first question that arises is, Whence has it sprung? We are puzzled to know how, when, and where we got upon the unseen track. Perhaps, the very history of our own experiences may explain how the mystery comes about. Lady D. was startled one day to find her eldest boy brought home from school in a cab, wrapped in blankets, and deposited in the hall in a blaze of eruption. The boy had naturally to be carried straight to a bedroom without any preparation for an infectious disease. The mother, nursing a baby five weeks old, was advised by her physician to leave the house at once with her younger children, and the sick-room was given over to the care of a nurse from a highly esteemed sisterhood. The printed rules of the establishment brought by the nurse were admirable, and might have been efficacious if carried out. Instead, however, of a *cotton* dress being worn, according to the rules, the nursing of this highly developed case of scarlet fever was conducted throughout in the black alpaca in which she arrived. When the peeling was over, and the child considered safe for the journey, this dress was changed for a private costume, to the woman's mind more suitable and becoming for the seaside. In the course of other six weeks, the house had been thoroughly disinfected, and all the bedrooms on the sick-room floor repapered and painted, the family had gone back, and the invalid was to return. Here, then, arose fresh dangers, not from the boy, but from the nurse, who had persistently broken the rules she ought to have obeyed. It became necessary for her to change the surreptitious costume for the sombre dress of the establishment, and she desired to be shown into a bedroom to effect the transformation. Fortunately, Lady D. was at hand, and forbade her the use of any of the rooms, and despatched her under protest to the scullery to open the dangerous box. The next scene was her departure in a cab in the infected alpaca of the sick-room, in which she duly appeared amongst the trusting sisterhood.

"Another friend has been giving me her troubles over the confidential cup at five, and they also point in the direction of public danger. Her coachman is in affliction, owing to the death of his daughter last week, from scarlet fever. It seems the girl was in service in Richmond, when she fell ill and was sent home. The process to be gone through before getting home was a cab to the station, thence in the train to Bromley, and thence another cab to the lodge on the estate where her mother lived. Here she arrived in the midst of the family circle, having suffered from sickness the whole way, in cabs and train alike, and here the unfortunate girl died a week from the day she arrived. The disease, pursuing its course, has since attacked another sister, who is lying dangerously ill at this moment.

"In contrast to the foregoing, I must relate a case of my own, in which the situation was curiously reversed. Some months ago, I received the intelligence that my boy, along with others at the same school, a few miles from town, was stricken with scarlatina, and had been removed to the infirmary. Finding, next day, that no rash had appeared, I resolved to have him home. Having given directions for the sick-room to be prepared, I proceeded forthwith to St. George's Hospital to arrange about sending the fever-carriage for the boy. I found, to my dismay, although it proved ultimately for my good, that the carriage was impracticable, owing to the fact that it would not permit of two horses, and one could not accomplish the journey. I was compelled, therefore, to go to our livery-stable keeper, give him my confidence, and bind him over to take all necessary precautions afterwards. We had all the cushions removed, and air-cushions and a few washable wrappers put in, and a servant was despatched to bring back the patient. Meanwhile, the sick-room was prepared; and, for the sake of others, I may as well describe it. A well-ventilated room at the top of the house, cut off by a long passage from other rooms. The walls and ceiling are lightly papered and varnished; a slip of carpet is easily removed, leaving bare boards. No curtains, painted furniture, and an iron bedstead, with woven wire mattress, and a light hair mattress above. This is commonly called an hospital bed. The drawers were removed with their contents into another room, leaving the carcase to serve the purpose of shelves. Disinfectants and a hot-bath were in readiness. About 8 P.M., the carriage drove up, and a most hilarious invalid bounded forth an emancipated slave! He had eaten all the oranges, enjoyed the drive, and exercised his lungs in puffing out the air-cushions. Although the child had actually been in the infirmary mixed up with some severe cases, beyond a little sore-throat, the disease did not develope, and he escaped.

"Since then, I have been to Brighton with my children in pursuit of health, and found, in the course of a few days, I was in the same 'mansion' with a family affected with the measles. Not a word of warning was given to me. I went a refugee and returned a fugitive."

### CONTAGIOUS DISEASES ACTS.

CAPTAIN HARRIS's report for 1874 contains six returns, chiefly on the moral effects of the Contagious Diseases Acts. He dwells on the regular attendance of the registered public women, the diminution of drunkenness among them, and their improved conduct. The reclaiming of young girls, as well as of older women, from an immoral life has been attended with success; and one noticeable effect of these Acts is the almost entire disappearance of girls of a tender age from the list of prostitutes. It is exceedingly rare now to find one under the age of 18. Another beneficial effect of these Acts is the decrease in number of brothels and of public-houses and beer-houses used as brothels. The percentages of disease among the public women, although diminished, are kept up by diseased women coming from unprotected districts, and insisting on signing the voluntary submission, in order to obtain admission to hospital. In 1874, 1650 newcomers were registered, and they came chiefly from unprotected districts. Only fourteen of these required a magistrate's order to bring them under the Acts. Table No. 4 shows the change that has taken place in the condition of the women as to disease brought under the Acts. The percentage of disease among them has fallen from 85 per cent. in 1866 to 32.76 per cent. in 1874. A suggestion is made by Captain Harris that, in order still further to check disease, a provision should be added to the Acts, whereby persons who wilfully communicate disease should be punished.

### EDINBURGH UNIVERSITY CLUB.

THE quarterly dinner of this club was held on Monday evening, the 10th instant at St. James's Hall, under the presidency of Professor Maclean, C.B., of Netley. Amongst the guests were the Rev. Daniel Moore, Mr. Winter Jones, Mr. Carl Haag, Mr. Adams, and Mr. Ernest Hart. The chairman proposed the usual toasts in peculiarly fitting and graceful terms. Deputy Surgeon-General Mackinnon, C.B., replied to the toast for the naval and military forces. Professor Gairdner proposed the toast of "The Visitors" which was replied to by the Rev. Daniel Moore and Mr. Ernest Hart. Amongst the medical members of the club we noticed Dr. Fayrer, C.S.I., Deputy Surgeon-General Huntly Gordon, Dr. Sieveking, Dr. Lawson Cape, etc. The death of the honorary treasurer (the late Dr. Alexander Halley) was feelingly alluded to by the chairman. The new treasurer, the Rev. Dr. Cosmo Gordon, was present.

### WIGAN MEDICAL SOCIETY.

THE second monthly meeting of this Society, being the first after the adoption of the rules, was held in the Public Hall, Wigan, on the 6th instant, when Dr. Kellett of Newton-le-Willows, read a paper on a "Case of Emphysema", in which he advocated the theory of the possibility of air being secreted by serous membranes, such as the pleura peritoneum, and in the subcutaneous cellular tissue. The following members took part in the discussion: the President, Mr. White, Messrs. Shepherd, Barnish, Monks, Latham and Fairbank. Mr. Barnish kindly exhibited during the evening microscopical specimens of pathological subjects. The Society bids fair to be a success, and will do much to establish a good feeling amongst its members.

### TURNING THE TABLES.

IT is not often that local authorities are found complaining of the "inaction of the Local Government Board", although that complaint is often enough made in other quarters. The Brampton and Walton Local Board, however, have a serious complaint of the sort to make. At a recent meeting, among the applicants for relief was a young woman from Danesmoor, Clay Cross, whose husband died from typhoid fever about a month ago, leaving her with four children. Mr. Linacre said that the neighbourhood in which the woman lived was in a most unsanitary state for want of proper drainage, plans for which had been sent up to the Local Government Board for approval nearly twelve months ago, and had not been returned. Dr. Mackintosh had written repeatedly, urging upon it the necessity of the work being completed, as otherwise an outbreak of fever was inevitable. No notice had been taken, however, and an outbreak of fever had taken place, the applicant's husband being one of the first to succumb to it.

### SMALL-POX SCARE IN LIVERPOOL.

THE guardians of West Derby, a populous suburb of Liverpool, have incurred much odium for appropriating a detached building called Starfield House for the reception of small-pox cases. It appears that ten or eleven cases of small-pox had broken out in the district; and, as the infectious wards in the workhouse hospital were undergoing enlargement, and, therefore, not in a condition to receive patients, the guardians, anxious to stamp out the disease, promptly fixed upon this building as the only available means of accommodation, and, therefore, the only plan they could adopt to isolate the patients, and thus avoid leaving them in their own dwellings as separate foci of contagion. This same building, within a recent period, has been used for a similar purpose by the select vestry of Liverpool, who, before occupying it for small-pox and scarlet-fever cases, had caused it to be examined and reported upon by competent authorities, who pronounced it suitable for the purpose, and no great public apprehension or inconvenience was then evinced on the subject. On this occasion, however, an indignation meeting has been held of owners and ratepayers of the neighbourhood, presided over by a resident medical practitioner, at which strong opinions were expressed condemnatory of the course adopted by the guardians, and the following resolution was carried by a large majority.

"That, in the opinion of this meeting, Starfield House, West Derby Road, is, by reason of its situation in the midst of a densely populated neighbourhood and otherwise, an improper and unsuitable place for an hospital for infectious diseases; and the usage of it for such purpose may spread disease and alarm, and cause loss to owners of property Also that the attention of the Local Government Board be called to the subject, and that they be requested to hold a local inquiry into the matter, etc."

The medical officer of health for West Derby expressed his opinion that no sanitary authority in the kingdom would sanction either the site or the building as a proper place for small-pox patients. It was in the highest degree dangerous, and he believed the Local Government Board would declare it inefficient if an inquiry were held. As we suppose the previous occupation of this same building by the parish authorities of Liverpool would have been sanctioned by the central authority, who are now asked to revise their former decision, the inquiry appears to place the Local Government Board on the horns of a dilemma. In the course of his remarks, the medical officer of health for West Derby stated that he was informed that there were a great many persons suffering from small-pox in Liverpool, and that it was the opinion of medical men that they were on the eve of an epidemic; but, on inquiry, the parochial authorities of Liverpool inform us that no such apprehension is felt by them. The sick and mortality returns of their medical staff up to the present date show no grounds whatever for anticipating an invasion of small-pox. We hope, therefore, that whatever may be looming in the distance, the public of Liverpool may, for the present at all events, allay their fears on this score. To be forewarned is to be forearmed; and the actual approach of epidemic disease cannot be too soon made known to the authorities who have charge of sanitary measures; at the same time, it is well to avoid exciting alarm in the public mind by anticipations, the realisation of which is at least doubtful.

### HOSPITAL SUNDAY FUND.

An important meeting, as we intimated last week, was held on Friday, the 7th instant, to determine the principles upon which this fund should in future be administered. The difficulties through which it has passed must be fresh in the recollection of our readers. We need not, therefore, refer to them further than to say that the amendments which Dr. Morell Mackenzie succeeded in carrying at the tumultuous meeting on March 8th were not only disapproved of by the Council of the Fund, but were repudiated by the public at large. At a subsequent meeting, held on March 16th, it was resolved that the Council, having been appointed by the annual public meeting, could not be bound by, or accept otherwise than as recommendations, the resolutions of any meeting held during its tenure of office; and further, that, before taking any action on the resolutions of March 8th, the Lord-Mayor be requested to summon a meeting of the clergy of all denominations, and two lay members of each congregation, to determine the future constituency of the Fund. It was the meeting thus foreshadowed which was held on the 7th instant. It was thoroughly representative in its character, and yet, as the admission was by ticket, there was no fear of a repetition of the disgraceful scene which took place on March 8th. The following are the resolutions which were adopted.

1. That this meeting, summoned by the resolution of the Council of March 16th, 1875, and consisting of representatives of the various congregations which have contributed to the Hospital Sunday Fund, approves the action of the Council in appealing from the decision arrived at by the public meeting of March 8th, and proceeds to lay down the principles upon which the Fund shall be managed and distributed.

2. That such congregations as have forwarded contributions to the Fund during either of the two preceding years, be entitled to a voice in the management of the Fund; and that the minister, and two laymen representing every such contributing congregation, be summoned to meet the Council in the month of December in each year, to receive the annual report of the Council for the year; and to elect the Council for the succeeding year.

3. That the Council consist of not more than fifty clerical and fifty lay members, with whom shall rest the power to arrange for the collection, to appoint the Committee of Distribution, to receive its report, and to frame such rules as may be needful for the proper administration of the Fund.

4. That the Committee of Distribution, consisting of nine members, and the Lord-Mayor as President *ex officio*, be elected at an early meeting of the Council after its appointment.

5. That awards to hospitals, etc., be primarily based on the total expenditure of each institution, after deducting therefrom—1. The income derived from endowments and realised property; 2. The amount received in legacies exceeding £100 each; 3. The amount of expenses of management. But that in every case the merits and pecuniary needs of the institution concerned be fully inquired into and considered by the Distribution Committee, and that the award made be determined in accordance with the judgment of the Distribution Committee upon such merits and needs, provided that in no case shall the grant be so reduced or withheld until a conference shall have been sought with the managing committee of the said hospital, etc.

6. That payments made by, or on behalf of, patients be left to the discretion of the Distribution Committee to be dealt with, in each case, as they may see fit.

7. That no institution, to the benefits of which admission can only be gained by election from the general body of subscribers, be eligible for grants from the Fund.

8. That hospitals, etc., receiving grants from this Fund, be required to place at the disposal of the Council the same number of letters of recommendation for patients to which an individual contributor would be entitled for an annual subscription equal to the amount of the grant.

9. That, in the event of a congregational collection, made on Hospital Sunday, being given to a particular hospital, dispensary, or institution, instead of being sent to the General Fund, the amount so sent shall be deducted from the grant made to that hospital, etc.

10. That, in making their awards, it be an instruction to the Committee of Distribution to take into their favourable consideration the amount of congregational collections received by the several hospitals, etc., during the three years preceding the institution of the Hospital Sunday Fund.

11. That the Committee of Distribution shall present their report to the Council before the Fund is finally distributed.

### A NEW PHASE OF TRADES-UNIONISM.

We learn from the *North Wales Chronicle* that the quarrymen of Llanberis have recently appointed a bone-setter to act in conjunction with Mr. Rees, the medical officer of their sick club; and that the men of Penrhyn are about to follow their example, and inflict a similar insult upon Mr. Hamilton Roberts, who has acted as surgeon to the hospital for upwards of forty years. The popularity of Mr. Evans, the bone-setter, appears to be due to the fact that he has done much to promote the North Wales Quarrymen's Union. Mr. Rees has at once resigned his connection with the club, and Mr. Roberts is about to take a similar step. This course is, indeed, the only one which was open to them, and we should imagine that no qualified man would accept the posts they have felt constrained to vacate. We trust that this vigorous but inevitable protest will convince the quarrymen that they have not only given their medical officers just cause of offence, but also that they have adopted a course which is fraught with danger to themselves.

### SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

The annual meeting of the Society was held on Friday, April 30th, by the kind permission of the Royal Medical and Chirurgical Society, in their rooms, 53, Berners Street. The chair was taken at half-past eight o'clock by the President, Sir George Burrows, Bart. From a summary read by the Secretary, it was shown that the total receipts available for payments for the year 1874 amounted to £3,065 : 15, and the total grants and expenses for the same period to £3,174 : 14, exhibiting an excess of expenditure over receipts of £108 : 19. The ordinary grants for the year were £2,601 : 10, an increase of £71 : 10 on those of 1873. The grants had been augmented at Christmas to the amount of £329, caused by a donation of £5 to each widow, £2 to each child, and £5 to each of the recipients from the Copeland Fund, making in all £2,930 : 10 granted during the year. The expenses had been £244 : 4. The funded property had been increased by the purchase of £500 (stock) of the Metropolitan Consolidated 3½ per Cent. Fund. Nine members had died (four leaving their widows to the charge of the Society); four had resigned or ceased to be members; and twelve new members had been elected, leaving the list of members at 396, one less than in 1873. Among the deaths were mentioned those of B. Bond Cabbell, Esq., honorary member and arbitrator; and of John Miles, Esq., Vice-President, and one of the oldest members of the Society, elected in 1818. During the year, four widows had died, each in receipt of £50 *per annum*. Six widows were added to the list of recipients of grants. Seven children had become ineligible, leaving only seventeen chargeable to the fund. At the annual general meeting of 1874, alterations in the bye-laws had been proposed by the acting Treasurer. The alterations were to facilitate the election of members, and to provide for cases where members, through ill-health, were unable to continue their subscriptions. The following gentlemen were chosen in place of the six senior directors who retired by rotation; viz., Dr. Peregrine, Dr. Halford, Nathaniel Stevenson, Esq., Dr. Peacock, Dr. Sieveking, and John Couper, Esq. Votes of thanks were passed to the President and Court of Directors for their kind attention to the business of the Society, and to the editors of the medical journals for their great kindness in forwarding in every possible way the interests of the Society. The proceedings terminated by an unanimous vote of thanks to the President for his kindness in presiding at the meeting.

### THE RANALD MARTIN MEMORIAL.

It will be remembered that, at a meeting held at Willis's Rooms on March 25th, it was proposed by Sir T. Galbraith Logan, M.D., K.C.B., and seconded by Sir George Burrows, Bart., M.D., F.R.S., "That this meeting is of opinion that the services rendered to his country by the late Sir James Ranald Martin, C.B., in advancing the science of tropical medicine and promoting sanitary reform in India and at home, with the inestimable result of improving the health and diminishing the death-rate in the Army of India, are worthy of commemoration." A second resolution, proposed by Sir William Mure Muir, M.D., K.C.B., seconded by Sir William Fergusson, Bart., F.R.S., was to the effect "That this meeting is of opinion that the most fitting memorial of the services of one so long associated with the advancement of military medicine will be the foundation of a prize, to be called 'The Ranald Martin Memorial Prize', to be competed for in the Army Medical School by the candidates for commissions in the medical services of the British and Indian Armies and the Royal Navy." A third resolution was proposed by Dr. E. A. Parkes, F.R.S., seconded by Surgeon-General John Murray, M.D., to the effect "That, considering the disinterested manner in which the late Sir Ranald Martin devoted his time and energies to promote the interests of the officers of the medical services, and more particularly that it was mainly through his efforts that the question of admitting medical officers to the honours of the Bath was brought before Parliament, the medical officers of the three services be earnestly invited to co-operate with the Committee appointed by this meeting in carrying out the object embodied in the first resolution; and that the Committee be asked to solicit the aid of the administrative medical officers of the British and Indian armies in India in carrying out the same object." By a fourth resolution, proposed by Surgeon-General Longmore, C.B., seconded by Dr. W. Farr, F.R.S., the following were appointed the Executive Committee, with power to add to their number: The Right Hon. the Earl of Derby; Sir T. Galbraith Logan, M.D., K.C.B.; Sir William Fergusson, Bart., F.R.S.; Sir George Burrows, Bart., M.D., F.R.S.; Sir William Mure Muir, M.D., K.C.B.; Sir Alexander Armstrong, M.D., K.C.B., LL.D.; Sir John W. Kaye, K.C.B.; Surgeon-General W. C. Maclean, C.B., F.R.S.; E. A. Parkes, M.D., F.R.S.; Erasmus Wilson, Esq., F.R.S.; J. Fayrer, M.D., C.S.I., and G. D. Pollock, Esq., F.R.C.S., Treasurers; P. O'Brien, Esq., F.R.C.S., Honorary Secretary. And the Committee were asked to solicit the aid of the public and administrative medical officers. Subscriptions are received by Messrs. Herries, Farquhar, and Co., Bankers, 16, St. St. James's Street; Dr. J. Fayrer, 16, Granville Place, Portman Square, W.; G. D. Pollock, Esq., 36, Grosvenor Street, W.; and by P. O'Brien, Esq., Honorary Secretary, 35, Lancaster Road, Westbourne Park, W. The Committee state that they intend shortly to publish a list of the names of the subscribers to the memorial, and they beg that the friends and admirers of the late Sir Ranald Martin will forward their contributions as early as possible.

## SCOTLAND.

We hear from Lerwick that the Rev. Dr. J. Ingram, minister of the Free Church Congregation, Unst, the most northerly parish in the kingdom, has just entered on the hundredth year of his age, and the seventy-fourth of his ministry. The venerable doctor is in good health, and still possesses the powerful voice which distinguished him in his early days.

Another death has occurred in a police office in Glasgow, one day last week; a man seventy years of age, who had been found on the north quay, in a state of intoxication the night before, died in the turn-keep room in the Central Police Office, Glasgow: he complained of feeling weak as he was being conveyed through the town, and died immediately on reaching the office. The cause of death is unknown.

Several of the charities of Glasgow have recently come in for a munificent bequest through the bounty of the Misses Buchanan, of Bellfield, near Kilmarnock, three daughters of a deceased Glasgow merchant, who have bequeathed £10,000 to the Merchants' Home of Glasgow; £4,200 to the Glasgow University for bursaries; £2,500 to the Buchanan Society of Glasgow; £30,000 for the founding of a hospital for the maintenance of indigent burgesses of Glasgow; and the lands and estate of Bellfield for charitable purposes, the whole amounting to upwards of £100,000.

The report of the Roxburgh, Berwick, and Selkirk district Board of Lunacy for the past year shows the following particulars. The total expenditure for the site and erection of the new asylum at Melrose amounted to £46,500, borrowed from the Scottish Equitable Insurance Company; the whole amount to be liquidated in thirty years by an annual payment of £6 2s. 9d. per cent. The year began with 150 patients on the register and ended with 174, 86 males, 88 females; the highest percentage of lunatics are given from Selkirkshire, one out of 2,671 of its population.

### FEVER AT LINDEAN.

A severe outbreak of fever has occurred at the village of Lindean, half way between Selkirk and Galashiels, the sanitary conditions being in a very bad state. A row of six cottages is occupied by the shepherd and labourers, and pigsties are built against the backs of the houses, keeping the foundations in a damp and filthy condition. In one house a family of eight persons, father, mother, and six children, have used and slept in, since Martinmas, a room 16 ft. by 12, and 7 ft. in height to the joisting, which was covered with old wrappings, and leaving about 170 cubic feet of space to each individual, with only two beds for the entire family; a sort of coal-house and a small room, serving as milk-room and closet, completed the accommodation. The drainage was very defective; an underground drain was carried down to the neighbouring burn, with openings without traps for the reception of refuse. When examined, the mouth or opening of the drain, where it emptied into the burn, was full of solid fæces. The steward's house, a detached cottage, standing by itself, was even worse than the "row", so far as outside sanitary conditions are concerned. The steward died last week, and his daughter ten years old, the week before. A drain is carried from the burn directly up to the side of the door of the cottage, where it opens for the reception of refuse liquids; there is no trap whatever to stop the ascent of foul gases, which must all escape just outside the door of the house. There have been in all thirteen cases of typhoid on this farm, three of them terminating fatally. The medical officer of the district, Dr. Hardesty, and the sanitary inspector, have visited the place, and energetic measures are at length to be taken to have matters put right.

### SEWAGE OF DUNSE.

An important question, affecting the sewage of the town of Dunse, has been raised by Mr. Milne Home of Wedderburn, a neighbouring proprietor. He complains of the pollution of two streams which run through the estate of Wedderburn by sewage from Dunse, and further states that, from inquiries which he has made, it appears that the whole sewage of the town is allowed to flow towards the rural districts of the parish, and find its own way without any provision to prevent its becoming a nuisance. Both of the two outlets which exist have the effect of polluting the streams into which they flow; they render the streams unfit for cooking or drinking purposes, and so pollute the air as to render it probable that the fever, which is frequent at Wedderburn, is due to this cause. The town commissioners declined to admit that the nuisance was caused by the sewage, on the grounds that the sewage has run in its present course for at least forty years, and that many years ago a former owner of Wedderburn collected the sewage flowing through the estate into a pond for the purposes of profit. Mr. Milne Home is about to appeal to the law courts on the matter.

### SMALL-POX AT ABERDEEN.

There has been a fresh outbreak of small-pox at Aberdeen. After the town was considered almost clear of the disease, and the hospital contained only one or two rapidly convalescing patients, it has again broken out with some severity. Since the end of last week, several fresh cases have been admitted into the hospital.

### THE WATER OF LEITH.

One day last week attention was called, in the Edinburgh newspapers, by an anonymous correspondent, to the condition during the previous day of the water of Leith. The effluvia arising from it were most abominable; which, in the face of the fact that the town-sewage no longer flows into the stream, was put down to "some new abomination" in the shape of a mill or chemical work discharging its refuse into it. But upon investigation, which was immediately made, it was found that the main sewage pipe was temporarily obstructed, causing an overflow of sewage into the river.

## IRELAND.

Small-pox has diminished considerably in Belfast, but has not departed altogether, as last week's return shows that eight deaths were registered in that town as occurring from this affection.

There is an excellent likeness in this month's *Dublin University Magazine* of Sir William Wilde of Dublin, the celebrated oculist and well known antiquarian.

The *Dublin Morning Mail* says, that "A petition, signed by the majority of the Fellows of Trinity College, has been forwarded to Parliament, protesting against the cruelties of vivisection, and praying the House to take measures to prevent the practice. It is stated that the initiation of the memorial is due to Mrs. Lloyd." We have not seen the petition in question, but we trust it confines itself to the "cruelties", and is more moderate in its tone than some we have seen. This reminds us that the Reverend Professor Haughton, Fellow of Trinity College, Dublin, made many valuable experiments on animals, when pursuing his investigations on the antagonistic action of strychnine and nicotine.

### LIMERICK LUNATIC ASYLUM.

At a meeting of the governors of the Lunatic Asylum held last week, the question of enlarging the institution was discussed, when it was determined by a majority of five votes that a sum of £12,000 should be expended for this purpose. This will provide ample accommodation for the required number of lunatics, and will prevent the previously unhealthy condition of the asylum occasioned by the overcrowding of the inmates from want of room.

### ROYAL COLLEGE OF SURGEONS OF IRELAND: ELECTION OF COUNCILLORS.

The election for president, vice-president, and council will take place early next month, when Mr. Edward Hamilton will be made president, and the vice-presidency which he resigns will be filled up most probably by Mr. John Hamilton, he being the only candidate who up to this has stated his intention to contest the post. As regards the council, almost all the outgoing members will be re-elected; but, as some vacancies have arisen, the following candidates intend competing; viz.: Messrs. Mapother, Ward, Corley, McDowell, Jacob, Wheeler, and to these perhaps Mr. Stapleton's name may be added, lately a member of the Council.

### CASTLEBAR UNION: INOCULATION.

The following resolution was passed unanimously at a late meeting of the Board of Guardians:—"That, whereas the practice of inoculation with variolous matter has been, and is still, producing a terrible epidemic of small-pox in this district; and whereas, from the present defective state of the law, it is almost impossible to get a conviction against the inoculators, this Board humbly beg that the Local Government Board will intervene, and cause an alteration to be made in the existing Act of Parliament, so as to make the parents whose children are inoculated amenable and subject to fine or imprisonment on conviction, this being the only apparent way of stamping out the practice of inoculation, and of ridding this and all other neighbourhoods of the pest by which they are affected."

### THE SURGEONCY TO THE RICHMOND HOSPITAL.

Mr. Anthony H. Corley has been elected surgeon to this hospital in the room of Mr. John Hamilton resigned. Mr. Corley's appointment was almost unanimous, and has met with the universal approval of the profession. He has for some time been surgeon to Jervis Street Hospital.

## REARREST OF THE BOY O'CONNOR AT BUCKINGHAM PALACE.

We understand that the lad O'Connor, whose public outrage on the Queen on the day after the public thanksgiving for the recovery of H.R.H. the Prince of Wales, will be remembered by all, was taken in custody on the day of the Drawing Room on the 5th current, at the precise point near the railings in Buckingham Palace where he made his previous attempt and was arrested. It will be remembered that, on the former occasion, strong medical testimony was tendered of the boy's insanity. Had due weight been assigned to that evidence, O'Connor would have been placed in safe keeping and under proper care, and Her Majesty would not have been exposed to the further risk incidental to the insane impulses of this lad, whose lunacy is now placed beyond doubt, and who has now been consigned to Hanwell by the order of Sir Thomas Henry, based upon two medical certificates. It will be remembered that the sentence upon O'Connor, who presented a flint pistol at the Queen with one hand and a petition for release of the Fenian prisoners with the other, was to one year's imprisonment, and a whipping with a birch-rod. The latter part of the punishment, it is understood, was not inflicted. On release, he was sent to Australia, and has frequently since forwarded letters to this country, containing unquestionable proofs of mental aberration. Recently he found his way back to England, and here he has also afforded evidence of insane tendencies and dangerous impulses. On the day of the drawing-room, he was recognised by detectives on duty in the neighbourhood of Buckingham Palace, at the very spot where his previous outrage was committed, apparently waiting for the return of the Queen from the drawing-room, which she was then attending at St. James's Palace. He is alleged to be the subject of both suicidal and homicidal impulse, besides other dangerous mental aberrations. He is a descendant of Fergus O'Connor, who died insane, after committing a dangerous assault upon a member of the House of Commons in the lobby of the House.

# ASSOCIATION INTELLIGENCE.

## BRITISH MEDICAL ASSOCIATION: FORTY-THIRD ANNUAL MEETING.

THE Forty-third Annual Meeting of the British Medical Association will be held at Edinburgh, on Tuesday, Wednesday, Thursday, and Friday, August 3rd, 4th, 5th, and 6th, 1875.

*President.*—E. COPEMAN, M.D., Senior Physician to the Norfolk and Norwich Hospital.

*President-elect.*—Sir ROBERT CHRISTISON, Bart., M.D., D.C.L., LL.D., F.R.S.Ed.

An Address in Medicine will be given by JAMES WARBURTON BEGBIE, M.D., F.R.C.P.Ed.

An Address in Surgery will be given by JAMES SPENCE, F.R.C.S.Ed., F.R.S.E., Professor of Surgery in the University of Edinburgh.

An Address in Physiology will be given by WILLIAM RUTHERFORD, M.D., F.R.S.E., Professor of the Institutes of Medicine in the University of Edinburgh.

The business of the Association will be transacted in Six Sections, viz.:

SECTION D. PUBLIC MEDICINE.—*President:* Right Hon. Lyon Playfair, M.P., C.B., F.R.S. *Vice-Presidents:* Inspector-General Smart, M.D., C.B.; Dr. Arthur Mitchell. *Secretaries:* Dr. Andrew Smart, 24, Melville Street, Edinburgh; Dr. Fraser, Knutsford.

SECTION A. MEDICINE.—*President:* Dr. Quain, F.R.S., London. *Vice-Presidents:* Professor W. T. Gairdner, Glasgow; Dr. Grainger Stewart, Edinburgh. *Secretaries:* Dr. Claud Muirhead, 7, Heriot Row, Edinburgh; Dr. Stephenson, 33, Buccleuch Street, Edinburgh.

SECTION B. SURGERY.—*President:* Professor Lister, F.R.S. Edinburgh. *Vice-Presidents:* Professor Pirrie, Aberdeen; Professor Macleod, Glasgow. *Secretaries:* Thomas Annandale, Esq., Charlotte Square, Edinburgh; Dr. John Duncan, 8, Ainslie Place, Edinburgh.

SECTION C. OBSTETRIC MEDICINE.—*President:* Dr. Matthews Duncan. *Vice-Presidents:* Dr. Keiller; Professor Simpson. *Secretaries:* Dr. Peel Ritchie, 16, Hill Street, Edinburgh; C. J. Cullingworth, Esq., 260, Oxford Street, Manchester.

SECTION E. PSYCHOLOGY.—*President:* Dr. Lowe, F.R.S., Edinburgh; *Vice-Presidents:* Dr. Sibbald; Dr. Clouston. *Secretaries:* Dr. Brown, Royal Asylum, Edinburgh; Dr. Saundby, Saughton Hall, Edinburgh.

SECTION F. PHYSIOLOGY.—*President:* Dr. Burdon Sanderson, F.R.S., London. *Vice-Presidents:* Dr. McKendrick; J. Dewar, Esq. *Secretaries:* Dr. Lauder Brunton, F.R.S., 23, Somerset Street, Portman Square, London; Dr. Caton, 18, Abercrombie Square, Liverpool.

Honorary Local Secretaries.
Dr. John Batty Tuke, Edinburgh.
John Chiene, Esq., Edinburgh.
Dr. J. G. McKendrick, Edinburgh.
Dr. J. Bishop, Edinburgh.

*Tuesday, August 3rd.*

1 P.M.—MEETING OF COMMITTEE OF COUNCIL.
3 P.M.—MEETING OF THE COUNCIL, 1874-75.
8 P.M.—GENERAL MEETING.—President's Address; Annual Report of Council; and other business.

*Wednesday, August 4th.*

9.30 A.M.—MEETING OF COUNCIL, 1875-76.
11.30 A.M.—SECOND GENERAL MEETING.
11.30 A.M.—ADDRESS IN MEDICINE.
2 P.M.—SECTIONAL MEETINGS.
9 P.M.—SOIRÉE.

*Thursday, August 5th.*

9 A.M.—MEETING OF THE COMMITTEE OF COUNCIL.
10 A.M.—THIRD GENERAL MEETING.—Reports of Committees.
11 A.M.—ADDRESS IN SURGERY.
2 P.M.—SECTIONAL MEETINGS.
6.30 P.M.—PUBLIC DINNER.

*Friday, August 6th.*

10 A.M.—ADDRESS IN PHYSIOLOGY.
11 A.M.—SECTIONAL MEETINGS.
1.30 P.M.—CONCLUDING GENERAL MEETING.

Gentlemen desirous of reading papers, cases, or other communications, are requested to forward the titles to the General Secretary, or to one of the Secretaries of the Section in which the paper is to be read. All papers should be forwarded to one of the above named officers at as early a date as possible.

No paper must exceed twenty minutes in reading, and no subsequent speech must exceed ten minutes; all speeches at the General Meeting must not exceed ten minutes each.

FRANCIS FOWKE, *General Secretary.*
36, Great Queen Street, May 13th, 1875.

## SOUTH EASTERN BRANCH.

A MEETING of the Executive Council of this Branch will be held at the Terminus Hotel, London Bridge, on Tuesday, May 18th, at 3.15 P.M.

CHARLES PARSONS, M.D., *Honorary Secretary.*
2, St. James's Street, Dover, May 12th, 1875.

## SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.

THE next and annual meeting will be held at the Library of the County Hospital, Canterbury, on Thursday, May 20th, at 3 o'clock: JOHN BOWES, Esq., of Herne Bay, in the Chair.

Dinner will be provided at the Fleur-de-Lis Hotel, at 5 o'clock precisely. Charge 5s., exclusive of wine.

Notices have been received of the following communications to be read at the meeting.

1. Mr. Reid: To propose a resolution for the formation of a Committee to take cognisance of and report on Ethical Subjects relating to the District.
2. Mr. W. F. Teevan: On the Treatment of Retention and Extravasation of Urine.
3. Mr. Hutchings: Case of Intestinal Obstruction.
4. Mr. Clement Walter: A few remarks on Diabetes.

Gentlemen who intend to be present at the dinner, are particularly requested to inform me on or before Tuesday, the 18th instant.

EDWARD WHITFELD THURSTON, *Honorary Secretary.*
Ashford, May 9th, 1875.

## SOUTH EASTERN BRANCH: EAST SUSSEX DISTRICT.

THE next meeting will be held at the White Hart Hotel, Lewes, on Friday, May 28th, at 3.30 P.M.—The chair will be taken by J. G. BRADEN, Esq.

Dinner at 5.30 P.M. Price, 5s., exclusive of wine.

Papers, etc., are expected from the Chairman, Dr. W. Moore, Mr. G. F. Hodgson, and Mr. T. F. Sanger.

Notice of intended contributions is requested before Thursday, May 20th, by the Honorary District Secretary. THOMAS TROLLOPE.
35, Marina, St. Leonards-on-Sea.

## SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.

THE next meeting is appointed to be held at the Union House, Dartford, on Friday, May 21st, at 4.30 P.M.: F. B. JESSETT, Esq., F.R.C.S., in the Chair.

Dinner will be provided at the Bull Hotel at 6.30 P.M.

A paper is promised by E. Bellamy, Esq., F.R.C.S.; also one by the Chairman on Ostitis and Periostitis; and specimens of Scirrhus of the Breast and of Intussusception will be exhibited.

FREDERICK J. BROWN, M.D., *Honorary Secretary.*
Rochester, May 3rd, 1875.

## EAST YORK AND NORTH LINCOLN BRANCH.

THE annual meeting of this Branch will be held at the Hull Infirmary on Wednesday, May 26th, at 1 P.M.: J. DIX, Esq., President, in the Chair.

Gentlemen intending to read papers or show cases, are requested to give notice to ROBT. H. B. NICHOLSON, *Hon. Sec.*
Hull, May 5th, 1875.

## METROPOLITAN COUNTIES BRANCH.

AN ordinary meeting of this Branch will be held at 11, Chandos Street, Cavendish Square, on Friday, June 4th, at 8 P.M., when Dr. Robert Barnes will read a paper on "Some Physiologico-Pathological Phenomena of the Circulation in Pregnant Women".

ALEXANDER HENRY, M.D. } *Hon.*
ROBERT FARQUHARSON, M.D. } *Secs.*

## LANCASHIRE AND CHESHIRE BRANCH.

THE annual meeting of this Branch will be held at Chester, on Wednesday, June 30th, at 1 P.M.—JOHN SKAIFE, Esq., President; Dr. DAVIES-COLLEY, President-elect.

Dinner at five o'clock. Tickets, 7s. 6d., exclusive of wine.

Members intending to read papers, etc. (which must not exceed fifteen minutes), are requested to communicate at once with the undersigned.

A. B. STEELE, *Honorary Secretary.*

54, Rodney Street, Liverpool.

## METROPOLITAN COUNTIES BRANCH: ORDINARY MEETING.

AN ordinary meeting of this Branch was held at 11, Chandos Street, Cavendish Square, on Friday, April 16th; T. B. CURLING, Esq., F.R.S., President, in the Chair.

*Legislation for Habitual Drunkards.*—Mr. CARSTEN HOLTHOUSE opened a discussion on this subject. He said that it more or less concerned all members of the profession, and had exercised the thoughts of many. In commencing, he would caution his hearers not to be too sanguine in their expectations of obtaining legislative measures; for, from various conversations which he had had, he had learned that many were hostile to any interference on the part of Parliament, holding that it would be an interference with the liberty of the subject, and would be Utopian. If any scheme should be adopted, it must be with very great caution; aiming rather at what could be obtained than at a perfect measure. The public, and perhaps the profession, required to be educated on the subject. He would speak of the class of cases for which legislation should be provided. The terms of Mr. Dalrymple's Bill appeared to have set people against it; they could not understand why a drunkard should be locked up against his will, any more than a gamester. But there were drunkards and drunkards. Many were constantly under the influence of drink, and yet never were in a state which could be called drunken. If legislation were provided, it must be for the worst class. Attempts had been made to distinguish between vicious and morbid drunkenness; but it was hard to define the limits between bad habit and disease. If possible, the term "habitual drunkard" should be avoided, and that of dipsomaniac or maniacal drunkard used. Parliament would probably be more ready to legislate for drunkenness as a disease than as a bad habit. The case to be dealt with, then, was that of the dipsomaniac, lost to all self-control, with his will held in abeyance, and led by irresistible impulse to indulge. It has been proposed by some to legislate for these as for the insane. The object was to cure them so far as they could be cured—to put a stop to the progress of the disease, and to prevent the dipsomaniac from becoming a real maniac; to treat the drunkenness as a spreading disease, affecting not only the drunkard himself, but his relatives. No specific treatment was known; but it was known that a cure was possible if the drunkard could be kept from the cause of his malady. This, however, could generally be done only by depriving him of stimulants for a long period, varying generally according to the length of time in which he had been addicted to the habits. Strong arguments in favour of this course were afforded by the patients themselves, many of whom were desirous of legislation. Mr. Dalrymple had been told by the inmates of an inebriate asylum in America that forcible prevention was advisable; and cases had occurred where persons taken into a lunatic asylum had, after being cured, asked to be allowed to remain, rather than be set at large and exposed to the temptation of drink. There was also the evidence of the friends and relatives of patients. Mr. Holthouse had in many instances been implored by persons to take charge of their friends who were addicted to drink. It was not wished to treat these persons in lunatic asylums; but places were required where they might be kept from drink. Mr. Holthouse read a letter which he had received from a gentleman whose wife was a dipsomaniac, asking whether there was any possibility of legal power of restraint. The malady prevailed chiefly among women. A number of cases were known in which men had voluntarily placed themselves under restraint, but not one woman. The gentleman referred to said that he was unwilling to place his wife in a lunatic asylum; but, if stimulants could be kept from her, she became quite rational. This, then, was a curable case, if there were power to restrain the patient. Another argument in favour of legal power of restraint was the example of other countries. It had been tried with much success in Canada and in the United States, and with modifications in Scotland. In America, Mr. Dalrymple found that the proportion of cures among more than 5,900 patients was 34 per cent.; and he was informed on all sides that the proportion would have been larger if there had been greater power of restraint. This power was not possessed to the same extent by all the institutions. In America, 94 per cent. of the patients entered of their own will; between 2 and 3 per cent. were induced to enter by the solicitations of their friends; and only 3 or 4 per cent. were legally committed. In Canada, the Attorney-General at Quebec told Mr. Dalrymple that, although they had a law giving power of detention, it was rarely necessary to enforce; the knowledge of the existence of the law was sufficient to induce patients to voluntarily enter the asylums. In a valuable paper read by Dr. Gilchrist at Exeter Hall, and published in the *Medical Temperance Journal* of January, it was stated that the law of lunacy in Scotland was some years ago modified by the introduction of a clause enabling any person to place himself voluntarily in an asylum with the consent of the Board of Lunacy. The result was a gradual increase of voluntary and decrease of compulsory detentions. In 1870, the proportion of the former to the latter was as 2 to 4; in 1873, it was as 14 to 2; and this notwithstanding that the special clause was only partially known. After noticing briefly some further arguments in favour of the detention of inebriates, Mr. Holthouse spoke of the objections that had been urged. One of these was, that it was a waste of energy to attempt to legislate for drunkards; that it was not expedient to legislate for the manufactured article, but that the supply should be cut off. The chief objection was, that it would be an interference with the liberty of the subject; that persons could not be put into asylums for merely being drunk. But there was really very little in this objection. The liberty of the subject was constantly interfered with when the good of the public required it; as in legislation regarding vaccination, the employment of children in factories, etc. The objection was little better than a sentimental one. He thought it would be possible to obtain legislation to the effect that a patient entering an asylum voluntarily should be bound to remain there for a certain time. He was much pleased to see the great efforts made by the clergy and others to restrain the evil. They were doing their best, and respect was due to them, though it was not possible to go altogether with them.—The PRESIDENT, in thanking Mr. Holthouse, asked him how long a dipsomaniac should remain in an asylum after apparent recovery.—Mr. HOLTHOUSE said that this was a difficult question. As a rule, the longer the patient had been addicted to drink, the longer did he require to be kept under restraint. A person might be apparently cured in three months, but was liable to relapse if sent out too soon.—Mr. ALFORD referred to the hereditary character of the propensity to drink, and to the frequency of the malady in women, in whom it often followed the prescription of stimulants by medical men. He was in favour of thorough compulsion. Patients ought to be kept in an asylum six months at least. He did not approve of prohibitory measures against the use of drink. The rising generation should be educated to resist temptation.—Mr. LUCAS asked if Mr. Holthouse would remove stimulants suddenly or gradually.—Mr. HOLTHOUSE said that the process should be gradual. He had seen much suffering produced by suddenly cutting off the supply.—Mr. LUCAS recommended the use of tonics acting on other parts of the nervous system than that affected by alcohol. He treated with success cases of delirium tremens by nux vomica, which acted on the spinal cord. In some experiments, he had found that 19 drops of alcohol killed a rabbit; but 190 did not kill one that was under the influence of nux vomica.—Dr. JOSEPH SEATON said that stimulants could be withdrawn early with much advantage, provided that they were replaced by something else, especially full doses of iron. He was not sure that there was a necessity for special institutions; it might be sufficient if the law would allow patients to place themselves voluntarily under treatment in the ordinary asylums.—Dr. HENRY referred to the proceedings of the Birmingham and Midland Counties Branch on the subject under discussion, and suggested that some resolution should be laid before the meeting.—Mr. ALFORD proposed—

"That the Committee of Council of the British Medical Association be requested to appoint a special Committee to consider the advisability of legislative restrictions for habitual drunkards."

Mr. F. H. GERVIS seconded the motion, which was carried.

It was further resolved, on the motion of Mr. ALFORD, that a petition in favour of legislation on the subject be signed by the President on behalf of the Branch.

*Dr. Rumsey.*—The PRESIDENT briefly called the attention of the members to the case of Dr. Rumsey, and recommended to their favourable attention the present endeavours made on his behalf.

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THE LATE MR. WILLIAM H. MORRIS.—A memorial window has been placed in St. Cuthbert's Church, Darlington, by the Marquess of Ripon Lodge of Freemasons. "To the memory of William Henry Morris, M.R.C.S., born February 3rd, 1837, died October 27th, 1874. A tribute of fraternal affection and esteem from the brethren of the Marquess of Ripon Lodge, 1379, of which he was the founder."

# CORRESPONDENCE.

## THE ROYAL MEDICAL BENEVOLENT COLLEGE.

SIR,—I am anxious to remove the impression that any discourtesy was shown to the deputation which waited on the Council of the Medical Benevolent College to present the remonstrance against the system of voting, which had been signed by more than 1,300 subscribers. There was a very full attendance of the Council to meet us, and we had an attentive hearing; but it was not to be expected that they could argue the question, or give us a definite reply.

The annual general meeting of the College is to be held on Wednesday, the 19th instant, and I propose, if no one better qualified will undertake the task, to move a resolution on the subject. I did this some years since without effect; but obviously the question is in a very different position, now that so large a number of the subscribers have declared against the system of voting and canvassing, which is seen to be pregnant with gross abuses. I hope many out of the 1,300 will attend and support by their votes the resolution to be brought forward. I am aware that, by giving public notice of my intention, I afford the opportunity for a "whip" on the part of those opposed to charity voting reform; but I have too much confidence in the justice of the cause, and in its ultimate triumph, to fear this contingency.

I remain, sir, yours faithfully, W. H. BROADBENT, M.D.

34, Seymour Street, May 13th, 1875.

## MEDICAL WITNESSES IN POLICE-COURTS IN IRELAND.

SIR,—As there is no reference to the above in Saturday's JOURNAL, allow me, for the information of Dr. Corby of the South Infirmary, Cork, and all whom it may concern, to point out that there is an ample fund available for the payment of medical witnesses at Petty Sessions; but it is not at the disposal of the magistrates, chief clerk, or solicitors, and there is no necessity to make application for a fee in open court.

If the summons be forwarded, with a statement of the case and a claim for one guinea, to the chief or under secretary of the Lord Lieutenant, Dublin, I have no doubt that a fee will be received in due course through the Crown solicitor.

I am, etc., J. R. SWANTON, M.D.

Bantry, County Cork, May 10th, 1875.

# PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE Guardians of the Daventry Union have increased the salary of Mr. Charles H. Gibson, the Workhouse Medical Officer, from £20 to £30 *per annum*.

THE Scarborough Urban Sanitary Authority have increased the salary of Dr. John W. Taylor, medical officer of health, from £30 to £100 *per annum*.

A NEW Poor-law Union is to be formed in Yorkshire. It is to be called the Middlesborough Union, and to come into operation on the 24th June.

VACCINATION.—Mr. James Allen, public vaccinator to the Adlington and Bollington District of the Macclesfield Union, has recently received a grant of £19 13s. from the Local Government Board for successful vaccination.

## REMUNERATION OF A MEDICAL OFFICER.

THE Guardians of the Axbridge Union have lately been greatly exercised in their minds anent the remuneration of their medical officer, Mr. McClure. The district comprises an area of 5,000 acres. The surgeon has to supply all the drugs, and the average attendance of poor patients is about fifty per week. For these services, which it was admitted were performed in an efficient and kindly manner, a stipend of £30 *per annum* was paid. Mr. McClure, having discharged the duties for two months, found himself a loser by the bargain, as the uties entailed the keeping of a second horse; he tendered his resignaion, unless the stipend were raised from £30 to £50. The guardians, ot liking this application for more, advertised for applicants, the chairman remarking that they thus might catch a fish; but the bait was not sufficient to induce any other candidate to come forward, and eventually the board had to reappoint Mr. McClure on his own terms. It was mentioned during the discussion on this most momentous question, that the average pay of the neighbouring medical officers ranged from 3s. 3s. to 8s. per patient, *per annum*, but that Mr. McClure's honorarium was, during the two months he had held office, 3d. per patient or 1s. 6d. *per annum*. In many instances, however, we cannot help thinking that medical officers themselves are to blame for undertaking arduous and expensive duties at such a ridiculous rate of remuneration.

# MEDICO-PARLIAMENTARY.

## *HOUSE OF LORDS.—Monday, May 10th.*

*Artisans' Dwellings Bill.*—This Bill passed the second reading.

## *HOUSE OF COMMONS.—Monday, May 10th.*

*Navy Surgeons.*—Replying to Mr. O'Leary, Mr. HUNT said the number of naval surgeons who had resigned, during the last five years, was twenty-five. The cause of resignation had not, in any case, been assigned to dissatisfaction at the treatment which the medical officers of the navy had experienced. There were six tenders of resignation that were refused in the first instance. It was not true that the majority of surgeons appointed within the past five years to the naval medical service had been mainly those rejected by the examining boards of the army and Indian medical service. No person so rejected had been received into the naval service. The hon. member was probably not aware that there had been a recent order in council improving the condition of medical officers in the navy.

### *Tuesday, May 11th.*

*Medical Diplomas.*—Mr. WADDY asked the Vice-President of the Committee of Council on Education, whether the Government had any information from the Medical Council of the success of attempts on the part of the medical examining bodies in the three divisions of the kingdom, to form conjoint Boards for giving diplomas that should constitute a complete qualification in all branches of the medical art; and whether the Government, in the event of its not receiving or of not having yet received satisfactory information, was likely to bring in a Bill, or otherwise initiate legislation, with a view to remedy the present system of half-qualifications by nineteen competing bodies.—Lord SANDON said—We have no official information from the Medical Council on the subject of the hon. gentleman's question, but I have reason to believe that attempts are still being made to form conjoint Boards for giving diplomas that shall constitute a complete qualification in all branches of medical art. How far these attempts may be successful we cannot yet say, but I may point to the Society of Apothecaries' Act of last session, and to the Bill respecting the College of Surgeons now before the House, as proofs that the matter is not being left alone by the medical bodies. The attention of Government has only quite recently been called to this subject, which is a very large and complicated one. I am not prepared, therefore, at present to state the views of Her Majesty's Government respecting further legislation.

### *Wednesday, May 12th.*

*Coroners (Ireland) Bill.*—The second reading of this Bill was moved by Mr. Vance, who explained that its object was to abolish the system of paying coroners by fees, and to substitute moderate salaries in its stead; also to make provision for a superannuation fund, and to limit the time for the election of these officials to one day. Comments were made on the measure by The O'Conor Don, Mr. Law, Mr. Downing, Mr. Stacpoole, Mr. Gibson, Sir G. Campbell, and Mr. C. E. Lewis. Sir M. H. BEACH assented to the second reading, but, in expressing an opinion that the present system of electing coroners should be continued, objected to placing in their hands, as the bill provided, the power of appointing deputies. The payment by salary instead of fees was a fair proposal, but the question of the amount would require serious consideration; and, on the part of the Government, he reserved the right of referring the bill to a committee upstairs if he should think it advisable. The bill was then read a second time.

*Vivisection.*—Dr. PLAYFAIR obtained leave and brought in a Bill to prevent cruelty and abuse in experiments made on living animals for the purpose of promoting scientific discovery.

TESTIMONIAL.—Dr. Dudley Phillips, being about to leave Aberaman, has been presented with a purse of money, as a mark of the esteem and respect in which he is held by the inhabitants.

# MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in anatomy and physiology at a meeting of the Court of Examiners on the 11th instant, and, when eligible, will be admitted to the pass-examination.

Messrs. C. E. Richmond, C. F. Porter, A. T. Winterbottom, J. E. Edington, W. H. Clarke, E. A. Aldridge, and C. F. Diggle, students of the Manchester School; A. W. Stone, A. S. Jenkinson, W. H. Elam, W. C. Clarkson, and Arthur Fawcett, of the Leeds School; W. H. Maberly, J. J. Routh, H. O. Westwood, and Joseph Greasley, of the Edinburgh School; J. F. Witz and Willhelm Devenis, of the Dublin School; D. J. Jones, of the Edinburgh and Liverpool Schools; John Wood, B.A.Oxon., of the Birmingham and University College Schools; W. J. E. Harle, of the Cambridge and University College Schools; H. D. Crook, of the Bristol School; G. A. Cardew, of the Birmingham School; A. B. Brown, of the Sheffield School; J. H. Hough, B.A.Cantab., of St. Mary's and Cambridge Schools; and H. J. Capon, of St. Bartholomew's Hospital.

The following gentlemen passed on the 12th instant.

Messrs. S. D. Darbishire, M.A.Oxon.; J. H. Clegg, W. H. Gaze, W. H. Goodchild, Charles Bullock, F. F. L. Robertson, A. J. Bathe, E. T. Prior, and Paul Tarleton, of St. Bartholomew's Hospital; B. F. Giles, P. O. Haynes, C. J. Plummer, Henry Peskett, Frank Waddington, G. W. Butler, and Alfred Smart, of Guy's Hospital; F. W. Wiles, W. P. Jago, D. H. Davy, and Ebenezer Smith, of the London Hospital; C. J. Watson, C. T. Jones, and C. F. Budler, of University College; H. R. O. Cross, of King's College; O. M. White, of St. Mary's Hospital; A. T. O. White, of St. George's Hospital; and G. R. E. Bonsall, of the Middlesex Hospital.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, May 6th, 1875.

Brinchley, Algernon Dutton, Denmark Hill, S.E.
Jackson, Philip John, Merton, Surrey
Neylan, Joseph, Ennis, Ireland
Snell, Edmund George Carruthers, Stepney Green, E.

The following gentlemen also on the same day passed their primary professional examination.

Berdoe, Edward, London Hospital
Burnes, Henry Foster, Queen's University, Ireland

UNIVERSITY OF ABERDEEN.—The capping of students who received degrees in medicine and surgery during the late session at the University took place on April 24th. The following are the lists of those receiving degrees.

*Degree of M.D.*—William James Thomason, M.R.C.S., L.S.A., and L.M. Royal Navy; James Wilson, M.R.C.S., L.S.A., late Surgeon, Royal Navy.

At the same time, the following candidates received promotion to the degree of M.D.

James Adams, M.B., Ashburton, Devon; Wm. Robert Duguid, M.B., C.M., Buckie, by Fochabers; James Farquhar, M.B., C.M., Pudsey, near Leeds; Charles Gosse, M.B., C.M., Adelaide, South Australia; James R. Greenway, M.B., C.M., London; Alfred King, M.B., Balham, Surrey; Edward James Lloyd, M.B., C.M., the Infirmary, Denbigh; David Lowson, M.B., C.M., Huddersfield; Robert Gilmour M'Calman, M.B., C.M., Lairg, Sutherland; Henry A. A. Nichөlls, M.B., C.M., Dominica, West Indies; Francis Ogston, M.B., C.M., Aberdeen; James S. Orchard, M.B., C.M., Salford Hospital, Manchester; Thomas N. Orchard, M.B., C.M., Pendleton, Manchester; James Reid, M.B., C.M., Ellon; William Japp Sinclair, M.B., C.M., Clinical Hospital, Manchester; James Broom Smith, M.B., C.M., Loftus-in-Cleveland; Albert John Venn, M.B., C.M., London; George E. Welford, M.B., C.M., Sunderland.

*Degrees of M.B. and C.M.* were received by the following:—James Anderson, Skene, M.B. and C.M.; John Alfred Austin, Ceylon, M.B. and C.M.; Sam. Henry Bailey, Nottingham, M.B. and C.M.; Wm. Bannerman, M.A., Banff, M.B. and C.M.; John Barron, M.A., Aberdeen, M.B. and C.M.; Adam Blackhall, Fraserburgh, M.B. and C.M.; John Thomas Carey, Frogmore, Guernsey, M.B.; George Cran, Tarland, Aberdeenshire, M.B. and C.M.; Kharshedji Ardeshir Dalal, Bombay, M.B. and C.M.; Frederick Hawes Elliott, Andover, Hants, M.B. and C.M.; George Maitland Edmond, M.A., Aberdeen, M.B. and C.M.; Thomas Forrest Garvin, Colombo, Ceylon, M.B. and C.M.; Frederick Septimus Hardwick, Sullington, Sussex, M.B. and C.M.; John Harris, Newcastle, New South Wales, M.B. and C.M.; Arthur Carey Hutchings, Alderbury, Salisbury, M.B. and C.M.; John Fraser Innes, Hampstead, M.B. and C.M.; William Jack, Latheron, Caithness, M.B. and C.M.; Robert Laws, M.A., Aberdeen, M.B. and C.M.; Alex. Morison McAldowie, Aberdeen, M.B. and C.M.; Robert Horsburgh McDougall, Farr, Sutherland, M.B. and C.M.; John Herbert Mearns, Sheffield, M.B. and C.M.; John Hay Moir, Woodside, M.B. and C.M.; John Caie Pearson, Aberdeen, M.B. and C.M.; George Reid, Aberdeen, M.B. and C.M.; James Ross, M.A., Balintore, Ross-shire, M.B. and C.M.; William James Thomason, C.M.; John Thomson, Lybster, Caithness, M.B. and C.M.; Charles Lloyd Tuckey, Canterbury, M.B. and C.M.; Wm. Armston Vice, Leicestershire, M.B. and C.M.; John Michael A. Wallis, M.B.; Douglas Wardrop, Aberdeen, M.B. and C.M.; Albert Westland, M.A., Aberdeen, M.B. and C.M.; Edward Arthur White, Norwich, M.B. and C.M.; James Wilson, C.M.; Frederick Wade Wright, Wakefield, M.B. and C.M.

Of the above-mentioned candidates, George Maitland Edmond, John Harris, Alexander Morrison McAldowie, Robert Horsburgh McDougall, and Albert Westland, received their degrees in Medicine and Surgery with highest academical honours; William Bannerman, and William Jack, their degrees in Medicine and Surgery, with honourable distinction.

On this (the first) occasion, the John Murray Medal and Scholarship was awarded to Albert Westland, as the most distinguished graduate of his year.

At the same time, George Robert MacGregor and Alexander Disney Leith Napier were certified as having passed all the examinations, but did not graduate; and the following were declared to have passed part of their examinations:—William Copland Alexander, John Allan, Henry Rufus Bell. James Brander, Charles Broomhead, Alfred George Buckland, Robert Wm. Burnett, William Arthur Carline, Christian Francis Castor, Walter Smith Cheyne, Jas. Craib, Robert Cran, Alexander Davidson, Harry Edward Dixey, Charles William Doyle, David Peter Duirs, Arthur Symons Eccles, Wm. Fergusson, Giles F. Goldsbrough, Robert K. Guild, Edward J. Wm. Hicks, Alfred Hodgson, Robert M. Jack, Walter Culver James, Alexander MacGregor, Alexander W. Mackenzie, Patrick B. H. McLeod, John Wright Mason, Jas. Noble, Francis J. Pearse, William Reid, Wm. S. Robertson, Chas. Seymour, Henry Miller Shand, Thomas M. Sibbald, James Simpson, William J. R. Simpson, Hay Livingstone Smith, James Smith, Donald Stuart, George A. Walker, Walter A. Ward, Henry Watson, William White, Wm. B. Willans, Alex. Williams, John Osbert Wilson, Robert M. Wilson, Henry Winchester, and Alexander S. W. Young.

## MEDICAL VACANCIES.

THE following vacancies are announced:—

ASHBY DE LA ZOUCH UNION—Medical Officer for the Second and Third District. Salary, £20 and £20 per annum.

BETHLEM HOSPITAL—Two Resident Medical Students.

BINGHAM UNION—Medical Officer for the Workhouse.

BIRMINGHAM GENERAL DISPENSARY—Resident Surgeon. Salary, £130 the first, £140 the second, and £150 the third year, with furnished apartments.

BRADFORD INFIRMARY AND DISPENSARY—Physician. Applications to be sent on or before June 12th.

BROADMOOR CRIMINAL LUNATIC ASYLUM—Assistant Medical Officer. Salary, £200 per annum, with furnished apartments, coals, gas, and attendance.

CENTRAL LONDON SICK ASYLUM DISTRICT—Assistant Medical Officer and Dispenser for the Cleveland Street Asylum. Salary, £110 per annum, and daily dinner. Applications on or before the 19th inst.—Assistant Medical Officer for the Highgate Asylum. Salary, £100 per annum, with board and residence. Applications on or before the 19th inst.

CHARING CROSS HOSPITAL—Medical Registrar. Applications on or before June 9th.

CHERTSEY UNION—Medical Officer for the Windlesham District. Salary, £50 per annum.

DURHAM COUNTY ASYLUM—Assistant Medical Officer. Salary to commence at £100 per annum, with board, lodging, and washing. Applications on or before June 1st.

EVELINA HOSPITAL, Southwark Bridge Road—Registrar and Chloroformist. Salary, £50 per annum.

FRIENDLY SOCIETIES' MEDICAL INSTITUTE, Northampton—Assistant to visit and dispense. Salary, £120 per annum. Applications on or before June 1st.

HOUGHTON-LE-SPRING UNION—Medical Officer for the Rainton District. Salary, £25 per annum.

LUTON UNION—Medical Officer for the Workhouse. Salary, £30 per annum.

MILFORD UNION—Medical Officer for the Colloney Dispensary District.

NEWMARKET UNION—Medical Officer for Nos. 1 and 3 Districts. Salary, £85 per annum.

NOTTING HILL PROVIDENT DISPENSARY AND MATERNITY—Resident Medical Officer, with furnished apartments, coals, lights, and attendance. Applications on or before the 20th instant.

PENISTONE UNION—Medical Officer for the Penistone District and Workhouse.

ROYAL FREE HOSPITAL, Gray's Inn Road—Honorary Surgeon. Applications on or before the 24th instant.

SCARBOROUGH DISPENSARY AND ACCIDENT HOSPITAL—House-Surgeon. Salary, £120 per annum, with apartments, gas, and attendance. Applications on or before the 17th inst.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY—Assistant House-Surgeon. Salary. £65 per annum, with board, lodging, and washing.

TORBAY INFIRMARY—House-Surgeon. Salary, £100 per annum, with board and lodging.

WANGFORD UNION—Medical Officer for the Bungay District. Salary, £90 per annum.

WESTERN GENERAL DISPENSARY, Marylebone Road—Surgeon in Ordinary.—Resident Surgeon. Salary, £120 per annum, with furnished apartments, fuel, lights, and attendance. Applications on or before the 24th instant.

WHITEHAVEN AND WEST CUMBERLAND INFIRMARY—House-Surgeon and Dispenser. Salary, £130 per annum, with furnished apartments and attendance. Applications on or before June 1st.

WORCESTER UNION—District Medical Officer. Salary, £45 per annum, and fees. Applications on or before the 19th instant.

## MEDICAL APPOINTMENTS.

*Names marked with an asterisk are those of Members of the Association.*

JOB, John, M.R.C.S., appointed House-Surgeon to the London Hospital.

PALFREY, J., M.D., appointed Senior Obstetric Physician to the London Hospital.

YOUNG, Arthur, B.A., L.S.A., appointed Resident Accoucheur to King's College Hospital.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.*

### MARRIAGE.

BLANDFORD—FOWLER.—On April 12th, at St. Cuthbert's, Durham, by Rev. R. Ridley, M.A., assisted by the Rev. D. Fleming, B.A., Joseph Whitfield Blandford, M.R.C.S.E., of Coxhoe, Durham, to Eleanor, younger daughter of Alderman Fowler, Durham.

## OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY ......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.

FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M. — Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

## MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.—Pathological Society of London, 8.30 P.M. Mr. Godlee: Blood-cyst formed in Sarcoma. Mr. Knowsley Thornton: Carcinoma of Ovary. Dr. Julius Pollock: Worms in Right Ventricle of Heart of a Dog. Dr. Crisp: Recent Specimens of Tubercle in Pheasants. Dr. Crisp: Cancer in Common Fowl. Dr. Crisp: Brain and Cord of Fowl. Dr. Crisp: Softening of Cerebellum. Dr. Crisp: Purulent Pericarditis. Dr. Crisp: Cavity in Apex of Lung filled with Bony Deposit. Mr. Maunder: A Fatty Tumour. Dr. Duke: Dry Gangrene of Lower Extremities. Mr. Fairlie Clarke: Prolapsus Linguæ. Mr. Thomas Smith: Hæmorrhagic Periostitis. Mr. Francis Mason: Tumour in Sacral Region. Dr. Broadbent: Large Foramen Ovale without Cyanosis. Mr. MacCormac: Dislocation of Astragalus with Fracture. Mr. H. Arnott: Parts from a Case of Cancer of Rectum two years after Colotomy. Mr. George Lawson: Melanotic Tumours of the Eye. Mr. Hutchinson: Casts of Teeth from a Patient with Lamellar Cataract. Mr. Hutchinson: Stricture of Colon plugged by a Gall-stone. Dr. Goodhart: Contracted Aorta (two cases). Dr. Goodhart: Spontaneously cured Aortic Aneurism. Mr. Morrant Baker: Hernia Testis in an Infant. Dr. Duckworth: Organs from a Case of Acute Tuberculosis.

THURSDAY.—Harveian Society, 8 P.M. Dr. Mahomed, "A Contribution to the Clinical History of Scarlatinal Convalescence".

FRIDAY.—Medical Microscopical Society, 8 P.M. Mr. W. B. Kesteven, "On Fatty Degeneration of Muscle".

## NOTICES TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

THE General Secretary of the British Medical Association acknowledges the receipt of Essay on Treatment of Aneurism, with motto "Ars probat Artificem".

THE PARIS DEGREE.

IN the JOURNAL, a few weeks since, it was stated that regular medical practitioners, with British qualifications, are admitted to the Paris M.D. by clinical and practical examination only, if leave for that purpose is obtained from the Minister of Education. Will you please to explain how one is to go about getting the necessary leave, and all other matters connected therewith, in order to be admitted to the examination? Is the examination in English?—Yours, etc.,

PRACTITIONER.

⁂ The examination is in French; and, to be admitted to examination, a formal application must be made, stating the applicant's degrees and diplomas, and his reasons for desiring to submit himself to examination.

A MEMBER.—See programme in JOURNAL of to-day.

THE *Scotsman* says: "Professor Huxley presided at a meeting of the Aberdeen University Court on Saturday. A petition from the London Medical School for Women, asking that the classes in that institution should be recognised by the University, drew from the Lord Rector the remark that he thought that women were being harshly treated in the matter of medical education; and that, if it lay with him, they would be examined in Colleges to-morrow. It was found that the Court could only recognise individual teachers, not institutions.'

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

RUMSEY TESTIMONIAL FUND.

Total of amount acknowledged on 24th ult., £457 13s. 0d.

*Additional Subscriptions.*

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MR. AKERMAN.—We are not aware of the existence of such an institution.

THE SUPPRESSION OF UNQUALIFIED PRACTITIONERS.

SIR,—Will you kindly allow me to inform the numerous readers of the BRITISH MEDICAL JOURNAL who are interested in the formation of a society for the purpose of preventing unqualified practice, that it is intended to hold a meeting on Friday evening, the 21st instant, to elect officers, frame rules, etc.? I shall be happy to send particulars as to time and place, together with card of admission, to any qualified medical practitioner who may be willing to assist in the formation of the society. Thanking you for your courtesy in inserting my letters on former occasions,—I remain, yours very faithfully,

GEORGE BROWN, M.R.C.S. and L.S.A., Member Brit. Med. Association.
12, Colebrooke Row, Islington, May 12th, 1875.

SIR,—In the BRITISH MEDICAL JOURNAL of March 27th, in the report of the meeting of the Obstetrical Society; and again in that of Saturday last, in the account of Dr. Griggs's case of Cæsarean section, an error occurs in respect to my name. I am spoken of as "Dr. Gordon". Will you kindly correct this in your next issue, and oblige,—Your obedient Servant, CLEMENT GODSON.
8, Upper Brook Street, Grosvenor Square, W., May 10th, 1875.

MEDICAL BENEVOLENT COLLEGE.

IN reference to the remarks in the JOURNAL of May 8th and April 24th, respecting the unsatisfactory operation of the system adopted for the election of candidates for the Medical Benevolent College, I venture to adduce in their corroboration the equally pernicious policy pursued in the Royal School for Officers' Daughters at Bath. I have had several occasions of interesting myself in the canvassing for candidates for election to this institution, and have to bear witness to the difficulties and uncertainties in getting forward and completing a successful admission. One candidate had the luck of being selected at the first canvass, and another required three canvassings, and a third is yet unsuccessful. These cases even were no slight labour to their friends to undertake, with a subscriber's list of 3,000, the majority of whom have to be supplied with a copy of a circular at the candidate's expense. Generally only about one-sixth or one-eighth of the canvassings are annually successful in getting their objects entered? so that five-sixths or seven-eighths of the whole are obliged to recommence a fresh canvass next year all round the subscribers, with fresh circulars and fresh expenses. Many orphans come forward every year for admission, and many of them are highly deserving cases, yet but few of them succeed; and instead there are admitted cases whose connections or friends are well off, or influential, and therefore can incur greater expenses, and get more powerful votes. The dissatisfaction culminated last year in some letters in the newspapers from the friends of unsuccessful candidates, and the alternative was held out of withdrawal of subscriptions, which seem to have been already entertained, judging from a late report. The Wellington College for boys of military officers is conducted on the principle of reference to a Committee of the applications for admission, and has all along worked satisfactorily.

This principle of private canvassing is a relic of old-fashioned times, and was in vogue formerly for all hospital medical appointments, and is now gradually being eliminated from all large and useful institutions. The subscribers now begin to feel that they can know little or nothing about a candidate's affairs, and that they can get intelligent and honourable men to take their duty on committees; and so they willingly, if appealed to, will consent to abdicate their absolute privileges, seeing, as they must do in the reports, how injuriously it may operate. This system no doubt originated from the directors of these institutions, in their desire to secure subscribers to increase their incomes, bartering away their functions of selection to their *clientèle*, in exchange for the annual contribution to their support. It has now, however, eventuated that, in the terms of the old fable, what is play to the subscribers, has become death to the unfortunate objects of their charity, though, perhaps, this was by no means anticipated at the first as the result of the policy, and from the odium of which they should otherwise be exonerated.

Edinburgh. W. T. BLACK.

INQUIRER (Junior United Service Club).—We do not answer queries of the kind. Any respectable medical man is capable of dealing satisfactorily with such a case; and we strongly advise our correspondent not to resort to the quarters which he mentions.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

ERRATUM.—In the account of the fatal case of ether inhalation at Manchester in the JOURNAL of May 1, page 584, column 2, at line 5 from bottom, *for* "more quickly", *read* "more quietly".

### AN APPEAL.

SIR,—A letter appeared in the *Lancet* of the 24th ultimo, headed "An Appeal on behalf of the Widow and Orphans of the late Mr. Thomas", of Etwall, who died on the 19th March, 1875, aged 55 years. I knew the late Mr. Thomas for some years, also his circumstances, and am sorry to add that he was utterly unable to make a provision for his family, owing to his having been an assistant all his life, except the last five years. I think that although he was not a member of the British Medical Association (he would have been if he had lived another twelve months), we members ought to consider it not only a moral duty but a pleasure to help his widow and family. Allow me to add, that a more deserving case was never laid before the profession. Yourself (I am sure), also the Editor of the *Lancet*, N. C. Curzon, Esq., Etwall Hall, Derby, and Mr. F. Wilkins, Bearwood Hill, Burton-on-Trent, will kindly receive subscriptions on behalf of the widow and orphans of the late deceased gentleman.—I have the honour to be, very faithfully yours,
JOHN W. WOLFENDEN.

Tutbury, Burton-on-Trent, May 5th, 1875.

SIR,—Will any of your readers kindly inform me what degree of probability they consider exists of an individual taking measles for the second time.—Yours truly,
M.D.

May 3rd, 1875.

### ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT the final examination for the diploma of membership of the Royal College of Surgeons, on Saturday, the 16th April, when sixty-two candidates offered themselves, the following questions on surgical anatomy, and the principles and practice of surgery, were submitted to them. 1. Give an account of the relations and coverings of the descending colon; and then describe the several steps in the operation of colotomy. 2. Describe the operation of tying the posterior tibial artery in the middle of the leg, mentioning the parts necessarily divided. 3. In a case of compound fracture of the leg, where you are doubting whether to amputate or not, what circumstances would guide your decision? 4. How would you treat a punctured wound of the plantar arch, with recurrent hæmorrhage? 5. What are the varieties of stricture of the rectum? and what are the pathological conditions to which each kind may be referred? 6. What are the pathological changes which occur in the origin, progress, and termination of acute abscess?

The following were the questions on the principles and practice of medicine, viz.: 1. Mention the chief causes which may give rise to sickness and vomiting; state how you would distinguish them, and the treatment you would adopt in each. 2. Describe the features of cases of cardiac and renal dropsy; state how you would detect them, and the treatment to be adopted for their relief. 3. Mention the forms in which digitalis, belladonna, and hyoscyamus are used. State the purposes for which they are more especially suited, and the doses in which they should be given. State the effects produced by overdoses of digitalis and belladonna. Write a prescription for a diuretic mixture.

The following were the questions in anatomy and physiology submitted to the 176 candidates who offered themselves at the primary examination for the diploma of member of the Royal College of Surgeons on Saturday last. Four at least, including one of the first two, were required to be answered. 1. Enumerate the refractive media of the eye; and describe how a ray of light is affected in passing through them. 2. Describe the mucous membrane and glands of the stomach, in the cardiac, pyloric, and central portions, respectively. 3. Describe in detail the dissection necessary to display the internal maxillary artery, from its origin to the pterygo-maxillary fossa; and name the nerves exposed to view in the dissection. 4. Describe the sterno-clavicular and acromio-clavicular joints; and mention the other ligaments attached to the clavicle. 5. Describe, in their relative position, those parts of the heart and great vessels which are exposed on laying open the pericardium. 6. Enumerate, in order, the several structures that must be removed to expose the whole of the exterior surface of the knee-joint, with its ligaments.

### MEDICINE AND QUACKERY.

SIR,—Since the controversy about degrees and medical titles has been run up, it appears the above subject threatens to come to the front, and claim the attention of the profession for a time at least, and not undeservedly so. Quackery would have breathed its last long long ago, were it not for the assistance and countenance afforded it by duly qualified men, as the sequel will prove.

Having studied hard during last winter, and feeling fatigued, I thought I could not do better than spend my intermediate holidays in Wales. Accordingly I went to Llandudno. Having enjoyed the sea-air for a few days, I changed my quarters for Bettws-y-Coed, where I could enjoy both the air and scenery of the Snowdonian range. From Bettws-y-Coed I went to Llanberis, the scene of the late struggle between capital and labour. In answer to my queries, I was informed that since the late strike the men were unsettled, and scarcely knew what they actually wanted, as a medical attendant. They have a neat hospital belonging to, and built by the owner of, the Dinorwie slate quarries. A fully qualified and competent man was appointed by the owner as superintendent, but he was paid by the men. This gentleman kept an assistant, who lived in the hospital; and apart from that, whenever an accident of a serious nature occurred, a highly qualified gentleman from Carnarvon was called in consultation, and his fee paid by the superintendent; so that no one could complain in any way of being improperly attended to. This, it appears, they did not; lately, however, they have insisted upon having a bone-setter to superintend the whole. This man (who lives fifteen miles off), must attend the hospital one day in a week, oftener if necessary; and at any time when any of the men should chose to call him. Now, it is evident that an accident occurring upon any day but the one this bone-setter happens to be at the hospital must of necessity be attended to by the medical superintendent and his assistant. Mr. Rees, rather than degrade himself and profession by submitting to such an indignity, resigned his appointment. The committee advertised in the local papers for a "qualified man", to act conjointly with this bone-setter; and, if the report be true, no fewer than thirty courted the dignity. Is it necessary to ask who in this instance supports quackery but qualified men?

Again, amongst the latest telegraphic news in the *Carnarvon and Denbigh Herald*, of last Saturday, I find the following.

"Mr. Thomas Evans, bone-setter, Pen-y-Groes, has this week been engaged by the committee of the Penrhyn Quarry Sick Club to attend the hospital on Monday and Thursday in each week, and when called upon in special cases." And, in another column, I find that Dr. Hamilton Roberts, who has served these quarrymen for above forty-five years has (to his honour be it said) resigned his post, owing to the above appointment. This Thomas Evans is one and the same person who had also been appointed to the Dinorwie Hospital, and I naturally expected to find he was a talented and clever man; but was told his recommendation consisted in being a distant relation, but no pupil, of Mr. Evan Thomas of Liverpool, "being a hereditary genius, and an expert in reducing dislocations of the ribs and spine, and fractures and dislocations of the legs and arms". When I asked whether the medical men did not oppose and set their faces against such a thing, another astonishment was in store for me, when mine host informed me that this identical individual is in attendance upon a man at Bethel, and is met frequently in consultation by a qualified surgeon and physician from Carnarvon. Moreover, he acts in partnership in the immediate neighbourhood of his home (Wandle District) in some of the quarries there with a qualified person, who is M.D., M.R.C.S.L., L.A.S., and a Member of the British Medical Association. After this, who can wonder at the position assumed by irregular practitioners, backed up as they are by qualified men? It is high time that something should be done, either by the profession or by Parliament, to put an end to a practice which must sooner or later bring discredit upon a profession which should stand highest in the estimation of the whole world; and surely, I should think it would be a most suitable topic for discussion at the next meeting of the British Medical Association. The importance of the question to the profession, and especially to the rising members, is my only apology for taking up so much of your valuable space.—I am, Sir,
A STUDENT.

SIR,—I have been much pleased by the letters of Mr. O'Sullivan and Mr. Brown, in your issues of the 17th and 24th ultimo, and I am only sorry that the latter gentleman has met with so poor a response to his capital suggestion. But how can one wonder when in my own experience, an unqualified person receives support and protection from an hospital physician, and a legally qualified medical man in my own neighourhood? I shall be happy to subscribe ten shillings, or more, to a "Medical Defence Association," and I know others who will do the same.—I am, Sir, very faithfully yours,
HENRY WOTTON.

Birmingham, May 5th, 1875.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Lincolnshire Herald; The Crewe and Nantwich Chronicle; The Scotsman; The Glasgow Herald; The Folkestone Express; The Sunderland and Durham County Herald; The San Francisco News Letter and Californian Advertiser; The Western Gazette; The Derbyshire Times; The Shield; The Morpeth Herald; The Worcestershire Chronicle; The Cork Examiner; The Rugby Advertiser; The Crewe Guardian; The Free Lance; The Manchester Guardian; The London Mirror; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. George Johnson, London; Dr. G. H. Philipson, Newcastle upon-Tyne; Mr. R. H. B. Nicholson, Hull; Mr. T. Holmes, London; Dr. Wm. Bruce, Dingwall; Dr. Percy Boulton, London; Mr. Eastes, London; Mr. W. Fairlie Clarke, London; Mr. Howard Marsh, London; A Member; Dr. J. Hughlings Jackson, London; Dr. Edis, London; Dr. Fothergill, London; Our Dublin Correspondent; Mr. E. D. Akerman, London; Mr. A. W. Ribson, Leeds; The Secretary of the Royal College of Surgeons of Edinburgh; Dr. Claye Shaw, St. Leonards; Dr. Simpson, Inverness; Mr. J. W. Groves, London; Dr. Hime, Sheffield; Dr. W. T. Gairdner, Glasgow; Mr. F. Vacher, Birkenhead; Mr. Waren Tay, London; Dr. Parsons, Dover; Dr. Steele, Liverpool; Mr. W. T. Black, Edinburgh; Mr. G. Brown, London; Dr. J. Whitmore, London; Dr. Corfield, London; Mr. J. Rogers, Swansea; The Secretary of the Odontological Society, London; Rev. J. A. Hatchard, St. Leonards; Dr. A. Ransome, Manchester; The Secretary of the Hastings and St. Leonards Sanitary Association; Mr. T. M. Stone, London; Mr. S. M. Bradley, Manchester; Dr. Hardie, Manchester; Dr. S. Martyn, Clifton; Messrs. J. and A. Churchill, London; Mr. Wheelhouse, Leeds; Mr. F. T. Paul, Liverpool; Mr. E. L. Hussey, Oxford; Mr. J. T. Hartill, Willenhall; Dr. A. H. Hassall, Ventnor; Dr. J. F. Payne, London; Dr. W. Boyd Mushet, New Brighton; Dr. Lindsay, Perth; Major J. F. Raines, London; Surgeon-Major J. Wells, India; Dr. Miller, Southampton; Mr. John Bately, Great Yarmouth; Mr. Henry Carr, London; Dr. J. N. Vinen, London; Dr. Lorimer, Buxton; Mr. Thurston, Ashford; Mr. J. M. Fox, Cockermouth; Dr. Fowler, London; The Secretary of the International Exhibition of Fine Arts, London; Mr. H. May, Birmingham; Dr. G. Wilson, Leamington; Mr. G. Meadows, Hastings; Dr. Griffiths, Sheffield; Dr. J. R. Swanton, Bantry; Dr. Thorowgood, London; Dr. Rabagliati, Bradford; Dr. J. Edmunds, London; Dr. Trollope, St. Leonards-on-Sea; Mr. James Lane, London; Dr. Palfrey, London: Mr. J. V. Solomon, Birmingham; Mr. J. H. Cuff, Manchester; Mr. G. Griffith, Rhyl; Mr. W. Jones, Bewdley; Dr. M. McLean, Carbost; Dr. Eyton Jones, Wrexham; Dr. T. Radford, Manchester; Mr. G. Horder, Wood Green; Mr. T. Hickes, Gloucester; Mr. J. Lawton, Mentone; Dr. A. B. Brabazon, Bath; Dr. F. Leeson, Wharfedale; Mr. E. L. Watts, Douglas; Dr. T. Smith, Edinburgh; Mr. J. White, Wigan; Mr. J. Browne, Dorchester; Dr. Falconer, Bath; Dr. A. Ogston, Aberdeen; Dr. G. Mackay, Inverness; Mr. G. Southam, Manchester; Dr. J. Moore, Dublin; Dr. J. Dobbie, Glasgow; Mr. E. R. Morgan, Neath; Dr. J. Bell, Edinburgh; Mr. J. Campbell, Boston; Dr. J. M. Bryan, Northampton; Dr. Sibbald, Edinburgh; Dr. J. Dougall, Glasgow; Dr. J. W. Cousins, Southsea; Mr. J. Hall, Preston; Mr. H. Williams, London; Mr. J. Haddon, Manchester; etc.

## BOOKS, ETC., RECEIVED.

Clinical Lectures and Essays, by Sir James Paget, Bart. Edited by Howard Marsh, F.R.C.S. London: Longman, Green, and Co. 1875.

Cyclopædia of the Practice of Medicine. Vols. i and ii. By Dr. H. Von Ziemssen London: Sampson Low and Co. 1875.

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# ABSTRACT OF CLINICAL LECTURES

DELIVERED AT

# ST. BARTHOLOMEW'S HOSPITAL.

BY

SIR JAMES PAGET, Bart., D.C.L., LL.D., F.R.S.,
Consulting Surgeon to the Hospital.

## II.—ON THE MINOR SIGNS OF GOUT IN THE HANDS AND FEET.

THE design of the present lecture, Sir James Paget said, would be to point out how gout appeared in its minor degrees, in its less complete forms, in cases with which, on the whole, surgeons had more to do than physicians. But, thus beginning, he felt a certain danger lest he should seem to teach that any one of the minor signs of gout was by itself enough to prove that the person in whom it existed had a gouty constitution. Chalk-stones, excess of uric acid in the blood, or well marked gouty inflammation of any part of the hand or foot, might be characteristic beyond all question; but he wished to be clear in saying that, of all the things of which he was now to speak, he was not sure that anyone alone could be absolutely relied on. In respect to these minor signs of gout, diagnosis must rest on a number of the smaller features of the case carefully collected and fitted together. When, however, many of them were seen at the same time or in quick sequence in the same person, it became nearly as certain that he had some degree of gout as it would be, if he had well marked gouty inflammation of the great toe, that he had the gouty constitution in its most complete form. This view of the subject was forcibly illustrated by a case he had to see immediately after the last lecture. It was that of a gentleman who had an acute inflammation of the testicle, attended with all the usual local and general symptoms. Now, here clearly enough was an acute orchitis; but orchitis, taken alone, meant very little. In order to cure the affection, we must know whence it was derived, and what was the patient's constitutional condition. Looking, then, through this patient's case, no local cause could be found. He had received no injury; there were present no signs of calculus in the kidney, or of one having passed through the bladder and irritating the urethra; or of inflammation of the prostate or of the urethra: in short, careful inquiry failed to detect any of those conditions which, either by the spreading of inflammation by continuity, or by reflex irritation through the nervous centres, or in any other way, could be supposed to lead to an orchitis. Was it, therefore, to be called a case of simple orchitis? Now, let it be remembered that there was, in fact, no such thing as a simple inflammation; to use such a term was to speak of an effect without a cause. Inflammation of an organ must be due either to some local or to some general cause. It thus became necessary to look for some general or constitutional origin for the local affection. In answering questions that were asked with reference to this point, the patient declared himself to be a perfectly sound man, never having had an illness in his life. But he mentioned that he had lately been annoyed with a pain in his heel—no very important thing, it seemed to him—it did not lay him up, still it teased him enough to make him go to a surgeon about it; then not unfrequently, on awaking in the morning, he felt pains darting through his knuckles, and sometimes his fingers and toes felt rather stiff, so that he had a little trouble when he first awoke to get them into easy movement. He had also frequently had cramps during the night in the muscles of the calf and elsewhere; he had suffered, too, a good deal from indigestion, attended with flatulence; and, lastly, he had been troubled with painful erections, which often disturbed him twice or three times in the night. Now, although not one of these five or six things would be enough, if taken alone, to prove anything, yet their coincidence or quick succession was quite sufficient to show that the patient had a gouty constitution. Then, in answer to a question as to his family history—a point that should always be left to the last—he admitted that some of his relatives had been treated for gout, though he did not think any had had it badly. It might be uncertain what danger this patient was in of having an attack of typical gout; but there was quite evidence enough, under the circumstances of his case, to indicate clearly that the cause of his orchitis was gout, and this belief was confirmed by the result of the treatment that was used. Such cases as this were commonly called suppressed or irregular gout; but perhaps they were best termed incomplete gout, as this would imply that they occurred in persons in whom the gouty constitution, although present, was not so complete as to produce a typical form of the disease.

In reviewing the lesser gouty affections, those that occurred in the hands and feet would be taken first. Although it would not perhaps agree with any strict classification in morbid anatomy to say so, yet gout seemed to be a disease which affected not only particular textures, but also particular parts or places. And this was a point worth careful study in the pathology not only of gout, but of other diseases too. A very large proportion of the first attacks of complete gout were in the toe or foot; and, in those patients who were completely gouty, a very large proportion of all the attacks throughout life occurred in the same parts. And the same was true, again, of the incomplete forms of the disease. Now and then, particularly after errors of diet, darting and shooting pains were felt in the knuckles; or gouty persons, on waking, found their feet, or more commonly their hands or fingers, stiff and slightly aching, and moving with some slight difficulty. Still more suggestive were pains at the heel. It might be taken almost for certain that, if a patient who had suffered no previous injury, complained of lasting pain at his heel, he had either incomplete gout or some intensity of lithic acid in the urine, or a renal calculus; for pain in the heel was often a remarkably prominent symptom in the latter affection. Of course, it was not meant that no further inquiries should be made, but only that pain at the heel ought to suggest gout, and lead to further questions on the point. Similarly, pain in the tendo Achillis, especially in elderly persons who had sustained no injury, was due, with very few exceptions, to some degree of gout. So, too, although the subject would be again referred to, numbness and tingling of one or two of the toes or fingers were very suggestive of the same disease.

Something would now be said of the characteristic forms of distortion of the fingers and toes connected with gout. It might almost be held that in trying to make out what was wrong with an elderly man, it was as important to look at his hands as at his tongue, for in his hands would often be found evidences of gout in its minor, or in some persons, indeed, in some of its most acute degrees. The same evidences occurred, though with less frequency, in the feet and toes. In the knuckles were two chief forms, one of which was more especially characteristic of gout; the other of rheumatic gout of the most chronic kind.

It was sometimes found that all the knuckles, but sometimes one, and sometimes two, were swollen out in a spheroidal or ovate manner, not very nodular, but largely lobed, with very little swelling beyond. These were commonly tense in the skin, glossy and shining, and frequently the skin was devoid of hair. There might be a comparatively healthy condition of the phalanx, and then at the next joint there came out another swelling. These were the forms which were usually attendant on chalk-stone; the complete deposits of urate of soda. They were for the most part diseases of the synovial membrane, which furnished the urate of soda secretion, and subsequently of the fibrous textures external to the joint. These, too, were very commonly attended with distortion of the fingers, especially in that form which was seen in elderly persons. All the fingers were everted, and there was some eversion also of the metacarpus.

A patient was here shown, in whom these changes were so typically marked that they could not be mistaken, but Sir James Paget cautioned his hearers against the danger of overlooking these appearances when they were present in only a minor degree. Another form exhibited the disease not in the synovial membrane and surrounding textures, but in the extremities of the bones, which became enlarged and nodular. Instead of being oval or spheroidal, the swelling came with a sudden bulge, the articular end of the bone being broadly expanded, not generally enlarged, but flattened upon the dorsal surface, while the intervening parts of the finger were healthy. Between these two forms there were all possible varieties; and it must be repeated that, so far as their morbid anatomy could be traced, the one was a mark of gouty disease of the synovial membrane with subsequent inflammation of the surrounding textures, but with comparatively little affection of the articular cartilages, except when they became covered with urate of soda; and the other was a condition in which there was not so much an affection of the synovial membrane as of the articular parts of the bones, which became nodular, broad, and expanded, and the cartilages wasted with fibrous degeneration, while the synovial membrane might remain comparatively healthy. These, for the most part, were attended with much less distortion of the fingers than were the diseases of the synovial membrane.

Sir James Paget here introduced two patients, the first of whom, he said, presented as marked a case of gouty inflammation of the hands as could well be seen, and there could of course be no doubt about the diagnosis. The disease affected the carpus and the sheaths of the tendons, and the poor fellow was quite unable to use his hands; but there was no distortion, only synovial fulness from inflammation of the sheaths of the tendons, and thickening and deposit of urate of soda in the textures external to the joints. The other case showed what the disease was when it existed in a less marked degree; the swelling of the fingers was large, roundly oval, comparatively smooth, and with little or no hair, and the fingers were rather hot, as if with a recent access of inflammation. Now, even one such finger would be enough to suggest a gouty constitution in any person in whom it was seen. After specimens had been shown illustrating the formation of chalk-stone, and the effect of long-standing gouty inflammation of the articular ends of the phalanges of the fingers, Sir James Paget pointed out two hands from the museum, which had been removed from the body of an old woman who had suffered severely from rheumatic gout. The synovial sheaths were greatly thickened, and occupied by a large deposit of urate of soda, and the fingers had a remarkable look of being shortened. This appearance, however, he believed, was due not to their being really shortened, but to their thickened and swollen condition, and to the way in which they were all compressed together. Another feature to be studied in gouty hands was the formation of abnormal bursæ. They were most commonly met with over the articulation, between the first and second phalanges of the fingers. The joint itself might be quite healthy, and perfectly movable; and the general outline of the finger was unaltered, but just over the articulation an abnormal bursa formed. This soon became thickened and hardened, and almost rigid, and all the integuments over it grew thick and dense, so that a considerable nodular mass was the result; not, however, let it be observed, connected at all with a diseased articulation, but situated only in the subcutaneous tissue just beneath the integuments. Lastly, an indication of gout might sometimes be found in the shape of a little cyst over one of the articular surfaces, most commonly between the first and second phalanges of the thumb, filled, as might be ascertained, if the mistake of puncturing it were committed, with a perfectly pellucid, yellowish, tenacious fluid. A cyst of that kind formed over one of the phalanges of an old person was as characteristic of a minor degree of gout in him, as the formation of chalk-stone was characteristic of complete gout in another patient.

Here, then, were some of the chief signs by which the minor degree of gout in the fingers and toes might be known: the true, globular, rounded, and hot gouty joints; the flattened form of the more chronic or rheumatic gout, the collection of chalk-stone in inflammatory swellings, the bursæ and thickened integuments over the knuckles, and the little cysts filled with transparent yellowish fluid; all these were good signs to hold by. There were two joints, more especially, in which these signs might be looked for; one was the articulation of the great toe, even in persons who never had an acute attack of gout; the other was the articulation between the carpus and the metacarpal bone of the thumb. These were the places that gout seized on in the case of persons who might have had it nowhere else, and its grasp was most tenacious.

Attention was next drawn to certain gouty conditions which affected especially the palmar fascia, and sometimes, in the same manner (though usually in a much less degree), the plantar. A number of old people were seen with their fingers drawn down to the palm, especially the little finger and the next, sometimes on one hand, sometimes on both; and, if they lived long enough, they might have all the fingers affected, though the forefinger was usually very slightly involved. This condition was often characteristic of gout; but it must be clearly understood that, in a certain number of persons, it was due entirely to occupation. Any man who was in the habit of pursuing an occupation which involved constantly the grasp of anything, especially with the little and the ring fingers, was very likely to get a thickening and subsequent contraction of the palmar fascia. He had been told that a very large proportion of the elder men occupied in wire-drawing and lock and key making—in all of which they held pliers from hour to hour in their hands, pressing very hard upon the palmar fascia—were subject to this condition. Another class of men, gardeners, got it not unfrequently; and so did persons who used ill-made walking sticks, with plain knobs at the end, which pressed upon the palmar fascia. All those cases which depended upon occupations that involved repeated pressure upon the hand must be set aside; and so must all cases of scars in the palm following wounds or abscesses, together with those in which one or more of the flexor tendons, from whatever cause, drew down the fingers, and led to contraction. But separating the cases due to occupation, to injury, to deep-seated palmar abscesses, and to contraction of the tendons, there remained a considerable number of persons with contracted fingers; and when these contractions depended upon disease of the palmar fascia, they were almost always significant of a gouty constitution. The disease upon which they depended, let it be observed, was, in its first condition, a disease of the palmar fascia; but it involved always in its course the adjacent sheaths of tendons and the integuments. Here was a point of diagnosis. The tendons of the foot or the hand might be contracted to ever so great a degree, and the distortion consequent might be in proportion; but if the integument over the contracted tendons were sound, it was not necessary to suspect gout. But in these cases of gouty inflammation, the integuments firmly adhered to the palmar fascia, and the fascia firmly adhered to the sheaths of the tendons beneath: this was gout generally, not of a texture alone, but of a place; it affected all the tissues alike.

These cases of contraction of the fascia about the fingers and toes were things to be much studied (especially in regard to the toes) in their relations to the inveterate troubles produced by bunions and corns in elderly gouty persons. Every contracted toe formed a projection against which some part of the boot was constantly rubbing; and as the contraction progressed, unless the patient changed his boots twice or three times in the year, his trouble was perpetually increased.

Before leaving this subject of the affections of the fingers and toes, a word might be said as to what could be done by way of local treatment. For the distorted and enlarged knuckles characteristic of gout, there was really scarcely anything to be done, except that, in each one of the fresh attacks of gouty inflammation, the joints should be treated with very gentle compression, with wet linen and oiled silk; then for the relief of the swelling and induration left behind, a moderately firm bandage should be used, so as to keep up steadily some amount of pressure on the joint for two or three, or five, weeks after the attack. In this manner, a number of persons could keep their joints in much better order than if they were left to themselves. When the contraction of the joints ensued, and there was great deformity, it almost looked as if they could be remedied by apparatus for extending or bringing them into place; but really apparatus of this kind could not be borne upon the hand, except in a few instances of lesser degree of flexion; then they might be worn with some advantage at night; but, as a very general rule, no great good could be done by this treatment. The contraction of the palmar fascia, however, was a thing that could be prevented, if not cured. In the large majority of persons, if, as soon as any contraction, accompanied by induration and a tucking-in of the integument, was noticed, the hands were kept well extended several times a day by stretching them, and spanning them on a table, or on some similar flat surface, they might be kept quite right. Several extensions of the fascia in the course of the day would generally suffice to prevent extreme contraction of the hand; but if this did not suffice, apparatus should be worn which would keep up the extension during the night. Such an apparatus was not difficult to make; it might be fitted over the dorsal part of the forearm extending over the fingers, one branch being carried over each of the flexed fingers, with elastic rings fixed on them. A moderate amount of extension in this way, during the night, would prevent great contraction—prevent, not cure. When the fingers were thoroughly drawn down, treatment seemed very nearly useless. The division of the tendons had been frequently practised, but had almost invariably failed; for it could cure a very small and comparatively insignificant part of the disease, which had its seat not only in the tendons and their sheaths, but also in the fascia and the integuments; and as many times as he had seen these parts cut, in the hope of keeping the hands subsequently extended, it had been found that, within six months, the contraction had reached the same extent as before, or had even become worse. It looked as if they should be cured in the same manner as contractions produced by burns might be—by transplantation of skin, or by skin-grafting; but new palmar fascia could not be so provided. In short, operative treatment would generally lead to even a worse state of things than that which had existed before it was resorted to.

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TTHE "HAMADRYAD" SEAMAN'S HOSPITAL.—There has been a large increase in the number of patients treated in this hospital during the year 1874 as compared with the previous year. The in-patients were 460, and the out-patients 2,846. Notwithstanding this fact, the income has been considerably increased in almost every item of receipt, and the institution started this year with a balance in hand of £418 12s. 9d. This prosperous state of the finances enables the Committee to make some provision for the permanent building on shore, by which they hope, at some future to day, to replace the present hospital ship; for, however admirably the latter has been adapted to its purpose, it is generally acknowledged to be only a temporary arrangement. The Committee, in their recent report, call attention to the fact that a large number of British ships refuse to contribute to the funds of the Hospital. In the month of December, there were no fewer than 113 refusals on the part of British ships, while there were only two on the part of foreign ships. This is a very noticeable fact. The Report concludes with careful medical tables, showing the diseases treated at the hospital during the year, the nationality of the patients, and other interesting matters.

# ON THE CAUSATION OF PUERPERAL CONVULSIONS.*

By A. L. GALABIN, M.D.,
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In any case of convulsions, under whatever circumstances it may arise, even the most careful study of the phenomena of the paroxysm affords little or no ground for inference as to the pathological process upon which they depend. Hence, even if the primary cause of any form of eclampsia be fully ascertained, there will still remain great difficulty in tracing the immediate antecedents of its outward manifestation. Nevertheless, it will be well to preface a brief consideration of puerperal convulsions by recalling the very few points which are known as to the pathology of convulsions in general. From the facts of physiology, it may be inferred that the immediate cause of the motor disturbance is a spasmodic and irregular discharge of nervous energy from the ganglia at the base of the brain, acting in conjunction with the medulla oblongata and spinal cord. Since in general those muscles are earliest and most strongly affected which are paralysed in hemiplegia due to disease of the corpus striatum, there is some reason for thinking that the corpus striatum may be the chief source of the paroxysmal discharge. In most cases, no organic changes are found in these parts on inspection; and, therefore, a convulsion is a phenomenon which points not to destroying lesion, but to instability of the nervous centres, resulting from some change in their structure too delicate to be recognised, which, therefore, falls within the definition of *functional*. Since unconsciousness generally accompanies the convulsion, we know that the cerebral hemispheres, as well as the motor centres, take part in the disturbance. For the determination of the question, Which of the centres takes the initiative in the explosion? some assistance may be derived from the experiments which are made for us by disease or by accident. When convulsions are the result of manifest organic changes in the brain, such change, in the great majority of cases, affects the grey matter of the convolutions on the surface. Thus, they are produced by tubercular or traumatic meningitis, by meningeal hæmorrhage, by tumour or abscess near the surface, and by syphilitic deposits, which almost invariably take place on the surface. Moreover, Dr. Wilks, in the *Guy's Hospital Reports* for 1866, has recorded a series of cases in which a disease, exactly similar in its manifestations to idiopathic epilepsy, was found to be associated with old standing disease of the membranes. On the other hand, disease or hæmorrhage in the central ganglia produces not convulsion, but paralysis. It is reasonable, therefore, to conclude from analogy that, in all epileptiform attacks, even when not due to any visible lesion, the irritation commences at the surface of the convolutions; and that in a convulsion, just as in voluntary motion, the energy of the motor centre is called out by a stimulus transmitted from the cerebral hemispheres.

It is more difficult to arrive at any certain conclusion with regard to the intimate nature of the process which takes place in the nerve-centres at the time of the convulsion. But the general principle is now accepted, that instability of nervous energy is a sign of enfeeblement of functional capacity. Further, we have the results of experiments on animals, showing that convulsions are produced by hæmorrhage, and the observation of Brown-Séquard and others, that, at the onset of an epileptiform fit, the nervous centres of an animal subjected to experiment become pale, instead of showing signs of congestion. This agrees with the fact that, at the commencement of a fit in the human subject, the face is pale, while the venous congestion which follows at a later stage is secondary to the muscular spasm and the interruption to respiration. It is, therefore, pretty certain that, at the outset of a fit, the state of the motor centres is that of anæmia rather than of congestion; and there is, at least, considerable probability in the hypothesis of Dr. Russell Reynolds, that the immediate antecedent of the convulsion is a spasmodic contraction of the small arteries of the brain, as well as those of the face and other parts. It would not, however, necessarily follow from this that, as he supposes, the seat of primary derangement is in the medulla oblongata, for the vaso-motor centre may itself derive its irritation from the cerebral hemispheres.

With regard to the primary cause of puerperal eclampsia, since its association with albuminuria was first discovered by Dr. Lever in 1843, the conclusion has been generally accepted that, in the great majority of cases, the most important element in its causation is uræmic poisoning of the blood. It is not difficult, on this view, to account for the fact that convulsions are much commoner, and form a much more predominant symptom, in this than in other forms of uræmia. For, in the first place, there is constantly at work during pregnancy, and especially at the time of labour, a reflex nervous irritation. The importance of this is shown by the fact that, out of all the cases of puerperal convulsions, more than half make their first onset while labour is actually proceeding. And, in the second place, there is in pregnant women, as in children, a special liability to irritation from physical or emotional causes, and hence a proclivity to nervous diseases marked by convulsion. In his Lumleian lectures, delivered in 1873, Dr. Barnes has ably shown how this exalted state of reflex irritability is associated with the altered nutrition which is induced in the nervous centres by pregnancy, so as to provide a due supply of nerve-force for the work of parturition. The mode in which the effect of toxæmia may be combined with that of nerve-stimulus may be illustrated by the physiological action of those poisons, whose tendency is to produce convulsion. For, in the case, for instance, of strychnia, a dose of such an amount may be given to an animal that no convulsion is produced so long as it is kept perfectly undisturbed, but the slightest stimulus is sufficient to produce spasm.

With respect, however, to the association of albuminuria with puerperal eclampsia, a most important question was raised by Dr. Braxton Hicks, in a paper brought before the Obstetrical Society in 1867. In this four cases were recorded, in which the urine examined before the onset of the convulsions, or immediately after the first fit, was free from albumen, while that passed a few hours later was highly albuminous. In one of the cases, in which a microscopic examination of the albuminous urine was made, it was found to contain waxy and epithelial casts and blood-corpuscles. Hence, a doubt is suggested by Dr. Hicks, whether the view which attributes eclampsia to uræmia may not be erroneous, and the true explanation be one of two alternatives, either that the nephritis and the convulsions are produced by the same cause, namely, some detrimental ingredient circulating in the blood, or else that the convulsion is primary, and that the albuminuria is due to the venous congestion produced by the spasm. The latter alternative had already been maintained by several German and French authors, and especially by Scanzoni. As regards the matters of fact of the absence of albuminuria at the earliest stage, statistics of a considerable number of cases would be desirable. But in the present paper I can only attempt to bring before you two or three cases of puerperal eclampsia and other forms of convulsions which have recently come under my notice, and to make them the text for a few remarks as to the connection of eclampsia with uræmia and some other points in its pathology. I hope that the experience of some who are present to-day may afford further data bearing upon the questions at issue.

I would remark, first, that the albuminuria is not simply a passive transudation, the result of congestion, but it is the manifestation of a nephritis, generally of an acute character. This is apparent, even from the cases of Dr. Hicks, in which albumen was absent in the early stage, and it is still more evident when the more crucial test of *post mortem* evidence is applied. In the maternity charity of Guy's Hospital, we have very rarely the opportunity of making *post mortem* examinations; and, therefore, I will refer to the results published by Professor Braun of Vienna, whose experience is wider than that of most individuals, including fifteen fatal cases of puerperal eclampsia, in which an inspection was made. In seven of these, the kidneys were examined microscopically, and evidence of nephritis found. In the remaining eight the microscope was not used, but the appearances to the naked eye were those of the first or second stage of nephritis. Again, out of four fatal cases recorded by Bourneville, parenchymatous nephritis was found in one; and in the remaining three the appearances of acute tubal nephritis, namely, an opaque, swollen, yellowish white cortical substance and deeply congested pyramids.

In a considerable number of cases, we can be quite certain that the nephritis is antecedent in point of time to the eclampsia, for its result in the shape of œdema is manifest for a longer or shorter interval before the onset of the fits. In some, the albuminuria is detected, and the eclampsia is looked forward to with dread for months before it actually occurs. If, therefore, nephritis is the primary cause in some cases, it is *à priori* unlikely that the relation of cause and effect should be inverted in the remainder. Again, if even a passive exudation of albumen were a secondary effect in puerperal convulsions, we should expect that albuminuria would also be produced by other epileptiform fits. It has been supposed by some that this is the case in epilepsy, but evidence appears to show the contrary. While taking temporary charge of the Cambridgeshire Lunatic Asylum, which contained many epileptics, some of whom had violent fits many times in the day, I took the opportunity of observing the effect of the fits on the urine and on the temperature. I did not find albumen in a single case; and, in respect of temperature, I found in most cases a moderate elevation, perhaps not more than might be due to the effect of muscular action, and never passing beyond 100.5 deg. The absence of albumen was also noted in the following case, of which I will give brief notes, since, in its course and in its fatal result, it has a close analogy to some instances of puerperal convulsions.

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* Read at the Meeting of the East Surrey District of the South Eastern Branch.

Jane V., aged 11, was suddenly attacked by an epileptiform fit at 6 P.M. on November 27th, 1873. She had never had fits previously, except that, when an infant, she had a severe attack of convulsions during dentition. As she remained insensible after the fit, she was at once brought to Guy's Hospital. On her admission, she was completely comatose; respirations 48, rattling; pulse 136; temperature, 100.3 deg. She remained in this condition without any recurrence of convulsions until about midnight, when another fit occurred, and from that time they became gradually more frequent. At 1 A.M., the temperature was 103.7 deg.; pulse 156; respirations 64. At 9.30 A.M., the venous congestion, which had all along been marked after each convulsion, began to remain permanently through the intervals. Temperature, 105.7 deg.; pulse 168; respirations 56. The urine was withdrawn by a catheter at this time and examined. Its specific gravity was 1024, and it was loaded with urates, but contained no albumen nor sugar. At 12.10, the temperature was 108.2; at 12.45, 109.1 deg., and at this time the convulsive movements were becoming almost continuous, and the venous congestion was extreme. A vein was opened in the arm, but only four ounces of blood could be procured. The effect, however, was that the convulsions ceased, and the temperature in axilla fell to 103.8 deg. She died, however, half an hour later. Three quarters of an hour after death, the temperature in the vagina was 109 deg. *Post mortem*, nothing abnormal could be detected in the brain, kidneys, or any other organ.

This case seems to be one in which it might be expected that albuminuria would have occurred, if convulsions were capable of producing such a result. The most remarkable feature, however, is the occurrence of hyperpyrexia; and in this respect, as well as in the duration of its course up to the fatal issue, it has a close resemblance to the following case of puerperal eclampsia.

Eliza H., a primipara, aged 20, a patient in the Guy's Hospital Charity, was attended by an extern, and was delivered about 3 A.M. on November 23rd, 1874. About ten minutes after the birth of the child, she had a convulsion, but soon regained consciousness. At 10 A.M., she had had five more fits, and had become unable to answer questions, but her pulse was only 65, and her state did not excite the extern's alarm. The fits afterwards became more frequent, and the patient's friends, not finding the extern at home, instead of sending to the hospital, called in another medical man. In this way, it happened that she was not seen by the obstetric resident until 7 P.M. At that time, he found her completely comatose; temperature in axilla, 107 deg.; respirations 65; pulse 130. The urine, obtained by a catheter, was dark, contained a large quantity of albumen, and many granular and hyaline casts; specific gravity 1021. The surface of the body was then sponged with water at 95 deg. Fahr.; and in this way the temperature in the axilla was reduced to 104 deg.; but the temperature in the vagina was found to be 108.8 deg., almost exactly the same point as that reached in the case last recorded. In the meantime I had been summoned, but on my arrival I found the patient had just died. No necropsy could be procured.

I have not been able to find any reference to the temperature in puerperal eclampsia in the English text-books on the subject; but in several other cases which ended in recovery I have found a considerable but not an extreme elevation. I will give very brief notes of one of them.

On January 13th, 1873, I was called to a primipara, aged 23, who had had a convulsion an hour and a half after delivery. The urine was withdrawn by a catheter, and was found to be loaded with albumen, and to contain numerous hyaline and epithelial casts. There was no œdema at that time nor previously. Temperature 101.8 deg.; pulse 104. The patient was quite conscious, and was treated by a thirty-grain dose of chloral, two other similar doses being given at intervals of four hours. She had one more fit about two hours later, after which the temperature was noted to be 102.6 deg.; pulse 110. The convulsions did not recur after this, and the temperature gradually returned to its normal value. At the end of five days, the urine was quite free from albumen.

Some remarkable observations on temperature in puerperal eclampsia have lately been published by Bourneville, which tend to show that there is always considerable elevation, and that the hyperpyrexia which occurred in the instance which I have recorded is not exceptional, but is the rule in fatal cases. Bourneville reports five cases in which recovery took place, and three which were fatal. In the former, the temperatures reached were respectively 104.4, 102.6, 104.4, 103.1, 102.4 deg. In the fatal cases the temperatures continued increasing up to the time of death, while the patient remained comatose, and the maxima reached were 109.6, 106, 108.6 deg., so that in one of these a somewhat higher point was reached than in the two cases of hyperpyrexia associated with convulsions which I have recorded.

It appears to me that these facts lead to a practical conclusion, the importance of which has not yet been recognised. I think that we may derive the lesson, that in the treatment of puerperal eclampsia the thermometer should be constantly used, and that its indications will afford an important guide to the gravity of the peril. Moreover, it may be concluded that, if the temperature should rise as high as 105 deg., recourse should be had to baths or to sponging the surface of the body, in addition to the use of chloroform. In the somewhat analogous case of hyperpyrexia in acute rheumatism, experience has already shown that by cooling the body some patients may be saved who would otherwise inevitably have died.

A remarkable contrast in respect of temperature between puerperal eclampsia and other forms of uræmia appears from the observations of Bourneville and others. In uræmia, with coma, there is generally a depression of temperature, which in some cases is very considerable. Dr. W. Roberts records a case of uræmia from granular kidney, in which the temperature ranged between 94.6 and 96.6 deg., and another of suppression of urine from a calculus impacted in the ureter, in which it fell to 97 deg. Bourneville reports three cases of uræmia with coma, in which the temperatures reached were 86.2, 86.6, 91.6 deg. These temperatures were taken in the rectum, and all the cases were fatal. In two cases recorded by Bourneville, in which uræmia was accompanied by convulsions, the minima of temperature were 98.2, 95.8 deg. The depression was, therefore, not so great as in uræmia without eclampsia. My own observations, so far as they have gone, indicate a similar conclusion, although I have never found so considerable a diminution of temperature. In two cases of uræmia with coma, ending in recovery, I have found a temperature in the axilla ranging from 96 to 97 deg.; and in two cases of uræmia with occasional convulsions, in which recovery also took place, a temperature of from 97 to 98.5 deg. The explanation may probably be that convulsions have a tendency to raise the temperature, and uræmia to lower it, and thus the occasional eclamptic attacks in ordinary cases of uræmia only serve to modify the depression. In puerperal cases, however, on account of the increased susceptibility of the nervous system to irritation, a very slight amount of uræmia, especially when it is not the result of chronic disease, but arises suddenly, and so finds the system unprepared, is sufficient to produce an extreme degree of the convulsive state. Thus, the latter condition predominates, and the temperature is elevated. In cases of ordinary epilepsy, the observations of Bourneville agree with those made by myself, to which I have before referred, in showing that a decided, but not considerable, elevation of temperature generally occurs.

I will add a short account of another case of eclampsia, fortunate in its issue, which, like the others, shows an elevation of temperature, and which also affords evidence as to the state of the vascular system at the time of the convulsions.

Emma C., aged 42, a pluripara, having previously had seven children, had never had convulsions in any former labours. On October 3rd, 1874, when about eight months pregnant, after slight premonitory symptoms of headache and malaise, she was found in a fit of convulsions, which lasted about five minutes, and left her in a semicomatose state. She had noticed slight œdema of the ankles a fortnight previously. During the day, she had four other fits; and at 4 P.M. was brought to Guy's Hospital. On admission, her face was puffy, and complexion sallow and anæmic, resembling that seen in Bright's disease. She was quite unconscious, the eyes staring and vacant, the pupils dilated and almost insensible to light; the extremities were cold; pulse 96; temperature in axilla 101.2 deg. A fit occurred soon after her admission, and another half an hour later. The urine was drawn off by a catheter, and found to be highly albuminous; specific gravity 1010. No casts were found. In the absence of Dr. Braxton Hicks, I was summoned to see the case. I directed a castor-oil injection to be given, and chloroform to be administered. This was at first given fully, and afterwards was occasionally resumed whenever she became very restless. At this time, I took a sphygmographic tracing of the pulse. The instrument was with difficulty applied before chloroform was commenced; but, from the struggles of the patient, it was impossible to obtain a satisfactory tracing. From watching the movements of the lever, it appeared that the amplitude of the pulse was small, and that it required a pressure of six ounces, the usual pressure required for a healthy pulse being about three ounces. When chloroform had been partially given, a tracing was obtained at a pressure of three ounces, showing a broad rounded systolic summit, which denotes a prolonged systole of the heart, generally due to obstructed outflow from the arteries. When chloroform had been fully given, the pulse took a pressure of only two ounces, and the trace was more ample and more dicrotic. Hence, the chloroform produced a rapid lowering of the excessive arterial pressure.

At 8 P.M., the patient was still insensible, although much quieter; temperature 102.3. The os uteri was high up, and just admitted one finger into the cervical cavity. I then decided to commence the induction of premature labour, which I did by rupturing the membranes with a stylet.

At 11 P.M., the fits had not recurred; she was somewhat more sensible, and occasionally answered questions when addressed. The labour had not made any advance. Temperature 99.2; pulse 108. At 9 A.M. on the 4th, she had no more convulsions, and was much more sensible. The urine was very slightly albuminous; specific gravity 1015. At 5 P.M., the os was high up, and not more dilated; the vertex was not presenting, but the presentation could not be fairly made out. No pains had occurred. At 9 P.M., the obstetric resident was summoned, and found her in a wild, excited, semiunconscious state, with both feet of the child protruding from the vulva, the cord not pulsating. Chloroform was given, and in a few minutes the head was extracted. No more convulsions occurred; and on the 8th, the urine contained no albumen nor casts; specific gravity 1020. She recovered rapidly.

It is to be noticed in the course of this case that a considerable improvement followed the use of chloroform; but a still more decided benefit from the diminution of nerve-irritation obtained by the reduction in size of the uterus at the escape of the liquor amnii, although labour did not come on until twenty-four hours later. The temperature had continued to rise after the use of chloroform, but fell three degrees in three hours after the rupture of the membranes. The chief reason, however, for which I bring it before you, is because it shows that high arterial tension existed at the time of the convulsions, and before chloroform was administered. Now, it has been shown by the use of the sphygmograph, that the same state of the vascular system exists in chronic, and to some extent even in acute Bright's disease. It is attributed to a resistance to the circulation of the blood, either directly the consequence of its altered quality, or due to a spasmodic contraction of the small arteries, set up by its irritating effect. Now, in several cases of uræmia, arising in the course of chronic or acute Bright's disease, I have found that while the temperature was diminished, the pulse became rapid; but, at the same time, the sphygmograph showed that it remained non-dicrotic, and bore a pressure sometimes greater than before, and considerably greater than normal. As a rule, when the pulse becomes rapid, it becomes dicrotic and compressible. Thus it seemed, that during the uræmic state, there was a still further enhancement of that elevated arterial tension which is usual in Bright's disease, and the condition in the case of puerperal eclampsia just related was somewhat similar. It is possible, therefore, that in this circumstance may be found some explanation of the beneficial action of chloroform, which in that case produced, as it usually does, arterial relaxation. It probably acts by soothing the irritability of those nervous centres which excite the spasmodic action of the vaso-motor nerves, and either through their instrumentality, or by other means, produce convulsions and coma. A diminution of arterial tension is also one of the results of bleeding, and perhaps it is in this way that venesection has proved beneficial, as well as by causing that diminution of temperature which is known to be at least a temporary effect of the abstraction of blood. The dictates of fashion have now declared decisively against bleeding in puerperal convulsions, and no doubt it is true that, in chloroform, there has been found a less injurious means of relaxing arterial spasm, and probably in the application of cold a better mode of reducing the temperature. Nevertheless, it seems probable, that in those cases in which venous congestion has become continuous, and the temperature is rising to a high point, venesection may still be found useful to relieve the strain upon heart and lungs; while, at the same time, it tends to lower temperature and decrease arterial tension. If time allow, however, a considerable part of the same effect, including that of the removal of some of the morbid matter in the blood, may be obtained by free purgation.

With the increase of arterial tension in puerperal eclampsia may be associated the fact that such an increase of tension in minor degree is a normal, or, at any rate, a common condition in pregnancy. This is indicated sphygmographically by an increase in the tidal wave in the pulse, and in the pressure required for its development. It seems to be attributable to the presence in the blood of some irritating material, so that its behaviour is like that of blood which kidneys, deficient in excretory power, have failed to purify. I think that this condition throws light upon the causation of nephritis in pregnancy. It has often been described as being due to mechanical pressure; but, although this no doubt takes some part in producing the result, yet there are several reasons for considering that it is insufficient in itself to account for the whole. For the nephritis, and even the convulsions, are sometimes found to occur as early as the third or fourth month of pregnancy, when pressure could produce little effect; and experience shows also that in cases of ovarian or other tumours, which may produce even greater pressure than pregnancy, albuminuria is very rare, and nephritis still rarer. Again, heart-disease may produce a still greater venous congestion, and albuminuria may result; but the kidneys do not show the signs of inflammation which are found in fatal cases of puerperal eclampsia. It would seem, then, that the nephritis of pregnancy is due in part to the presence in the blood of some deleterious material, which also causes an elevation of arterial tension. It has been shown by Mr. Mahomed, in a paper read last year before the Royal Medical and Chirurgical Society, that a similar elevation of tension occurs in scarlatina, and forms a stage antecedent to that of albuminuria.

It is extremely unlikely, however, that in puerperal cases this injurious material in the blood should be developed so suddenly as to produce directly and independently both eclampsia and a fully developed nephritis within the space of a few hours. And the facts brought forward by Dr. Hicks, showing that the appearance of albumen in the urine in some cases does not precede the eclampsia, or even follow it after an interval of an hour or two, do not, when rightly considered, prove that nephritis is not the cause of the convulsions. For, although albuminuria is the chief available sign of kidney-disease, it is not necessarily, either according to logic or experience, its first effect. Thus we know that chronic degeneration of the kidney may exist for some time, and produce decided effects upon the system, before any albuminuria occurs; and, again, cases are known of scarlatinal dropsy, in which the dropsy precedes by some hours, or by even a day, the appearance of albumen in the urine. As, therefore, in that case, the failure in the excretion of water precedes the albuminuria, so, in the case of puerperal nephritis, may the loss of power to excrete solid matters.

I would draw, therefore, the final conclusion that there is much ground for the conjecture that the primary cause, both of puerperal eclampsia and of albuminuria, is the presence of some injurious matter circulating in the blood; but that there is strong evidence to lead us to believe that it is not sufficient by itself to produce the convulsions, until nephritis has actually commenced, although in a few cases it may not yet have reached the stage of albuminuria. It is to be remembered, at the same time, that now and then, although very rarely, cases of puerperal convulsions occur in which no albumen can be found in the urine either before or after the fits. The pathology of these would seem to be entirely different, and to be more nearly allied to that of ordinary epilepsy.

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## CASE OF CONGENITAL SYPHILIS, WITH ASCITES, IN A CHILD THREE MONTHS OLD: DEATH: *POST MORTEM* EXAMINATION.

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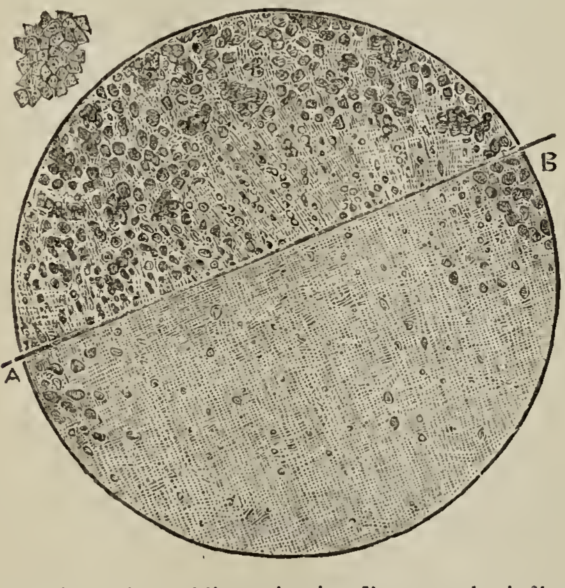
O. A. H., a boy aged three months, was brought to me at the Hospital for Sick Children in Great Ormond Street on April 24th, 1874. The child's face showed the yellow "bistre" tint very conspicuously; it had snuffles and much acrid discharge from the nose, which was excoriated. The buttocks and genitals were covered with a dark-red dry erythematous eruption. The legs and feet were highly œdematous, and the abdomen distended to a great size with fluid; the navel being very protuberant. The liver was large. The child was much emaciated, but this was so masked by the œdema that it had not been specially noticed by the mother. It was ascertained that the latter, a most respectable healthy-looking woman, had had two miscarriages, and four years ago had given birth to a stillborn child, which the doctor stated must have been dead for a month.

The child was said to take its food well, and supposed to be in fair health, but for the dropsy and the "thrush", or eruption on the genitals and buttocks. It was ordered a grain of grey powder every four hours, and mercurial ointment was directed to be rubbed in night and morning. When next seen, at the expiration of a week, it was reported to be better in every way. The œdema had decreased in a remarkable manner, and the ascites was also less. The extremely emaciated condition of the child, with the skin hanging in loose folds on its arms and legs, was now rendered very manifest by the subsidence of the dropsy. The same treatment was continued with apparent advantage, the dropsy regularly diminishing until the limbs were free from œdema. There was no purging, nor were the stools green, but the bowels were regular and the motions natural. On May 8th, however, a fortnight after its admission, it was seized with convulsions, and died the same evening.

*Post Mortem Examination.*—The body was extremely emaciated; the abdominal walls were very thin, with hardly any subcutaneous fat; fat had also almost entirely disappeared from the omentum. The muscles were pale and wasted. The lower lobes of both lungs were almost entirely empty of air, either atelectatic or collapsed, or fibrous, not congested. The upper portions were fully crepitant, and natural in appearance. The right side of the heart was distended with soft black clot; the left contracted and empty. On opening the abdomen, it was found to contain a large quantity of clear straw-coloured serum, free from flakes. The gall-bladder, cystic, hepatic, and pancreatic ducts were firmly matted together, and to the duodenum and transverse colon, by old firm adhesions. There were no signs of peritonitis elsewhere. There was no recent lymph. The liver was about the natural size, or a little enlarged, and its surface had a peculiar mottled appearance, marked out into lobular divisions by lines of lighter colour. It was irregular to the touch, the elevations being broad and flat, about the size of a split-pea, and but slightly projecting, yet perceptible enough to the finger. The interlobular markings were very distinct on section. The whole organ was extremely hard and leathery; the finger could not be forced through the tissue, even with hardest pressure. The right lobe was more extensively involved than the left, although the change pervaded the whole organ with tolerable uniformity. There were no patches or nodules of deposit. On the surface of the spleen there were one or two thickened opaque patches, and the Malpighian bodies were unusually conspicuous on section; otherwise the organ appeared natural. The kidneys were apparently quite healthy, as also were the mesenteric glands. The brain was not examined.

Microscopic examination of thin sections of the liver hardened in chromic acid disclosed most marked structural changes. The lobules were flooded by small fibro-granular deposit, which penetrated everywhere between the liver-cells, pushing them apart and pressing on them on every side. The gland-cells were, for the most part, shrunken and atrophied, and of all shapes and sizes, less than natural, in many places no larger than the normal nucleus. Here and there the liver-cells were little changed, yet pressed asunder from each other by the intruding element. In most parts, however, few liver-cells of normal appearance could be seen, the lobules being almost entirely occupied by the fibro-granular deposit and atrophied gland-cells. The cells generally were granular and turgid, and more rounded in form than the normal. Scattered about the most affected districts were patches or islets of granular deposit of varying size, often occupying a space equal to a whole lobule or more, and here no gland-cells at all could be discerned. In some of them, the material had the appearance of fibrillation; and the fibrous character was more distinct still at the free margin of a section where cells still remained imbedded. The infiltration was not confined to the interlobular districts. It pervaded the whole organ, flooding the lobules and swamping the cells. It was, however, much more abundant in some parts than in others, its distribution being irregular and patchy, yet no portion being entirely free.



Portions of two thin sections of liver, shewing fibro-granular infiltration of congenital syphilis. Above the line A. B. form a part where the change is less advanced than in the portion below the line, where the liver-cells have almost entirely disappeared. A group of normal liver-cells is represented at the side for the purpose of comparison.

In the lower lobes of the lungs, which, to the naked eye, had the appearance of being collapsed or atelectatic, the microscope disclosed other changes. Thin sections exhibited uniformly increased proliferation of the epithelial-like cells of the alveolar walls, which were in parts thickly beaded by them. In other parts, the septa were thickened, and the air-chambers narrowed by the addition of delicate fibro-nuclear material, developed from the alveolar wall. With this were mingled in varying degree the epithelial-like cells, resembling those seen lining the alveolar wall elsewhere. In places, the cavities of a number of contiguous air-cells were completely blocked up by the fibro-nuclear material, which in some parts resembled fibrin containing a few large alveolar cells, and others of smaller size. Microscopic examination of the kidney showed what seemed to be an unusual irregularity of size in the convoluted tubes of the cortex, with some blurring of certain parts, as if by granular material; but this condition could not be satisfactorily made out. Sections of the spleen showed nothing abnormal except a general cloudiness of structure. This might be due to granular infiltration, but its actual existence could not be demonstrated.

The appearances observed in the liver correspond, to a great extent, with the morbid changes described by Gubler in one form of infiltration of the liver observed by him in syphilitic infants, and the local peritonitis with similar conditions pointed out by Sir James Simpson as one of the consequences of intrauterine syphilis. The changes in the lung differed from those met with in ordinary catarrhal pneumonia by the smaller number of large cells, and excess of simple fibro-nuclear proliferation. Similar fibrosis of the lung is described by Cornil and Ranvier as occurring in congenital syphilis; and I have observed it in two instances in adults. In these, however, the change was much more extreme, and accompanied by nodules of gummatous deposit.

It will be seen that while the ascites is explained by the condition of the liver (which Gubler found to be in such cases almost impervious to injections by the portal vein), and by the local peritonitis causing pressure on the portal vein, the general dropsy is not accounted for by the lesions which were ascertained.

And yet marked general œdema is a not unfrequent accompaniment of extreme congenital syphilis.

# DIPHTHERITIC PARALYSIS:

## ITS NATURAL COURSE, PATHOLOGY, TREATMENT, AND RELATION TO PARALYTIC AFFECTIONS FOLLOWING FEVERS.[*]

By SIR JOHN ROSE CORMACK,
Chevalier of the Legion of Honour; M.D.Edin. and Paris; F.R.S.E.; Fellow of the Royal Colleges of Physicians of London and Edinburgh;
Physician to the Hertford British Hospital, Paris; etc.

[*Continued from page* 572.]

### PARALYSIS DURING AND AFTER SMALL-POX.

Various affections of the nervous system occur during the course of, or as *sequelæ* of small-pox. Sometimes the nervous centres are implicated; at other times, we have more or less transitory conditions of paralysis, such as are met with in diphtheria. According to Gubler, who has collected and commented upon a very interesting series of cases, the paralytic affections (as also the convulsions) which occur during the period of invasion or at the onset of the disease, are less dangerous than those which supervene at its termination or during convalescence. The paralytic affections, he remarks, which declare themselves at the period of desquamation, are more protracted and serious than those which declare themselves at the onset of small-pox, and those which occur at an advanced period of convalescence are of still longer duration and of a more intractable character. They are sometimes incurable when they become localised in the lower extremities. The following statement of Gubler is true and of great importance in relation to the whole subject now before us. He says: "Secondary paralysis following measles, scarlatina, and small-pox, are essentially connected with general asthenia; they disappear when it disappears under the influence of a regimen suited to restore the strength of the patient and recuperate his economy."[†]

Gubler quotes a very interesting case of paraplegia supervening during the incubation of small-pox, reported by Dr. Raoul Leroy d'Etiolles in the chapter of his work on paralysis of the lower extremities, which is devoted to the consideration of paraplegia in severe fevers. On the appearance of the eruption, the paraplegia ceased. Numerous abscesses formed, and there was a pellicular phlegmasia of the mouth and nasal fossæ. This state was followed by paralysis of the veil of the palate, difficult breathing, pneumonia, and death. At the necropsy, no lesion of the various centres could be discovered.

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[*] Partly read before the Medical Section at the Annual Meeting of the British Medical Association in Norwich, August 1874.

[†] Gubler (Adolphe): Des Paralysies dans leurs Rapports avec les Maladies Aiguës, et spécialement des Paralysies Asthéniques, Diffuses des Convalescents. (*Archives Générales de Médecine*, 1860, vol. i, p. 551.)

The following case (also quoted by Gubler) occurred in 1854 in Trousseau's service at the Hôtel Dieu of Paris. I give only a summary of the leading facts. The patient, a vaccinated subject, was attacked with confluent small-pox. During desquamation, she was seized with sudden and complete paralysis, and with less sensation in the lower extremities. The eruption, which was abundant, appeared on December 25th, and ran a normal course. On January 6th, she was convalescent, taking food, and able to leave her bed for two hours. On January 8th, she had loss of sensation and motion of the lower extremities and abdominal muscles, extending on both sides up to the breasts. The left superior extremity was likewise paralysed from the finger to the middle of the humerus. There was retention of urine. The respiration was very laborious and very rapid. On January 16th, there was orthopnœa, exceedingly quick breathing, and acute pain when pressure was made over the dorsal region of the vertebral column. There were likewise lancinating spontaneous pains in the cervical region. There was almost complete motor paralysis and absolute insensibility of the left arm. The anæsthesia of the trunk was mostly on the left side, where it existed as high up as the nipple. There was a total loss of voluntary motor power in both lower extremities, retention of urine, and incontinence of the fæces. On January 18th, the patient died. On that day, there was an apparent amelioration in the state of the patient; but afterwards, a fatal suffocative attack supervened. At the necropsy, it seemed doubtful whether there was any cerebral congestion; and not the slightest alteration could be detected in the membranes or substance of the brain.

Most probably, had this patient died at a later stage of the paralysis, lesions of the nervous centres would have existed. The duration of the paralysis has to be taken into account when we come to estimate the pathological significance of lesions of the nervous centres in cases of paralysis following diphtheria, small-pox, fevers, and other acute diseases.

The following case bears a remarkable similarity to cases of paralysis following diphtheria and terminating in recovery. It occurred in 1859 in the Hôpital Lariboisière of Paris, under the care of Dr. Pidoux, by whom it was communicated to Gubler, who published it in the memoir (p. 548) from which I have extracted the preceding case.

The patient was an unmarried healthy man, twenty-five years of age, who had been vaccinated. During the period of desiccation, he became affected with snivelling, and the drinks he took were returned by the nose. The veil of the palate floated like a flabby inert mass. The patient, it must be remarked, had not had any notable sore-throat in the course of the small-pox or during the period of invasion. The affection of the palate was soon succeeded by acute pains accompanied by cramps in the left triceps femoris, and in a few days the right quadriceps femoris was similarly affected. These pains were succeeded by almost total paraplegia. Walking was impossible. For fifteen days the paralysis did not extend; but, at that date, both arms became simultaneously enfeebled. He was unable to lift a small weight, and could not squeeze an object placed in his hand. His strength was prostrate, and he was in a state of low spirits. The external treatment consisted in stimulating frictions and sulphur baths. The internal remedies employed were cinchona and coffee. There was a gradual return of power to the veil of the palate, then to the lower extremities, and lastly to the upper extremities. Recovery occupied rather more than two months. Ultimately the patient left the hospital strong and well. This case has many points of resemblance with the case of S. M., treated by me in the Hertford British Hospital.*

A case of small-pox has been published by Westphal in the *Berliner Klinische Wochenschrift* for 1872 (No. 47), in which there was paralysis. On dissection, there was found a state which the writer terms *disseminated myelitis*. A man, aged 32, was, after some preliminary symptoms, seized with small-pox on January 24th. The eruption was non-confluent and moderately abundant. On February 4th, there was incontinence of urine; next morning, on awaking, the patient found that he had numbness and complete motor paralysis of the left leg; on the following morning, the right leg was also paralysed; there was an inability to retain the fæces, and a death-stricken sensation in the abdomen. On February 10th, the patient was placed under the care of Dr. Levinstein, who found paralysis of the bladder, complete paralysis of both legs, and a great diminution in the sensibility. The muscles responded well to the influence of induction currents. Subsequently, the patient had cystitis and sloughing over the sacrum. He died on March 5th. At the autopsy, the membranes of the spinal cord were found free from lesion. The grey matter of the spinal cord was congested, and some sections of it in the lumbar region presented, on the right and the left, dark spots of various shades. The right side of the spinal cord was of a decided grey colour and the left side had a dull reddish-brown appearance. A little higher up, some sections presented on both sides the same dingy reddish-brown. In the cervical region, the appearance of the spinal marrow was normal. There was no recognisable alteration in the white substance or in the roots of the nerves. The cerebral pia mater was in a slight degree œdematous. Nothing particular was observed in the brain. In the sciatic nerves, between the filaments, there was a very small amount of sanguineous infiltration. After placing the spinal cord in a solution of bichromate of potash, the morbidly affected parts were still recognisable by their modified colour. The changes observed in these parts were quite irregular. Sometimes the white and grey substances were affected at the same place; and sometimes one or other had alone undergone any change. Softened spots of the size of a pin's head were visible in about a *centimètre* of the grey substance of the superior thoracic region. At every point where there was a change of colour, either in the white or grey substance, there was a very large accumulation of fatty granulations. The ganglionic cells of the grey substance were intact, so far as could be ascertained. Westphal gives the name of *disseminated myelitis* to the lesions of the spinal marrow now described, and to this myelitis he attributes the paralysis.

Cases are recorded in which very similar lesions have been found on dissection in cases of diphtheritic paralysis. Oertel, in his work on *Diphtheria*, mentions a case, characterised by paralysis of both arms and both legs, in which the morbid appearances in the spinal cord appear to have been similar to those seen in the case described by Westphal, with this addition, that it was the site of numerous sanguineous exudations.

Dr. C. Morelli, in his essay on *Diphtheritic Paralysis*, as observed in Florence from 1861 to 1864, gives some most important dissections in cases of diphtheria in which analogous lesions were found in the spinal cord and nerves. They merit analysis and examination. Here I can only refer to them, and cite a remark of the author "The anatomico-histological changes found after death are inadequate to explain the various forms of diphtheritic paresis and paralysis, and leave it an open question whether the pathogenesis of the affection be not entirely due to the morbific cause of the diphtheria, and whether the paralysis does not proceed from the peripheries to the nervous centres. I do not agree with the author in thinking that there is any specific morbid cause of paralysis in diphtheria, but believe he is right in saying that the paralysis extends upwards.

A sufficient number of more or less typical cases have now been described, grouped, and briefly commented upon, to afford a reliable basis on which to found some pathological and therapeutical conclusions. Had space permitted, it would have been better to illustrate more amply some parts of the subject which I have touched upon, and to refer to others which I have not even been able to mention.

## THE TRUE AND FALSE CROUP OF FRENCH PATHOLOGISTS.

By J. W. F. SMITH SHAND, M.D., Physician to the Royal Infirmary, Aberdeen.

THE recent discussion on French medical nomenclature has revealed a great amount of confusion and diversity of opinion as to the diseases which are described under the terms true and false croup. I think, however, that Dr. George Johnson has made good his point that "faux croup" is generally received by French authors as being an inflammatory affection, and, in confirmation of this, I will quote various passages from the work of MM. Rilliet and Barthez on *Diseases of Children* (Paris, 2nd edition, 1853).

In the first place, they describe "le croup" as "la diphthérite laryngée"; and, in giving a history of the disease, they refer to the services rendered by Bretonneau, and conclude by saying: "Les opinions du médecin de Tours ont été confirmées par les observations du docteur Guersant qui, en outre à l'exemple de Vichmann et avec M. Bretonneau, a nettement séparé du croup une affection que l'on confondait généralement en France avec la laryngite pseudo-membraneuse. Cette maladie, décrite d'abord par Millar sous le nom d'asthme, par M. Bretonneau sous celui d'angine striduleuse, et à laquelle Guersant a donné le nom de pseudo-croup ou de laryngite striduleuse, fera le sujet des pages suivantes" (vol. i, p. 345). In the following chapter, they take up the consideration of "laryngite spasmodique", and say that for many years this malady in France has been confounded with "le croup". They, therefore, think it necessary to warn the reader at the outset that the disease to which they have given the name of spasmodic laryngitis is no other than the laryngeal affection described as asthma by Millar and Wichmann; stridulous angina by Bretonneau; false croup and stridulous laryngitis by Guersant. Bretonneau considered it to consist of a catarrhal condition, and Guersant of a slight inflammation of the laryngeal mucous membrane. They, however, define it to be a complex condition in which is developed under the influence of catarrh a congestion or a laryngeal phlegmasia, associated with a spasmodic contraction of the muscles of the larynx.

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* The history of this case is given at page 487 of the number for October 17th, 1874.

In the second place, in vol. ii, p. 498, in the class of neuroses, they describe under the head of "convulsion interne (spasme de la glotte)" a disease which, they say, is known under the names of thymic asthma, Kopp's asthma, spasm of the glottis, laryngismus stridulus, etc.; and, when discussing the question of diagnosis, they arrange in a tabular form the distinctive features of "laryngite spasmodique" and "spasme de la glotte".

It is evident, therefore, that, by the terms false croup and stridulous laryngitis is implied an inflammatory condition, which Rilliet and Barthez, however, admit is always slight ("mais toujours légère"), and which, they say, many medical men have confounded, even of late years, with laryngismus stridulus.

## THE CASE OF ARTHUR O'CONNOR.

By HARRINGTON TUKE, M.D., F.R.C.P.

THE case of Arthur O'Connor is a striking instance of the mistaken views frequently adopted by lawyers as to the value of medical evidence in cases of insanity, and also is an exceptionally strong example of the way in which an advocate, aiming at success, will do his utmost to discredit a medical witness, even although he feels the force of the facts upon which the expert has founded his opinion.

In April 1872, Arthur was arraigned for treason-felony. He had pleaded guilty before the Grand Jury; it is quite clear that he did so under a misapprehension. After some demur on the part of the Court, this plea was allowed to be withdrawn, and the trial proceeded.

The case rested almost entirely upon medical evidence. This was to the effect, that Arthur O'Connor had long been in ill health; his head had received a severe injury; since that time his disposition had changed. There was a strong hereditary predisposition to insanity: had had a sudden idea to shoot the Queen, but had abandoned that course for one of intimidation. He had intended to attack Her Majesty in St. Paul's Cathedral on the Day of Thanksgiving for the recovery of the Prince of Wales. Turned out of the cathedral at two in the morning, he had returned at eight; the crowd prevented his reaching it again, or getting near the Royal carriage. Persistently tracking the Queen, he at last got near her Majesty's person, climbing the iron railings of Buckingham Palace; he had time to present a pistol at the Queen's head before her attendants could arrest him. Upon him was found a coherent but insane document, purporting to be a pardon for the Fenian prisoners, and an order for O'Connor's own execution. Other insane documents were produced. These the counsel for the prosecution objected to receive.

I had seen the boy, at the request of his father, about three weeks previously, and found him to be clearly of unsound mind, entertaining insane opinions, that rendered him dangerous to others. In this view of the case I was strongly confirmed by Dr. Maudsley, who examined the boy with me, and also by Dr. Sabben, who saw him afterwards.

The paroxysm of insanity that led to his outrage seems to have lasted about six weeks, leaving him in his normal state of hypochondriasis and almost imbecility, with a tendency to recurrent attacks, in which he becomes dangerous. The subsequent history of his case entirely corroborates this diagnosis. While in Australia, this condition of insane hypochondriasis continued; and as to the state of his mind, it may be enough to mention that though at times fairly well, at others he had paroxysms of absolute mania. Among other eccentricities, he wrote letters to Her Majesty, one of which suggested that he should be made Poet Laureate in succession to Tennyson. On the occasion of the last Drawing-room, O'Connor was found in an excited condition, waiting, it is supposed, for Her Majesty, near the very same place at Buckingham Palace in which his former mad assault upon her was committed.

One of the Queen's physicians, and subsequently Dr. Tweedie, saw O'Connor with me before his arrest. The following is his own written account of his symptoms:

"Physical Symptoms. Back like ice; want of ability to swallow food. Sinking in Stomach. In cold weather one moment—deadly cold, the next burning hot—pains in the head—completely stupified by cold weather—Mental—want of rest—thought continually revolving upon religion. Visions at night of angels hurling men down precipices to die for ever because they had not given up all they loved and go and sell Bibles to the unconverted. Sense that unless I gave up the drama, witty and convivial Society, novel writing, and the world completely I should be everlastingly damned. In a word, one unceasing mania concerning Jesus Christ—the intellect warring with extreme views yet unable to crush the ever revolving mania. Sense of utter want of constitution and energy in comparison to what I ought to be.

"Naturally I am a poet loving the dramatic writers and poet of nature and at one time of my life, ere I become physically debilitated, quite unsusceptible to the present mania, which leaves me no rest day nor night. Of late my brain agony has terribly increased I awoke the other night raging to commit suicide; the idea occurred as a very delightful one, and just as I was about to spring from my bed to act upon it—it passed off and left me trembling all over and utterly horrified.

"Since then my feelings have risen to absolute madness continually and I know very well it is all physical desease, a dead liver or something of the kind. My home is very wretched, it is in fact a hell to me.

"Naturally I am devoured by energy, running in my walk, and in everything else, but when stupified by dyspepsia scarcely able to drag a foot."

The apparently unanswerable evidence of the insanity of O'Connor at the time of his outrage upon the Queen, was demolished by the Attorney-General in his cross-examination, mildly described in the *Times* as occasionally "caustic". This was done with great, but, it must now be admitted, with misapplied forensic ability; and, without hearing a single witness for the Crown, the jury stopped the case, and found that the prisoner was, and had always been, of sound mind. This, perhaps, also stopped the Attorney-General's speech—fortunately, perhaps, as I was his first subject since he had showered vituperation upon the Tichborne Claimant. The ultimate result of this trial should lead future counsel to pause before they utterly ignore experienced medical testimony, at all events, in the prosecution of cases of treason-felony. They may succeed in gaining a verdict, and for the moment overwhelming the physician with ridicule. But supposing, as time has proved in this case, they are in the wrong, hard labour and stripes, and a short imprisonment as a felon, are not likely to cure insanity; and the course taken by the Attorney-General might have imperilled the safety of the Sovereign. As it is, it has nearly led to her being seriously alarmed by the reappearance of the deranged and wild-looking young man near the royal carriage, in the same place where he had before eluded the watchfulness of her attendants.

Another result of the Attorney-General's "unfortunate" advocacy (I have to thank him for applying to my evidence and so "teaching me that word") has been that three years have been lost; Arthur O'Connor is at last committed to Hanwell Asylum. Under gentle care and treatment in his first attack, he might have recovered. He may do so now; but his chances are materially lessened.

The characteristic judgment and clemency of Her Majesty led to the remission of the hard labour and whipping to which O'Connor had been sentenced, and also to a shortening of the term of his imprisonment. If this had not been so, a curious incident would have illustrated the mistake of the law advisers of the Crown: some of the Fenian sympathisers seriously proposed to Mr. O'Connor that a procession should be formed to meet his son on his release, and to escort him with due honour to his father's home. It should be quite understood that Mr. O'Connor was entirely opposed to this absurd proposal. I have never noticed the caustic examination of the Attorney-General; nor shall I now, except upon one point—the one by which the jury, and indeed a large section of the public, were mainly misled. It is deserving of careful attention, because it constantly arises in criminal trials, and was in this of paramount importance.

The Attorney-General contrived to persuade the jury that, if they acted upon the medical evidence, the prisoner would be confined for life in Broadmoor Asylum as a criminal lunatic; whereas, if they took the legal view of the case, he would escape with a comparatively trivial and salutary punishment. Now, this was trebly "unfortunate". It was purely an *ad captandum* argument, and entirely irrelevant to the question of the truth of the evidence, which ought not to be, and was not, in any way biased by consideration of results. It, moreover, offered a temptation to the jury to do the wrong, that right might come of it. I was unfairly taunted with attempting to injure, while I was professing to assist. Now, stripped of forensic tinsel, the plain truth stands thus: the parents of the boy, who was then only 17 years of age, were convinced of his insanity, alarmed at his evidently dangerous condition, and most anxious to have for him any treatment that might permanently cure him; they were respectable people, who had been in a superior position, and they were averse to their son's being branded as a felon; it was, therefore, after anxious consultation with them and their counsel, that the course inveighed against by the Attorney-General was adopted; and, in the event of Arthur O'Connor's recovery at Broadmoor, his parents trusted to the strong evidence of the son's previous good character, and thoroughly relied upon his being the subject of the never failing clemency of Her Majesty.

I freely forgive Lord Coleridge for his personal attack upon myself; it was possibly his professional duty to break down, by every possible means, a witness hostile to his own views; but he must surely now deeply deplore his share in a proceeding which consigned a sick and insane boy to degrading punishment, and to a prison instead of a hospital, thus, perhaps, rendering him a hopeless lunatic; he may also regret that he treated a medical witness with much discourtesy, and ridiculed scientific evidence that has ultimately proved correct; and he must feel deeply that his unfortunate advocacy very nearly resulted in injury or alarm to the Royal Mistress whom it was his special duty to protect and defend.

I trust the case of Arthur O'Connor may either lead the English Bar to more extended study, or induce them to receive with greater attention and respect the evidence of those who make medical and other scientific investigations the pleasure and business of their lives.

# OBSTETRIC MEMORANDA.

## ERYSIPELAS AND PUERPERAL FEVER.

In Mr. T. Spencer Wells's address on puerperal fever, published in the Journal on April 17th, I find the following. "A country surgeon attends a man who has erysipelas after a broken arm. He also attends a healthy woman in an isolated cottage in a natural labour. There is no puerperal fever in the district, yet this woman dies of puerperal fever. . . . Such a history as this would have tenfold weight, as being free from numerous sources of fallacy and doubt."

On the night of February 11th last, my assistant went to attend a man who had fallen down and cut his head open over the occiput down to the bone. The wound was about an inch long. On the second night, it bled, evidently from a small artery, which he arrested by a compress of lint. On the 20th, the man was taken very ill. I myself went to see him, and found that he had been suffering from rigors. I examined the wound; the scalp was somewhat swollen. I carefully washed and dressed the part. The same evening, I was called to attend a woman in confinement (age about 37, fifth child), who had a natural labour. The next day I found that the man was suffering from erysipelas; it was running down over the forehead. On the 22nd, the woman had a chill, with all the symptoms of puerperal fever setting in. She died on the 27th; the man likewise died on March 1st. I took every precaution whilst attending other cases, and did not wear the same external clothing; so I did not infect any other lying-in woman. Early on March 3rd, I attended another woman (age 22, second confinement) who, on the day following, had all the symptoms of the previous case. I questioned the nurse, as she came from the village where the man died, whether she had been in the house. She informed me she had been there to assist, and left that place direct to go to the woman in labour. That case terminated fatally on the 10th. The child had erysipelas at the navel, which spread all over the body; it died on the 18th. A nurse, who was in almost constant attendance upon the man, had an abrasion on the nose; she had erysipelas on March 3rd, and died on the 7th. Whilst attending the man, I was also daily dressing two women, each for an ulcerated leg; both had erysipelatous inflammation of the leg. The husband of one, an old man, aged about 78, had erysipelas over the head and face, from which he got better, but died of exhaustion on May 6th. A son of the old man's master called to see him on April 25th; he had a slight scratch on the septum of the nose. On the 27th, erysipelas made its appearance, and spread over the face, from which he has now recovered.

To go back again to the first case. On March 13th, a woman, who had been several times to see the man (whose house was directly opposite her own) had a severe attack of erysipelas over the head and face; she recovered. A young woman likewise visited her, and at the same time had her ears pierced for rings; erysipelas affected them, and spread rapidly over the head and face; she recovered after a severe attack. During the interval of the two puerperal cases, I attended other women, who escaped infection. Thus, I had nine cases of erysipelas and two of puerperal fever, with six deaths, all to be traced from the first. In looking over my midwifery list, I find I had previously attended 1,139 cases without losing one. I have been in practice twenty-five years, and, during that time, I have only lost four cases, not including the last two I have previously mentioned. One died of inflammation of the lungs, three days after confinement; another (a turning case) of peritoneal inflammation, three weeks after confinement; another of scarlet fever; and the fourth of puerperal fever, the cause of which I could not discover. I generally make it my practice, if I have any contagious disease about, to visit my childbed cases first; the doing so, I think, is one reasons why my death-rate is so low. Idiopathic erysipelas I consider not contagious; but traumatic, being caused by pyæmia, I think is, and I hold that it would be very unwise to attend a labour directly after visiting such a case. I have had many cases of the former kind, but cannot now remember ever losing one, nor have I seen that another person has taken it from one so affected.

S. N. Squire, M.R.C.S. and L.S.A., Wivenhoe.

## PUERPERAL FEVER AND SCARLATINA.

In reference to a remark of Dr. Braxton Hicks in the discussion on puerperal fever, I may say that I have seen three cases of well-marked scarlatina coming on within a day or two after delivery. Two of these were unfortunately fatal in a short time. At the same time, I have not unfrequently seen lying-in women exposed to the contagion of scarlatina without any ill effect. The two fatal cases seemed to die from the fever alone, without any special uterine or pyæmic symptoms.

J. Walters, M.B., Reigate.

# CLINICAL MEMORANDA.

## CROUP AND DIPHTHERIA.

I should like to say a few words, partly by way of explanation and correction of the hurried communication in the Journal of last week. Acute affections of the larynx I should divide into—1. Laryngismus stridulus; 2. Simple laryngitis, including (*a*) catarrhal, (*b*) herpetic, (*c*) membranous; 3. Specific laryngitis, including (*a*) diphtheritic, (*b*) syphilitic, (*c*) scrofulous.

In this arrangement, the difficulty of diagnosis will lie between herpetic and membranous laryngitis and diphtheritic disease. In this, we must be guided by the presence or absence of any epidemic of diphtheria, and by the presence or absence of any throat-affection, as also by the general constitutional symptoms which, in the malignant type of diphtheria, will be sufficiently well marked to enable us to come to a decided opinion as to the nature of the disease. But the difficulty will be greatest where no accurate history can be obtained as to the prevalence or not of diphtheria, and as to whether, in the case of the patient, the throat has been affected, or has been free. In these circumstances, it may be impossible to arrive at an accurate conclusion during life; and after death, if such be the result, I doubt much whether, in the present state of our knowledge, we would be able even then to decide. Dr. Cumming says the two kinds of membrane are quite distinct in their gross characters, and I do not doubt them to be so in comparing the extremes. But I think most observers will allow that, even in genuine diphtheria, membranes of an elastic white description are frequently produced. Should, however, Dr. Klein's investigations into the nature of typhoid fever lead to establishing the fact of the presence of vegetable organisms as a constant phenomenon peculiar to that disease, then I think we may confidently look forward to the time when similar discoveries will be made in diphtheria, and then we will be able perhaps during life to say with certainty that a case is simple or specific in its nature.

Though the treatment of laryngitis is not under discussion, I should like to add that, in my experience in rural districts, simple laryngitis, when seen early and treated boldly, is a very curable disease. With regard to diphtheritic laryngitis, where there are decided signs of constitutional disease, I think it prudent not to meddle by surgical interference, unless, indeed, as in such cases as the lamentable one of last week, the operation be resorted to with the idea of prolonging life rather than with the hope of saving it. But, in the milder slower cases, whether of diphtheritic disease or of herpetic affection of the larynx, tracheotomy, when early performed, will save many lives. Within the last four years, out of six cases, I have had three recoveries, and this, too, where undoubtedly the operative means were too long delayed. I attach great importance to the slow progress of the disease as a hopeful sign. In rapid or acute cases, the mischief done to the lungs by enforced stasis of the circulation and emphysema of the air-cells, though the relief seems decided for a time, is only apparent, and the fell result is only postponed, not prevented.

William Bruce, M.D., Dingwall, N.B.

# REVIEWS AND NOTICES.

### CLINICAL LECTURES AND ESSAYS. By Sir J. PAGET, Bart. Edited by HOWARD MARSH, F.R.C.S. Longmans, 1875.

THE admirers of Sir J. PAGET's writings are coextensive with the readers of surgical literature; and as most, if not all, of the essays which are here collected have been published in this JOURNAL, in the reports of St. Bartholomew's Hospital, or elsewhere, our readers are already familiar with much of the contents of this volume. We need not, therefore, analyse it so carefully as we should have done had the work been entirely new. The most convenient plan will be to enumerate the papers which have appeared in other periodicals, and make such comments on them as our space permits. Those which have appeared in this JOURNAL are doubtless familiar to its readers. These are, the most ingenious description of "Stammering with other Organs than those of Speech" (vol. ii, 1868); the classical tract "On the Cases that Bonesetters cure" (vol. i, 1867); the valuable lectures "On Strangulated Hernia" (vols. i, ii, 1872); and the paper on "Scarlet Fever after Operations" (vol. ii, 1864), which first called attention to a circumstance of great importance in the operative surgery of childhood.

The first paper in the volume is an exhaustive and systematic discussion of the various influences which interfere with the Success of Operations. We would, in passing, direct the reader's attention to the wise and weighty remarks on the prevalent habit of "soaking" (on page 15), the habit of "many people, who pass for highly respectable, and who mean no harm, but who are "thus daily damaging their health, and making themselves unfit to bear any of the storms of life". The next paper is one on "The Calamities of Surgery", viz., death from anæsthesia (chloroform) in which Sir James records that now for the last two years he has used only ether or nitrous oxide as general anæsthetics, yet, to our surprise, he speaks of "the inconveniences of ether" as being remedied by preliminary inhalation of nitrous oxide. We confess that those inconveniences have never occurred to us during a tolerably extensive use of the anæsthetic. The other class of "calamities" dwelt upon are the bad consequences, fatal or not, which sometimes follow trivial operations or operations of expediency. Every word of this admirable essay ought to be studied by operating surgeons; but we can only find room for the following extract on a subject on which we could wish that all surgeons thought similarly. "There are a considerable number of operations done for cases that should not be operated on at all; and these are among the very class in which the mortality of minor operation occurs. . . . In cases of varicocele, patients come to you, begging for cure, and nearly all of them are merely nervous, hypochondriacal, morbid-brained people, who are in fright about varicoceles, which they suppose to be the causes of impotence and wasting of the testicle. Now, no varicocele, to the best of my belief, ever did cause impotence, or waste a testicle. But the operation for varicocele is not altogether free from danger. A most skilful operator for this disease reported the other day a case in which he himself operated, and the patient very nearly lost his life. Once, also, I saw a young man with pyæmia following an operation for varicocele, which had been done very skilfully. Through this pyæmia, he had acute suppurative inflammation of his right shoulder, his right knee, and his left hip, and they were all spoiled, and he very nearly died. I doubt whether ninety-nine operations for varicocele would do good enough to balance one such calamity; for of the ninety-nine operations the majority would have been quite unnecessary" (p. 68). Passing over the papers published in our own columns we come to the well-known essay "On Chronic Pyæmia", which inaugurated the *St. Bartholomew's Hospital Reports*, and which calls attention to a set of cases not infrequently seen in practice, and often confounded with hectic. Next come an admirable series of lectures on "Nervous Mimicry" of various diseased states, which is a term that Sir James proposes to substitute for "hysterical diseases". "Let us", he says, "if we can, discard the name of hysteria from surgery." The sections on this affection, as seen in the joints and spine, are peculiarly careful and elaborate; but those on imitated or phantom tumours, due to irregular partial contraction of muscles, will be more novel to the general reader; and the observations on the mental condition of such patients should be most carefully studied.

The chapter on the Treatment of Carbuncle enforces, by the great authority of its author, the doctrine to which the president of the College of Surgeons, in his recent Harveian oration, declared his adhesion, of the inutility of the old treatment of carbuncle by incision, and strongly urges a perfectly "do-nothing" treatment. It is not even necessary, according to Sir J. Paget, to confine the patient to the house; no stimulants are needed; no special diet; no medicine. He looks on ordinary carbuncles with but little apprehension, stating broadly that "there is no other disease of the same extent and general severity which is attended with so little risk to life". From this statement, of course, the so-called "facial carbuncle" is excluded, which he regards as a special form of disease, though he doubts its identity with malignant pustule. In the note appended to the paper, we find that the author has changed his opinion since it was written, and now regards the peculiarly fatal disease which is seen in the face, and which has been followed, in his experience of twenty cases, by death in all but one instance, as merely ordinary carbuncle, in which, from some unexplained anatomical peculiarity of the tissues of the lip, pyæmia is more than ordinarily prone to occur. The idea of the danger of carbuncle *per se* he believes to have been due to the danger caused by the severe incisions which used to be made in its treatment. He allows that, since his retirement from the hospital, he has seen a larger proportion of fatal cases of carbuncle; but this he acccounts for by the fact that (as he modestly puts it) "as he has grown older he has more rarely been consulted in cases not deemed to be dangerous". And he adds that the fatal cases have been those in which, in addition to the disease, there has been some serious complication, such as advanced diabetes, fatty heart, bronchitis, or acute pyæmia.

We now come to a subject which it requires all Sir J. Paget's authority and skill to handle adequately, that of "Sexual Hypochondriasis", the distressing, and often agonising apprehensions which male patients suffer from irregularities of the genital functions, which are, in reality, perfectly insignificant, or from apprehensions as to the results of masturbation or sexual excesses: apprehensions generally equally unfounded. The result is admirable indeed; a masterly paper which no student and no young practitioner should omit to study. Though unwilling to spoil so excellent a whole by selecting any part from it, we cannot forbear quoting a passage on the subject of the treatment of these distressing cases, which is as excellent in its medical as in its moral bearings.

"To all alike you may try to teach a judicious carelessness about these things; a state of mind which would be an inestimable blessing to many besides these sexual hypochondriacs. Many of your patients will ask you about sexual intercourse, and some will expect you to prescribe fornication. I would just as soon prescribe theft or lying, or anything else that God has forbidden. If men will practise fornication or uncleanness, it must be of their own choice, and on their sole responsibility. We are not to advise that which is morally wrong, even if we have some reason to think that a patient's health would be better for the wrong-doing. But in the cases before us, and I can imagine none in which I should think differently, there is not ground enough for so much as raising a question about wrong-doing. Chastity does no harm to mind or body; its discipline is excellent; marriage can be safely waited for; and, among the many nervous and hypochondriacal patients who have talked to me about fornication, I have never heard one say that he was better or happier after it" (p. 287).

It is refreshing in a medical work to come sometimes across a strain of the higher mood, and to find that the most eminent man in his profession is not ashamed of appealing to the noblest motives, and can set morality and honour above material considerations.

Passing over an extremely practical paper on "Gouty Phlebitis", we come to one of the greatest possible interest and novelty on "Residual Abscesses", *i.e.*, abscesses formed about the residues of former inflammations; "most of which are formed where pus, produced long previously, has been wholly or in part retained, and become dry, or, in some form, 'obsolete'. But some, it is probable, are formed in the thickenings, adhesions, or other lowly organised products of inflammation long past" (p. 310). In some cases, necrosis is traceable to this cause. The topic is one which is almost new to surgery, at least in the practical light in which it is here exhibited.

The next paper is really the most important in the volume, being a succinct though full account of the illness, caused by Dissection-Poison, which had nearly deprived the profession and the country of the author of this volume a few years ago. Rarely, indeed, do we find a patient so competent to describe the course and symptoms of his own disease; and it is a disease from which most of us have suffered in our own persons in some of its many forms, and which all of us have had to deplore in the persons of dear friends or valued teachers who have fallen victims to these perils of surgical practice. No one who has ever suffered from dissection-wound will omit to read Sir J. Paget's account of his own illness, which, though caused by dissection-poison, agreed with some of the worst cases of this affection, in the fact that the poison was imbibed through unbroken skin.

The next topic is one which is too much passed over in our systematic works, that of "Quiet Necrosis" as it is here termed—necrosis, that is, unaccompanied by suppuration or any evidence of inflammation

—yet running its entire course and terminating in the exfoliation or sequestration of the dead bone, and which Sir James Paget connects with that exfoliation of articular cartilage which is one of the ways of origin of the loose bodies in joints.

Then we have a short but very suggestive paper on the subject of "Senile Scrofula", an affection not, we venture to think, of very common occurrence, and which derives its chief importance from the resemblance which its earlier stages bear to cancer and to gout, and which seems, according to the author, extremely intractable, as indeed we might expect.

The volume ends with some detached notes for clinical lectures on the "Study of some Constitutional Diseases". These notes are confessedly imperfect and fragmentary. They are, in the modest words of the author, "the collected fragments and failures of many attempts so to express what I believe on parts of the subject, that it might be possible for students to listen to me for an hour at a time. I convinced myself of my inability to teach the subject orally, and I am doubtful whether I have written anything worth reading" (p. 363). No one who reads the paper will share this doubt. Though aiming at no completeness, it contains a treasury of hints and of wise observations to assist future investigators in their search after the obscure indications of constitutional peculiarities furnished by the family history of patients, by the connection of one disease with another (as syphilis in the parent with struma in the child), by the slighter symptoms which typify grave constitutional dyscrasiæ, by the course which other diseases or injuries take, and by numerous other circumstances which are here illustrated with all the author's felicity and compression.

We have thus gone through the topics of this work, more as enumerators or reporters than as critics. Our readers now know what topics they will find in it, and no one will omit to form his own acquaintance with it.

We need only add that Mr. Marsh's part as editor has been excellently done. The notes which occupy the last twenty pages of the volume are replete with interesting matter, and, in may cases, supply necessary additions, which would have been incorporated in the text had Sir J. Paget had the opportunity of working at the subject since the paper in hand was written. We would specially direct the reader's attention to the succinct and most judicious note (p. 412) on "aspiration" in strangulated hernia, and to that on scarlet fever after operations, on p. 415.

The Army Medical Service in the Past and Future; an Expostulation. By A. M. D. Pp. 24. London: Churchill. 1875.

The Secretary of State for War, when recently alluding in the House of Commons to the Medical Department of the Army, mentioned that he had received several interesting pamphlets in which the subject of the reorganisation of this branch of the military service had been discussed. He had apparently not been convinced by the reasoning advanced in any one of them, for he owned that he was still in doubt as to the direction in which changes should be introduced, and, if introduced, to what extent they should be carried out. It was evident, however, from his remarks, that he considered some changes necessary.

The fresh pamphlet on the same subject, the title of which is placed at the head of these remarks, will hardly assist the Minister for War in solving his difficulties on the question of reorganisation, for the writer appears to think that the change which the department underwent a short time ago, "the reformed system", can only be improved by its further extension and more complete development, certainly not by any alteration of it. "The organisation of military hospitals for the sick of the army has recently undergone an entire change, from a purely regimental to a general system. This system is being now organised at all military stations, having been already established some months back in a selected few of the largest garrison towns, where it has created most favourable impressions on those officers who were entrusted with its birth and development, and who alone are qualified to pronounce on its success. One senior officer of a large hospital declares that so far he has not met with a single hitch, except in the relations he finds himself as head of the hospital occupying toward his own subordinates of the Army Hospital Corps. He also testifies to the appreciable improvements already manifested by the change, comprised in new facilities for regulating details, increased regularity of operation, and, above all, in the comfort of the patients whose ailments will also be benefited indirectly by the elevation of the professional abilities of the medical officers, resulting from the opportunities for consultation and exchange of opinions which the centralisation of hospitals will afford them, all of which advantages the regimental surgeon, from his comparative isolation, was totally deprived of." Certain medical officers have, however, advanced objections to the new system; so A. M. D. discusses these objections, and of course finds them fallacies. The discussion of these objections occupies several pages of the pamphlet. A. M. D. admits there are some rocks on which it is possible for the new system to split. One of the worst of these is the inability of some administrative officers to carry out the system effectively. But the writer is not without means for averting this danger.

"The elder officers, accustomed to a kind of spoonfed existence, are timorous about responsibilities; about the stores; about the management of hospitals; which are the true touchstones to the authority and respect that elevate a man above his fellows. Time and the *Gazette* are the remedies for this impediment."

At page 9 of the pamphlet, A. M. D. gives a classification of the officers of the Army Medical Department, which will not be found in any of the Army Lists. His division of the ranks into the "professionals", which he estimated at 10 per cent.; the "socials", which are put down at 20 per cent.; and the "mixed", the remaining 70 per cent. of the department; and his descriptions of the several classes are not without considerable humour. They are given at some length, and we must refer to the pamphlet itself for them. Whatever views may be held by our readers regarding the proper organisation for the Army Medical Department, a perusal of the pamphlet must lead to the admission that A. M. D. has put forth his views in a clever and able way, and certainly without any hesitation in declaring his own conviction that the unification system is the best for patients, medical officers, and the army at large.

The remarks on the organisation of the medical department occupy about two-thirds of the pamphlet. The remaining third is devoted, firstly, to an examination of the plan of appointing commandants and their staffs for the control of hospitals, a plan which the author denounces *in toto*; secondly, to the constitution of the Army Hospital Corps, which, as forming the hospital subordinates and not being a fighting branch of the army, should, in his opinion, be placed under the direction and authority of the medical officers instead of officers having independent command; and, thirdly, to a discussion of medical officers' grievances and their remedies. The grievances complained of by A. M. D. are but a repetition of those which have been repeatedly brought to notice in the columns of the British Medical Journal, and we heartily join with him in hoping that the authorities may give more attention to them than they appear to have hitherto received.

## NOTES ON BOOKS.

Dr. Dobell's handbook on *Diet and Diseases*, and on *The Interdependence of Diseases*, appears in a sixth edition. The preface intimates that fresh matter is added under the heads of "Smoking" and "Afternoon Tea". The section on Afternoon Tea is short, and bears transcribing. "Some remark is necessary in reference to the now prevalent custom, among the upper classes, of dining very late and taking an afternoon tea. Unless cautiously arranged, it is apt to lead to dyspepsia. The rule should be that the tea should precede the dinner by three hours, and not come sooner after lunch than three hours, assuming the lunch to have been a good meal; and if any tea or coffee is taken after dinner it ought to be immediately after, so as to constitute part of the same meal, and to partake in the same process of digestion. It is most injurious to take tea or coffee from one to two hours after dinner or any other full meal. Finally, on going to bed, or about four hours after dinner, a tumbler of water should be drunk to clean the stomach of the *débris* of the last meal. This will promote a refreshing sleep and a clean mouth in the morning." The section on smoking is an extract of Dr. B. W. Richardson's conclusions in 1863, to the effect that, "of nearly every luxury it is the least injurious".

Dr. Davey has reprinted from the *Transactions of the St. Andrew's Medical Association* a paper on the disease Dipsomania,* which he looks upon as depending on undue sensitiveness or irritability of the organ of "alimentiveness", an organ represented by two cerebral convolutions seen near the anterior and inferior part of the middle lobe of each hemisphere. Dr. Davey lays great stress on the inherited predisposition to drink, and on the close relationship of the various neuroses, insanity, neuralgia, chorea, epilepsy, and invincible tendency to drink. He would diminish the existing number of beershops and public-houses, and strongly advocates the formation of sanatoria for the treatment of those suffering from the disease. In treating such, he finds that the *primæ viæ* are invariably out of order. Whether this be a cause or a result, aperients are necessary; and to combat the sinking and restlessness, chlorodyne, chloral, and morphia. He does not say whether he would or would not withhold all stimulants.

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* *On Dipsomania.* By J. G. Davey, M.D. London: 1872.

## BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1875.

SUBSCRIPTIONS to the Association for 1875 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

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## ARMY RECRUITS.

IT now seems generally admitted, at least by persons competent to express opinions on the subject, that the physique of the army recruit has deteriorated of late years. It is even allowed by the Commander-in-Chief that there are many youths in the ranks; and whilst he would prefer older and larger men, His Royal Highness assures the public that, whatever may be their physical defects, discipline and loyalty continue to characterise the British soldier. This is comforting only so far; but looking to the physical requirements of the fighting man, to what every physiologist has demonstrated again and again, and what the War Office and Horse Guards have been told repeatedly, it does really seem strange, in the face of common sense, that they will persist in recognising a youth of eighteen, often palpably much younger, as equal in all respects for the hardships and fatigues of warfare. To be candid, however, there is no other seeming alternative between the above decision and no recruits at all, inasmuch as none but lads of eighteen and under this age are procurable, men of maturer years having taken to more remunerative employments.

The history of the decline in the physique of the British soldier dates back to the Russian War. Up to that time, and during the long preceding peace, there were always more applicants than vacancies, and the recruit enlisted with a clear understanding that, after a stated number of years, it would be optional whether he remained in or quitted the service; fully aware then, as now, that at his age any knowledge of a trade or business he possessed would be well nigh forgotten after a few years. He accordingly took the shilling in the belief that, as long as health remained, he could not be sent adrift. Moreover, the labour market was not then always promising, and thousands of stalwart Irishmen were ever ready to enlist for the mere love of the work. In other words, there was a large field for selection, so that the recruiting officers could pick and choose at discretion; consequently, the physical examinations were stringent, and few of the army-surgeons of those days would have approved of one-third of the recruits now accepted. The causes of the falling off in supplies are mainly the commercial prosperity of the country, with which the decadence has gone hand in hand, as well as Irish emigration, and recent changes in the organisation of the army of a decidedly unpopular description, to which we shall presently refer.

How far the War Office authorities have been justified in allowing matters to take this course, instead of appealing to the country, and honestly pointing out the dangers of filling the ranks with boys and weakly men, is a question we shall not stop to consider. Suffice it that the evil exists, and that a remedy should be promptly and efficiently applied.

According to a recent Act of Parliament, lately modified by the present Government, a soldier serves for five years in the active army, when he is passed into the reserve for another similar period. Here the uncertainty as regards the future contrasts with the former condition; and as very few stop to think of their bargain when they enlist, the truth only dawns on them after they have fairly settled down to military life, and began to taste the discomforts of their new situation. The fact is that few recruits now-a-days enter the army from choice alone; there is always an untoward something in the background, for the time being, at all events, which prompts this line of action. By and bye, however, by comparing the life just left with that of the army, and the prospects of the latter, a decision is now arrived at, whether to remain or desert; and nothing shows more pointedly the failure of the present system than the very large and increasing number of desertions.

Again, the methods of recruiting in many of the large towns are by no means calculated to secure either efficiency or a high moral standard of recruits. In London, for example, instead of leaving the applicant to find his way to the recruiting office, every attempt is made to capture individuals by the sergeant in uniform down to the pensioner in a by no means imposing "war paint"; and last, and worst of all, by a pack of usually ex-military individuals, named "bringers", who haunt the back streets and bye-lanes, and keep watch at the bars of gin-palaces, for men out of employment. The system of head money to recruiters is of itself an objectionable practice, and gives birth to various modes of deception; so that, as compared with former years, the class from which recruits are obtained is morally of a lower standard. It is easy to understand what are likely to be the results as regards the quality of supplies. The very necessity of such a numerous staff and exhaustive process of capturing waifs and strays shows how difficult it is to procure even the boys and undergrowth of crowded cities. What must it be on extraordinary occasions? We have no belief in the patriotic ardour of war times. During the struggle in the Crimea, the only ways of getting recruits were by increasing the bounty largely, and decreasing the standard of height, which were followed by an influx of a very inferior quality of recruits, who were discharged in hundreds at the end of the war as physically unfit for the duties of soldiers. Again, reverting to the practice in former times, all physical requirements with reference to chest-girth were not demanded, nor was a youth of eighteen considered ineligible provided his aspect was very promising. It was not until a dearth of supplies took place, and the surgeon's rejections began to increase rapidly, that it seemed expedient to limit his powers. Chest-girth and height being considered military requirements, he was relieved at once of all consideration under these heads; at the same time, he is required to express his opinion as to the probable age of the recruit, in order to assist the military authorities in their final decision. It is, however, the case generally, all other points being passable, that no attention is paid to his decision; and the surgeon is a bold man who will, even in the sober exercise of his conscience, reject these youths on account of being, in his opinion, under the regulated age, and consequently unsuited for military duty.

The final tendency of this practice of dividing responsibilities has been to restrict the judgment of the surgeon to merely pronouncing on the exemption from disease; so that, whilst the recruiting officer adheres religiously to his tape line, the doctor pronounces a clear bill of health or otherwise; and thus, between these two examiners, any number of lads, fifteen years of age and upwards, may pass into the army, provided they fulfil the exact requirements laid down in the regulations. By far the greatest number of recruits are on or about the minimum standard on enlistment, which is not more than obtains in any promising well-nourished lad of between sixteen and seventeen, and about the usual admeasurements of the undergrowth of crowded cities, even up to manhood.

We may indicate another serious evil: for example, during the late Ashantee War, and, in fact, on every occasion of sending battalions or reinforcements to India and the colonies, the regiments remaining on home-service have to be denuded of their able-bodied men in order to meet the demand; with the obvious result, that the latter corps are more or less made up of youths under nineteen years of age. Is this a healthy state of matters, more especially in these unsettled times? It has been often suggested that eligible lads between seventeen and nineteen years of age might be enlisted, but that the State should apportion the work according to their capabilities, and not rate them as able-bodied soldiers until they attain their twentieth year. This scheme, we freely admit, would be expensive; but what we insist upon, once and for all, is that it is not only senseless, but cruel, to expect a lad in his teens to do the work of a full-grown soldier; moreover, we warn the country of the danger arising from such feeble elements of national strength; and that, although much has been done by successive Governments to gloss over the difficulty, these are not the days to encourage any such delusion. If we must have a small army, let it be composed of men, and not of boys. As to the typical old British soldiers who fought at Meeanee or climbed the banks of the Alma, and finally dwindled away on the slopes of the Kersonese, we are not likely to obtain that stamp by even the highest wages the country can afford to offer. Nor is it requisite to revert to the superexcellent standards of many of the battalions of those days; but, at any price, the ranks must be filled with able-bodied men.

The physical examination of recruits is a duty requiring both a scientific and a general practical acquaintance with the subject; the latter is only attained by extensive experience, which does not fall to the lot of every army-surgeon. Hence the necessity of selection in respect to the recruiting medical officer. Again, as to the responsibility, it is clear that, whilst the military authorities may regulate the height required, the surgeon should demonstrably be the sole arbitrator of the physical efficiency of the man. It is the proportion to which age bears to height, chest-capacity, and weight, that enables him to arrive at conclusions; and he who omits these considerations in his examination is sure to lend his hand towards introducing inefficiency into the army.

## THE NON-EXISTENCE OF PUERPERAL FEVER.

DR. SIRÉDEY (*Annales de Gynécologie*, March and April 1875) discusses this question at some length, and thinks that, in preserving the denomination of puerperal fever, we perpetuate an error, and maintain the confusion and obscurity upon a question that it is of the highest importance to elucidate.

In typhoid and scarlet fevers, there are well marked characteristic lesions, identical, constant, and precise, serving to indicate the type of fever. But in puerperal fever is it so? Are not the lesions found *post mortem* numerous, variable, and inconstant? Peritonitis is the affection which one meets with most often at the necropsy of parturient women; but this is seldom primary, and almost always coexists with inflammation of the uterus and its appendages, the lymphatics, and sometimes the veins; it is, therefore, very important to distinguish these lesions.

After criticising the opinions of many eminent authors, he gives his own conclusions in justification of the heading to his subject. He thinks that inflammation of the lymphatics is met with incomparably more often than phlebitis; and, if we recall the very intimate connection of the lymphatics and of the veins with the peritoneum, and the frequency of peritonitis in puerperal affections, we are led to consider the malady called puerperal fever as being most frequently only lymphangitis. Much confusion has for a long time existed betwen phlebitis and angioleucitis, and it is only by studying the subject clinically that we can arrive at any definite conclusions.

*Rigor* or *shivering* is one of the first symptoms observed at the commencement of both affections. In angioleucitis, it is exceptionally absent, or of such slight intensity that it escapes attention. In phlebitis, rigor is never wanting; it is extremely violent, lasting fifteen, twenty, or thirty minutes, succeeded by a stage of heat, and then sweating. The temperature, which has risen possibly to 104 deg. Fahr., now diminishes to nearly the normal standard, as in a paroxysm of ague. A fresh rigor occurs, and the same symptoms are repeated, in some instances as many as fourteen rigors occurring in the course of the disease. In lymphangitis, the rigor occurs shortly after labour, and generally from the first to the fourth or fifth day. In inflammation of the veins, it rarely appears before the sixteenth day, and often later.

The *temperature* also presents characteristic differences. In lymphangitis, it rises to 104 or 106 deg. Fahr., and remains nearly at this standard. In phlebitis, on the contrary, we notice a progressive augmentation of the temperature until the appearance of the first rigor, when it reaches, as in the other affection, to 104 or 106 deg. Fahr.; but, the febrile accession passed, it recedes many degrees, to mount again on the recurrence of a fresh rigor.

*Pain* constitutes also an important sign. We must be careful not to confound that due to uterine contractions following parturition, after-pains, or pain produced by a distended bladder from the pain due to inflammation. In lymphangitis, it is fixed, constant, permanent, and extremely acute, existing even without pressure being necessary to elicit it. Soon it extends over the lower abdomen, and becomes generalised; the abdomen also becoming distended. In addition—and this is a sign of great value—one of the lateral *culs-de-sac*, or both, present a peculiar induration, due to œdema determined by the lymphadenitis. In phlebitis, the pain is far from being so constant or manifest. It is only discovered on pressure; it is much more circumscribed and more limited than in lymphangitis, and peritonitis is less frequent. At the same time that the inflammation developes itself in the veins and uterine sinuses, we observe other painful manifestations in different parts of the body: phlebitis in the lower extremities, arthritis, tendinous synovitis, pleurisy, pericarditis, and secondary pneumonia; all of these being remarkable for their tendency to go on to suppuration. Nothing is more common than to find pus in the serous articulations or the viscera, and metastatic abscesses in the parenchymatous organs, the liver, the lungs, and the kidneys. The presence of pus in the cellular tissue and in the viscera, or, in other words, purulent infection, is an habitual consequence of puerperal phlebitis. On the contrary, we never observe anything similar in lymphangitis. In exceptional cases, where pus has been found in the thoracic duct, no visceral lesion having the least analogy with purulent infection has been discovered. Angioleucitis is, therefore, much more localised, is concentrated entirely in the abdomen, and produces rapidly a peritonitis which eclipses and takes its place in the symptomatic display. On the other hand, phlebitis produces abdominal phenomena less intense, but reveals its existence by multiple lesions, evidencing the invasion, general and progressive, of the economy by pyæmia.

*The expression of the physiognomy* is not the same in the two affections. At the commencement of lymphangitis, the face is red and animated. Later, when the peritonitis is confirmed, the appearances alter, the eyes become hollow, the nose sharpened, and the countenance pale; but it never presents the earthy aspect, yellowish subicteric hue that one often meets with in the early rigors of phlebitis.

Finally, the *progress of the malady* varies. In angioleucitis, it is very rapid; death supervenes eight or ten days after delivery, and in severe cases even in two or three days. Phlebitis runs a longer course, which varies from two to many weeks. The malady commences later, developes slowly, with alternate aggravations and remissions; and, when it terminates fatally, we observe symptoms of purulent infection.

The author agrees with Pajot that the term puerperal fever should be relegated to the museum of antiquities.

## THE QUARTERLY RETURN OF THE REGISTRAR-GENERAL.

DURING the three months ending December 31st, 1874, the registered number of persons married in the United Kingdom was 141,622; and the marriage-rate was 17.3 per 1,000 persons living. In England, the rate was 19.6, and was slightly below the average. It was so low as 13.1 in Cornwall, whereas it was 23.6 in Northumberland, and 23.9 in Nottinghamshire.

During the quarter that ended on 31st March last, the births of 282,793 children were registered in the United Kingdom; the rate being 35.0 per 1,000. In England, the birth-rate for the quarter was 36.5 per 1,000, which showed a further decline from the rate that prevailed in the corresponding period of 1873 or 1874, and was 0.5 below the average rate in the first quarter of the ten years 1865-74. The rate was

30.6 and 31.3 in the agricultural counties of the South-Western and South-Eastern Divisions; but was 40.0 in the manufacturing counties of Lancashire and Cheshire, and 41.3 in the mining counties of the Northern Division. In the eighteen largest English towns, it was 39.3, exceeding by 2.8 per 1,000 the average rate in all England; it ranged from 34.5 and 35.3 in Portsmouth and Norwich to 44.8 and 47.6 in Sunderland and Salford. In fifty other large towns, the rate was 38.4; it was only 23.8 and 25.4 in Cheltenham and Bath, and was so high as 50.8 in Swansea and 53.2 in Wigan.

During the three months ending on 31st March, the deaths of 218,213 persons of both sexes were registered in the United Kingdom; and the death-rate was 27.0. In England, 162,514 deaths were recorded, equal to an annual rate of 27.5 per 1,000, which exceeded the average rate in the corresponding period of the ten years 1865-74 by 3 per 1,000. On only four occasions during the first quarter of each of the thirty-seven years 1838-74 has the death-rate of last quarter been equalled or exceeded, viz., in 1847, -48, -55, and -64; and severely cold weather prevailed in each of those winter quarters of high mortality. The death-rate during the six cold winters of 1845, -47, -55, -58, -64, and -65 averaged 27.3; in the four mild winters of 1846, -59, -63, and -72, it averaged only 23.9. The rate of mortality, however, does not appear to be absolutely governed by the mean temperature. The influence of low temperature upon the death-rate is undoubted, but the causes of all the fluctuations in the mortality are, as yet, not thoroughly understood. The high temperature of January, which raised the mean temperature of the quarter, appears only partially to have counteracted the cold in December, February, and March; the three last days of 1874 were much the coldest throughout the winter, and the severe cold of those days undoubtedly increased the death-rate during January.

The death-rate of last quarter exceeded the average rates of the ten years 1861-70 by 23 per cent.; the excess was 11.9 and 17.1 per cent. in London and Yorkshire; and was 31.3 and 32.4 in the North Midland and Welsh Registration Divisions. Compared with the deaths recorded in the first quarter of 1872, during which the temperature was unusually high, the deaths of the corresponding quarter of 1875 showed an increase of 20 per cent.; the increase in the deaths of persons under sixty years of age was but 12 per cent., whereas those of persons aged upwards of sixty years had increased 47 per cent. The effect of cold upon the death-rate depends, to some extent, therefore, upon the proportion of persons aged sixty years and upwards in the population living in different parts of the country. This proportion was so low as 58 and 62 per 1,000 in Cheshire and Lancashire, and in London, and ranged upwards to 98 and 99 in the Eastern and South-Western Registration Divisions. The proportion of aged people is generally far greater in rural than in urban populations, "partly because the mean duration of life is there greater, partly because the birth-rate is lower and the proportion of children in the population is, therefore, smaller, and also because the increasing tendency to aggregate in towns causes a considerable migration of the younger adults from rural to urban districts".

The death-rate, last quarter, in the extra-metropolitan portions of Surrey and Kent was so low as 21.7 and 22.6, whereas it was 30.6 in Monmouthshire, and 32.0 in Lancashire. In "Outer London" it was so low as 20.5 Amongst the thirteen and a half millions of persons residing in the chief towns of England and Wales, the death-rate averaged 28.9, or 2.3 in excess of the mean rate for ten years; in the remaining or rural population of about ten millions, the death-rate was 25.7, an excess of 3.7 upon the mean rate per 1000. The excess upon the average rate was equal to 8.6 per cent. in the urban, and to 16.8 per cent. in the rural population. Thus "the fatal effect of the unusually severe winter was nearly twice as great in country as it was in town. How far this result is due to the greater proportion of elderly persons in rural populations, and how much to the low wages and to the dearness of firing from which agricultural populations suffer, can only be ascertained after careful investigation." In the eighteen largest towns the death-rate ranged from 22.5 and 26.7 in Portsmouth and Sunderland to 33.2 in Liverpool, 33.5 in Salford, and 35.7 in Manchester. Infant mortality ranged from 123 per 1,000 in Portsmouth to 213 in Leicester; the death-rate between one year and 60 from 12.6 per 1,000 in Portsmouth, to 22.9 in Manchester; the rate among persons aged 60 years and upwards from 90 in Hull to 202 in Liverpool; and the "zymotic" rate from 1.4 and 1.9 in Portsmouth and Bristol to 5.4 per 1,000 both in Birmingham and Hull. In the fifty towns, which range next in regard to size, the death-rate was 29.2; it was only 19.6 in East Stonehouse, 20.4 in Dover, and 21.0 in Devonport; and so high as 36.0 in Cambridge, 36.8 in Preston, 38.8 in Ashton-under-Lyne, 39.4 in Dudley, and 42.1 in Wigan. The zymotic rate was only 0.2 and 0.4 in Dover and Cheltenham; whereas it was 5.7 both in Carlisle and Swansea, and 6.0 in Birkenhead. The 162,514 deaths last quarter included 36,019 of infants under one year, 78,712 of children and adults aged between one and 60 years, and 47,783 of persons aged 60 years and upwards. The marked increase in the deaths of aged persons is the most noticeable feature of the present report. In England, the average annual rate of mortality amongst persons aged upwards of 60 years is 71.7 per 1,000; in the winter quarter of this year it was 108.3. It was 98 in Durham, Northumberland, Cumberland, and Westmorland; and 124 in Lancashire. It was 119 in the eighteen large English towns; being 202 in Liverpool. During the six months ending March 31st last, more than 15,000 persons in England and Wales aged upwards of 60 years succumbed to the cold, who would have survived had the rate not exceeded the average.

To the seven principal zymotic diseases 17,216 deaths were referred in England and Wales, equal to an annual rate of 2.9 per 1,000. The rate was 6.0 in Birkenhead, in which measles, scarlet fever, and whooping-coughing were all fatally prevalent. To scarlet fever were referred 5,050 deaths in England and Wales; a marked decline on the preceding quarter, when the number was 8,562. The fever death-rate last quarter showed a general decline; whooping-cough was pretty generally prevalent; measles and small-pox were in abeyance, but there was an outbreak of the latter disease at Keighley which caused 37 deaths.

The weather of the last six weeks of 1874 had been severe; but January was mild under the west and south-west winds until the last day of the month, when cold set in and reigned to the end of the quarter. The temperature of January was 43.4 deg., and exceeded the average by 7 deg. The mean temperature of February was 35 deg., or 3.6 deg. below the average; in March the mean was 40.2 deg. and 0.9 deg. below the average. The fall of rain at Greenwich was 4.4 inches, and 0.6 of an inch below the average. The unkindly east and north-east winds predominated through February and March. "The price of wheat was low; the prices of beef, mutton, potatoes, and coal fell in the wholesale market, but the consumers scarcely enjoyed their share of the advantage."

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MONDAY, May 31st, is fixed for the commencement of Mr. H. Lee's Hunterian Lectures at the College of Surgeons. The subject of the lectures is syphilis and some forms of local disease affecting principally the organs of generation.

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THE friends of the Royal College of Surgeons, no less than of Mr. Prescott Hewett, will regret to hear that it is reported that that gentleman will not offer himself for re-election as a member of the Council. This would be much to be regretted. Mr. Hewett is peculiarly fitted by his ability and dignity of character to fill the highest offices of collegiate administration.

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REFERRING to the large number of candidates plucked at the recent examinations at the College of Surgeons, we hear that an unusual number of visitors attended at these examinations, and were able to judge of their equitable, sound, and satisfactory character. Among them were—Mr. Hamilton of Dublin, Surgeon to Her Majesty the Queen; Dr. Struthers of Aberdeen; Dr. Fleming of Glasgow; Dr. Parkes of Netley; Mr. Lund of Manchester; Mr. Harris of Liverpool; Messrs. Mason, Wagstaffe, and McKellar, of St. Thomas's Hospital; Messrs.

Cumberbatch, Turner, and Butlin, of St. Bartholomew's; Mr. Golding Bird of Guy's Hospital; Mr. Lowne of the Middlesex Hospital; Mr. Gant of the Royal Free Hospital, etc.

Professor Flower, F.R.S., the distinguished conservator of the Museum of the Royal College of Surgeons, is at present engaged in preparing a new edition of the *Catalogue of Human Crania in the Museum*, a work very much needed, as the collection has more than trebled in number during the twenty years that have elapsed since the last catalogue was printed. Among the more recent additions to this department are three skulls of Chinese natives, presented by Mr. William Lockhart, F.R.C.S.; the skull of a Guanche, or ancient inhabitant of the island of Teneriffe, from Mr. F. Le Gros Clark, F.R.S., President of the College; and the head of an Egyptian mummy, presented by Admiral Ommaney, C.B.

The will of Mr. Howard Haywood of Burslem, just proved, bequeaths £30,000 for aiding the poor and deserving sick persons of Burslem and its immediate neighbourhood.

Mr. Alfred Cooper has been elected an Honorary Fellow and Corresponding Member of the Medical Society of St. Petersburg.

The monastery of Altenburg, in Lower Austria, has lately, according to the *Wiener Medicinische Wochenschrift*, advertised for a house-physician, offering him free board and lodging and a salary of 200 florins (about £20) *per annum*. For this munificent remuneration, the individual who is fortunate enough to get the appointment is not only to give his professional services to the sick in the monastery, but to take charge of the hair and beards of the holy brethren. It is not stated in the public advertisement whether, when he is not on actual duty, he is to go about in monastic dress soliciting alms, or exercising his functions as a barber outside the monastery. In any case, these Austrian monks appear to have a very mediæval idea of the dignity and duties of the medical profession.

Forli in Italy is to be the scene of an interesting event on the 27th instant: the solemn inauguration of a memorial of its eminent citizen, the father of modern pathology, Morgagni. The memorial is in the form of a statue by Salvini, which has been presented to the city by Signor Camillo Versari. The municipal committee appointed to manage the proceedings invite the attendance of a large number of cultivators of medical science, foreigners as well as Italians, to join them in doing honour to the memory of "the greatest of their fellow-citizens".

In the same journal—the *Annali Universali di Médicina*—from which the foregoing information regarding Morgagni is taken, we find a notice of an interesting ceremony of which another eminent Italian, Alessandro Volta, was the subject. On March 30th, the remains of this distinguished physicist were disinterred at Camnago-Volta (Como); and, after being publicly exposed on the next day, were placed in a marble sarcophagus in a mausoleum erected to his honour by his family. The ceremony was attended by representatives of Italian universities and other scientific institutions, by the syndics of Camnago and Como, and by the prefect of the province. The Minister of Public Instruction was appropriately represented by the successor of Volta in the University of Pavia. The opportunity was taken of obtaining measurements of Volta's skull; the internal capacity of which, as ascertained by means of fine sand, was 1,865 cubic centimeters. According to the calculations of Professor Lembroso, this was larger than the skulls of Cuvier (1,829 cubic centimeters) and of Byron (1,807); and a little smaller than that of Cromwell. It much exceeded the ordinary Italian skull (little more than 1,500 cubic centimeters).

Dr. Buchanan's address on English Hospitals in their Sanitary Aspects, lately delivered before the Medical Society of London, has been printed at the request of the Society. It deals with a subject which is far from new, yet derives both novelty and fresh importance to its theme from a certain novelty and weightiness of treatment. Vaguely, we all know that it is an excellent thing for a hospital to be clean in all that relates to its floors, walls, bedding, and utensils, its air and water, and the habits and dresses of its attendants; but we have not yet fully realised all that is implied in the duty of keeping the hospital clean. Dr. Buchanan has been in the official habit for some years of organising cleanliness all over the country, and in this address he proposes to organise cleanliness in hospitals. Perhaps, when this is done, we shall hear less of "hospitalism".

We published last week a summary of Mr. Netten Radcliffe's report on the Radcliffe Infirmary, which afforded a very good example how a skilled sanitary officer will run to ground causes of "filth, disease," and "zymotic infections," which escape less practised observers. Mr. Radcliffe's report has not altogether escaped criticism; but we believe it to be very valuable, not only as a single achievement of usefulness, but as an example. Dr. Buchanan evidently refers to it in his address, and it assists him to point to the following conclusions, which are certainly worthy of local as well as of central consideration.

"What I am sure of—and it is this point that I venture to insist on strongly—is, that there are few hospitals in the kingdom of which it can be affirmed that the sanitary arrangements required to fit the institution for the care of a number of sick are thoroughly known to a competent and responsible officer whose business it is to keep the governing body informed of the facts. Just as there should be some one charged with the duty of seeing to common drainage and ventilation, so there should be somebody to answer for the more special sanitary arrangements of the place; whose business it should be to make sure, for instance, that stools possibly infective are disinfected before they are discharged into drains, that foul dressings are duly burnt, that patients on their admission are put in the particular wards and placed under the particular circumstances that shall suit them best; who should be responsible for preventing accumulation of suppurating wounds in a ward, and for separating with all proper precautions any case that threatens to be erysipelas. Surely all these things should be somebody's business. They cannot well be the affair of non-resident physicians and surgeons; they ought not to be the affair of student-officers; still less ought they to be considered as merely the concern of a steward or matron, or perhaps of a nurse or servant. Efficient observation and record of the day-to-day sanitary circumstances of the various parts of a hospital, such as I contend it is the duty of every governing body to ensure, demands a thorough knowledge of hygiene and pathology, and some experience in the practical applications of those sciences. The officer specially charged with these functions, again, should be a person to command the confidence of the medical officers, with whose province his own would be ever in contact; and he should be capable of enlisting students and others as fellow-workers with himself, and of adding from his special experience to the general store of hygienic knowledge. I trust the time is not far distant when an officer specially charged to look after the sanitary welfare of the institution will be found at every hospital in England. The duty is one that essentially pertains to a medical officer, and far preferably to a resident officer."

Before we leave this subject, we should like to refer to the evidence which Dr. Buchanan has collected respecting the necessity for further provision and enlarged use of hospitals for infectious diseases, and the actual power of these hospitals to prevent the extension of infection among the community. The opportunities of collecting such evidence have as yet been few, since hospitals of the kind are most scantily provided; but some evidence there is, and that of cogent value. Dr. Buchanan writes:

"My friend Dr. Blaxall has put one instance on record. In the two adjacent towns of Plymouth and Devonport, small-pox made its appearance in 1871. In Plymouth, it lasted as an epidemic over eighteen months; in Devonport, over eight only; the difference in duration seeming to be directly related to the difference in the hospital provision of the two places. In Devonport, soon after the epidemic began, beds, in the proportion of two to every thousand of the population, were provided. In Plymouth, a wholly insufficient provision was at first made; three additional hospitals in succession had to be built while the epidemic was going on, and in all the accommodation for the sick hardly exceeded the half of what Devonport had provided by a single effort. Had there been some standing hospital ready to receive the earliest cases, it cannot be doubted that both places would have escaped with a much shorter epidemic and a much smaller small-pox mortality. I myself had occasion to compare the behaviour of this same disease in Birmingham with its behaviour in London and Coventry; and I found that Birmingham, having no infectious hospital except what was used almost exclusively by paupers, and that being on a scale of about a quarter of a bed to every thousand population, had small-pox going on for some three years, while its neighbour, Coventry, providing by an effort and for all classes three times the proportion of accommodation that Birmingham made, put out a sharper epidemic almost immediately; and even London, also having about three times the amount of accommodation of Birmingham, and using it for all classes, got rid of its epidemic in about half the time that it lasted in Birmingham, the subsidence beginning very soon after this amount of hospital provision had been made.

"A neat illustration of the same thing comes to us from Cheltenham, for which town a small-pox hospital has been provided by private benevolence. This instance is the most apposite to my argument in favour of there being a ready-made provision for cases of infection introduced from without. Here fourteen beds are permanently provided for small-pox cases in an admirable little hospital that is devised to suit the wants of well-to-do people, as well as of those who may be sent to it by the public authorities. In six months of last year, small-pox was brought into Cheltenham no less than six times, from Gloucester, from Birmingham, from Liverpool, and elsewhere. Seven persons ill of the imported disease were taken without delay to the Delancey Hospital, and, except one individual, who was also removed to the hospital, nobody in the town caught the disease from these seven centres of contagion. There was literally no other small-pox in the town. How much there would have been if, in the absence of the hospital, the seven importations had been allowed to spread their contagion in a widening circle round each, can of course only be a matter of surmise."

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THE annual dinner of the Pharmaceutical Society, under the presidency of Mr. T. H. Hills, brought together an assemblage of nearly three hundred pharmacists, with many guests, including the Presidents of the Medical Council and of the Linnæan Society. The toast of "The Medical Profession" was proposed by Mr. Sandford, and acknowledged by Dr. Acland. The burden of the song appropriated to the occasion was, "*I love my love, because I know my love loves me*". This "song of the pharmacist to the physician" was rapturously applauded. We are not sure that the *à propos* was not unintentional; but, if so, it is not the less amusing.

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MR. SANDFORD, a ready speaker, was a little at a loss whether to describe pharmacy as a trade or a profession. Dr. Acland solved the difficulty for him by suggesting that it was a business, which, it appears, is a middle term adopted by Act of Parliament. There have been serious discussions on matters less important. The applause with which Dr. Acland's suggestion was received seemed to testify that his solution of the knotty point was acceptable.

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AT the University of Oxford, notice has been given of a statute which proposes to institute an examination in subjects bearing upon Preventive Medicine and Public Health, and to grant certificates for proficiency therein; the examination to be held every year in Michaelmas Term, and to be open only to persons who shall have obtained the degree of Bachelor of Medicine in the University. The subjects of the proposed examination will be Hygiene, Sanitary Law, Sanitary Engineering, and Vital Statistics. The statute makes provision for a Board of Examiners, five in number, with the Regius Professor of Medicine presiding, who would also be Chairman of the Board of Studies constituted to regulate the examination. A further provision is made that the fee paid by each candidate before examination shall be £5, and for the certificate £10. Examinations in State Medicine promise to be as plentiful as blackberries; and thus it is possible that nineteen more qualifications of differing value will be added to the already extended list.

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### MEDICAL ADVERTISING.

IN discussing the modern English practice of advertising the titles of medical books intended only for medical readers in daily papers, we have expressed the opinion that this practice—which we have given reasons for thinking objectionable—is an institution which has sprung up spontaneously and without due consideration; and that it is an unpleasing peculiarity of which this country affords the sole example. Any medical man who, either in France or in America, should advertise in political papers medical books such as those which habitually appear in the medical publishers' columns here in lay newspapers, would be considered *ipso facto* to place himself out of the pale of professional propriety. The comments on our articles which we notice in the American medical journals confirm this view. The *Boston Medical and Surgical Journal* observes:

"It appears to have become a rapidly growing evil, and one which all classes of medical men have been guilty of to such an extent as to call for a decided expression of public opinion. We do not, of course, allude to that barefaced method of extolling one's own virtues which is commonly employed by the charlatan. The object is accomplished in a more guarded and insidious, and therefore, probably, more effective manner. The methods used are various. One form of this evil is severely commented upon by a French reviewer as follows. 'For some time past, English literature has become enriched by a large number of medical works, of which the object is not always the advancement of science and the search after truth. Many of these works are nothing but touting for patients—a kind of costly but paying advertisement, which their authors allow themselves to put forth in order to attract the attention of the lay public.......Thus every day we receive from them a large number of books for criticism, which we take good care neither to read nor to analyse, and of which the first page sufficiently shows the idea which has inspired the composition of the book.' The practice of advertising in the newspapers medical books which were avowedly written for medical readers is, we understand, largely resorted to in England. In this country, so far as we are aware, such advertisements are rarely seen."

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### GUY'S HOSPITAL.

SINCE the appearance in the BRITISH MEDICAL JOURNAL, of the 1st instant, of a paragraph which described the changes in the surgical staff of Guy's Hospital that had resulted from the retirement of Mr. Birkett, other alterations have taken place. Mr. Bryant and Mr. Durham will lecture jointly on Surgery; Mr. Howse, assisted by Mr. Davies-Colley, will give the lectures on Anatomy; and the latter gentleman will continue the course of Operative Surgery.

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### BATH MINERAL WATER HOSPITAL.

THE General Court of the governors of this hospital was held on May 1st. The report for the past year was of a highly satisfactory kind. It appears that 854 patients have been admitted during the year, which is a larger number by eighty-eight than in any previous year. The daily average has been 121, and the average stay of each patient fifty-two days. In consequence of the large number of legacies which have been received, the income has been £606 more than the expenditure. The regular income has, however, fallen short of the expenditure by a considerable amount. A note was read from Dr. Coates, resigning the office of physician, which he has held during the last seventeen years, and Dr. Brabazon was elected in his place; while at the same time Dr. Richard Carter was elected to succeed Mr. J. S. Bartrum as surgeon.

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### THYMOL AS AN ANTISEPTIC AND ANTIFERMENTATIVE.

HERR L. LEWIN has lately made some experiments in Professor Leibreich's laboratory in Berlin, on the antiseptic and antifermentative properties of thymol. This substance, the formula of which is $C^{10}H^{14}O^{1}$, belongs to the benzol group. It forms white crystals of a highly aromatic odour; a solution of 1 part in 1,000 of hot water has a neutral reaction, and is of sufficient strength for all purposes. Comparative experiments with carbolic and salicylic acids showed that thymol possessed much greater power than either of these acids, in arresting fermentation in a solution of sugar after the addition of yeast. The addition of thymol to milk caused coagulation to appear twenty days later than in milk to which a similar quantity of water had been added; and at the end of five weeks there was still an aromatic odour, and no trace of vegetation. While filtered egg-albumen underwent decomposition in three or four days on exposure to the air, albumen to which thymol-water had been added did not present the slightest sign of putrefaction at the end of eleven weeks, and the aromatic odour was still perceptible. Putrid pus treated with thymol lost the fœtid smell, and remained in this state until it dried up at the end of about five weeks. Herr Lewin also found thymol to arrest putrefactive change in brain-substance for five weeks. With regard to the effects of thymol on the living animal, Herr Lewin says that a watery solution of 1 in 1,000 has an astringent effect on the mucous membrane; and that three or four tablespoonfuls can be taken daily without inconvenience, with the effect of arresting fermentative changes in the stomach. A remarkable effect produced on frogs by immersion in the solution was total cutaneous anæsthesia. Experiments on artificial digestion indicated that thymol did not in the least interfere with the digestive process.

### THE RUGELEY DISTRICT HOSPITAL AND PROVIDENT DISPENSARY.

THE Report for 1874 shows that this well-known provident institution continues to make satisfactory progress. The opening paragraph says:

> The number of benefit members is now, at Rugeley, 877; at Colwich, 437; at Armitage, 325; at Colton, 180; at Longdon, 174; at Brereton, 346; at Ridware, 92; or 2,431 in all; showing an increase of 253 since January 1st, 1874. This proof of the general appreciation of the benefits of the dispensary cannot fail to be gratifying to the members; but, at the same time, the Committee venture to express an opinion that great care should be taken to confine those benefits to the classes for whom they are intended. More than once they have been obliged to strike off the list of members the names of persons who never ought to have joined the Institution, or who have continued to belong to it after an income which disqualified them had been secured. It should be remembered that the remuneration paid to the medical men for their services to dispensary patients is small; consequently, if those who can well afford to pay the usual medical fees avail themselves of the privileges of the institution, the doctors may incur serious pecuniary loss.

We are glad to see these cautions put so prominently forward. We have repeatedly pointed out that the provident dispensaries offer special advantages for a special class, and that, unless they be carefully watched, they are as liable to be abused as the free dispensaries. The Report goes on to say that it is proposed to open some free beds at the hospital for the use of the "very poor". It is quite natural that the benevolence of the promoters should wish to extend itself in this direction, but we trust they will consider the step in all its bearings before they take it. There is nothing which has done more injury to provident dispensaries than the introduction into them of a purely eleemosynary element; and we should be very sorry to see any alteration made in the constitution of the Rugeley District Hospital and Dispensary which might impair its efficiency or withdraw it from the high place which it holds among provident medical institutions. Last year, the sum of £435 8s. 1d. was divided among the four medical officers for attendance on 1,593 sick members, and 52 confinement cases.

### DEGREES IN ABSENTIA.

THE evil resulting from the bogus diploma system has been making itself painfully felt of late. A recent inquest at Spennymoor revealed the fact that the patient had bled to death from an artery lacerated by an unset compound fracture of the leg; the course of treatment adopted by the medical (!) attendant being, as he put it, to strengthen the system. No steps were taken to reduce the fracture, and the practitioner was quite content to see the broken bones projecting; whilst, to use his own words, "he prescribed for the body in order to strengthen the system". At the inquest, the so-called "Dr." Thompson produced his "diploma" from the "Eclectic Medical College of Pennsylvania"—the diploma being one of a class of documents which were, and still are for aught we know to the contrary, largely advertised as degrees *in absentiâ*, and procurable at the rate of about £8. A somewhat parallel case occurred not long since at Airdrie, when "Professor Chadwick de Banzie, M.D., LL.D.", produced on his trial two diplomas from the University of Philadelphia as proofs of his medical qualification. The so-called University of Philadelphia appears to be nothing more than an establishment for the sale of spurious degrees, the sales being chiefly effected by means of a travelling agent. The similarity of name between the names of the bogus Philadelphian College and the well known University of Pennsylvania would readily cause the sham degree to be mistaken for the genuine one. It is but due to our American cousins to state that they are becoming alive to the evils arising from these fraudulent degrees, inasmuch as their own genuine diplomas become tainted with suspicion from the wholesale manner in which this particular traffic has been carried on. As the evil originated on that side of the water, it is incumbent on the American authorities to put down effectually this disgraceful and deceptive trade in bogus diplomas.

### THE HOSPITAL FOR DISEASES OF WOMEN AND CHILDREN, VINCENT SQUARE.

THIS little hospital manifests a commendable desire to avoid pauperising its patients, and to encourage them in habits of self-reliance and self-respect. It insists upon a small payment from both out-patients and in-patients, in proportion to their means; and last year about £100—one-sixth of its income—was derived from this source. Such being the case, however, we should have been glad to see that it gave its medical officers some small honorarium; for we maintain, as a general principle, that, wherever money is taken from patients for value received, a certain proportion ought to be handed over to the staff. An institution like this may supply what is a real want at the present time—namely, a hospital for receiving those who have an honourable dislike to accepting entirely gratuitous assistance, and it may help to solve the problem of how we are to reform our medical charities. We hope that the managers will keep this object clearly in view, and will adhere strictly to their principle of enforcing a payment proportioned to the circumstances of the patient, being very careful not to admit those who could afford medical attendance at home. There are, however, one or two sentences in the Report for 1874 which we cannot pass over without comment, as they seem to reflect upon other hospitals, and may be misunderstood by the public. It is said that the advantages of the hospital are: "The treatment of all diseases by *experienced* medical officers, *not by students*; the treatment of *special* cases by physicians who have made the peculiar class of diseases a *special* study; the securing the *privacy*, care, and comfort peculiarly needful in such cases." The italics are not ours; they are found in the Report, and seem as if they were intended to imply that in these particulars the Vincent Square Hospital differed from others. But are there not experienced medical officers at other hospitals? and is it not a mistake to suppose that in any but very exceptional instances the treatment of patients is entrusted to students? And are not the physicians and surgeons attached to special departments in our general hospitals at least equally well qualified with the staff at the Vincent Square Hospital? We fully admit that some women would be willing to enter a small institution such as this, who might shrink from the greater publicity of a general hospital, and from the demonstrations of clinical teachers. The plea of privacy has, therefore, some weight; but we cannot admit that the "care and comfort" can in any other respect be greater than, if so great as, in our large and munificently supplied hospitals.

### THE RELATION OF THE MEDICAL STAFF TO THE GOVERNORS OF A HOSPITAL.

OUR attention has been called to a difficulty which has recently arisen at the Worcester Infirmary. A trivial complaint was brought before the executive committee against one of the medical staff. This was referred for investigation to the house-committee, upon which the medical men are not represented. The officer in question, though quite willing to give an explanation to the executive committee, declined to appear before the house-committee, as he did not consider them authorised by the rules of the hospital to investigate complaints against the honorary medical staff. In principle, we consider, he was perfectly justified. It is most unreasonable that complaints against medical men should be tried before a lay tribunal. We quite agree in the comment of the *Worcestershire Chronicle*, that "any complaints against the honorary officers ought only to be heard before a joint committee composed of the subscribers who find the money, and the medical men who find the skill". Indeed, as a general rule, the medical officers of our hospitals have not that share in the management of these institutions to which they are entitled in consideration of their special knowledge and the important services which they render. It seems to be forgotten that they find the professional skill while the subscribers find the money. Both are equally necessary, and both ought to go hand in hand in the direction of the charity. At the Worcester Infirmary, the conclusion which was arrived at by the executive committee was to adhere to their right of delegating complaints to the house-committee, but in this instance they declined to enforce it. This compromise leaves the question in an unsatisfactory position. We hope the medical staff will unite in supporting their colleague, and in following up the line of action which he has initiated.

### MEDICAL WITNESSES AT THE ASSIZES.

WE referred lately to the hardship inflicted upon medical men when they are summoned to give evidence in police-courts, while the magistrates have no power to allow them a fee; and we expressed a hope that the new Judicature Bill—when we get it—will lay down rules for the reasonable and equitable remuneration of medical witnesses both in the superior and in the inferior courts. We revert to this subject, because our attention has been called to another aspect of the question. Mr. Frederic Manby of East Rudham has lately written to the *Norfolk Chronicle*, pointing out the great inconvenience, to say the least of it, to which medical witnesses may be put if they are detained at the assize towns in the hourly expectation that some case in which they are concerned may be called, but which, for one reason or another, is deferred from day to day. At the recent Norwich Assizes, Mr. Manby himself was subpœnaed as a witness in a criminal case, and he was detained from the opening of the commission nearly to the end—seven days in all. Part of the time he had to spend at Norwich, and part at Lynn, and as his remuneration he received altogether £8 17s., about 25s. *per diem*. This is obviously a most inadequate payment, when the loss of time, the disarrangement of business, the expense of travelling, etc., are taken into account. Mr. Manby suggests that, in these days of telegraphic communication, it would be enough to summon the professional witnesses a few hours before their case was to come on, which could easily be done either by wire or by a special messenger, they having previously been subpœnaed as usual. To this suggestion we can see no great objection. If proper care were exercised, there need be no fear of the absence of important witnesses, while the expense, as Mr. Manby shows, would probably be considerably less than it now is. By such a plan as this the inconvenience and loss of time would be obviated. This, at any rate, would be a step in the right direction; and we trust that yet further justice may by and bye be done to the profession by raising the scale of remuneration for skilled witnesses.

### THE VOTING CHARITIES.

APROPOS of the system of "exchange" of votes at charities as so much property, and regardless of the relative merits of candidates, a correspondent forwards us the following extract from the *Queen* of May 1st.

1. "Who will give me the greatest number of votes for the May election for the Infant Orphan Wanstead Asylum, in exchange for one vote for the Earlswood Idiot Asylum for the April election? Immediate answers to ———."

2. "I wish to exchange ten pensioners' votes for the Royal Medical Benevolent College, Epsom, for the same number of votes for the foundation scholarship of the above institution. Address ———."

### THE CONTAGIOUS DISEASES ACT IN CALCUTTA.

WE publish to day a very striking paper on the operation of the Contagious Diseases Act in Calcutta, by Surgeon-Major Payne, Superintendent Commissioner, which will be read with great interest. It shows both the advantages resulting from the Act, and the causes which produce fluctuations in its action. Dr. Payne has evidently collected his statistics with very great care, and has stated them in a simple but conclusive manner. Three classes of facts converged to the same conclusion: viz., the statistics of venereal admissions in the civil hospitals; the statistics among the European garrison in Fort William; and the statistics of the amount of disease among the prostitutes. Who can for a moment suppose that the simultaneous decrease of syphilitic disease in all three cases was simply accident? We desire, also, especially to point out to those who are so bitter against this first attempt to control one of the foulest of diseases, what an immense benefit the Acts have conferred on the unhappy women in Calcutta. The table Dr. Payne gives speaks for itself, and shows that, while among 100 prostitutes not registered, about 25 have venereal diseases, among those registered, less than two are so affected. The benefit to the European soldier has been great, but that to the prostitutes has been still greater. We would particularly direct attention to Dr. Payne's able statement of the obstacles in working the Act, arising from the movement of troops and prostitutes, and the introduction of the disease from places outside the operation of the Acts. The whole paper is, however, a most valuable contribution to the discussion; and we commend its perusal to all, with the certainty that it will strengthen the hands of those who uphold the Acts, and in the hope that it may lead those who oppose them to reconsider the grounds of their opposition, and to ask themselves if they are not really acting against the best interests of the human race.

### BELGRAVIAN HOSPITALS.

THE proposed amalgamation has, we are glad to hear, taken place between the Belgrave and Victoria Hospitals for Children. The Belgrave Hospital has seventeen beds, and the Victoria sixty. The site has been given by the Duke of Westminster. It is on the Thames Embankment. This most desirable object has been effected mainly through the liberality and intelligence of the Duke of Westminster, who made the amalgamation a condition of his munificent support. The valuable site now given is, in all respects, admirably adapted for its purposes. The land is at present occupied, and the site will not be immediately available; meanwhile efforts will be made to raise the necessary building fund. The staff of the Victoria Hospital consists of Dr. Evans, Dr. Cavafy, Dr. Jones, Dr. Grigg, and Dr. Lakin; Mr. Cowell, and Mr. Foster. The staff of the Belgrave Hospital includes Dr. Farquharson, Dr. Fenwick, and Mr. Pick. The staffs of both hospitals have actively co-operated in bringing about this excellent junction. The liberality with which the Duke of Westminster realises his responsibilities as a large landed proprietor, in the southern and western district of London, by assisting to provide for the wants of the sick children of the district, affords a worthy example to the great landlords in London. It should be added, that Lord Cadogan has also lent active and liberal aid.

### MEDICAL ARTISTS.

THE various picture-exhibitions are now open; and, on looking through them, we are much gratified to find that some of our medical brethren, who are represented on the walls, show considerable proficiency in various styles of art, and afford proof that success in one art is not incompatible with success in another widely different. The work most worthy of notice amongst those contributed by members of our profession, is, Mr. Prescott Hewett's "Corfe Castle, from Poole Waters", No. 228 in the Catalogue of the Society of Painters in Water Colours, of which Society Mr. Prescott Hewett is a honorary member; this work is very carefully studied, effective in light and shade, tenderly painted, and, moreover, full of sentiment. At the Royal Academy, Sir Henry Thompson exhibits No. 538. This is an oil picture, solidly and truthfully painted, of some picturesque houses at Zermatt; the sky in this little picture is very true in tone, and the buildings are rendered with truth. Mr. Seymour Haden and Dr. Evershed contribute etchings to the same Exhibition. The former has (No. 1,087) impressions of an etching of "Turner's Calais Pier", in two states; the plate is of large size, and the execution somewhat rough. If this etching were subsequently mezzotinted, the roughness would be advantageous, and a very effective plate might be made; we hope Mr. Haden has this purpose in view. Dr. Evershed has an etching, No. 1,078, "On Hampstead Heath": trees in the middle distance, the leaves turned by the breeze, and a bank of ferns in the foreground; it has a look of nature about it. At the Society of British Artists, Dr. Evershed exhibits a small oil picture of Hampstead Heath, No. 483; this represents some of the sandbanks, with Hendon in the distance. Mr. Lennox Browne is also an exhibitor. His work is in water colours, No. 625, "Christmas Day at Harrow". It is a very successful representation of a winter's day; the characteristic sky and the truthfulness of the landscape are especially worthy of praise.

### MONUMENT TO THE LATE DR. J. J. PHILLIPS.

A MONUMENT has just been erected in Towyn, North Wales. It is of Aberdeen granite, in the shape of an Egyptian obelisk, with ornamental Roman base, all polished and beautifully finished, and of magnificent size and proportion. The obelisk without the pedestal is ten feet high, of one solid block of granite. There is the following inscripton on the monument: "In affectionate remembrance of John Jones Phillips, Esq., M.D.Lond., M.R.C.P.Lond., M.R.C.S.Eng., of 26, Finsbury Square, London, Assistant Obstetric Physician to Guy's Hospital, Assistant Physician to the Hospital for Sick Children, Physician to the Royal Maternity Charity, etc., son of the late J. B. Phillips, Esq. He died on the 22nd day of January, 1874, aged 31 years. His brilliant talents and persevering energy obtained for him a distinguished position in his profession, while the Christian purity of his character, his deep conscientiousness, his affectionate disposition, and his gentleness of manner, had won the love and esteem of all with whom he came in contact. 'Blessed are the pure in heart.'" This monument will, to future generations as well as the present, bear testimony of what untiring and constant application to a certain purpose can attain, and it would be well if young people read the inscription on it, and considered how magnificently perseverance rewarded the efforts of this gentleman at thirty-one years of age. The monument stands on the family vault.

### RECENT URBAN MORTALITY.

DURING last week 5,589 births and 3,521 deaths were registered in London and twenty other large towns of the United Kingdom. The annual death-rate was 24 per 1,000 persons living; and the rates in the different towns, ranged in order were as follow: Portsmouth, 15; Sunderland, 17; Norwich, 18; Edinburgh, 20; Hull, 21: London, 22; Newcastle-upon-Tyne, Nottingham, and Wolverhampton, 23; Sheffield, 24; Leicester, 25; Bristol, Liverpool, Bradford, and Birmingham, 26; Dublin and Leeds, 27; Glasgow, Salford and Manchester, 28; and Oldham, 39. The zymotic rate was 1.3 and 2.0 in Portsmouth and Sunderland respectively: and so high as 5.1 and 6.5 in Hull and Salford. The deaths referred to scarlet fever were excessive in Hull, Leicester, and in the Nether Hallam subdistrict of Sheffield. Small-pox caused 12 deaths in Birmingham. In London, 2,346 births and 1,427 deaths were registered. The births exceeded the average by 61, the deaths were 3 above the average, and the annual death-rate was 22 per 1,000. To the seven principal zymotic diseases 220 deaths were referred, being 18 below the average number, and giving an annual zymotic rate of 3.3 per 1,000. To whooping-cough 86 fatal cases were referred; the deaths from scarlet fever were 59, a higher number than in any week since last January. The deaths referred to diseases of the respiratory organs were 267, which exceeded the average by 26. In greater London, 2,822 births and 1688 deaths were registered. In outer London the general death-rate and the zymotic death-rate were 17.9 and 2.1 per 1,000 respectively, against 21.6 and 3.3 in inner London. In Croydon, 26 deaths from fever have occurred since the beginning of March last. At Greenwich, the mean reading of the barometer last week was 30.05 inches; the mean temperature of the air was 59.3 deg. or 7.5 deg. above the average, and was above the average on each day of the week. On Saturday the thermometer registered 81.2 in the shade, and the mean temperature was as high as 66.2 deg., that is 4 deg. above the average for the end of July, which is the warmest period of the year. Rain fell on Sunday only to the amount of 0.01 of an inch.

### PROFESSOR SCHIFF ON ETHER AND CHLOROFORM.

PROFESSOR SCHIFF made a verbal communication to the Medico-Physical Society of Florence, at their meeting on March 1st, in which he related the results of upwards of five thousand experiments on the differences between anæsthesia produced by chloroform and that produced by ether. With both ether and chloroform, paralysis of conscious sensation; paralysis of the movement of voluntary muscles; paralysis of respiration, circulation, and, finally, paralysis of the heart and the vaso-motor nerves occur. Respiratory paralysis is produced by ether when circulation and blood-pressure remain within the limits compatible with life. Sometimes the vascular pressure increases, sometimes it decreases, but it is always sufficiently high to allow the exchange of the carbonic acid gas with the oxygen of the atmosphere. Vascular succeeds respiratory paralysis when ether is administered. The reverse takes place with chloroform. Frequently an amount of this anæsthetic agent which would not be sufficient to produce respiratory, may suffice to bring on vascular paralysis. Under these conditions, and when vascular paralysis lasts under thirty seconds, artificial respiration is useless, because there is no longer any exchange of gases, the blood-pressure being diminished. The cessation of respiration, therefore, is not the most dangerous moment to animal life, when etherisation is employed, whilst it may be so with chloroformisation; because sometimes it is possible to produce some automatic respiratory movements, but, nevertheless, respiration ceases immediately, and the animal dies. With etherisation, on the contrary, when some automatic inspirations are obtained, it may be taken as certain that respiration will continue, and that the animal will live. Professor Schiff affirms that, in the present state of science, there are no means which will show us how to recognise, so as to prevent them, the tendencies which may cause death in some animals, after the first inhalations of chloroform, before having produced true anæsthesia. The reverse occurs with ether; so that it may be said that in the present state of knowledge the surgeon is responsible for the death of the individual by etherisation; whilst he is not responsible when death occurs during chloroformisation. Professor Schiff, therefore, deduces from these facts the following conclusions. 1. The phenomena relating to the paralysis of sensibility and movement are common to both ether and chloroform. 2. The two other orders of phenomena, that is to say, those relating to vascular and respiratory paralysis, often show themselves in inverse order with reference to these two agents. 3. With chloroform, however, either the one or the other of these two paralyses may first show itself, involving great danger to the animal if the vascular phenomena be the first to make their appearance. Therefore, the use of chloroform should be rejected, and ether only be used.

### SEWER-GAS.

THE sanitary superintendent at New York, Dr. Walton De F. Day, has recently published a memorandum, calling attention to the insidious effects arising from the presence of sewer-gas in the houses of New York. It is stated that "this subtle poison is directly responsible for many sudden attacks of obscure disease, ending fatally, for the preparation of the system for the more aggravated forms of diphtheria and other grave diseases, and for those milder forms of blood-poisoning which betray themselves by aches and pains and general ill health". As in London, so in New York, it appears that, even in the better class of houses, the arrangements for carrying off refuse from closets, baths, and basins, are generally so contrived as to introduce the sewer-gas into the sleeping apartments. Attention is called to the fact that these important sanitary defects are due sometimes to the falsely economical views of the architect; sometimes to the ignorance and carelessness of the plumber; and are nearly always supplemented by the ignorance and apathy of the inhabitant. Bearing in view the important relation between house-drainage and public health, Dr. Day expresses his undoubted conviction that the rate of mortality in New York might be signally reduced if the pecuniary means existed for instituting a systematic house-to-house inspection, by experts, of the internal drainage arrangements. The memorandum, in conclusion, urges the necessity of a more intimate co-operation between the Sanitary Department and the Department of Building, in order to put some check upon the perpetration of those grave sanitary defects in the construction of new houses, of which, it is said, nine hundred were built in New York last year.

## IRELAND.

At the meeting of the Committee of the Belfast Branch of the Royal Medical Benevolent Fund Society of Ireland, held at Belfast on May 6th, Dr. Wilberforce Arnold was unanimously elected Honorary Secretary, in the room of the late Dr. Robert Stewart, late Superintendent Physician of the Belfast District Hospital for the Insane. Dr. Stewart had held the post of Honorary Secretary for very many years with distinguished honour.

### THE LIFFEY NUISANCE.

The Dublin Corporation has summoned the Port and Docks Board before the Dublin Police Court, in order to compel the board to abate the above nuisance. The evidence on behalf of the corporation having been completed, the case was adjourned. We hope to be able to give our readers more particulars of this remarkable case next week.

### THE LOCAL GOVERNMENT BOARD AND MALAHIDE CHURCHYARD.

The Irish Local Government board seems to be for ever in difficulties, and these difficulties seem to be of their own making. Last year, an order was issued by the board closing an old and overcrowded graveyard at Malahide; this order was quashed by the Court of Queen's Bench, on the ground that the parties objecting had not been properly heard before the inspector, who held the inquiry. On another occasion the board wrote to the parties interested, stating that the "material evidence was so conflicting that the board could not form an opinion". Mr. O'Brien, one of the inspectors of the board, held another inquiry, which was apparently properly conducted; but the board, being in its usual state of mental confusion, and not being able to make up its mind, sent all the evidence to Professor Emerson Reynolds for his consideration. Dr. Reynolds reported in favour of closing the graveyard, and accordingly the board issued an order on the 31st of March of the present year, closing the graveyard from the 1st of next June. On Saturday week, an application was again made to the court for a writ of *certiorari* to quash this order, on the ground that Dr. Reynolds was not examined at the inquiry. The court granted this order. Now, the Irish Local Government Board has a medical commissioner, and a barrister for its vice-president. How is it that the medical commissioner could not decide a very simple sanitary question? and how is it that the "legal" vice-president could not give sufficient advice to prevent the order of the board being brought into question upon such a simple ground?

### ABUSE OF POOR-LAW MEDICAL RELIEF.

The committee of the Toomevara Dispensary have resolved that red tickets shall no longer be issued (which entitle the recipients to gratuitous visits from the physician and medicine) to people whose circumstances enable them to pay something, and that such persons shall be given instead a letter to the medical officer, recommending his attendance, for which a fee of 10s. or 7s. 6d. shall be charged, according to the circumstances of the applicant. The example is one worthy of imitation by other boards, as the medical relief, provided by the Poor Law, is often used by persons not merely above paupers, but comparatively wealthy.

## SCOTLAND.

### THE SCOTCH REGISTRATION REPORTS FOR 1874.

The Report of the Registrar-General for Scotland for the year 1874 has recently been published, and contains many points of interest. Indeed, from the care and accuracy with which registration is carried on in Scotland, these reports form probably the most valuable mass of statistics for the purpose of sanitary science and preventive medicine that can be found anywhere. The volume contains a separate report on vaccination, with statistical tables extending over ten years, recounting the history of small-pox in the country during that period, which might with advantage be dedicated to the Antivaccination League. In the last and the preceding report, the country is divided for statistical purposes into five very convenient and important groups, corresponding to the different aggregations of individuals, and, less directly, to their modes of life. These groups are: 1, principal towns, such as have 25,000 inhabitants and over; 2, large towns, such as have from 10,000 to 25,000; 3, small towns, from 2,000 to 10,000; 4, mainland rural; and, 5, insular rural. This method of division permits a comparison between the health, moral as well as physical, of the dwellers congregated together in large masses, and those living in purer air and less densely populated districts. As regards births, the percentage is highest in the large towns, being 4.29 per cent. of the population (which is estimated in the middle of 1874 at 3,462,916); and lowest, 2.64 per cent. in the insular rural districts. Out of the 123,795 births, 8.7 per cent. were illegitimate. Banffshire stands at the head of the list of immoral counties, with 17.1 per cent.; whilst the insular rural districts only show 5.7 per cent. of illegitimacy. The boys were in the proportion of 105.8 to 100 girls, while the females were in excess of males in the whole population by 150,000. The death-rate during the past year shows a very high mortality, far above the average rate of the past ten years, being as high as 23.3 per 1,000 of the population. This is partly to be attributed to severe epidemics of scarlet fever; more than 20 per cent. of all the deaths being traceable to this cause in Dundee, and 10 per cent. of all principal towns; and other zymotic diseases to a more limited extent, and partly to the very severe weather of November and December. The mortality of the different groups varied from 28.3 per 1,000 in the large and principal towns, to 16.8 per 1,000 in the insular rural districts. The marriage-rate was very high, and varied, naturally, very much with the massing together of the population; from 9.2 marriages for every 1,000 of population in principal towns to 4.7 per 1,000 in insular rural districts. As regards single diseases, it is to be noticed that consumption occupied an unusual position last year; ordinarily, the deaths from it alone are more numerous than from any other single cause, but last year it was surpassed by both scarlet fever and bronchitis. The diseases of the respiratory system constituted very nearly 20 per cent. of the whole mortality. Two females reached the age of 102, one having been unmarried, and the other a widow. A special report is added on the connection between weather and mortality, and serves to confirm in a striking manner the popular notion that cold weather has much to do with the production of disease in Scotland. Thus December last, in which the mean temperature was only 30.9 degs. Fahr., or more than 9½ degrees below the average of the ten previous Decembers, was marked by a very great increase in the number of deaths recorded; the increase being due principally, in the principal towns at all events, to diseases of the organs of respiration. The special vaccination report shows a most satisfactory state of matters; 88 per cent., in round numbers, of all the children born in 1873, have been successfully vaccinated; while a small percentage have been found insusceptible to the vaccine poison.

### THE POLLUTION OF RIVERS BILL.

At a meeting of the Scottish Rivers Purification and Sanitary Association, it was agreed to petition Parliament upon several points in connection with the Bill presented by the Marquis of Salisbury. While the Bill is generally approved of, several amendments are to be suggested in the petition. The meeting thought that: 1, all rivers should be placed under Government inspection; 2, all polluters should be placed on the same footing whatever might be the age or the source of the pollution, and consequently, offensive sewage, manufacturing and mine discharges, should all be put down unless it be proved that the best practical means have been adopted to render them harmless; 3, the Act, if carried out under Government auspices, would answer all purposes, and all power of complaint should be vested in the inspector, who should be amenable for his doings to Government.

## ARTHUR O'CONNOR.

[FROM A SPECIAL CORRESPONDENT.]

ARTHUR O'CONNOR, at the time of his attempt to annoy Her Majesty by a lockless pistol on April 30th, 1872, at Buckingham Palace, is thus described. His *physique* was most miserable. He was a slender weakly lad, narrow-shouldered and pigeon-breasted, and of that type now so common in the deterioration found in great towns. His demeanour in the dock was remarkably composed. His face had rather a dreamy mildness about it than the characteristics of the desperado. He looked, in fact, what he was: an imbecile. So much for his *physique*.

The evidence given at his trial by his father and mother tended to make him out a quiet fairly well disposed lad, given much to reading, chiefly English and translations from the French. They rather resented the idea of insanity. Dr. Harrington Tuke testified that he had known the O'Connors for many years. He had been requested by the boy's father to see him in Newgate, and then expressed his fear that the boy's brains would become affected, like his great uncle's, Feargus O'Connor, who was confined in a lunatic asylum. He spent an hour and a half with him in his cell. He found his head badly shaped, and with indications of a smaller brain than ordinary. The prisoner explained the origin of the outrage. The idea suddenly presented itself to him a couple of Sundays before, when walking by the Serpentine. It had never struck him before. He thought of it all day. He thought his motive—the liberation of the Fenian prisoners—a good one. He thought the Queen would sign the paper he presented, and the prisoners would be then released. He got into St. Paul's the day before he committed the outrage, but was turned out for having on dirty boots. He had no regret for what he had done, but felt being a subject of ridicule for having failed. The conclusion Dr. Tuke formed was, that the lad was a weak delicate fellow both in mind and in body; that there was insanity about him, and that it was liable to take on a dangerous form.

The Attorney-General cross-examined Dr. Tuke severely, first, as to the manner of his examination, and then as to the question of the magnitude of the crime. In reply to the latter, Dr. Tuke said:—The more heinous the crime, the greater the indications of insanity on the part of the person committing it. The Attorney-General still conducted his cross-examination in such a way as to cast discredit and almost ridicule upon Dr. Tuke's testimony. Dr. Sabben then gave corroborative testimony. Mr. Gibson of Newgate said that he had not been able to come to any positive opinion about the lad. He could not understand that a sane man could have let such an idea remain upon his mind for a fortnight.

The jury closed the case, interposing by saying that they were unanimously of opinion that the boy was perfectly sane.

The Attorney-General said that he thought it right to state that, if the slightest doubt had existed upon the question, the advisers of the Government, who were conducting the prosecution, would have felt it to be a sacred duty to institute inquiry into the matter. There was not, however, any reasonable doubt that the prisoner was of perfectly sound mind, and that he had pleaded guilty advisedly. He said it was now his duty to call the prisoner up for judgment, and he regretted that, owing to what he could not help calling the unfortunate evidence given by Dr. Tuke, the case presented a somewhat different aspect from what it would have done probably if left where it originally was.

Baron Cleasby, in pronouncing sentence, said:—"I am led to believe that you actually did act under some feeling of mistaken enthusiasm, which had really covered your eyes with scales, and prevented you from seeing the real nature of what you were doing." Really, it is astonishing that lawyers should be so clearly able to see facts, but not their interpretation. What could be a more distinct admission of what an educated physician could regard as a species of insanity? Nevertheless, with all formal ceremony, the Court condemned this poor impulsive imbecile to imprisonment and flogging. The prisoner exhibited no emotion at this termination to his insane freak.

The flogging was commuted at the wish of Her Majesty; and after his sentence the lad was got away to Australia, where his conduct showed no signs of amendment, but continued of the same uncontrolled and apparently uncontrollable impulsive character. After three years, he not only reappears in England, but is again found near the old place at Buckingham Palace when Her Majesty is there.

His condition is now physically that of an imperfectly nourished lad, fairly grown, but lank and weedy. He has a thin weak jaw, and an eye that evades his interrogator's. Mentally, he is very vain of his powers, thinks himself qualified to earn distinction in a literary sphere, and refers to his compositions with an air of confidence. He has a certain flow of words, which evidently impresses himself; but his ideas are crude, imperfect, and obviously fleeting. He is evidently an imbecile, not quite so much in the lack of intellectual power as that he lacks the power to control his impulses, *i.e.*, is wanting in the higher development of controlling power. He is an individual who, under imposed discipline and a liberal dietary, may be enabled to develope that self-restraint which he is at present unable to exert, and apparently will never of himself acquire.

By his own account, he feels his systemic sensations to an abnormal degree, and is troubled with flatulence. He has also much sexual excitement, with nocturnal emissions continually; while his appearance would indicate that these emissions were by no means invariably involuntary. He complains of disturbed rest, and that his thoughts dwell constantly on religious topics. Here he shows the well known association betwixt sexual excitement and religious vaticination. He has visions, in which angels cast into everlasting perdition those who have not forsaken all to spread a knowledge of the Bible amidst the heathen. He feels that, unless he forsakes all that is pleasant to him—not what is sinful, but what is pleasant—in this world, eternal perdition is before him. He expresses himself as possessing one unceasing mania concerning Jesus Christ; that the intellect wars against the mania without being able to overcome it. He describes himself as once waking in the night with an almost uncontrollable desire to commit self-destruction; that the idea was delightful at the time, and that he had almost thrown himself from the window ere he was able to recover self-control; and that, on its recovery, he felt horrified, and trembled at the thought of what he was about to do. Since then, he has felt accessions of what he feels to be absolute madness continuously; and himself thinks that, unless his bodily disease is recovered from, sooner or later, insanity will come on. He explains his foolish freak in his silly attempt to annoy the Queen as the result of combined motives: (1) to procure the release of the Fenian prisoners, which had become a burning question with him; and (2) expecting to be put to death for it, he could get out of this world without the guilt of suicide and its eternal consequences. The feebleness of the intellect is here demonstrated in so shallow a subterfuge. He attributes his impracticable and absurd way of carrying out his design to his lack of worldly knowledge and to his impulsive nature. He does not seem in the least to think that there was anything improper in what he did, but merely that it was unskilfully done. His aim was obviously to seek death in such a manner as was acceptable to his vanity, which is highly developed. Suicide appears to have been a familiar thought with him, and his account of why he thought of it is that he was intensely miserable from his domestic surroundings and his lack of success in getting on in the world, and a sense of incapacity to succeed.

On the whole, he is obviously an imbecile whose ambition and belief in his own powers far transcend any little intellectual capacity he possesses. His imagination is not, as he thinks it, vivid, but it is apparently very active, because he lacks any inhibitory or controlling power, and is incapable of estimating the limited extent of his imagination. Such an impulsive being is very likely to suddenly take up schemes for achieving great ends which ordinary minds would reject; and in so far is distinctly insane. He is an imbecile with impulsive outbreaks from under his controlling powers, which require restraint until the power of self-control is recovered, or rather developed; and that restraint will be best given him by a residence in some asylum. He has been sent to Hanwell, where, no doubt, he will be aided to attain that self-control which he is obviously unable of himself to acquire.

After three years, Dr. Tuke's view of the case is amply justified, and this is only another instance of the power to see what is not obvious to all, given by special acquaintance with a subject. It is really fully time that lawyers should begin to feel that there is something in the acquaintance with insanity given by long attention to it beyond their dry formulæ, and it might be as well if they showed a more decent deference to knowledge which they do not themselves possess, and which no intelligent person expects them to possess.

## ON THE EFFECTS OF THE CONTAGIOUS DISEASES ACT IN CALCUTTA.

By Arthur J. Payne, M.D., Surgeon-Major and Superintendent-Commissioner.

An account of the working of the Contagious Diseases Act in the town and suburbs of Calcutta will, I think, possess particular interest for those concerned with the subject. The large area and population embraced, the contemplated inclusion of the entire civil population without restriction to districts frequented by the soldiery, the difficulties belonging to a large commercial port and a city with extensive inland communication, and to the many varieties of prostitution and concubinage, and the marked results achieved by means confessedly inadequate, all seem to me to lend a peculiar value to the evidence afforded by the history of the past five years in Calcutta.

The population of Calcutta, town and suburbs, is about 750,000. The garrison of Fort William occupies a central position. The Contagious Diseases Act came into force on April 1st, 1869.

The administration of the Act was entrusted to the commissioner of police. Two special inspectors of police were selected, and, with 36 subordinate policemen (natives), were the only paid officers employed in this particular duty, which fell therefore largely on the inferior grades of police as an unprofitable addition to their labour. A medical superintendent and a staff of subordinates were appointed and specially paid for the examination and hospital duties.

1869. In a few months, upwards of 9,000 women were registered. Many were subsequently exempted, and more were reported as having absconded. At the end of the first year, 6,551 were supposed to be under control, but 5,348 only attended the examination depôt. There were 356 cases of disease under treatment at the end of 1869. The hospitals were three in number. In the Civil Medical Institution of Calcutta, the annual admission for all diseases and for venereal disease had previously ranged as follows:

| | New cases of all kinds. | Venereal of all kinds. |
|---|---|---|
| 1865 ... ... | 182,266 ... ... | 11,853 |
| 1866 ... ... | 192,165 ... ... | 13,152 |
| 1867 ... ... | 181,348 ... ... | 13,083 |
| 1868 ... ... | 169,765 ... ... | 11,153 |
| 1869 ... ... | 177,778 ... ... | 10,103 |

This showed with nine months of the Act a fall in venereal cases attending a rise in the general number of patients during the year; a fall however, which, being within the range of previous fluctuation, though encouraging, was inconclusive.

From the military records, figures relating to the European garrison were obtained; showing that at Fort William the ratio per cent. of venereal cases to the mean strength of garrison was, in 1859, 33.79; in 1860, 45.66; in 1861, 39.20; (1862, wanting); in 1863, 28.19; in 1864, 27.32; in 1865, 31.43; in 1866, 23.23; in 1867, 33.56; in 1868, 25.06; in 1869, 25.08. Of the last figures, 8.7 were admitted during the three months preceding the introduction of the Act, and 16.38 during the nine months of its operation. A new regiment had arrived in Calcutta, and much disease had come with them from Bangalore. The facts of the successive months were encouraging, but the general result was inconclusive. It was found that the class of women visited by the soldiery was difficult to reach.

1870. By the end of 1870, there were 6,625 women under examination. The admission into the civil hospitals during the year were, new cases of all kinds, 181,261; venereal of all kinds, 8,339. These figures would be more serviceable, if the population supplying them could be given for the several institutions. This cannot be done, and the general number is useful only as showing that the course of the venereal figures does not depend on a fall in the general resort of the people to the hospital. There is a rise in the general attendance over that of the previous year, and a large reduction of venereal cases; but the vast quantity of work still undone is forcibly indicated. Closer insight into the life of the town leads to the inference that at least one half of the public prostitutes of the lower orders remain unregistered. In the European garrison, the ratio per cent. of venereal cases to mean strength fell to 14.40. Here then seemed, as in the civil institution, to be *primâ facie* evidence of effective work. The range in other years had shown decrement nearly as great as that of 1870, but they had followed exceptionally high figures in the preceding years. The fall of 1870 was not a mere return to an average, it produced a figure considerably lower than any in the list. But there were certain other facts to be noticed this year as conducing to a low number. The regiment was not changed, and, assuming that Calcutta had become less productive of disease, although there was importation by drafts and other parties joining the battalion, some effect of importation may be regarded as lost. Moreover, two companies stationed at Dumdum had contracted disease there, as had been the case in former years, and this came to be distinguished towards the end of the year, as disease arising beyond the limits of the Act. Eight cases which would have been included in the total of the earlier years were omitted on this account from the reckoning of 1870.

It now became interesting to ascertain the proportion in which syphilis and gonorrhœa respectively contributed to the admissions; and though no figures were procurable for the earlier years, those which could be obtained showed satisfactory results.

The total numbers of cases admitted, the strength of the garrison being the same, were as follows:

| | Syphilis. | Gonorrhœa. |
|---|---|---|
| 1868 ... ... | 89 ... ... | 67 |
| 1869 ... ... | 79 ... ... | 91 |
| 1870 ... ... | 49 ... ... | 68 |

There seemed on the whole to be, in the experience of 1870, good ground for hopefulness but none for exultation.

1871. At the close of 1871, there were 6,748 women under inspection, and now the great improvement that had taken place in the health of the women themselves came into prominent notice. The Lock Hospital admissions had fallen from 4,474 in 1870 to 2,037. This was partly due to a change of practice in respect of doubtful vaginal discharges, but reduction of the more serious diseases was very striking. It appears in the following table.

| | 1870. | 1871. |
|---|---|---|
| Hard chancre ... ... ... | 437 ... ... | 138 |
| Indurated bubo ... ... | 53 ... ... | 12 |
| Soft chancre ... ... ... | 937 ... ... | 662 |
| Suppurating bubo ... ... | 94 ... ... | 28 |
| Phagædenic sore ... ... | 30 ... ... | 8 |
| Sloughing sore ... ... | 35 ... ... | 5 |
| Secondary syphilis ... ... | 187 ... ... | 71 |

In 1871, the admissions of the civil hospital showed further progress. The general attendance had again advanced, and venereal cases still further receded. The figures stood thus: new cases of all kinds, 201,059; venereal of all kinds, 7,305. It seemed to me there could no longer be any mistake about the efficacy of the work. No previous fluctuations could be adduced in disproof of the progressive removal of disease, nor could any other cause for it be discovered. In the third year of the Act's operation, the number had fallen from 11,153 to 7,304, while the general hospital attendance had risen largely. At the same time it was ascertained that the admissions from primary syphilis had ranged as follows: in 1865, 5,367; in 1866, 5,879; in 1867, 5,943; in 1868, 4,648; in 1869, 3,753; in 1870, 2,736; in 1871, 2,154. During this year, several medical officers had taken the trouble to note, as far as the fact could be ascertained, whether their patients had contracted disease within or beyond the limits of the Act's operation. The inquiry extended over 3,480 cases, whereof it appeared that 2,146 had originated in Calcutta and its suburbs, and 1,334 elsewhere; a fact which illustrates the difficulty of purifying a large city and port.

In the European garrison, the ratio per cent. of venereal cases had fallen to 8.10, comprising 2.7 of syphilis, and 5.4 of gonorrhœa. The figures are strictly comparable with those of 1870. A new regiment arrived at the end of the year early enough to bring a small accession to the cases of local disease, but the full effect of this was not realised until the following year. The garrison admissions from syphilis reached only 22 in the year, and those from gonorrhœa 44.

1872. In December 1872, there were 6,417 women under inspection. The year shows further improvement in the health of the civil population. There were admitted into the hospital, new cases of all kinds, 206,022; venereal of all kinds, 6,529; and the record of primary syphilis, taken from the same institutions as before, gives only 1,845 cases. The activity of the police had waned a little during the year. Prostitutes who had at the outset left Calcutta were known to have returned in large numbers; nevertheless the registers showed a falling off of upwards of three hundred. This had not yet produced any effect on the hospital admissions as a whole, but the locality of infection was noted in 3,230 cases, whereof 1,960 were ascribed to the area of the Act, and only 1,270 were imported.

The garrison of Fort William in 1872 illustrated the worst effects of a newly arrived regiment bringing disease to those sections of the town which the soldiers frequent. At the close of 1871, the men of the 19th Foot left Calcutta, after two years' residence, almost without a case of syphilis. The head quarters wing of the 114th Regiment took its place, coming from Cawnpore, where the men had suffered heavily from the disease. *They were not inspected on arrival.* From their arrival to the end of April, there were many cases admitted into hospital. The neighbourhoods visited by soldiers and other Europeans of their class are circumscribed, and the women a small and in some degree a distinct community; so that the general improvement in the town was not impeded, but the soldiers who, in previous years, under special attention paid to this section, had benefited even more than their neighbours, now fell back, while the town continued to advance.

By the end of April the mischief was arrested, and from May 1st to December 31st, only 13 cases of Calcutta syphilis were recorded against 29 in the first four months of the year. The events of the last eight months compare favourably even with those of the previous year with regard to syphilis, but the entire returns of the year afford a ratio of 13.9 per cent., comprising 5.7 of syphilis and of 8.2 of gonorrhœa, based on 48 cases of syphilis and 69 of gonorrhœa.

1873. During the following year, the number of women under control again fell considerably; there were in December only 5,978 in attendance. At the same time, there was much reason to believe that the prostitute population had increased rather than otherwise. The civil hospitals presented the following entries: new cases of all kinds, 196,294; venereal of all kinds, 6,931. There had been a rapid growth of factories along the river bank, with large intercourse of unprotected populations, and the hospital records showed a great increase of imported disease, and particularly of syphilis. In one hospital alone the difference was sufficient to cover the total increase in this affection.

I am unwilling to credit these differential statements of locality with great accuracy for several reasons, until they shall be more comprehensive and shall extend over a sufficient number of years to make their errors self corrective. There was probability of increased importation in 1873, and certainty of decreased activity of the police in Calcutta itself. The cases of primary syphilis in the civil hospitals rose to 2,459.

The health of the garrison forcibly exemplified all that has been said here and elsewhere of the effect of the movement of troops. I had ventured to predict that the year 1873 would find the 114th Regiment as free from disease as their predecessors had become. The event fully justified the prediction, and, on the arrival of the 3rd Buffs, our former experience was utilised by the regimental authorities. There were 12 or 13 venereal cases under treatment at the time, and at my suggestion an *inspection of the entire battalion was held.* It resulted in the detection and removal to hospitals of between 30 and 40 cases, and no new cases occurred for months afterwards. Nothing could be more conclusive than comparison of this state of things with that which followed the arrival of the 114th Regiment.

The ratio per cent. of venereal cases to mean strength of garrison in 1873 was 7.4, contracted in Calcutta. There were total numbers of 13 syphilis, and 56 gonorrhœa. Still more satisfactory than the general reduction was the fact that the percentage contained only 1.4 of syphilis. The causes noted as affecting the general health of the town are inoperative in the military section. The garrison felt no effect from them, as in the earlier year the town had not suffered from disease imported by the troops.

1874. Last year brought about events which serve by an inverse process very pointedly to connect the working of the Act with the venereal health of the town. We have seen that growing importation and failing activity of the preventive officers had led to retrogression. The registers had not been kept up, and many women, who failed to attend when they were diseased, in order to escape detection and custody, had been left at liberty, and the natural consequences followed. In 1874, there was actual suspension of work brought about by the serious illness and ultimate death of both police inspectors. Practically, no work was possible to either of them after the middle of April, and in their absence nothing effectual could be looked for from native subordinates. The ground lost in registration could not be recovered until late in the year; but, by exertion during the last four months, the number of women rose at the end of December to 6,351.

The civil hospitals recorded a large increase of general attendance and a considerable rise in venereal cases. The numbers stood thus: new cases of all kinds, 214,428; venereal of all kinds, 7,941. When work was resumed, the disease detected was large in quantity and severe in character. The cases of primary syphilis rose to 2,675, but of these, it must be said, that the increase took place mainly in the Mayo Hospital, the resort of the river-side and floating population, and of the victims of unregistered women.

Command over the central military sections of the town was fortunately maintained. The garrison record is as follows. The ratio per cent. of venereal cases was 9.4. There were again only 13 cases of Calcutta syphilis in the year, or 1.4 per cent. of mean strength; and 77 cases, or 8 per cent. of gonorrhœa.

The Lock Hospital accommodation was insufficient during the year from several causes, and admission of cases capable of producing gonorrhœa was restricted. The cases of syphilis were all slight. Some scarcely deserved the name, and, unsolicited by me, the medical officers drew attention to the fact that, throughout the year, not a single case of infecting chancre had been contracted in Calcutta.

Summarising the foregoing results, we arrive at the following general statement.

*Civil Hospitals and Dispensaries.*

| | New cases of all kinds. | Venereal of all kinds |
|---|---|---|
| 1865 | 182,266 | 11,853 |
| 1866 | 192,165 | 13,152 |
| 1867 | 181,348 | 13,083 |
| 1868 | 169,765 | 11,153 |
| 1869 | 177,778 | 10,103* |
| 1870 | 181,261 | 8,339 |
| 1871 | 201,059 | 7,305 |
| 1872 | 206,022 | 6,529 |
| 1873 | 196,294 | 6,931 |
| 1874 | 214,428 | 7,941 |

In the civil hospitals and dispensaries, the admissions for primary syphilis were: in 1867, 5,943; in 1868, 4,684; in 1869, 3,753 (Act introduced in April); in 1870, 2,736; in 1871, 2,154; in 1872, 1,854; in 1873, 2,549; in 1874, 2,675.

*European Garrison, Fort William. Ratio per cent. to Mean Strength.*

| | Venereal of all kinds. | Primary Syphilis. |
|---|---|---|
| Average from 1859 to 1864 | 34.43 | |
| 1865 | 31.43 | |
| 1866 | 23.23 | |
| 1867 | 33.56 | |
| 1868 | 25.06 | 10.0 nearly |
| 1869 | 25.08 | 9.0 nearly |
| 1870 | 14.40 | 6.0 nearly |
| 1871 | 8.10 | 2.7 |
| 1872 | 13.09 | 5.7 new regiment not inspected |
| 1873 | 7.04 | 1.4 |
| 1874 | 9.04 | 1.4 new regiment inspected |

*European Garrison, Fort William. Total Primary Cases Contracted in Calcutta.*

| | Syphilis. | Gonorrhœa. | |
|---|---|---|---|
| 1868 | 89 | 67 | |
| 1869 | 79 | 91 | Act in force April |
| 1870 | 49 | 68 | |
| 1871 | 22 | 44 | |
| 1872 | 48 | 69 | new regiment not inspected |
| 1873 | 13 | 56 | |
| 1874 | 13 | 77 | new regiment inspected |

The figures given in this paper have all been carefully scrutinised by unbiassed critics from year to year, and the utmost care has been taken to eliminate all sources of fallacy that were known or suspected, and especially to guard against unduly favourable conclusions.

It has been said, that there is a natural tendency to abatement of venereal disease in towns, which impugns all inferences as to special causation. In Calcutta it is not so. The women newly brought on the registers from year to year, taken from the general prostitute population, fairly represent the prevalence of disease among the women not subject to the Act, and this shows no tendency to fall.

The following comparative table is significant.

*Proportion of Venereal Cases among*

| | Women newly registered. Per cent. | Women in regular attendance. Per cent. |
|---|---|---|
| 1870 | 26.0 | 2.7 |
| 1871 | 14.0 | 0.9 |
| 1872 | 25.3 | 1.6 |
| 1873 | 27.4 | 1.5 |
| 1874 | 27.8 | 1.0 |

The Act has not been more successful here than elsewhere against gonorrhœa, nor is it, I think, likely to be so. One of the first proceeds of Lock Hospital experience, is a conviction that the cases of recognisable gonorrhœa in women are few compared with those of the uterine and vaginal discharge which, though it cannot form any definite character, be pronounced infective, is so in a large but indeterminate number of persons. These persons cannot justly be detained in hospital. They remain at liberty, and gonorrhœa will be reduced or not according to the numerical proportion they bear to the palpable cases removed. If this proportion be very large, there may be even increase of gonorrhœa under the Act, without anomaly or paradox; for, by the removal of syphilised and palpably gonorrhœal women, the men who consort with both groups are driven to the women remaining at large. There being many of them gonorrhœally infective, it is easy to see that a number of gonorrhœal cases, even larger than before, may, in certain numerical conditions, coexist with perfect immunity from syphilis; and, though it be a direct consequence of the operation of the Acts, few can regard it as seriously impairing its utility. Such fluctuations as have occurred in the prevalence of gonorrhœa in Calcutta, have fallen well within the range which such an influence might produce.

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* The Act was introduced in April.

Calcutta, April 6th, 1875.

Facts have come forward from time to time, showing that the number of men who, under certain circumstances, may be infected by a single woman in a single night, would be incredible if it were not known. This disposes at once of the argument that it is unjust to subject women to control and leave men at liberty. It would be as rational to refrain from cleansing a cesspool until we can arrest specific germs of disease on their way to it.

The cost of administering the Act and working the hospitals in Calcutta may be approximately stated at fifteen shillings a head annually for women in attendance. The saving from disease prevented can only be conjectured.

## THE SURGICAL CONGRESS IN BERLIN.

The fourth session of the German Surgical Association was held in Berlin on April 7th and following days.

The first subject discussed was the Mechanism of Hernial Strangulation. Dr. Busch explained his views on the subject as follows. If a loop of intestine be filled with some force with fluid or gas, the pressure is naturally transmitted in all directions; and, as the convex side of the loop is greater than the concave, it receives also a greater amount of pressure, and there is a tendency to straighten the loop. But, if the loop pass through a ring less wide than itself, the intestine is nipped at the part where it presses on the ring, and thus may become perfectly impermeable. In applying the taxis, one or the other of the two limbs of the loop is stretched straight, so that the contents can be pressed back into the abdomen. According to Lossen, nipping takes place, but it affects only the efferent limb.—Dr. Roser remarked that incarcerated umbilical herniæ are only more tightly strangulated if the anterior abdominal wall be pressed inwards during the trial of the taxis; while reduction is easily effected if the terminal ring be drawn forward and a little apart by means of two blunt hooks.

Professor Esmarch described the manner of applying his method of producing Artificial Anæmia to exarticulation at the shoulder-joint. He carried the India-rubber tubing over the back and the sound shoulder. In operation on the male genitals, the method had been repeatedly used; it appeared to be of special value in castration, as it enabled the spermatic cord to be divided layer by layer, and each vessel to be found and tied before being cut. In exarticulation and and resection of the hip-joint, compression of the aorta was always of advantage; but it was necessary to empty the patient's bowels beforehand in order to enable the compressor to be securely applied. Artificial anæmia was kept up for half an hour in a case of necrosis of the tibia, without any subsequent inconvenience to the patient.

On the second day, practical demonstrations took place in the wards of Drs. von Langenbeck and Bardeleben. Drs. Thiersch and Hirschberg (of Frankfort) showed successfully treated cases of Epispadias and Defect of the Anterior Wall of the Bladder. Dr. Thiersch also showed a case of Artificial Hypospadias, by which certain inconveniences following amputation of the penis were happily avoided. The amputation was performed very near the root of the penis; the scrotum was then slit up, and the remains of the urethra dissected out from the corpora cavernosa; the perinæum was perforated with a trocar, and the urethra was fixed in the puncture. Healing rapidly took place under antiseptic treatment; there was no subsequent contraction of the urethral orifice, and the scrotum was not wet with the urine. The cicatrix at the point of amputation was scarcely visible; the two halves of the scrotum had united, and behind the scrotum lay the opening of the urethra.

Professor Volkmann showed a model for demonstrating the cause of the impossibility of supination which sometimes remains after Fracture of the Forearm. It was shown that, when the arm was fixed in the state of pronation, slight bending easily took place at the point of fracture; if the arm were brought into the position of supination, a slight bending of the bones at the part was attended with widening of the interosseous space to such an extent that the interosseous ligament appeared to be much too short. Such cases were successfully treated by fracture of the callus and complete supination of the arm.

Dr. Roser showed diagrammatic representations of cysts on the neck and of ranula.

The second meeting of the Congress was devoted to a discussion on Bacteria. Dr. Arnold Hiller described some experiments which, he said, proved that from energetically septic bacteria others could be produced which had no septic action. A long communication was also made by Dr. Klebs, who advocated the doctrine of the causal connection of minute organisms with disease.

On the third day of meeting, Dr. Linhart demonstrated some preparations in illustration of his researches on the production of Fracture of the Neck of the Thigh-bone. It appeared to him probable, that fracture of the neck of the femur was often produced in overstretching of the joint by laceration of the cortical substance of the anterior surface of the neck of the bone, the ligamentum teres resisting the stretching. In the experiments, laceration of the cortical substance was readily produced by a slight stroke with a chisel. The experiments have been described in an essay published by Dr. F. Riedinger (Linhart's assistant).

Dr. Linhart also showed some stumps after Chopart's and Pirogoff's amputations, and a preparation to demonstrate his method of resection of the inferior dental nerve, by laying the nerve bare by chiselling away the external cortical layer of the ramus of the lower jaw.

Dr. von Langenbeck showed some cases of recovery after resection of the wrist (with somewhat impaired power of flexion of the radius).

Dr. Thiersch showed a forceps which he had for some time used with advantage in the Galvano-caustic Puncture of Angioma. Each blade of the forceps ended in a quadrangular plate; one of the plates was perforated with holes. If, for example, the angioma were seated in the cheek, it was compressed between the blades of the forceps and rendered bloodless; the galvanic cautery could then be introduced between the perforations in one of the plates without any hæmorrhage. If the tumour could not be taken between the blades, the perforated blade was applied firmly during the operation to the surface of the tumour.

A simple contrivance was shown for gradually pressing back the projecting Intermaxillary Bone in cases of Double Hare-lip. It consisted of two pear-shaped pieces of linen spread with adhesive plaster, the small ends being united by a short India-rubber band. The broad parts of the plaster were fixed to the cheek, while the India-rubber band, somewhat stretched, pressed on the intermaxillary bone. In a case where the deformity was of a rather high degree, this apparatus pushed the projection back in six weeks.

Dr. Schmidt showed an extirpated larynx. Dr. Heine showed a patient in whom he had removed the anterior half of the larynx, in consequence of the calibre being obstructed by thickening of the cartilage. The communication between the trachea and pharynx was maintained by means of an artificial larynx, the tube of the apparatus leading from the tracheal opening upwards was compressed from before backwards. This modification was said to facilitate deglutition. In one case, Heine was able to introduce his index-finger into the larynx from the mouth; this was done without much difficulty, the larynx being raised by means of a sharp hook introduced beneath the cricoid cartilage and the patient's head bent somewhat forward.

Dr. Thiersch read a paper on the use of Salicylic Acid in place of carbolic acid. Among the specimens of dressing shown, was some jute impregnated with salicylic acid; its price was low, and the secretions from the wound escaped readily between the fibres.

Dr. Bardeleben read a paper on the practical results of the Antiseptic Method, and gave a summary of the cases of severe injury and important operation which had been under his care in the Charité Hospital. He did not follow Lister strictly, but used—for the sake of cheapness—a watery solution of carbolic acid as a moist dressing. In 38 cases of complicated fracture, he had 5 deaths. Of these, 2 occurred among 14 cases of fracture of the leg; neither of them from pyæmia. The causes of death were concussion of the brain, hæmorrhagic inflammation of the dura mater, delirium tremens (a very frequent complication in Berlin), collapse, and marasmus. Of 38 cases of amputation, 8 died: two were cases of double amputation, both being fatal. The causes of death were in three cases marasmus; in each of two other cases, senile gangrene and phthisis; and in three others pyæmia, two of the patients having been already affected with this disease before admission into hospital. Healing occurred with remarkable rapidity in cases of abscess after mastitis. In 26 cases, the abscesses were opened under antiseptic treatment, and the average duration of time occupied in healing was ten days. All the cases of ligature of arteries, including a ligature of the femoral artery in its continuity, were done with carbolised catgut; and in no case was anything further seen of the ligature.—Dr. Volkmann reported that, for two and a half years, during which he had strictly carried out Lister's instructions in his wards, his results had been remarkably improved. During the last year, among the cases of complicated fractures subjected to conservative treatment (including twenty-one of the leg), there was not a single death; nor did a death occur among penetrating wounds of the joints, if they came early under treatment. In three of these cases, the patella was smashed, and in all three recovery took place with a movable joint. There had not been a case of pyæmia after this injury for nearly two years. Hygroma of the prepatellar bursa was laid open by Dr. Volkmann in five cases, and healing took place in all by the first intention under the use of the compressive bandage: when the incision was left open, healing took place by granulation. Similar treatment was used with a like result in hydrocele; but here the tunica vaginalis was sewn to the skin. Erysipelas was observed less frequently than before by Dr. Bardeleben and Volkmann, and its course was milder. Dr. von Langenbeck remarked that, in his practice also, erysipelas had been less frequent and milder, and that this could not be ascribed to the antiseptic method, as he used open dressing.

Dr. Mosengeil showed a Magneto-electric Induction Apparatus constructed by Siemens, which, originally intended for electro-magnetic illumination, could be readily adapted to galvano-caustic purposes. A few turns of the handle were sufficient to raise the platinum wire to a white heat. The advantages of the apparatus were, that it could be put into action at any moment without preparation; that there was no occasion for using chemicals; and that, therefore, the cost of keeping it in order was *nil*. The drawbacks were: its high price; its weight; and the fact that, after continued rotation, the temperature of the wire always fell.

Dr. Hüter reported that he had obtained gradual improvement from parenchymatous injection of carbolic acid in cases of cancroid with ichorous discharge; the discharge ceased, and the surface of the sore became covered with healthy granulations, although there was no tendency to healing. He recommended this method as a palliative in cases unfit for operation.—Dr. Hirschberg spoke of the advantage of scraping the surface in such cases.

Dr. Mosengeil read a paper on *Massage*; and described an experiment in which he injected into the knee-joint of rabbits Indian ink suspended in water, and in a few minutes found it in the lymphatic vessels of the thigh, especially when pressure was made with the hand in a centripetal direction from the knee, as is done in *massage*. He had seen good results follow this treatment in cases of sprain, of chronic synovitis, and in paresis of the muscles arising from inaction.—Dr. Esmarch said that he used *massage* with advantage in neuroses of the joints, always after the application of a shower douche.—Dr. Volkmann said that he had made similar observations in articular neuroses and sprains.

Dr. Schönborn made a communication on a new method of Staphyloraphy, or more correctly staphyloplasty, employed by him. In some cases, only a slight improvement of speech has been obtained by staphyloraphy, so that it has been necessary to subsequently fasten the velum to the posterior wall of the pharynx by sutures, in order to lessen the nasal twang of the speech. Dr. Schönborn forms a longish flap from the mucous membrane of the posterior wall of the pharynx, corresponding to the defect in the palate; its base looks downwards, and the upper part is loosened and stitched to the freshened edges of the cleft in the soft palate, so that at the same time the palate is united and is fixed to the posterior wall of the pharynx. In one case, Dr. Schönborn performed the operation at the same time with uranoplasty; the result was good, inasmuch as speech was intelligible, although a nasal twang remained.—Dr. von Langenbeck remarked that he had obtained numerous very good results by simple staphyloraphy; and he therefore advised that this operation should always be performed first, and, in case that the speech remained very defective, the operation described by Dr. Schönborn should be done.

On the fourth day of the meeting, Dr. Klebs showed microscopic preparations; and clinical demonstrations were given in Dr. Bardeleben's wards. Preparations of T-shaped Fracture of the lower end of the Humerus or the Femur, produced on the dead body, were exhibited in order to demonstrate the mechanism of this form of fracture. The researches in question, made by Dr. Madelung, showed that the attempt was unsuccessful to produce transverse fractures with a fissure running from them into the joint; but that a blow on the olecranon in the direction of the long axis of the humerus, the elbow being bent, produced a short longitudinal fracture through the trochlea, and at the same time split off transversely the lower end of the humerus (in two fragments). The action of a blow on the patella when the knee was bent was similar; both condyles of the femur were broken off, and were separated one from the other by a longitudinal fracture. Dr. Madelung explained this by supposing that the projecting ridge in the greater sigmoid notch of the ulna acted, in the case of a blow or fall, like a wedge, in producing the longitudinal fracture; and that the continued action of the violence produced the transverse fracture. He held also that the patella acted in the same way on the lower end of the femur by means of the projection between its two facets.

At the last meeting, Dr. Jäsche read a paper on the Etiology of Purulent Infiltration of the Areolar Tissue after Lithotomy.

Dr. von Langenbeck reported that the Committee on Surgical Statistics appointed by the Congress resigned their functions, since material of statistical value had been supplied by only a small number of institutions.

It was resolved to place the surplus funds of the Congress at interest, in order at a later date to forward the object of the Society, and to publish the proceedings of the Congress, from next year, separately (and not in the *Archiv für Klin. Chirurgie*); and at the next Congress to give more time to clinical demonstrations.

Dr. Hagedorn showed a Loop for Galvano-caustic purposes; and reported that he had amputated two legs and one thigh by the galvanic cautery, without using the ligature, and without any secondary hæmorrhage.

Dr. Schönborn showed Splints of Gypsum and Hemp for the treatment of simple fractures. The splints were made of bundles of hemp dipped in thick mixture of gypsum, and laid side by side on the limb, which had been previously wrapped in flannel. The splint was then fixed to the limb, while moist, by a bandage, and in five minutes it was so firm that it could be removed, and finished by the removal of small unevennesses. In simple fractures, a single splint is sufficient.

Dr. von Langenbeck spoke of the Total Extirpation of the Tongue in Carcinoma. He rejected the operation by the mouth (after ligature of the lingual artery), since in it the commencement of infection of the lymphatic glands was easily overlooked. Regnoli's method, a modification of which was frequently employed and praised by Billroth, had this disadvantage, that the larynx sank downwards after the division of the muscular structures by which it was held up, and that hence the secretion from the wound flowed inwards and gave rise to a putrid bronchitis. Langenbeck believed that he avoided these disadvantages by a plan which he had followed in three cases in which he had operated with success. On the side where there was most disease, an incision was carried from the angle of the mouth straight back to the thyroid cartilage; the lower jaw was then sawn through between the first and second molars, and the shorter portion of the jaw turned outwards and upwards; the removal of the diseased part was then effected without difficulty, even when it was necessary to take away also a portion of the arch of the palate. The reunion of the jaw after its division was always attended with some difficulty; it was most surely effected by using ivory pegs pointed at both ends, the points of which were inserted in corresponding holes bored in the sawn surfaces of the bone.

Dr. von Langenbeck also made a communication on the Regenerative Power of the Periosteum and the Value of Regenerated Periosteum for Operative Purposes. He said that the value of the regenerative power of the periosteum was shown in plastic operations, in which flaps of doubtful viability could be strengthened, and the danger of their death diminished, by leaving the periosteum in connection with them. This was especially the case in operations on the face.

Dr. Reyher related a case of Narrowing of the Larynx.

Dr. Busch spoke of some cases of Backward Dislocation of the Humerus which he had observed. With regard to upward dislocation, he remarked that the conditions necessary for its production were fracture of the coracoid process and disruption of the insertion of the subscapular muscle.

This concluded the business of the Congress.

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## DIPSOMANIA.

THE following is a copy of a draft petition drawn up by "The Habitual Drunkards' Committee" of the Birmingham and Midland Counties Branch of the British Medical Association, and presented to the Branch at their meeting on April 8th, 1875.

"The petition of the undersigned members of the Birmingham and Midland Counties Branch of the British Medical Association showeth, that:

"Habitual drunkenness is a crying evil which permeates every class of society in this country, and calls loudly for redress.

"Habitual drunkards bring ruin and destruction, not only on themselves, but on their families and all connected with them by social or domestic ties.

"Habitual drunkenness is a disease closely approximated in a great number of cases to insanity, and susceptible of successful treatment. Its evil effects, which only those familiar with the facts and details can fairly appreciate, extend to future generations, the children of drunkards being for the most part people of low bodily and mental condition, who, in their turn, often inherit a tendency to drink. In this way, habitual drunkenness deteriorates the standard of the race.

"There is no means under the existing law of exercising over habitual drunkards the control which your petitioners think necessary for their personal safety, for the protection of their families, and for the welfare of society.

"In the year 1872, a Select Committee of the House of Commons was appointed 'to inquire into the best plan for the control and management of habitual drunkards'. The late Mr. Donald Dalrymple was the Chairman.

"The Report of the Select Committee was very favourable to legislation upon the subject. It declared, 'that there is entire concurrence of all the witnesses in the absolute inadequacy of existing laws to check drunkenness, whether casual or constant; rendering it desirable that fresh legislation on the subject should take place, and that the laws should be made more simple, uniform, and stringent'.

"The Report likewise recommended, 'that sanatoria or reformatories for those who, 'notwithstanding the plainest considerations of health, interest, and duty, are given over to habits of intemperance so as to render them unable to control themselves, and incapable of managing their own affairs, or such as to render them in any way dangerous to themselves or others', should be provided.

"In the year 1873, a Bill 'for the better care and management of habitual drunkards' was brought in by the late Mr. Dalrymple and others. Owing to the adjournment of the House consequent on Mr. Gladstone's resignation, the Bill, which was then down on the list for second reading, was postponed to so late a day as to render any effort to carry it useless for that Session.

"Your petitioners, regarding the question as one of a very pressing nature, now pray for immediate legislation, upon the basis of the Report of the Select Committee, for the control and management of the class of persons known as habitual drunkards or dipsomaniacs."

# ASSOCIATION INTELLIGENCE.

## EAST YORK AND NORTH LINCOLN BRANCH.

THE annual meeting of this Branch will be held at the Hull Infirmary on Wednesday, May 26th, at 1 P.M.: J. DIX, Esq., President, in the Chair.

Gentlemen intending to read papers or show cases, are requested to give notice to ROBT. H. B. NICHOLSON, *Hon. Sec.*

Hull, May 5th, 1875.

## STAFFORDSHIRE BRANCH.

THE next meeting will be held in the Board Room of the Mines Drainage Offices, 22, Darlington Street, Wolverhampton, on Thursday, May 27th, 1875. The Chair will be taken at 3 o'clock P.M.

*Papers.*—1. A Discussion upon Puerperal Fever will be opened by Dr. Totherick.

2. The Provident Dispensary System considered as a remedy for Hospital Abuses. By Mr. Clendenning.

3. Remarks upon a Case of Thyroid Tumour. By Mr. Spanton.

4. A few observations on certain Convulsive Disorders. By Dr. Day.

VINCENT JACKSON, } *Honorary Secretaries.*
RALPH GOODALL, }

May 17th, 1875.

## SOUTH EASTERN BRANCH: WEST SUSSEX DISTRICT.

THE next meeting will be held at Horsham, on Tuesday, June 8th. The Chair will be taken by THOMAS B. GREENWOOD, Esq., of Two-Mile-Ash.

Gentlemen who wish to read papers, are requested to communicate with the Honorary Secretary by Saturday, May 29th.

WM. J. HARRIS, *Honorary Secretary.*

13, Marine Parade, Worthing, May 17th, 1875.

# BRITISH MEDICAL ASSOCIATION:

## FORTY-THIRD ANNUAL MEETING.

THE Forty-third Annual Meeting of the British Medical Association will be held at Edinburgh, on Tuesday, Wednesday, Thursday, and Friday, August 3rd, 4th, 5th, and 6th, 1875.

*President.*—E. COPEMAN, M.D., Senior Physician to the Norfolk and Norwich Hospital.

*President-elect.*—Sir ROBERT CHRISTISON, Bart., M.D., D.C.L., LL.D., F.R.S.Ed.

An Address in Medicine will be given by JAMES WARBURTON BEGBIE, M.D., F.R.C.P.Ed.

An Address in Surgery will be given by JAMES SPENCE, F.R.C.S.Ed., F.R.S.E., Professor of Surgery in the University of Edinburgh.

An Address in Physiology will be given by WILLIAM RUTHERFORD, M.D., F.R.S.E., Professor of the Institutes of Medicine in the University of Edinburgh.

The business of the Association will be transacted in Six Sections, viz.:

SECTION D. PUBLIC MEDICINE.—*President:* Right Hon. Lyon Playfair, M.P., C.B., F.R.S. *Vice-Presidents:* Inspector-General Smart, M.D., C.B.; Dr. Arthur Mitchell. *Secretaries:* Dr. Andrew Smart, 24, Melville Street, Edinburgh; Dr. Fraser, Knutsford.

SECTION A. MEDICINE.—*President:* Dr. Quain, F.R.S., London. *Vice-Presidents:* Professor W. T. Gairdner, Glasgow; Dr. Grainger Stewart, Edinburgh. *Secretaries:* Dr. Claud Muirhead, 7, Heriot Row, Edinburgh; Dr. Stephenson, 33, Buccleuch Street, Edinburgh.

SECTION B. SURGERY.—*President:* Professor Lister, F.R.S. Edinburgh. *Vice-Presidents:* Professor Pirrie, Aberdeen; Professor Macleod, Glasgow. *Secretaries:* Thomas Annandale, Esq., Charlotte Square, Edinburgh; Dr. John Duncan, 8, Ainslie Place, Edinburgh.

SECTION C. OBSTETRIC MEDICINE.—*President:* Dr. Matthews Duncan. *Vice-Presidents:* Dr. Keiller; Professor Simpson. *Secretaries:* Dr. Peel Ritchie, 16, Hill Street, Edinburgh; C. J. Cullingworth, Esq., 260, Oxford Street, Manchester.

SECTION E. PSYCHOLOGY.—*President:* Dr. Lowe, F.R.S., Edinburgh; *Vice-Presidents:* Dr. Sibbald; Dr. Clouston. *Secretaries:* Dr. Brown, Royal Asylum, Edinburgh; Dr. Saundby, Saughton Hall, Edinburgh.

SECTION F. PHYSIOLOGY.—*President:* Dr. Burdon Sanderson, F.R.S., London. *Vice-Presidents:* Dr. McKendrick; J. Dewar, Esq. *Secretaries:* Dr. Lauder Brunton, F.R.S., 23, Somerset Street, Portman Square, London; Dr. Caton, 18, Abercrombie Square, Liverpool.

Honorary Local Secretaries.
Dr. John Batty Tuke, Edinburgh.
John Chiene, Esq., Edinburgh.
Dr. J. G. McKendrick, Edinburgh.
Dr. J. Bishop, Edinburgh.

*Tuesday, August 3rd.*

1 P.M.—MEETING OF COMMITTEE OF COUNCIL.
3 P.M.—MEETING OF THE COUNCIL, 1874-75.
8 P.M.—GENERAL MEETING.—President's Address; Annual Report of Council; and other business.

*Wednesday, August 4th.*

9.30 A.M.—MEETING OF COUNCIL, 1875-76.
11.30 A.M.—SECOND GENERAL MEETING.
11.30 A.M.—ADDRESS IN MEDICINE.
2 P.M.—SECTIONAL MEETINGS.
9 P.M.—SOIRÉE.

*Thursday, August 5th.*

9 A.M.—MEETING OF THE COMMITTEE OF COUNCIL.
10 A.M.—THIRD GENERAL MEETING.—Reports of Committees.
11 A.M.—ADDRESS IN SURGERY.
2 P.M.—SECTIONAL MEETINGS.
6.30 P.M.—PUBLIC DINNER.

*Friday, August 6th.*

10 A.M.—ADDRESS IN PHYSIOLOGY.
11 A.M.—SECTIONAL MEETINGS.
1.30 P.M.—CONCLUDING GENERAL MEETING.

Gentlemen desirous of reading papers, cases, or other communications, are requested to forward the titles to the General Secretary, or to one of the Secretaries of the Section in which the paper is to be read. All papers should be forwarded to one of the above named officers at as early a date as possible.

No paper must exceed twenty minutes in reading, and no subsequent speech must exceed ten minutes; all speeches at the General Meeting must not exceed ten minutes each.

FRANCIS FOWKE, *General Secretary.*
36, Great Queen Street, May 13th, 1875.

## SOUTH EASTERN BRANCH: EAST SUSSEX DISTRICT.

THE next meeting will be held at the White Hart Hotel, Lewes, on Friday, May 28th, at 3.30 P.M.—The chair will be taken by J. G. BRADEN, Esq.

Dinner at 5.30 P.M. Price, 5s., exclusive of wine.

Papers, etc., are expected from the Chairman, Dr. W. Moore, Mr. G. F. Hodgson, and Mr. T. F. Sanger.

Notice of intended contributions is requested before Thursday, May 20th, by the Honorary District Secretary. THOMAS TROLLOPE.
35, Marina, St. Leonards-on-Sea.

## METROPOLITAN COUNTIES BRANCH.

AN ordinary meeting of this Branch will be held at 11, Chandos Street, Cavendish Square, on Friday, June 4th, at 8 P.M., when Dr. Robert Barnes will read a paper on "Some Physiologico-Pathological Phenomena of the Circulation in Pregnant Women".

ALEXANDER HENRY, M.D. } *Hon.*
ROBERT FARQUHARSON, M.D. } *Secs.*

## YORKSHIRE BRANCH.

THE annual meeting of this Branch will be held at the Medical School, Leeds, on Wednesday, June 9th, at 2.30 P.M.

After the meeting, the members will dine at the Great Northern Hotel. Tickets, 6s. 6d. each.

Gentlemen intending to bring forward communications, or join the dinner, are requested to communicate with the Secretary.

W. PROCTER, M.D., *Local Secretary.*
24, Petergate, York, May 18th, 1875.

## LANCASHIRE AND CHESHIRE BRANCH.

THE annual meeting of this Branch will be held at Chester, on Wednesday, June 30th, at 1 P.M.—JOHN SKAIFE, Esq., President; Dr. DAVIES-COLLEY, President-elect.

Dinner at five o'clock. Tickets, 7s. 6d., exclusive of wine.

Members intending to read papers, etc. (which must not exceed fifteen minutes), are requested to communicate at once with the undersigned.

A. B. STEELE, *Honorary Secretary.*
54, Rodney Street, Liverpool.

## MIDLAND BRANCH.

THE general annual meeting of this Branch will take place in June, at the Derby Infirmary; President, T. SYMPSON, Esq., F.R.C.S.; President-elect, A. H. DOLMAN, Esq., M.R.C.S., etc.

Gentlemen intending to read papers, are requested to communicate with F. W. WRIGHT, *Honorary Secretary, pro tem.*
Full Street, Derby, May 1875.

## SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT MEETING.

THE first meeting of the above district for the present year was held at Terry's Restaurant, Tunbridge Wells, on Wednesday, March 31st: BLACKALL MARSACK, Esq., in the Chair. Twenty-one members and two visitors were present.

*Locomotor Ataxy.*—Dr. JOHNSON of Tunbridge Wells read notes of a case of locomotor ataxy. The subject was a gentleman, aged 53, but looking much older, who was noted in early life for extreme activity and great mental energy. The disease dated back for twenty years, and was characterised by acute neuralgic attacks commencing in the right thigh; then loss of control over the legs, from inability to feel them; next, spontaneous dislocation of the right humerus, then of the right ulna and radius on to the humerus, then of the left carpus on to the posterior aspect of the radius. In the last year, the sight of the right eye failed and partially that of the left also; the sense of taste was much impaired; the cutaneous nerves retained their sensibility, but the patient never knew where his hand and feet were, unless he could see them. A period of great excitement, with almost total loss of sleep, supervened in January of the present year; this was followed by stupor, epileptiform convulsions, and, early in February, he died. He was accustomed to take opium freely, two to four drachms of Battley's solution daily; and small doses of chloral seemed beneficial. Interesting pathological changes were found at the *post mortem* examination. In addition to a greatly thickened calvaria, highly developed convolutions, with excess of grey matter, abundance of serum in the ventricles and subarachnoid spaces, and deepening of colour, and comparative absence of striation in the corpus striatum, marked degeneration was found in the floor of the fourth ventricle, affecting the origins of the eighth and ninth nerves; in the cord, the meninges were in parts inseparably matted together, and a large amount of degeneration was found in the posterior columns almost throughout the entire length of the cord, the grey matter being much reduced in volume in the lower portions, and the posterior nerve-roots being very small. Beautifully tinted microscopic sections of the cord were displayed by Mr. Lammiman, house-surgeon to the infirmary.—In the discussion which followed, Dr. WARDELL drew attention to the salient points of the disease in question, and the exceptional characteristics of the case read; and, whilst acknowledging its hopeless nature, pointed out the line of treatment to be pursued.

*Thoracic Myalgia.*—Dr. JOHNSON also read particulars of a case of thoracic myalgia occurring in the person of a member of the profession. The symptoms simulated those of angina pectoris; but the attacks of pain were followed by intense burning sensations in the tendinous insertions on the sternum, and the breathing was not gasping nor distressed. The case was greatly relieved by the hypodermic injection of morphia, half a grain night and morning, the injections being continued for a month, but the quantity gradually reduced. Carbonate of iron also, in full doses, was administered, and the continuous current advised. The ailment was attributed to the constant driving of a remarkably hard-pulling mare.

*Excision of the Elbow-Joint.*—Dr. CHARLTON of Southborough read particulars of the case, and exhibited a patient on whom he had performed excision of the left elbow-joint. The subject was a married female, aged 28. The disease dated back for three years, an abscess forming eight months back, and the joint becoming ankylosed at nearly a right angle. At the operation, the olecranon was found necrosed, and the articular surfaces of the bones, the ends of the humerus and ulna below the coronoid process were sawn off, together with the head of the radius; but the latter was not affected by the disease. The arm was placed in an inside splint; the deep parts quickly healed by first intention; passive motion was gradually made use of, and, at the end of two months, when the patient was exhibited, only a small superficial wound remained to granulate. The woman was in the early months of pregnancy, but the operation, undertaken at her urgent request, did not fortunately interfere with its due progression, quickening having since occurred.

*Supposed Vegetable Poisoning.*—Mr. MARSACK read particulars of a case of supposed vegetable poisoning occurring in a little girl aged 4 years. The case was characterised by collapse, with dilated pupils and profuse involuntary discharges of blood and mucus from the bowels. The case reminded Mr. Marsack as being very similar to some which occurred many years ago in some little girls from a workhouse, some ending fatally. Almost exactly the same train of symptoms followed the ingestion of a quantity of ripe berries of the common privet, bloody discharge from the vagina being, however, a superadded symptom in these latter cases. In Mr. Marsack's present case, however, it could only be ascertained that the child had been out walking the afternoon previously, and had retired to bed apparently well. Vomiting was not an early symptom. Intussusception was suspected, but it was negatived by the reappearance of fæcal matters in the stools after the discharges had contained nothing but blood and mucus for three days. Upwards of a fortnight elapsed before the dysenteric symptoms had quite subsided.

*Poisoning by Oil of Tobacco.*—Mr. W. WALLIS of Hartfield read notes of a case of poisoning by essential oil of tobacco, occurring in a strong hearty gamekeeper, aged 41, an habitual toper, who, in a fit of beery bravado, to show the strength of his masticatory powers, chewed up and swallowed a small well blackened short cutty-pipe. Profound insensibility and collapse followed. After fully an hour's continuance, the stomach-pump was used, and afterwards free vomiting was encouraged by tickling the fauces with a bunch of feathers. The matters pumped out from the stomach, as well as those vomited, smelt strongly of oil of tobacco. Mr. Wallis made some practical remarks on the active constituents of tobacco; the empyreumatic oil, as existing in a strongly coloured pipe, being said to be actively poisonous.

*Supposed Malignant Pustule.*—Mr. MARSACK narrated two cases of supposed malignant pustule, one of which ended fatally, the other recovered after free incisions and the unsparing use of stimulants and tonics. No suspicion, however, of contact with any animal poison could be suggested in either of these cases, and it was a question whether the disease was anything more than a form of facial carbuncle.

*Malignant Pustule.*—Dr. BARRY of Tunbridge Wells read notes of another case more nearly allied to malignant pustule. It occurred in a healthy butcher, aged 47, at the hottest time of the year in July; it commenced as a very small sore on the upper lip, which occasioned some itching tingling sensation, but was at first thought so little of, that for three days the man pursued his avocations, went to market, and worked in his hay-field. The lip then became enormously swelled, the whole face featureless, swollen, out of shape and comeliness, and of a blackish colour, hard and leathery. The lip was freely incised, but muttering delirium soon set in, and the disease ran its course to a fatal issue in seven days from the onset.

*Foreign Body in Bladder: Lithotomy.*—Mr. BISHOP of Tunbridge Wells exhibited a fragment of the handle of a crotchet-needle, which he had extracted from the bladder of a patient by median lithotomy. The fragment was two and a half inches long, and was thickly encrusted with phosphates. It had been introduced *per urethram*, and had remained fourteen days *in situ.*

*New Member.*—Mr. Bisshopp of Tunbridge Wells, a member of the Association, was nominated for membership of the South-Eastern Branch.

*Dinner* took place at Terry's Restaurant: Mr. B. Marsack in the Chair. Twenty-two members and friends were present.

*The Next Meeting* will be held at Lewes at the latter end of May: Mr. Braden to be invited to take the Chair.

## SOUTH OF IRELAND BRANCH: ORDINARY MEETINGS.

ORDINARY meetings of the above Branch were held in the theatre of the Royal Cork Institution, on March 17th and 21st. Dr. THOMAS GREGG presided.

*Innominate Aneurism.*—Dr. CRENAN exhibited a pathological specimen of a large aneurism of the innominate artery. The sternum was eroded; the man died of hæmorrhage.

*Suction-Operation for Cataract.*—Dr. H. M. JONES read some remarks on the suction-operation for cataract, and its advantages over the old method by solution. He exhibited three cases, with excellent results, in which he had employed this method; he had used Mr. Bowman's syringe. One of the cases was that of a woman aged 30, in which both lenses were operated on in this manner, with a good result, the woman reading large type at the meeting.

*Delivery in a Dwarf.*—Dr. JENNINGS, resident physician at the Cork Maternity, read the notes of a case of delivery in a dwarf (height, three feet nine inches). The woman was horribly deformed, with very small extremities. She had not for years been able to walk more than a few yards at a time. To add to the difficulties of the case, it proved to be a shoulder-presentation, and the entire amniotic fluid had escaped for several hours previously to Dr. Jennings seeing the case. Dr. Jennings summoned Drs. Cummins and Jones, the former of whom, after considerable difficulty, succeeded, by means of a noose, in turning the child and delivering her of a very small (premature) dead born fœtus. It being necessary to pass the catheter subsequently, a curious malformation was evident: the meatus urinarius was found not to be in the usual position, but an elongated slit between the roots of the corpora cavernosa of the clitoris.

*Use of the Forceps in Undilated Os Uteri.*—Dr. CUMMINS read a paper on the use of the forceps in undilated and nondilatable os. He deprecated the use of this instrument in such cases, and drew attention to the fact, that of late, when the old and absurd fear of the forceps was justly dying out, there appeared to be on the part of some a tendency to rush to the opposite extreme, and to advocate its use in cases of nondilatable and partly rigid os. Dr. Cummins cited several cases bearing on the point; and a long discussion ensued, in which the President, Drs. Cummins, O'Flynn, O'Connor, Jones, and Crenan took part.

*Cirrhosis of the Liver.*—At the last meeting of this session, on April 14th, Dr. RINGROSE ATKINS exhibited the cirrhosed liver of an inmate in the Cork Lunatic Asylum, who had recently died. He also exhibited microscopical sections of the same. The man had been in the asylum from his youth, and had had no recourse to alcoholic drinks. He was about fifty years old. The liver was a very small one, weighing only thirty and a half ounces; its measurements being—circumference of right lobe twelve inches; of left lobe, eleven and a half inches; in the longitudinal direction, eighteen inches.

*Action of Nitrate of Potash and Digitalis as Antipyretics.*—Dr. JONES exhibited a number of temperature charts, showing the action of nitrate of potash and digitalis as antipyretics, also some of mixed cases of typhus and typhoid, remarking on the number of these latter which had of late been admitted into the Fever Hospital.

*Morbid Changes occurring in the Blood-vessels of the Brains of the Insane.*—Dr. RINGROSE ATKINS read a paper on this subject. Having remarked on the difficulty connected with it, he described the method of preparing sections which he had adopted, proceeded to consider the normal structure of the cerebral arterioles, and their relation to the hyalin sheath and "perivascular canal" outside them, and exhibited a diagram showing this relation. He next demonstrated, by a series of preparations and drawings, the various morbid conditions found existing in the cases examined, in what he considered to be the order of their natural sequence. He first drew attention to the condition of distension and dilatation of the vessels, followed in many cases by sacculations and aneurismal formation, of which he presented some interesting specimens. Following on this condition, he described the occurrence of punctiform or massive hæmorrhage, and laid stress upon this state of the vessels as the most fruitful cause of such bleedings. He next considered the conditions brought about by the release of the vessels from this state of distension, describing the contraction of the vessel in the canal in which it ran, leaving a clear ring surrounding it, the erroneously so-called perivascular canal, and discussed at some length the various views promulgated to account for its existence, and then drew attention to the condition of "tortuosity" which the vessels, especially those of the pia mater, assume in virtue of the release of their elastic fibres from the long continued strain. He then proceeded to consider the changes occurring in the walls of the vessels, describing and explaining the thickening which the three coats may undergo, either alone or in combination, and exhibited a specimen showing a complete fusion of the coats with great thickening and encroachment on the lumen, differing from that produced either by syphilis or by glioma, and which he had not before seen figured or described as far as he knew. Having then discussed the occurrence of fatty degeneration of the vessels, he concluded by picturing the symptoms to which the several conditions alluded to give rise, by their interference with the nutrition of the brain-tissue, reserving until a future period the consideration of the changes occurring in the other anatomical constituents of the organ, viz., the cells, neuroglia, etc. All the conditions spoken of were illustrated by specimens and drawings taken from them.

## NORTH OF ENGLAND BRANCH: SPRING MEETING.

THE spring meeting was held at Tynemouth, on Thursday, April 29th; the President, Dr. LEGAT, in the Chair. There were also present twenty-three members and five visitors.

Nineteen new members were elected.

*Rumsey Testimonial.*—The following resolutions were unanimously carried.

I. "That the North of England Branch of the British Medical Association deeply sympathises with Dr. Henry Wyldbore Rumsey of Cheltenham in his recent attack of paralysis; and, in view of such, and in consideration of his services to the advancement and organisation of sanitary science, cordially approves of the action taken by the friends of Dr. Rumsey in London on March 23rd, 1875, when it was resolved: '1. That a subscription-list should be opened to present to Dr. Rumsey some substantial token of public and professional gratitude; 2. That a memorial setting forth the particulars of Dr. Rumsey's career, and the strong claims which he has thereby established to a national recognition of his services, be presented to the Prime Minister, praying that a pension should be granted to Dr. Rumsey out of the Civil List.'

II. "That the following gentlemen (with power to add to their number) be appointed a Local Committee, to support the London Committee: The Mayor of Newcastle (Colonel A. Potter); J. Lowthian Bell, Esq.; Dr. Legat; S. E. Piper, Esq.; S. W. Broadbent, Esq.; Dr. B. Bramwell; Dr. Eastwood; Dr. Gibson; Dr. Frain; Dr. Dixon; H. E. Armstrong, Esq.; Dr. Yeld; Dr. Maclagan.

III. "That a subscription be entered into by the Branch, and that the members of the Branch be invited to contribute the sum of five shillings; the total amount to be forwarded as a contribution to the fund from the Branch, it being clearly understood that no member is hereby prevented from contributing a larger sum.

IV. "That Dr. Philipson, Honorary Secretary of the North of England Branch of the British Medical Association, be appointed Treasurer of the local subscription, and Honorary Secretary to the Local Committee."

*The Treatment of Habitual Drunkards.*—Dr. PHILIPSON read the report of the Committee of the Birmingham and Midland Counties Branch of the British Medical Association appointed to consider the best means of furthering legislation for the care and restraint of habitual drunkards; also a paper prepared by Dr. J. W. Eastwood.

Dr. **Philipson** (in the absence of Dr. Eastwood) proposed the following resolution, which was seconded by Dr. **Reid**, and carried: "That the Bill for the management of habitual drunkards, brought before the House of Commons by the late Mr. Dalrymple, be the basis for any future action on this subject, with a modification of the fifteenth clause; and that the members of the North of England Branch be invited to sign a petition in favour of this Bill, to be presented to the Houses of Parliament."

*Papers.*—The following papers were read.

1. Report of a Case of Extrauterine Fœtation. By Dr. Byrom Bramwell.
2. Report of a Case of Extrauterine Fœtation. By Thomas Wilson, Esq.

*Dinner.*—The members and their friends afterwards dined together in the Bath Hotel; the President in the chair, and the Honorary Secretary, Dr. Philipson, in the vice-chair.

### MIDLAND BRANCH: QUARTERLY MEETING.

A quarterly meeting of this Branch was held in the board-room of the county hospital at Lincoln, on May 5th, under the presidency of T. **Sympson**, Esq., F.R.C.S.

*Papers.*—The following papers were read and discussed.

1. On Ether as an Anæsthetic. By C. Bell Taylor, M.D., Nottingham.
2. A Case of Scald of Glottis, with Recovery after Tracheotomy. By T. Sympson, F.R.C.S.
3. The Therapeutic Value of Free Phosphorus. By Beverley R. Morris, M.D., Nottingham.

About twenty members attended the meeting, who were entertained at luncheon by the President at his house.

### SOUTHERN BRANCH: SOUTH HANTS DISTRICT.

A meeting of the above district was held at the Red Lion Hotel, Fareham, on Tuesday, April 20th. Twenty-three members were present; and W. H. **Garrington**, Esq., J.P., occupied the chair.

*Diagnosis of Insanity.*—Dr. **Manley** read a paper on the Diagnosis of Insanity. An animated discussion followed, in which Inspector General Smart, Dr. Kealy, Dr. Nicolson, Mr. Burford Norman, and Dr. Ward Cousins took part.

*Pathological Specimens.*—Mr. G. H. **Case** exhibited two interesting pathological specimens: *a.* A large polypus of the rectum, which had been successfully removed; *b.* A vascular growth of the os uteri, with a portion of the cervix, recently excised. Mr. Case considered the disease epithelioma.

*Dinner.*—In the evening, the members dined together at the hotel, under the presidency of Dr. W. Case of Fareham.

### SOUTHERN BRANCH: EAST AND WEST DORSET DISTRICT MEETING.

A meeting was held at Dorchester on May 5th; Dr. J. P. **Aldridge** in the chair.

*Organisation of District.*—The following resolutions were passed unanimously.

"That the East and West Dorset Districts be amalgamated into one District, to be called the Dorset District of the Southern Branch of the British Medical Association.

"That Dr. Aldridge (Dorchester) be the President; Dr. Ellis (Poole) and Mr. John Ewens (Cerne Abbas) the Vice-Presidents; and Dr. Lush (Weymouth) and Mr. C. H. W. Parkinson (Wimborne) the Secretary and Treasurer for the present year.

"That the annual subscription to the district be half-a-crown.

"That two meetings be held annually: the one in April and the other in October, on the Wednesday on or nearest to the full moon.

"That it is desirable to fix beforehand a subject for discussion, such subject to be chosen by the President and Vice-Presidents for the year.

"That an agenda paper be sent to each member of the district.

"That the next meeting be held at Dorchester; and that in future the first meeting of the year be held at a town near the residence of the newly elected President."

*Specimen.*—Dr. **Lush** (through the courtesy of Mr. **Good**) exhibited a large malignant tumour of the femur, which had been removed by amputation in the Dorset County Hospital from a lad sixteen years of age.

*Dinner.*—The members dined together at the King's Arms Hotel.

# REPORTS OF SOCIETIES.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, May 11th, 1875.

Sir James Paget, Bart., D.C.L., LL.D., F.R.S., President, in the Chair.

### ON THE HISTOLOGY OF THE SO-CALLED NUTMEG-LIVER.

BY J. WICKHAM LEGG, M.D.

The author, in this paper, after reviewing the opinions which have been held concerning the anatomy of nutmeg-liver, gave the result of his examination of twenty such livers. He found the vessels in the centre of the lobules dilated, with a corresponding atrophy of the liver-cells around them, but with no new growth of connective tissue in the centre of the lobules, as Rokitansky, Frerichs, and Virchow have held. He found, on the contrary, that the growth of the connective tissue is well marked in the capsule of Glisson and between the lobules, just as in the early stage of primary cirrhosis, and he looked upon this overgrowth as the cause of the shrinking and hardening of the liver in advanced stages of nutmeg liver. Other cases of the overgrowth of the connective tissue in organs subject to persistent hyperæmia were brought forward; and the paper ended with a protest against the name of red atrophy, given to the atrophous nutmeg-liver by Rindfleisch.

Dr. **Thin** asked whether Dr. Legg considered that connective tissue passed from the acini of the liver between the rows of cells. He doubted whether the hardening process was most suitable for examination of the liver, on account of the shrinking which it produced and the difficulty of making out the bundles of connective tissue.—Dr. T. H. **Green** said that Dr. Legg seemed to regard dilatation of the hepatic vein and atrophy of the liver-cells as the most important. He thought that Dr. Legg attached more importance to the increase of connective tissue than was generally admitted. He had not seen such an increase of connective tissue at the circumference of the acini as was described by the author of the paper. The increase of connective tissue from chronic congestion resembled that arising from chronic inflammation, but the cells were generally much less nucleated.—Dr. **Handfield Jones** said that the use of the term chronic inflammation was a very imperfect explanation of the condition of the liver described by Dr. Legg. He would like to know what was the starting point of the growth of connective tissue in the liver; it could be always attributed to spirit drinking. He had been accustomed to regard it as part of a general change—fibroid degeneration—occurring in various organs. This change was of an opposite character to that which occurred in phthisis; and, perhaps, if it were possible to induce fibroid change, the destructive process in consumption might be arrested.—Dr. **Legg** was aware that there was a controversy as to the presence of sheaths of connective tissue in the liver between the rows of cells. He would not attribute the changes to chronic inflammation—an ill-defined term, like the "extractive matter" of the chemists.

### SEQUEL TO A PAPER ON EXCISION OF THE ANKLE-JOINT.

BY HENRY LEE, F.R.C.S.

In a former communication of Mr. Lee's on Resection of the Ankle-Joint, the plan of dislocating the lower extremity of the tibia and the upper surface of the astragalus outwards was advocated as the best mode of performing the operation, but it was demonstrated that before this could be done the internal malleolus must be removed. A division of the internal lateral ligament is not sufficient, the projection of the internal malleolus when present prevents the foot being turned sufficiently inwards as long as the upper surface of the astragalus is held in apposition with the lower extremity of the tibia by the tendons which pass behind the ankle-joint. The difficulty of dislocating the bones in order to perform the operation satisfactorily was considered in all the plans which had previously been suggested. A case was given, which was believed to be the only one on record, where a complete primary resection of the ankle-joint was performed, and in which a most satisfactory result was obtained. In this case, the bones had been dislocated outward, and the extremities of the tibia and fibula were removed without any attempt at reduction being made. On the 27th of January last, another case fell under Mr. Lee's care, in which a similar compound dislocation of the ankle had occurred, but in this case the lower extremity of the tibia was dislocated inwards, and projected for two or three inches through the skin. The extremity of the internal malleolus had been detached, and remained connected with the internal lateral ligament. The fibula was broken about three inches from its termination. In this case, the lower extremity of the tibia was sawn off, and the bone replaced in its normal position; an incision was then made over the external malleolus, and the periosteum separated from the bone as much as practicable. The external lateral ligaments were then divided, and the lower broken portion of the fibula removed. The limb was then again placed on its outer side, and the upper surface of the astragalus made to protrude as much as possible through the internal wound. A deep horizontal groove was made by means of a small saw below its upper articular surface. This surface was then removed completely by means of the cutting pliers, the two smooth surfaces of bone were then placed in apposition, and carbolic dressing applied to the wound. A very severe attack of erysipelas occurred on the fourth day, which extended up the leg and thigh, the skin being of a very deep livid colour. It was feared that gangrene of the limb might take place, as had occurred in another patient who had the same symptoms, and who was admitted about the same time with a compound fracture of the leg. A deep incision was made on each side of the leg, from which there was soon a copious discharge of pus. The skin now assumed a bright red colour, and the erysipelas, having run its course, gradually subsided. The portion of the astragalus which had been removed had, and still has, attached to it a portion of the anterior tibial artery which had been torn through at the time of the accident. The case previously recorded offered some interesting points of contrast with the present one. In the first, the bones were dislocated outward; in the second, inward. In the first, the internal malleolus was not removed, although detached from the tibia, and the fibula in that case was not broken. The internal malleolus, which was allowed to remain, proved to be the cause of some subsequent irritation and suppuration, and the conclusion was arrived at that both malleoli ought in this operation to be removed, whether detached or not. The principal point, however, to which the author wished to direct attention was the much greater facility which there is in removing the upper surface of the astragalus where that bone is dislocated outward than where an attempt is made to displace it inward. This, in the author's opinion, made a very great difference where a surgeon can choose which operation he will perform. Even after both malleoli are removed, the powerful tendons which run behind the joint on its inner side tend to prevent the astragalus from being inverted, and are of themselves sufficient to account for the difficulty that surgeons have experienced in attempting to turn the astragalus sufficiently inward to remove its upper articulating surface. This he did without difficulty in the first case by a clean section through the entire upper part of the bone, but he could not do so in the second without distressing the surrounding parts more than might be desirable. After the saw had been used to a certain extent, the upper surface of the astragalus had to be removed in three different portions by the cutting forceps.

Mr. Mac Cormac showed a boy, aged 10, who, in consequence of injury by a cab, had received a contused wound of the ankle, followed by secondary inflammation of the joint. The malleoli and the upper surface of the astragalus had been excised. The operation which he performed had been introduced by Langenbeck. A long incision was made along the fibula, the end of which was sawn off, the periosteum being preserved; then, before any further incision was made, the upper part of the astragalus was sawn through; an incision was then made over the tibia, and the lower end of this bone and the portion of astragalus that had been cut off were removed. There appeared to be very complete reproduction of bone in his case.—Mr. Henry Lee said that he preferred to make the incision on the inner side. Where there was much inflammation and thickening, it might be advisable to remove the head of the astragalus *in situ*; otherwise, dislocation outwards was the best plan. If the fibula were broken, it was best to remove the whole of the broken bone, and not to leave a small fragment.

### ON THE CONSTRUCTION AND USE OF A NEW FORM OF CARDIOGRAPH.

BY A. L. GALABIN, M.D.

The author pointed out the liability to error which exists in Marey's cardiograph, and in the modification of it by Dr. Burdon Sanderson, in consequence of the use of a flexible tube containing air to transmit the motion. Two effects may be produced in this way, first the rounding off of any abrupt features in the curve, and secondly, the introduction of oscillations. It has been shown by Dr. Rutherford that, if even a slight impulse be communicated to the instrument by the finger, oscillations do occur. The mode of verification adopted by Marey, in which a motion already known was communicated to the instrument by the rotation of an eccentric, proves only that such a curve as that described by his cardiograph can be transmitted a second time without further considerable change, and not that the original cardiac motion could be accurately depicted. The most perfect cardiograms hitherto obtained have been those procured by the application of the sphygmograph directly to the apex of the heart. The sphygmograph cannot, however, be generally used in this way in cases of heart-disease, for two reasons. In the first place, the extent of the cardiac motion varies very widely, and when the heart is hypertrophied, it becomes far too great to be recorded; and in the second place, when the sphygmograph is applied to the chest, not only the spring-pad, but the framework is influenced by the cardiac impulse in cases in which the apex heat is diffused, and in this way the curve described becomes modified. The cardiograph invented by the author is such a modification of Marey's sphygmograph that these two difficulties may be avoided, and tracings obtained in all cases direct from the apex of the heart. In order to attain this object, the knife-edge, by which motion is communicated to the recording lever, is not rigidly connected to the spring-pad, but is attached by a sliding bar, which can be fixed in any position by a screw. In this way the amount of amplification given to the motion can be varied from about ten to a hundred times the original. The instrument is also attached to a movable frame in such a way that the wooden bars on which it rests can be separated to a width of five inches, and the brass work can be raised or lowered at either end. It can thus be adapted to a chest of any size or shape. In tracings obtained by this cardiograph, the thrill which accompanies a murmur is often depicted as a vibratile line in the curve, and then the exact relation of the murmur to systole and diastole is permanently recorded. The shape of the systolic part of the curve indicates the proportion which hypertrophy bears to dilatation, while aortic regurgitation is shown by a rapid ascent during diastole. In many cases of mitral contraction, an increase and prolongation of the auricular elevation is seen, while in some others, in which a direct mitral murmur appears to be due to the venous flow, the auricular systole is either not discernible, or it appears in its usual position and not prolonged. The cardiograph shown was made by Mr. Clark, of Windsor Cottages, High Street, Lower Norwood. Instruments of the kind may be obtained through Messrs. Krohne and Sesemann, Hawksley, or Weiss.

## GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

MARCH 23RD, 1875.

JOSEPH COATS, M.D., Vice-President, in the Chair.

*General Tuberculosis: Large Tubercles in Liver.*—Dr. Joseph Coats showed the lungs, liver, spleen, and kidneys, from a case of general tuberculosis. He called attention to the large size of the tubercular nodules in all these organs, but especially in the lungs and liver. In the lungs, they formed pale tumours, generally about the size of split-peas, but sometimes aggregated so as to resemble cancerous masses; in fact, there were some of these latter which, if seen apart from the rest, would have been set down as cancerous. He said, that while tubercles in the liver were usually so small as to be invisible to the naked eye, those shown were about half the size of the tubercles in the lungs, and so of very considerable dimensions. It was stated that the older authors considered that tubercles in the liver were rare in general tuberculosis, but this opinion was based on the naked eye characters. Microscopic examination revealed their presence in very large numbers, but it was only very exceptionally that they were of such large dimensions as in this case. Dr. Coats thought this case of interest in illustrating the pathology of tubercle. There were here distinct tumours, many of them of considerable size, and the resemblance to cancer had struck several who had glanced at the organs, indicating, he thought, the analogy of tubercle, and especially of general tuberculosis, with cancer, and especially cancer which has become generalised.

*Hernia: Double Strangulation of Bowel.*—Dr. G. H. B. Macleod submitted a specimen from a case of oblique inguinal hernia, which had existed for fourteen years in a man fifty-six years old. It had been always wholly (or at least mostly) reducible without trouble, but had become strangulated three days before admission to the Western Infirmary. The vomited matter was stercoraceous. On opening the sac at the operation, a large piece of omentum was found lying in front of the loop of intestine; the omentum was matted together, and full of varicose veins. The constriction being relieved, the bowel was returned, but with some difficulty. After a temporary improvement, vomiting returned, and he died next day. At the inspection, the loop returned was found quite free, but ulceration had commenced along the line of constriction. Immediately below this, a knuckle of bowel was found still strangulated at the internal ring; it had dissected its way between the internal and external oblique muscles into the substance of the abdominal parietes.

*Multiple Aneurisms.*—Dr. Wm. MacEwen showed a man, fifty-six years of age, with an aneurism of the right femoral artery, measuring about five inches longitudinally and transversely; and also with a smaller aneurism about the size of a large walnut on the left femoral. Three years ago, while working on shipboard in the West Indies, he over exerted himself, and was sent ashore and treated for local fever, but his right leg soon began to swell, and he found a pulsating tumour of small size in the right femoral region, which soon became larger. It now implicates the external iliac, as it extends about an inch above what seems to be remains of Poupart's ligament. The arteries generally, and especially the brachials, are rigid; the second sound of the heart is altered, and some undue dulness on percussion exists to the right of the sternum. Some discussion took place as to the proper treatment of such a case; pressure—digital, or by the aortic tourniquet—it was thought, should be tried first.

*Ruptured Intestine from Injury.*—Dr. YELLOWLEES showed a specimen removed from a male patient at Gartnavel, the subject of general paralysis. He was thirty-six years old, and in good general health; he fell while running, and a man, who was running after him, and was at the moment close behind him, fell heavily over or upon him. Vomiting occurred very soon afterwards, and was followed by great prostration and frequent hiccough, but the patient declared throughout the illness that he had no pain; the prostration, however, increased, peritonitis was developed, and he died seventy-seven hours after the accident. A very small rupture was found about four feet and a half below the pylorus, scarcely sufficient to admit a quill; it was situated opposite the peritoneal attachment. The intestine seemed quite healthy, nor was any foreign body found in it by which such an injury might have been caused.

*Ruptured Intestine.*—Dr. GEORGE BUCHANAN showed a specimen very similar to the preceding one. The rent was in the small intestine, and there were no external marks of violence. The patient, who was admitted to the Western Infirmary shortly after the accident, had been drawn into contact with a revolving shaft by her clothes becoming entangled in machinery. She was wheeled round, and her head dashed against a wall; she, however, sustained no serious apparent injury except a contusion of the scalp. No peritoneal or other symptoms showed themselves at first, the only noticeable phenomenon being a marked and increasing smallness of the pulse. She had some vomiting about twelve hours after admission, and she gradually sank exhausted twenty-three hours after the accident, having spoken quite sensibly and calmly about a quarter of an hour before death. The rupture found on *post mortem* examination was about an inch long. No fæcal matter was found in the abdominal cavity, but very extensive peritonitis and recent lymphy effusion.

*Two Cases of Fractured Spine in the Cervical and Dorsal Regions.*—Dr. G. H. B. MACLEOD presented two specimens. In the first, the spine was fractured about the fifth cervical vertebra. The patient, a strong Englishman, aged 34, had been forcibly bent backwards over a fence by another, and as soon as it was found that he had become suddenly paralysed in all his limbs, he was thrown down and left in a wet ditch. He lived under Dr. Macleod's observation for twenty-one days, and died of exhaustion. During all this time, he was virtually dead; all except his head, neck, and a portion of his upper arms. He had neither sensation nor motion in the body or lower limbs. He suffered much from priapism and bed-sores, notwithstanding everything that could be done. The cord was found directly pressed upon by the fractured bone, which lay wholly in front, and made no sign behind. The cord was softened and disorganised.—A man whose spine was broken in the dorsal region was twenty-one years of age; he fell down stairs when drunk. He was entirely paralysed as regards sensation and motion from the moment of the accident. This paralysis extended exactly up to the crest of the ilium. The splanchnic nerves were also involved, so that much disturbance of digestion was present; in fact, it was the exhaustion produced by vomiting, etc., which killed him. He died in ten days after the accident. There was no irregularity, or discoloration, or swelling at the seat of fracture behind, to indicate its position.

*Localised Endocarditis.*—Dr. JOSEPH COATS showed a heart with chronic endocarditis localised on the wall of the left ventricle. He remarked that endocarditis, whether acute or chronic, usually attacks the valvular structures; but, in this case, the endocardium on the left side of the wall of the left ventricle was thickened over an area of about one and a half square inches. The muscular trabeculæ were in this region converted into fibrous trabeculæ, and the ventricle, though generally dilated, was specially so in this region. Between and behind these altered trabeculæ there were five or six globular vegetations, which peeped out from the recesses. One of these was as large as a hazel-nut, and had a pale granular section, with just a trace of softening in the centre.

*Mammary Cyst with Intracystic Growths.*—A report by a committee on the cystic tumour, shown by Dr. CAMERON at the last meeting, was read. It had been removed from the left mamma of an unmarried female, forty-three years old. It had been situated to the outside of the nipple, and a great part of it was underneath the areola. It felt hard, but was distinctly fluctuant; the skin was freely movable over it, except at the site of a cicatrix, where it had been evacuated by an incision made by a surgeon; the nipple was extremely retracted. The disease had existed for six years, but caused no pain. Prior to its removal, it was tapped, an ounce of very bloody fluid coming away; the cyst collapsed, and the nipple resumed its natural position. Some small round lumps could be felt in the upper part of the collapsed cyst. In three days, as it filled again, it was removed. It measured one and a half by two and a half inches; it was full of bloody fluid. On its inner surface, three growths, pink and highly muscular, were found; the largest was about the size of a bean. The wall of the cyst was two lines in thickness, and composed of fibrous tissue with a smooth surface internally. The three growths referred to consisted of elongated filiform papillæ covered with the usual epithelial layer, and they seemed to be the source of the blood in the cyst.

*Vesical Calculi with Blood-Clot Nucleus.*—Dr. GEORGE BUCHANAN showed two calculi removed six weeks previously from a patient in the Western Infirmary; the rectangular staff was used, and the recovery was good. The stones were curiously facetted, on each there being a saddle-shaped depression on which it had moved on the other. The one was two inches by one, the other an inch and a half by one inch. They both consisted of urate of ammonia; but, on section, each had, instead of a nucleus, a hollow cavity containing a shrivelled clot of blood. In one, the cavity containing the clot was about the size of a garden-bean; in the other, of a dried horse-bean. The urate of ammonia was arranged in distinct layers, and in many places there were hollow intervals between the layers wide enough to admit the point of a pen. The man had had an attack of hæmaturia three years ago.

# SPECIAL CORRESPONDENCE.

## PARIS.

[FROM OUR OWN CORRESPONDENT.]

*The Catastrophe of the Zenith Balloon.—M. Woillez's Spiroscope.—Balloon Ascent of M. Duruof.—M. Lunier on Alcohol.—M. Tholozan on Cholera.—Annual Meeting of Academy of Medicine.*

THE cause of death of the two aeronauts of the Zenith, Sivel and Crocé-Spinelli, is still a disputed point, some contending that it was due to asphyxia, while others attribute it to the sudden diminution of atmospheric pressure. This latter opinion indeed is also that entertained by Gaston Tissandier, the only survivor of the catastrophe. Others, again, put it down to the combined influence of the extreme rarefaction of the air, and the consequent deficiency of oxygen, the one acting mechanically, the other chemically. This hypothesis would seem to be the most plausible as, according to Tissandier's own account, all three were more or less affected with symptoms of asphyxia; and, as we are informed by an eye-witness who saw the bodies when they were brought to Paris, Sivel and Crocé-Spinelli bore evident signs of internal hæmorrhage. It is much to be regretted that no *post mortem* examination was made.

M. Woillez has recently submitted to the Academy of Medicine an instrument with which he proposes to study auscultation, and the anatomy and physiology of the lungs. To this instrument, or rather apparatus, he has given the name of "Spiroscope". It consists of a glass cage in the interior of which is suspended a lung. Into this apparatus he pumps air and withdraws it, so as to imitate the acts of inspiration and of expiration. Under the influence of diminished pressure, the vesicular surface becomes enlarged, the calibre of the fine bronchial tubes increases in size; all seem to be prepared to receive the air forced into them. From this it has been concluded that, in order to restore to life a person asphyxiated either by submersion or otherwise, instead of injecting air into the lungs, endeavours should be made to dilate the chest, raise the ribs, depress the diaphragm, and not to press the thoracic walls as is commonly done in what is termed artificial respiration. By injecting a gelatinous fluid into the pulmonary artery, M. Woillez has succeeded in producing artificially certain stethoscopic sounds, which go to prove that the seat of the sounds heard in the living subject is in the lungs themselves, and that they are not produced by the passage of the air through the glottis and the trachea, as was maintained by M. Beau. M. Woillez's apparatus is simply an exhausting machine and air-pump combined, and the results produced by it are different from those obtained by other experimenters on the same subject. The latter, according to M. Woillez, are defective and contrary to the laws of physiology. M. Cornil, who lately published the results of his experiments on the dead body, and other experimenters, have made the mistake of injecting air into the minute ramifications of the bronchi, which become dilated, and the air is then expelled by pressing the sides of the chest against the lungs, which is just reversing the order of things in the physiological condition, whereas by M. Woillez's apparatus there are, first, dilatation of the lungs, and, secondly, penetration of air, which is more in conformity with what takes place in the natural state.

The tragic end of the two martyrs of science above named, and of others before them, does not seem to deter others following in their wake; M. Duruof having made an ascent in company with M. de Fonvielle and Mr. Marriotte, one of the *Times* correspondents in Paris, in the Ville de Calais, the same balloon in which M. Duruof and his wife nearly lost their lives a short time ago. Their object was to study the composition of the air in the higher regions; but, having learned a severe lesson from the fatal end of the explorers of the Zenith, they provided themselves with birds and animals in order to watch the effects of the air and the balloon-gas on them, and thus ward off any threatening danger. They were obliged to make a descent at a village near Troyes, at about ten on the same evening; and they sent a telegram to Paris to the effect that they had ascended 3,000 *mètres*, and that they could not go any further owing to the density of the clouds. Though they had not much time at their disposal, the observations taken were very interesting. The temperature in the shade was nearly 8 degs. Fahr. below freezing point, and in the sun the thermometer marked 12 degs. C. or 53.6 degs. F. One of the birds placed nearest the cage of the balloon was asphyxiated by the gas. Electricity was applied, and other efforts were made to restore life, but without effect. This circumstance recalled to mind the catastrophe of the Zenith, and has led them to suppose that the gas escaping from the balloon had something to do with it. The asphyxiated bird was necroscopically examined by M. Liouville, Chef of the pathological laboratory at the Hôtel Dieu, who stated that the immediate cause of its death was intercranial hæmorrhage on both sides of the skull. There was also observed slight congestion of the brain; but no trace of any lesion in the exterior of the body. The bird died at an altitude of 1,500 *mètres*, that is, where the respiration of animals is not much affected; and, although the death of the bird is attributed to asphyxia from the balloon-gas, I cannot help thinking that, even in this case, the mechanical influence of the sudden diminution of atmospheric pressure played the principal part.

M. Lunier, one of the founders of the Temperance Society in Paris, lately presented himself at the Academy of Medicine as a candidate in the section of hygiene. On this occasion, he read a very interesting work on the influence of wine and spirituous liquors on the physical and intellectual health of certain populations. After having shown the great increase of alcoholism since the introduction into daily use of other spirits than those distilled from wine, M. Lunier points out that the most rational means for limiting the consumption of spirits, and consequently the pernicious influence produced by these liquors, is the introduction of wine in the countries where the vine does not grow in sufficient abundance, as it has been proved that alcoholism is rarely met with in vine-growing countries, whereas it is the reigning vice in those where wine is not produced.

The Academy of Medicine has been startled by a paper read by M. Roger, one of the secretaries, in the name of M. Tholozan, physician to the King of Persia, on that interminable subject, the cholera. Contrary to the generally received opinion in Europe, M. Tholozan has announced that all the cholera epidemics that reign from time to time in Europe and elsewhere are not necessarily of Indian origin, but that some of them break out spontaneously. This, as was expected, gave rise to a warm discussion, in which MM. Chauffard, Briquet, Fauvel, Bouley, Bouillaud, and others, took part. These gentlemen were, of course, arrayed against M. Tholozan, and condemned his doctrine as not being able to bear criticism, at least as far as concerns the origin of cholera; they, however, gave him the credit of having demonstrated in a most lucid manner that extinct epidemics are capable of being revived, and thus constitute the starting-point of a severe or extensive epidemic. Following in his own line of argument, he further stated, in his letter, that the cholera of 1862, which raged all over Europe, far from being the offspring of any previous epidemic, broke out spontaneously, and that, this being the case, it follows as a necessary consequence that the prophylactic measures employed to keep off an invasion of Indian cholera are perfectly useless. M. Bouley loudly protested against these doctrines, and pointed out the danger of giving them any countenance.

The annual meeting of the Academy of Medicine took place on May 4th. An eulogium on the lamented Cruveilhier was read with great effect by M. Béclard, the permanent secretary. The competitors for the various prizes were conspicuous for the paucity of their numbers; for, out of ten prizes left at the disposal of the Academy, two only were awarded. One, the "prix Portal", was equally divided between MM. C. E. Martin and Chudzinski, for their paper on Pathological Anatomy; and the other, the "prix Godard", was awarded to M. Taon of Nice. Two "encouragements" were also announced, and several prizes in the form of medals and honourable mention were distributed to the certain medical men who had rendered conspicuous services during epidemics, and to others who had performed the greatest number of vaccinations during the year.

# PUBLIC HEALTH
AND
# POOR-LAW MEDICAL SERVICES.

## LOCAL EPIDEMICS.

Dr. Maclagan, Medical Officer of Health, makes some interesting statements on this subject in his last report to the Rural Sanitary Authority of the Hexham combined district. In connection with this subject, he states that the arrangements made by the sanitary authority for accurate information as to the occurrence of infectious disease and the mortality of the district have been of the greatest utility. Although the sanitary authority has requested the practitioners of the district to give intimation of the occurrence of zymotic disease in the course of their private practice, and although in many cases they have done so, he expresses his conviction that this should be made not a voluntary matter, but a duty imperative upon all medical practitioners, by order of the legislature. A Medical Officer of Health should also have power to insist upon the isolation of cases of infectious disease. In few instances has he the power, even if the parties are willing, to do so in the houses of the working classes. When such is the case, he ought to have authority to remove to a hospital, or if there be not one near, to a cottage devoted to the purpose, which ought to be provided in every tolerably sized village. The power which isolation has of controlling the spread of disease would very soon amply repay the expense of such an arrangement. Thus, towards the end of 1873 and the commencement of 1874, an epidemic of scarlatina occurred in the village of Corbridge. The first case was undoubtedly imported from Gateshead. Had the Medical Officer of Health had power to isolate that case, Dr. Maclagan has no doubt that the disease would have spread no further, instead of, as it did, attacking many persons in Corbridge, and indeed in many other parts of the district. Many of these cases, twenty-seven, proved fatal. The percentage of deaths from zymotic diseases to the total number of deaths was 15.83, and the percentage of deaths from scarlatina to the total deaths from zymotic diseases was 31.78, or nearly one-third of the whole; and to total deaths 5.01. It will thus be seen how many lives might have been saved by speedy isolation. At the latter end of 1873 and the commencement of this year, several fatal cases of diphtheria, fifteen in number, were registered. On strict investigation, however, he is inclined to believe that these were, mostly at all events, severe cases of scarlatinal sore throat. This matter, however, was investigated by Dr. Airey, one of the medical inspectors of the Local Government Board, whose report has not yet been seen.

## POOR-LAW MEDICAL APPOINTMENTS.

Adams, Edward B., M.R.C.S.Eng., appointed Medical Officer to the Bungay District of the Wangford Union, *vice* Robert E. E. Barkway, M.R.C.S.Eng., deceased.

Arnold, H., Esq., appointed Medical Officer to the Brafield District of the Hardingstone Union, *vice* E. Dudley, M.R.C.S., deceased.

Bower, A. E., M.R.C.S.Eng., appointed Medical Officer to the Prees District of the Wem Union, *vice* E. Burroughs, L.K.Q C.P., resigned.

Burgess, Edward A., M.R.C.S.Eng., appointed Medical Officer and Public Vaccinator for the Week St. Mary District of the Stratton Union, Cornwall, *vice* J. Tuke, deceased.

Burke, John P., M.D., appointed Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Claremorris Dispensary District of the Claremorris Union, co. Mayo, *vice* P. B. Reynolds, L.K.Q.C.P., deceased.

Grandison, Arthur, M.B., appointed Medical Officer to the Workhouse and District of St. Mary's Parish, and Public Vaccinator to the First Division of the Dover Union District, *vice* Mr. J. Walter, resigned.

Hembrough, John W., M.R.C.S.Eng., appointed Medical Officer and Public Vaccinator for the Waltham District of the Caistor Union, *vice* John Hembrough, M.D., resigned.

Jackson, J., L.R.C.P.Ed., appointed Medical Officer to the Workhouse of the North Bierley Union, *vice* J. Fawthorp, M.R.C.S., resigned.

Rudd, William A., M.R.C.S.Eng., appointed Medical Officer and Public Vaccinator for the Middle District of the Patrington Union, Yorkshire, *vice* T. A. M'Manus, M.R.C.S.Eng., deceased.

Ubsdell, Henry, M.R.C.S.Eng., appointed Medical Officer to the Ninth District of the Totnes Union, *vice* Richard Jelley, M.R.C.S.Eng., resigned.

Way, William, M.D., appointed Medical Officer to the Upton District of the Wirral Union, *vice* F. Peirce, M.D., resigned.

Whitaker, G. H., L.R.C.P.Ed., appointed Medical Officer to the Horwich District of the Bolton Union, *vice* A. S. Robertson, M.D., resigned.

Whitworth, Edward, L.R.C.P.Ed., appointed Medical Officer and Public Vaccinator for the St. Agnes District of the Truro Union, *vice* Henry Whitworth, M.D., whose appointment has expired.

Wilson, John S., M.R.C.S.Eng., appointed Joint Parochial Medical Officer for the Parish of Inverurie, Aberdeenshire.

# MILITARY AND NAVAL MEDICAL SERVICES.

Army Medical Promotions.—To be Surgeons-Major, dated April 1st, 1875: Surgeons J. Land, M.D.; J. A. B. Horton, M.D., African Department; W. B. Davies, M.D., African Department; T. Wood, M.D.; W. Creagh; F. Falwasser; J. B. Hamilton, M.D.; E. D. Tomlinson; J. J. Chappell, M.D.; W. Cherry; S. E. Maunsell; W. C. Robinson; J. Wales; J. L. Power; P. W. Stafford; T. H. White, M.D.; O. Owen; J. Ferguson; E. J. Boulton; G. E. Will. —Surgeon-Major T. Fraser, M.D., retires upon half-pay.

## THE FAILURE OF THE ARMY MEDICAL DEPARTMENT.

The Secretary of State for War has on two occasions, not without reason, complained that one of the difficulties in the way of redressing the grievances of army medical officers, and restoring content to an important department, is want of agreement among medical officers themselves, as to their wants and grievances. Mr. Gathorne Hardy declares that he has read a great many statements proceeding from medical officers, but the result of his studies has evidently been bewilderment. Army medical officers are divided into two great parties with many subdivisions; one party demands "unification", another loudly laments the demise of the "regimental system", and others desire a compromise, *i. e.*, the regimental system in time of peace, with unification during war.

The most valuable contribution made to this controversy beyond all question, is a little pamphlet which comes to us from Jubbulpore, and bears the title which heads this notice. It is from the pen of a sensible man who has been at the trouble to think out the subject on which he has written, who has mastered the facts, and, having a clear conception of them himself, is able to present them to his readers in plain language, without passion and without prejudice.

After a brief introduction, he describes the regimental hospital system as it was, if not in the fancy colours of some of its advocates, in words of soberness and truth. He fairly states all the arguments of the supporters of the system, and then inquires into the accuracy of their statements. He arrives at the conclusion, that the regimental system is costly in time of peace and inevitably breaks down in war. The author clearly demonstrates that, badly as the system worked under the old army organisation, it is, under the new, simply impossible to work it at all. He points out how different a meaning attaches to the word "regiment" now compared with the olden time, and shows how the army has ceased to be "regimental" in the old sense. The brigade is now the unit, with, in time of peace, small numbers with the colours, and large reserves—often in time of peace less than 400 men in a battalion, which in time of war may have a strength of 1,200: in a word, the writer shows that, however true the statements of the advocates of the regimental system may be as applied to the old organisation of the army, it is utterly inapplicable under the new.

We think that the remarks on the compromise scheme, that is, a regimental system in time of peace, with "unification" in the field, are particularly valuable; clearly, in our opinion, proving that, if men are brought up during long periods of peace under the regimental system, they will be found simply incapable of working another during war. We have not space to discuss the scheme of "unification" advocated by the author. Doubtless, exception may be taken to some of the details; but, if the medical department of the army is ever to be rescued from its present most unsatisfactory state, it is to be done by an organisation and system of administration similar in its main features to the scheme here laid down. Many years will probably elapse before men in authority can so far emancipate their minds from the traditions which in all matters of military medical administration guide them now; this will not probably, indeed we may sadly say certainly be, until they are once more admonished by a repetition of Crimean disasters on a greater scale, once more kindling public indignation, not, we hope, against the medical officers of the army, the victims to a vicious system or no system of organisation, but against those who, neglecting the dearly bought lessons of the past, have wasted the precious opportunity afforded by a season of peace to prepare for the strain of war.

We have only to say in conclusion, that the system of "unification" advocated in this able pamphlet, is different in all its details from the bastard system now in operation, which has all the vices of the regimental system without one of the advantages of real unification.

## ARMY MEDICAL EXCHANGES.

In a late issue of the Journal, I observed many articles, letters, etc., on the subject of the "Army Medical Department", and its grievances. Any one who has unfortunately had any experience in this wretchedly mismanaged branch of the service, must have felt that there has been a steady descent from bad to worse in it for some considerable time.

It is useless to recapitulate old grievances, but new ones may in common sense be brought to light. The last of which I am aware is that, under the new system (or want of it), exchanges between medical officers, under any circumstances, are disallowed by the existing head of the department. At No. 6, Whitehall Yard, a new system of mathematics has been discovered, by which the uninitiated are instructed that if A. changes with B. on the roster (list for service), several of the unknown quantity X., are "let in" for a double tour of foreign service, which means India. I confess to stupidity in mathematics, but am thankful to have enough common sense to fail in following this new system. A. is willing to pay B. a certain sum to take his regiment to India. B. is ready and delighted to do so. A. would take B.'s place in England or the United Kingdom for the purpose of completing his three years' service (with a few months over) in a climate in which he can serve, instead of going to a climate in which he feels by experience he cannot serve. What injury, I ask any sensible person, can be done to the service, or any unfortunates in it?

One would think that, with this wretched department, stinking, as it does, in the nostrils of all (even Irish) students, matters might be arranged on more conciliatory grounds.—I am, Sir,

A Friend of a Victim.

# MEDICO-PARLIAMENTARY.

### *HOUSE OF LORDS.—Thursday, May 13th.*

*River Pollution Bill.*—The second reading of the Pollution of Rivers Bill gave rise to much criticism of the provisions of the measure.—Lord Morley objected to entrusting County Court judges with the power of determining questions of pollution.—The Duke of Buccleuch had doubts respecting the efficacy of the machinery devised by the Bill.—The Marquis of Lansdowne thought the offence required a clearer definition.—Lord Aberdare suggested that persons ought to be appointed in different districts to superintend the working of the measure.—The Marquis of Salisbury said the difficulty in dealing with the matter was mainly the growth of important manufacturing industries, the maintenance of which was essential to the prosperity of the country. These manufactures had a vested interest in the use of streams of water, which neither the sense of justice nor the power of Parliament could disregard. It was impossible to define with strictness what was pollution, and he thought the County Court judge might be safely entrusted with the decision of such matters. The measure was tentative, and he believed would have effect in checking the evil; but at any rate, if it were inadequate, Parliament might apply a further remedy. —Lord Selborne reviewed some of the details, and hoped ample time would be given for their consideration.—The Lord Chancellor promised that it should, and observed that in committee, the House might consider whether there ought to be an appeal from the County Court judge.—A few words from the Duke of Somerset closed the debate, and the Bill was read a second time.

### *HOUSE OF COMMONS.—Thursday, May 13th.*

*Pharmacy.*—Leave was given to Sir M. Hicks-Beach to bring in a Bill to institute a Pharmaceutical Society, and to regulate the qualifications of pharmaceutical chemists in Ireland, and to establish certain relations between the Pharmaceutical Societies of Great Britain and Ireland.

*Sale of Food and Drugs Bill.*—The discussion in Committee on the Adulteration of Food and Drugs Bill was resumed, and completed after two hours.

# OBITUARY.

### RICHARD S. IRELAND, M.D.

Dr. Ireland, one of the oldest members of the profession in Dublin, died on March 14th at the advanced age of 88. Dr. Ireland graduated at St. Andrew's in 1814, and became a Licentiate of the Irish College of Physicians in 1818. He was a Fellow of the College of Surgeons of both England and Ireland, and was elected a Honorary Fellow of the Irish College of Physicians in 1860. He was Lecturer on Physiology in the old Protestant School of Medicine, and afterwards occupied the Chair of Midwifery in the same school. He contributed many papers to the medical journals, and was generally very popular among his medical brethren. He was for many years Surgeon to the Dublin Metropolitan Police, among which body of men he was deservedly popular. On his retirement from this office, on account of his increasing years, he was presented with a testimonial expressing the esteem of the men whom he had attended through many sicknesses and dangers. We have heard that it was frequently the custom of the older members of the Dublin Police force, when sick, to ask to see the "old doctor", as he was familiarly called, not from any discontent with their present excellent surgeon, but "just for the sake of old times".

# MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen passed their primary examinations in anatomy and physiology at a meeting of the Court of Examiners on the 13th instant, and, when eligible, will be admitted to the pass-examination.

Messrs. Thomas Baker, Herbert Langton, T. G. Prosser, J. F. Woods, James Russell, G. R. Master, H. L. Browne, and J. A. B. G. Messum, of St. Bartholomew's Hospital; C. H. Keep, E. A. Jaynes, Thomas Hammond, and J. C. Keer, of Guy's Hospital: J. F. Grayling and G. S. Johnson, of King's College; A. Q. Silcock, of University College; Bedford Fenwick, of the London Hospital; J. W. D. Dallaway, of St. George's Hospital; E. M. G. Whittle, B.A.Cantab., of the Cambridge School: and John Kirkpatrick, M.D.Toronto, of the Westminster, St. Thomas, and Toronto School.

Out of 99 candidates examined, 27 were referred to their studies. Amongst the visitors at these examinations were Dr. Curnow of King's College; Messrs. Marsh, Cumberbatch, and Butlin, of St. Bartholomew's Hospital; B. Thompson Lowne, of the Middlesex Hospital; Owen, of St. Mary's Hospital; and Taylor, of Wargrave.—The pass-examination commenced on Friday, May 14th.

The following gentlemen, having undergone the necessary examination for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on the 18th instant.

Messrs. A. H. Barraud, L.S.A., Denbigh Place, S.W.: C. E. W. Bell, Exeter; R. R. Harper, Holbeach, Lincolnshire; E. H. Williams, Brighton; John Spark, Lee, Kent; H. L. Bernays, L.S.A., Chatham; F. D. Hayman, Sandown, Isle of Wight; A. E. Edwards, Antigua, W. I.; J. L. Ritchie, M.B., M'Gill, Halifax: G. B. Mallam, Oxford; W. A. Molson, M.D.M'Gill, Montreal; K. N. Fenwick, M.D., Kingston; John Barrow, L.S.A., Camden Road; W. J. Seward, L.S.A., Hereford; and Allen Piggot, L.R.C.P.Ed., Beckingham.

The following gentlemen were admitted members on the 19th instant.

Messrs. W. H. Hall, Caterham; G. E. Miles, Jamaica; J. B. Booth, Lancaster; R. C. Richards, Portreath, Cornwall; Thos. Brown, Kennington Park Road; and W. C. Theed, L.S.A., Wokingham, of Guy's Hospital. H. A. Shera, L.R.C.P.Edin., Sale Hill, Sheffield; Harold Thompson, L.S.A., Oxford; W. T. Newton, L.S.A., Lakenheath, Suffolk; Edward Ferrand, Granville Square; and S. J. J. Weakley, Upton, Essex, of St. Bartholomew's Hospital. M. H. Smith, Queen Anne Street; and H. W. D. Walsh, Watford, of St. Mary's Hospital. A M. Phelps, M.A.Cantab., Camden Town; and E. G. Henderson, M.D.M'Gill Coll., Belleville, Canada, of St. Thomas's Hospital. A. J. Pepper, Barrowden, Rutland; and H. T. Wharton, M.A.Oxon., Boundary Road, N.W., of University College; and W. S. Burrows, B.A. Cantab., Brighton, of St. George's Hospital.

Apothecaries' Hall.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, May 13th, 1875.

Bradford, Peter, Hanley, Staffordshire
Manders, Horace, The Green, Marlborough
Pitt, Richard Joseph, Willsbourne, Warwick
Potter, Henry Percy, Denmark Hill
Sandford, Horace Charles, Hereford

The following gentlemen also on the same day passed their primary professional examination.

Lewis, Edwin Alaric, University College Hospital
Heard, Charles Goodridge, St. Bartholomew's Hospital
Potts, Lawrence, Charing Cross Hospital

## MEDICAL VACANCIES.

The following vacancies are announced:—

ASHBY DE LA ZOUCH UNION—Medical Officer for the Second and Third District. Salary, £20 and £20 per annum.

BARVAS, Parish of, Island of Lewis—Medical Officer. Salary, £140 per annum. Applications on or before the 24th instant, to W. Rose, Stornoway.

BETHLEM HOSPITAL—Two Resident Medical Students.

BINGHAM UNION—Medical Officer for the Workhouse.

BIRMINGHAM GENERAL DISPENSARY—Resident Surgeon. Salary, £130 the first, £140 the second, and £150 the third year, with furnished apartments.

BRADFORD INFIRMARY AND DISPENSARY—Physician. Applications to be sent on or before June 12th.

BROADMOOR CRIMINAL LUNATIC ASYLUM—Assistant Medical Officer. Salary, £200 per annum, with furnished apartments, coals, gas, and attendance.

CHARING CROSS HOSPITAL—Medical Registrar. Applications on or before June 9th.—Resident Surgical Officer. Applications on or before 26th instant.

CHELTENHAM GENERAL HOSPITAL AND DISPENSARY—Honorary Medical Officer at the Branch Dispensary. Applications on or before June 5th.

CHERTSEY UNION—Medical Officer for the Windlesham District. Salary, £50 per annum.

DURHAM COUNTY ASYLUM—Assistant Medical Officer. Salary to commence at £100 per annum, with board, lodging, and washing. Applications on or before June 1st.

EVELINA HOSPITAL, Southwark Bridge Road—Registrar and Chloroformist. Salary, £50 per annum.

FRIENDLY SOCIETIES MEDICAL INSTITUTE, Northampton—Out-door Assistant. Salary, £120 per annum. Applications on or before June 1st.

FROME UNION—Medical Officer and Public Vaccinator for the First District. Salary, £144 per annum, and Midwifery Fees. Applications on or before June 7th.

HOUGHTON-LE-SPRING UNION—Medical Officer for the Rainton District. Salary, £25 per annum.

LUTON UNION—Medical Officer for the Workhouse. Salary, £30 per annum.

MILFORD UNION—Medical Officer for the Colloney Dispensary District.

NEWMARKET UNION—Medical Officer for Nos. 1 and 3 Districts. Salary, £85 per annum.

NORWICH DISPENSARY—Resident Medical Officer. Salary, £120 per ann., and residence.

PENISTONE UNION—Medical Officer for the Penistone District and Workhouse.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL—House-Surgeon.

ROYAL FREE HOSPITAL, Gray's Inn Road—Honorary Surgeon. Applications on or before the 24th instant.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY—Assistant House-Surgeon. Salary, £65 per annum, with board, lodging, and washing.

TORBAY INFIRMARY—House-Surgeon. Salary, £100 per annum, with board and lodging.

WANGFORD UNION—Medical Officer for the Bungay District. Salary, £90 per annum.

WESTERN GENERAL DISPENSARY, Marylebone Road—Surgeon in Ordinary.—Resident Surgeon. Salary, £120 per annum, with furnished apartments, fuel, lights, and attendance. Applications on or before the 24th instant.

WHITEHAVEN AND WEST CUMBERLAND INFIRMARY—House-Surgeon and Dispenser. Salary, £130 per annum, with furnished apartments and attendance. Applications on or before June 1st.

## MEDICAL APPOINTMENTS.

*Names marked with an asterisk are those of Members of the Association.*

Appleyard, John, M.B., appointed Resident Medical Officer to the Bradford (Yorkshire) Infirmary, *vice* J. Kilbride, L.K.Q.C.P., resigned.

Bass, C. W., M.R.C.S., appointed House-Surgeon to the Beckett Hospital, Barnsley, *vice* W. Shaw, M.R.C.S.Eng., resigned.

Birch, Philip, M.R.C.S.Eng., appointed House-Physician to King's College Hospital.

Blake, Joseph F., M.B., appointed Assistant House-Surgeon to the North Dispensary, Liverpool.

Brabazon, A. B., M.D., elected Physician to the Bath Mineral Water Hospital, *vice* C. Coates, F.R.C.P., resigned.

Evershed, Arthur, M.R.C.P.Lond., appointed Physician to the North London Hospital for Consumption, etc., *vice* W. W. Johnston, M.R.C.P., resigned.

Fowler, James K., M.R.C.S., appointed House-Surgeon to King's College Hospital.

Kirkwood, George, L.R.C.P.Ed., appointed House-Surgeon to the Cumberland Infirmary, *vice* F. Skaife, L.R.C P.Ed., resigned.

McCormack, M. P. C, L.R.C.P.Ed., appointed Government Medical Officer in Jamaica.

Paul, Frank T., L.R.C.P.Lond., appointed Resident Medical Officer to the Royal Infirmary, Liverpool.

Taylor, Charles Lamb, L.R.C.P.Lond., appointed House-Surgeon to the Wolverhampton and Staffordshire General Hospital, *vice* J. Appleyard, M.B resigned.

Venn, Albert, M.D., appointed Senior Obstetric Assistant to St. Bartholomew's Hospital, London, *vice* W. Hope, M.D.

Walker, William, M R.C.S, late Physician's Assistant, appointed House-Physician to the Royal Infirmary, Manchester.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.*

### BIRTHS.

Paget.—On May 12th, at Great Crosby, near Liverpool, the wife of William S. Paget, M.B.Lond., of a son.

Rowland.—On May 14th, at Malvern Wells, the wife of *Hugh Mortimer Rowland, M.D., of a daughter.

### DEATH.

*Moore, S. W., F.C.S., etc., late Lecturer and Demonstrator on Physiological Chemistry at St. George's Hospital, aged 27, at 200, Brixton Road, on May 15th.

## OPERATION DAYS AT THE HOSPITALS.

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| **MONDAY** ...... | Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M. |
| **TUESDAY** ...... | Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M. |
| **WEDNESDAY** .. | St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M. |
| **THURSDAY** .... | St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M. |
| **FRIDAY** ......... | Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M. |
| **SATURDAY** .... | St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M. |

## MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

**TUESDAY.**—Royal Medical and Chirurgical Society, 8.30 P.M. Mr. John Gay, "On the Treatment of Nasal Lupus by Excision"; Dr. R. McDonnell, "On a Case of Double Facial Palsy"; Mr Lawson Tait, "Case of Congenital Deficiency of the Peritoneum, resulting in Intestinal Obstruction, and simulating an Abdominal Tumour"; Mr. E. Owen, "On so-called Dislocation of the Humerus".

**FRIDAY.**—Clinical Society of London. 8.30 P.M. Mr. Barwell, "Hypertrophy of Lower Half of Face"; Mr. C. F. Maunder, "Case of Double Fistula *in Ano*, one treated by the Knife, the other by Elastic Ligature"; Mr. J. W. Hulke, "Arterio venous Aneurism in Thigh from Pistol shot": Dr. Southey, "Acute Pemphigus".—Quekett Microscopical Club, 8 P.M. (University College). Paper by Mr. Hawkins Johnson, F.G.S., "On the Organic Structure of Flint and of Meerschaum".

## NOTICES TO CORRESPONDENTS.

Correspondents not answered, are requested to look to the Notices to Correspondents of the following week.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

Authors desiring reprints of their articles published in the Journal, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

We cannot undertake to return Manuscripts not used.

Communications respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the Journal, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

Erratum.—In the report of the proceedings at the London University last week the name Tirard was by mistake printed Tizard.

### Public Health Examinations at Cambridge.

Sir,—Would you be good enough to inform me to whom I should apply for particulars about the examinations that are just instituted at Cambridge on public health subjects?—Yours faithfully, G. H. F.

*** To the Registrar of the University.

Sir,—I have had sent me a small temperature-chart which exactly goes into the pocket of my visiting-book (Seymour Haden's). Can you or any of your readers tell me where they are to be obtained? They are most useful.

J. Hyde Houghton.

### Royal College of Surgeons.

The following were the questions, at the primary or anatomical and physiological examination for the diploma of membership of the Royal College of Surgeons on the 8th instant. Candidates were required to answer four questions, including one of the first two. 1. Describe the changes which food undergoes, from its entrance into the mouth until it reaches the termination of the small intestine. 2. Give examples, in the human body, of the three kinds of fever; explain the action and specify the advantages of each. 3. Describe how the arch of the foot is formed, on what point it rests in standing, and what ligaments and muscles contribute to its support. 4. Enumerate, in their respective relations, the various structures which are brought into view on removal of the gluteus maximus muscle. 5. Describe the arterial anastomoses around the elbow-joint; and mention the sources from which the anastomosing branches are derived. 6. Describe the origin, course, relations, and distribution of the spinal accessory nerve.

Mr. W. Pell Nesbit's letter (from Ccmehui ger, New Zealand) touches upon matters too personal for publication. If it mean anything, it imputes systematic corruption; and his statements should be made to the government of New Zealand, or to the Colonial Office here.

Correspondents are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

### Medical Etiquette.

X. Y. Z. asks for our opinion on the following case. A. was called in consultation with B., and they met together twice. Two or three weeks afterwards, the son-in-law of the patient called on A. to attend. A. at first refused. The son-in-law answered that B. had been requested to cease his attendance, and that they were determined to have a change; and if A. did not attend, they would be obliged to call in some one else, but that the patient (an old man upwards of eighty) had set his mind on seeing A., and that he would be miserable if he did not. A. then attended, and has continued his attendance. Did he do right or not?

*** Under the circumstances described, A. acted quite rightly.—Ed.

### Legislation for Dipsomaniacs.

Sir,—The report of the meeting of the Metropolitan Counties Branch, on April 16th, when Mr. C. Holthouse read a paper on "Legislation for Habitual Drunkards", did not fully convey my views as to the kind of restraint suggested by me. Although I am fully persuaded that dipsomaniacs ought to be protected, they should not be placed amongst ordinary lunatics, but in special establishments, in which all outward appearance of coercion should be avoided, and where there should be cheerful society and constant systematic occupation. The infatuation of such persons is so strong, that they cannot control themselves; and they are a nuisance and danger to all within their reach, as the daily records of murder and misery abundantly testify. How much there must remain in the background, those best know who have to endure in silence and without remedy. Individually they waste their means, destroy their health, and impoverish all around them: nothing restrains them; they are lost to all moral control, and madly go on to destruction. Legal protective means of restraint alone can save them, by giving them an opportunity of recovering their moral tone and self-control, and at the same time checking the misery and danger suffered by relations who cannot get out of their way.

If it were known that confirmed drunkards could and would be withdrawn from society, a wholsome restraining influence would often prevent drunken habits from being confirmed: many who realise and grieve over their weakness and infatuation would voluntarily place themselves under control. This has been the case in America and Canada, where such restraint is legal. The late Mr. Dalrymple has done much to prepare the way, and the general public are expecting something more to be done. Why cannot our Association take the matter up in good earnest? and if it did, our influence is so great that something would be done to stem this fearful evil, which is increasing on all sides, and thousands of suffering fellow-countrymen would bless our Association.

I hope the Metropolitan Committee will be formed forthwith, and co-operate with the Midland Counties Committee already formed.—I am, sir, yours truly,

Haverstock Hill, May 1875. Stephen S. Alford, F.R.C.S.

### Physical Training of Soldiers.

Sir,—In your impression of January 16th, you call special attention to a subject, "The Physical Training of Soldiers", which, in the fullest sense of the word, is of the most vital importance, not only to the efficacy of the army at large, but also to the health as well as the efficiency of each individual soldier comprising it. There is no question that the soldier requires a greater amount of bodily exercise, and much more increased development of his physical powers, than can possibly be afforded him by his ordinary military drills and duties. And gymnastics being considered the best means of effecting this purpose, an extensive code of "Instructions" on this subject was published a few years since by military authority, and now forms, as I presume you are aware, a considerable section (26) of the Queen's Regulations. And it is respecting those "Instructions", and the manner in which they are carried into effect, that I would beg to make a few brief remarks; for the subject of which they treat is unquestionably a powerful engine in the production of good or evil, according as its action is regulated judiciously or otherwise. That portion of those Instructions which refers to the "training of recruits" is, I think, all that could be desired; but when the recruit ceases to be such, and comes under the class of "trained soldiers", including, as I take it, all men under ten years' service, or even of fifteen years' service, subject to the approval of the medical officer, then I consider it is that our present system of gymnastic training is not only faulty, but highly pernicious to the British soldier, and one of the most powerful exciting causes of cardiac and arterial disease to which he could be exposed. For reasons that I will presently mention, those exercises, to be beneficial, and not injurious to the soldier, must be continuous; and to be of universal good to the service, they must be practised by every soldier who is considered by the medical officer to be eligible for such training. But, under existing circumstances, the interval that must elapse between each successive course of instruction to each individual is altogether too long, and in many regiments not more than one-third of the men pass through any course at all. For instance, if we consider the matter in its most favourable light, and suppose, for the sake of demonstration, that one-sixth of the men of a garrison do pass through a course of instruction in two months of every year, each individual man will, by this means, only have the benefit of gymnastic training for two in every twelve months; and an interval of ten months, therefore, would elapse before his heart and great vessels, and all his physical powers, should again, as a rule, be called into similar continual and violent exertion. But even this, strange as it may seem, is the bright side of the question—in the garrison, at least, where I am at present stationed, for here not more than ninety men of my regiment (six hundred strong) pass through a course of gymnastic training annually. Now in this regiment there are 465 men who are under ten years' service; and at this rate of proceeding, more than four years at the very least would pass away before each of these individual men could be subjected to the authorised course of gymnastic exercise.

What all this must lead to is, I think, but too palpable to the most casual observer. I for one recognise in it a force of the most deadly description to the soldier, convinced as I am as to what is the one great and special cause of the prevalence of heart and arterial disease in the army; for I hold that the cause of those affections to the soldier in particular is not accoutrements, the stock, tight collar, uniform, syphilis, rheumatism, etc., but an actual degeneration or retrograde tissue-change, which takes place in the soldier's organism itself, and which originates in the mode of life the soldier leads, and naturally shows itself most conspicuously in his most active and vital organs—viz., the heart and arteries. Take, for instance, a short history of his career. He enters the service at the average recruiting age of, say, 21. Up to this stage of life, in at least two-thirds of the cases, he has subjected the components of his frame to constant and laborious exercise, and supplied them during that period with only a moderate amount of pabulum. To enable him, however, to pass as healthy the searching test of the recruiting medical officer, Nature has by this time educated his system to fatigue, and has endowed his vital organs (especially those of the circulatory system) with that high degree of vital energy, muscular vigour, and general capability for protracted exertion which characterise the man of toil, and support him in his daily labour (if so continued) often to a ripe old age. In fact, in most instances, his tissues are adapted to undergo a future life of endurance and constant daily exercise. If a ploughboy, he is capacitated to perform a daily amount of work equal to the lifting of 400 tons one foot high; if a farm labourer, about 330 tons; if a porter, the same; a pedlar, 303 tons; and, indeed, as a miner, a smith, a pavior, or in the pursuit of any trade or calling requiring much bodily labour, he seldom executes a day's work which does not equal the lifting of 300 tons one foot high.

This being the condition of the recruit, in at least two-thirds of the cases enlisted, as soon as he had passed his recruit's drill and gymnastics, and becomes a "full private" in line regiment, what amount of exercise, as a rule, does he perform daily in time of peace?

The greatest amount of fatigue to which he can be subjected (and that, as a matter of course, very seldom) is, while undergoing shot-drill hard labour as a prisoner; he then performs daily an amount of work equal to the lifting of 310 tons one foot. Guard, which is, perhaps, about the next most fatiguing duty, obliges him to walk as sentry for eight hours in the twenty-four; during those eight hours, he can stand at ease when it suited his feelings, etc.; and he travels about ten miles on level ground while carrying his rifle, great coat, field-kit, and ten rounds of ammunition. This gentle exercise would amount, in actual bodily work, to about half what he should perform as an ordinary labouring man; and the remaining long intervals of his existence are passed, comparatively speaking, in a state of inertia; and he occupies the time in the trivial exercises of parades, light barrack-room duties, and gentle fatigues; and beguiles ennui either in the canteen, reading room, or on the streets of the neighbouring town. Add to this such adjuvants as alcohol, tobacco, and abundance of food and sleep, and, perhaps, a still less energetic service in a tropical climate, and what possible results can ensue on such a line of life, but that of the degeneration of the tissues of those organs, which for years previous were worked up to a high degree of vital tension and activity? This, and not syphilis, rheumatism, tight lacing, is what causes such a preponderance of heart and arterial disease in the army. If syphilis be the cause, why should the men of our navy be so less liable to these diseases? if tight clothing produce it, how is it so few women suffer from aneurism? and the civilian, we all know, is as subject to rheumatism as is the soldier. No; those are but exciting, external, trivial causes; and the one great enemy we have to contend with is this fatal "tendency to degeneracy" which is ever taking place in the tissues of the soldier's frame. And in gymnastics, therefore, I again assert we have an engine of either the most powerfully destructive or preservative nature to the soldier, according as its forces are misdirected or otherwise.

And such being the conclusions I have arrived at, you will naturally ask, what are the measures I would propose with regard to gymnastics, to render them the efficient instrument they should be in warring against this evil, and increasing the physical and vital powers of our soldiers?

In the first place (at least some years hence, and until those exercises are more universally practised throughout the army), I would divide all the men of each regiment into two classes, viz., those under and over five years' service, and the former I would allow to go through a complete course of gymnastic training, while I should consider the latter eligible only to be instructed in its lighter exercises.

Secondly, I would suggest that each regiment occupying different barracks should have its own gymnasium and gymnastic instructor; and that one of its several companies, in rotation, should be daily struck off one of the forenoon parades (both men and officers) for gymnastic instruction. And that once every year a grand athletic performance should take place, and public prizes be given to the best athletes, not only in each garrison, but in each regiment, as well as further individual prizes to the best man in each company, there being a separate prize list in this latter instance for men under and over five years' service.

By this means, every man in each regiment would receive the benefit of gymnastic exercises once every ten or twelve days, instead of months; and a system of emulation would be instituted amongst both men and officers, which would stimulate all to occupy some of their spare time, also, in this most healthful and highly beneficial exercise: and make the gymnasium a much frequented place of amusement, and a powerful means of increasing the physical strength of our army.

A portion of the large proceeds annually derived from the various canteen funds, and from "fines for drunkenness", could not be better applied to any public use than in supplying prizes for the above "annual gymnastic fête", which might also be accompanied, at the same time, with a grand "assault of arms" in every garrison.—Yours, etc.,
W. S. OLIVER, M.D., F.R.C S.I., Surgeon-Major
attached to 1st Batt. 60th Rifles.

*** Surgeon-Major Oliver's letter is, we think, worthy of a great deal of attention. Much of the inefficiency of the soldier is the result of inaction, and gymnastics properly used are a great desideratum. The French are beginning to perceive this, and are beginning to establish gymnasia in imitation of the *Turnverein* of Germany. At the same time, Dr. Oliver states his case a little broadly, and some may hesitate to accept his sweeping generalisation. His remarks should elicit further opinions, and perhaps evidence of some value.—ED. B. M. J.

### SWEDENBORG ON MIND AND BODY.*

SIR,—It may be interesting to psychologists to know that Emanuel Swedenborg held the same views with themselves on the subject of insanity. He speaks of "the brains, interwoven and composed of the cineritious and medullary substances, together with glands, cavities, and septa, and with meninges and matres surrounding them all". He goes on to say: "A man thinks and wills soundly or insanely according as all those organs are in a state of integrity or derangement; consequently, that he is rational and moral according to the organic structure of of his mind: for the rational sight of man, which is the understanding, without forms organised for the reception of spiritual light, would be an abstract nothing, just as his natural sight would be without eyes." It is unnecessary to state that Swedenborg was free from materialistic ideas: be held the view of spiritual influx, and that "the soul clothes itself with a body as a man clothes himself with a garment" . . . "for the soul flows into the human mind, and by this into the body, and carries with it the life, which it continually receives from the Lord, and thus transfers it mediately into the body, where, owing to the closeness of its union, it causes the body to live." Yet he maintained the necessity of *union* between the spiritual and the natural. "That man is a rational being by virtue of the union in him of spiritual existence with natural is evident from the analytical nature of his thoughts; and that he is a moral being from the same cause is evident from the propriety of his actions and the graces of his demeanour." "Hence it may be perceived that a spiritual and a natural constitution being united in man is what enables him to live as a spiritually natural man. The reason that he lives in a similar and yet dissimilar manner after death is because his soul is then clothed with a substantial body, as in the world it was clothed with a material body".—I am, sir, your obedient servant,
Rochester, May 15th, 1875. FREDK. JAS. BROWN, M.D.

### PROFESSIONAL REMUNERATION AND THE MEDICAL ACT.

MR. JOHN LOWE of Merthyr Tydfil writes:—"The lawyer can legally obtain stated fees for the services which he renders. Why should physicians and surgeons not be able to obtain stated and fixed fees for the services which they render? This subject, in my opinion, deserves the careful attention and consideration of medical practitioners. If a medical practitioner take legal proceedings against a patient for the recovery of a debt due for professional attendance for a stated time, although the said practitioner may be confident that the account is correct, and the fees therein stated reasonable, yet when he goes to a county court to prove such debt, the consequence is invariably this: The presiding judge, with a few apparently (to non-professional people) conclusive and sensible remarks, allows the plaintiff a sum considerably less than what would appear to him—the plaintiff—reasonable, remarking at the same time that defendant is not in a position to pay so liberally as plaintiff thinks. The judge allows the skilled physician or surgeon what he (the judge) considers reasonable, although he may not understand the nature of the disease which plaintiff had to treat, nor, in fact, the circumstances of the patient. From observation, I can state that decisions in such cases are very seldom just to the plaintiff. A county court judge is not a competent person to decide what should be charged for the treatment of certain diseases or the performing of certain operations; and it so happens that if a medical man have to take legal proceedings to obtain summarily a debt legally due, he often reaps the benefit of being half paid, if paid at all. I think that if the British Medical Association would use its influence to bring about a general amendment of the Medical Act, that it would eventually succeed without much difficulty, and thereby confer an everlasting favour upon the profession at large. There should be a scale of fees to guide practitioners, particularly the junior ones, who often find it very difficult to know what to charge for certain duties. There should be various grades of charges for medical and surgical cases; and the relative positions and circumstances of the patients should be closely considered in each case, so that when a medical man would have to take legal proceedings for the recovery of a debt—say in a case where the patient would object to the fees as being unreasonable—the plaintiff would simply have to prove, through a third party, that the defendant was weekly or annually in receipt of a certain sum, or that his property was value for a certain amount."

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Lincolnshire Herald; The Crewe and Nantwich Chronicle; The Scotsman; The Glasgow Herald; The Folkestone Express; The Sunderland and Durham County Herald; The San Francisco News Letter and Californian Advertiser; The Western Gazette; The Derbyshire Times; The Shield; The Morpeth Herald; The Worcestershire Chronicle; The Cork Examiner; The Rugby Advertiser; The Crewe Guardian; The Free Lance; The Manchester Guardian; The London Mirror; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—
Dr. Lyon Playfair, M.P., London; Dr. Laidlaw Purves, London; Dr. W. P. Rawlins, London; Dr. E. H. Blakeney, London; Dr. R. Farquharson, London; Mr. Howard Marsh, Loudon; Dr. Robert Lawson, Wakefield; Dr. Ferrier, London; Dr. George Buchanan, London; Mr. A. H. Dolman, Derby; The Secretary of the Clinical Society; Mr. R. Kershaw, London; Dr. Eyton Jones, Wrexham; Mr. Churton, Erith; Mr. T. F. Hopgood, Sunderland; Dr. A. Ogston, Aberdeen; Mr. Andrew Davies, Swansea; Mr. G. Dixon, London; A Member; The Registrar General of Ireland; The Secretary of the Ladies' Sanitary Association, London; Mr. S. N. Squire, Wivenhoe; Dr. Simpson, Inverness; Mr. James Rogers, Swansea; Dr. Head, Birmingham; Dr. Spender, Bath; Mr. Walter Lattey, Southam; Mr. S. S. Alford, London; Dr. A. Venn, London; Our Paris Correspondent; Mr. G. Gaskoin, London; Our Edinburgh Correspondent; Dr. Shettle, Reading; Dr. C. Harrison, Lincoln; Mr. T. V. Jackson, Wolverhampton; Dr. Bruce, Dingwall; Dr. F. J. Brown, Rochester; Mr. McCormack, Leicester; Dr. Cheadle, London; Dr. J. W. F. Smith-Shand, Aberdeen; Mr. W. P. Nesbitt, New Zealand; Mr. R. H. B. Nicholson, Hull; Dr. Macnaughton Jones, Cork; Dr. De Chaumont, Woolston; Dr. R. W. Batten, Gloucester; Dr. C. Parsons, Dover; Mr. S. Wood, Shrewsbury; Mr. Alfred Cooper, London; Mr. S. Rock, London; Mr. Fowler, Bath; Mr. A. T. Roberts, Hatherleigh; Dr. W. Procter, York; Dr. Jukes Styrap, Shrewsbury; Dr. A. Ransome, Bowden; Mr. J. Sutherland, Manchester; Messrs. Hogg and Co., London; Mr. W. J. Harris, Worthing; Dr. H. E. Sargent, Launceston; Dr. J. W. Moore, Dublin; Dr. W. W. Quinton, Woolwich; Mr. T. M. Stone, London; Dr. Byrom Bramwell, Newcastle-upon-Tyne; Dr. J. N. Mackay, Elgin; Mr. W. Walker, Manchester; Mr. Leigh, Liverpool; Mr. Howse, London; Mr. G. Oliver, Harrogate; Mr. W. C. Dunning, London; Dr. J. Maunsell, Liverpool; Dr. H. Barnes, Carlisle; Mr. J. E. Ingpen, London; Mr. H W. Boddy, Manchester; Mr. G. Griffith, London; Mr. J. Hyde Houghton, Dudley; Dr. J. Walters, Reigate; Dr. Symes, London; Mr. N. C. Tirard, London; Mr. Wolfenden, Tutbury; etc.

## BOOKS, ETC., RECEIVED.

The Nature and Treatment of Cholera. By Archibald Billing, M.D., F.R.S. London: J. and A. Churchill. 1875.
The Census of Ireland, 1871. Part II: Vital Statistics.
Modern Spiritualism. By W. J. Marshall, M.D. Greenock; 1875.

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* See Swedenborg's work *On the Intercourse between the Soul and the Body*. Section 10.

# ABSTRACT OF CLINICAL LECTURES

DELIVERED AT

# ST. BARTHOLOMEW'S HOSPITAL.

BY

SIR JAMES PAGET, Bart., D.C.L., LL.D., F.R.S.,
Consulting Surgeon to the Hospital.

## III.—On the Minor Signs of Gout in the Nervous System and the Genito-urinary Organs.

The study of the minor signs of gout, as they are met with in surgery, was continued in this lecture, and attention was drawn particularly to those that might be traced in the nervous system and in the genito-urinary organs. Many of these minor signs, Sir James Paget said, were in themselves very trivial things; and he repeated that, taken singly, they were not to be relied on for diagnosis. Their value lay in the suggestion they afforded of the presence of gout in a form so incomplete that it was never manifested by any of its typical symptoms. The question had often to be asked, Why did not this or that patient recover in due time and order from the effects of injury, or from some ordinary disease, such as gonorrhœa or fever? In a healthy person, recovery from injury, or even from many diseases, was a natural process, achieved in due time and measure. It was so with a fracture, a typhoid fever, a gonorrhœa. Why, then, were there exceptions? These might depend on either local or constitutional causes; and among the latter, gout in its minor degrees was frequently to be traced as the disturbing influence. Now, in affections of the nervous system, it was very difficult to recognise those that depended on gout by any characters of their own: yet some things might be noted. Thus it was to be observed that gout much more frequently affected the sensory than the motor nerves; it produced intense pain, for instance, much more frequently than convulsions, or even cramps. When it interfered with the mobility of parts, this was not by inducing rigidity of muscles, but by attacking the fibrous textures or the joints. There might be grave cases of generally gouty inflammation of the brain or spinal marrow; but certainly gout confined to the sensory nerves, or to their central organs, was very common. This was shown in the intense painfulness of an ordinary gouty attack—pain which was altogether disproportionate to the other phenomena of inflammation, and especially disproportionate to the structural changes in the part attacked, for these seemed to be very trivial. In agreement with this, neuralgia was very frequent in gouty persons; they were very liable to sciatica, to brachial neuralgia, and to neuralgia in other parts. Indeed, a variously shifting neuralgia in a person of middle age, or in one who was elderly, might always excite a suspicion of gout. There appeared, however, to be no characters in the neuralgia itself by which it could be known from those that were not of gouty origin; except it were that gouty neuralgia was more sudden and more fitful, more quickly and readily affected by indigestion, errors of diet, and other similar influences. It was, too, more common in those parts that were the favourite seats of gout—the heel, the ear, the tongue, the palate, or the fingers. Certainly, usual localities for gouty neuralgia were the palate, the tongue, and the breast. Then, there were some morbid sensations of the skin, even more suggestive of gout; such were (1) burnings in portions of the skin—hot burning patches on the thighs, or other parts, especially in the palms and the soles; these sensations, however, were not limited to any particular localities of the skin; the portion of skin affected looked healthy, or only slightly flushed; and, although the patient complained of the pain as burning or scalding, and, although it might continue for almost any time, or often recur, yet no organic change appeared to ensue; (2.) numbness or tingling of a limb, or of any portion of one—the feeling as if the part were asleep; this was often felt in one or two toes, or fingers, often in an arm or a leg, and this, at times, for months or years. Such feelings caused great distress in nervous persons, who were afraid they foretold paralysis, or some other serious trouble. Paralysis might be so preceded, but this was very rarely the case, and such fears were, in the majority of cases, wholly groundless. We should look carefully for gout if these sensations had been of long duration or in frequent fits in persons whose general nutrition was good, and who had no defect or irritability of nervous power, and if there were no change of temperature and no wasting.

In those who were either hypochondriacal or hysterical, gout might supply morbid sensations, to which the mental state was only too ready to give colour and intensity. The pain itself was real, but these patients aggravated it by an error both of observation and of judgment: of observation, because they studied it with a morbidly close attention; of judgment, because they assigned wrong causes for its presence. The normal mind distributed attention in certain proportions for which there was a general, however vague, agreement among men: the abnormal mind directed attention in undue proportion to one or more things; and a degree or form of pain or disease which was regarded as trivial by the former seemed of portentous augury to the latter. Probably there was no kind of special connection between gout and hypochondriasis, but these affections when they chanced to occur together greatly aggravated each other, and brought their victims to great misery, which it was often difficult to cure, or, indeed, even to relieve.

Gouty affections of muscles in connection with the sensory nerves were mentioned in passing. They were chiefly cramps, and sudden "catchings" in overaction, whether with attempts at too great force, or too great extent of action, or too long exercise, as in stooping. They were frequently to be observed in gouty persons; and in some people they were, at certain times, almost sure to follow any sustained or awkward movement. They were, however, in no way characteristic.

As to affections of the urinary and genital organs there was, speaking generally, little in any of these by which, in its own characters, it was possible to discriminate with any precision between the gouty and the non-gouty, or between the less and the more gouty. And this fact afforded an illustration of the advantage gained by a study of all the minor signs of gout wherever they could be found. Thus gouty bronchitis or pneumonia, gouty iritis, gouty laryngitis, were often spoken of; but commonly, the reasons for calling them gouty were found not in the inflamed part, but in other things preceding or associated with them, such as those that had been spoken of in this and the former lecture. The relations of gout to the urinary organs might be traced in its relations to the lithic acid diathesis. Among elderly persons, a large proportion of cases of lithic acid calculi, and lithic acid gravel, were in those who had marks of gout; and it might be hard to find a gouty person who did not often show excess of lithates in the urine; a fact which seemed to justify a theory that gouty attacks were intimately connected, or even possibly due, to an occasional defective power in the kidneys for the excretion of lithic acid; indeed, gout and the lithic acid diathesis might almost seem the same thing, differing from each other only in degree. Yet it was better not to confuse them, for lithic acid deposits were not rare in those who could not be called gouty. This was the case with children, in whom the most common form of calculus was lithic acid. It might suffice, therefore, to hold that among the things suggestive of gout, though far from proving a gouty constitution, were frequent appearances of excess of lithic acid, or of lithates in the urine. But, in speaking of gouty affections of the urinary organs themselves, cystitis might be taken first. This, if studied in a severe example, presented the same features as characterised acute cystitis from any common cause—gonorrhœa, for instance. It was an acute inflammation of the mucous membrane of the bladder, attended with frequent passage of urine containing mucus, or pus—rarely blood; with pain and distress chiefly before micturition, extending to the perinæum, rectum, and suprapubic region; and with burning sensations in the urethra. These symptoms were often preceded by an excess of lithic acid in the urine. But with these general signs some more special were to be observed. These were the suddenness of the attack; for this might occur in the quiet of the night, or after a dyspepsia, or as the result of a metastasis of some other form of gout, such as eczema; the rapid subsidence of the attack; relapses, and then for a time complete recovery.

Again, gouty orchitis was sometimes seen as an acute inflammation affecting the testis, and commonly attended with the formation of a considerable amount of fluid in the cavity of the tunica vaginalis. It was very prone to relapse, and was thus often very tedious. It occurred in very sudden seizures, and not rarely it was transferred by metastasis from one testis to the other. In respect to urethritis, it might be remarked that, no doubt, gout often modified the course and consequences of common gonorrhœa: this subject had been already mentioned in connection with affections of the sclerotica and of the joints in gouty persons. It was also influential in the cases of gleet that constantly relapsed with each increase of acidity in the urine, or after the drinking of beer or of much wine; and in this way it contributed to the liability to stricture. Here it was noticed that it was important to study the causation of gleet, and to ascertain in each case how much it might depend on either simple debility or a catarrhal condition of the mucous membrane, or on scrofula or gout, or whatever else. But acute inflammation of the mucous membrane of the urethra, attended with the usual signs of gonorrhœa—purulent discharge, scalding, frequent micturition, and painful erections—occurred as a direct consequence of gout. These cases were certain ; they occurred where there had been no infection, and they were not themselves infectious.

Prostatic disease or enlargement was very frequent in those who were gouty ; but it could not be said to be in any way peculiar to them, and it possessed, when found in gouty persons, no features that were characteristic of gouty disease. There was an affection of the penis which, in the few cases the lecturer had seen, had occurred in persons who were gouty. It consisted of a fibrous thickening and hardening of the corpus cavernosum, and appeared to depend on changes very similar to those that took place in the thickening and contraction of the palmar fascia, which had been described in the previous lecture. It was seen in men who were generally past 55 years of age. The sheath of the crus or the septum presented a tough rigid plate, almost as hard as a piece of imbedded cartilage, varying considerably both in its size and its shape in different cases. Sometimes it was not more than two or three lines across, in others it had an extent of more than half an inch, and was placed either on the dorsum or at the side of the corpus cavernosum, or in the septum. The affection was very chronic. In some instances, these plates had gradually increased in extent, in others they had slowly disappeared. They led to no harm, and were little affected by treatment. They were, however, not rarely a source of apprehension to those in whom they occurred, and who feared them as the first signs of cancer ; in other instances, they gave trouble by leading to distortion of the crus during erection ; but they did no other harm. The last of the minor signs of gout that would be referred to were painful and persistent erections at night. They were found in old men who had the gouty constitution in its incomplete form, and in whose urine there was frequently an excess of lithic acid. In such cases, the bromides of potassium and ammonium had been very useful.

## ON DR. COPEMAN'S NOVEL TREATMENT OF OBSTINATE VOMITING IN PREGNANCY.

By GRAILY HEWITT, M.D., F.R.C.P.,
Professor of Obstetric Medicine in University College.

I HAVE read the valuable practical paper by my friend Dr. Copeman of Norwich on the subject of the treatment of obstinate sickness in pregnancy, in the BRITISH MEDICAL JOURNAL for May 15th, with much interest. Dr. Copeman has described a process which he has, he states, accidentally discovered; viz., the artificial dilatation of the os uteri by the fingers as a cure for obstinate sickness in pregnancy. His results are remarkable, and, stated as they are by a gentleman of his known experience and accuracy, they are very important. Dr. Copeman, to use his own words, does not "attempt to explain the *modus operandi* of the treatment suggested"; and I desire to offer what I consider to be the true explanation.

In the year 1871, I read a paper before the Obstetrical Society (see *Transactions*, vol. xiii) on the subject of this vomiting in pregnancy. I there enunciated the theory, which I supported by facts and observations, that obstinate vomiting, and indeed ordinary vomiting, in pregnancy are due to a flexed condition of the uterus, the compression of the tissues of the uterus at the seat of the flexion constituting the irritation which gives rise to the vomiting. My view was strongly criticised at the time, and, indeed, Dr. McClintock of Dublin was at the pains shortly afterwards to write and publish a paper, expressly directed to the abolishing of my theory. I have been content to wait until professional opinion was more ripe for discussing the matter calmly, believing firmly that my view expressed four years ago is in all essential particulars correct.

Dr. Copeman's clinical contribution of three cases has a strong and direct bearing on the above question, and the cases offer to my mind strong confirmation of the truth of my original statement. The three cases occurred respectively at six months, two months, and eight months, and in each case the vomiting at once ceased on dilatation of the os with the finger. In the second case, Dr. Copeman says the uterus was "anteverted". He gives no account of its condition in the other two cases, so far as flexion or version is concerned. Now, it is my belief that all three cases were alike ; that there was, or had been, acute flexion in each case, and that the dilatation operation of Dr. Copeman effected good and removed the vomiting by reason of its also relieving the cramped confined condition of the cervix.

On the supposition (which I make as regards two, but which is a fact in one of the cases, according to Dr. Copeman) that there was flexion in all three, the os must have been far back, and, in order to dilate it, it must have been pulled forwards. The dilatation would and must necessarily imply a righting of the os and lower segment of the uterus, and a consequent unbending of the organ ; for I need hardly remark that to draw the os forwards would of necessity tend to tilt the fundus upwards. The uterus, as a whole, is on a pivot ; direct pressure on or dragging on one extremity of it will affect the other extremity, and thus the process of dilatation, involving as it does the dragging of the os forwards, would practically aid in the placing of the whole organ in its proper position.

It is customary with obstetric authors to speak of the gravid uterus as being naturally anteverted in the first part of pregnancy. This is a statement which requires important qualification. There are degrees of anteversion. It is one thing for the body of the uterus to be rather easily felt by the touch through the anterior wall of the vagina, as it undoubtedly is in ordinary cases, but it is another for the roof of the vagina to be actually depressed by the abnormal descent of the enlarged body of the uterus when it is anteflexed. In the latter case, the os is always further back than usual, and, in marked cases, the body of the uterus is for the time completely jammed in the pelvis. It is under these latter circumstances that obstinate vomiting most commonly occurs. Retroflexion is equally operative in a quite analogous way; but I say nothing further on that subject at present, as it does not seem likely that either of Dr. Copeman's cases belonged to that category.

But it may be said, How do you explain the cases in which the vomiting persists as late as the eighth month, which was the fact in Dr. Copeman's third case? The answer is, that, when there has been an acute flexion in the early part of the pregnancy : as the uterus enlarges (if abortion do not occur), the flexion is in most cases abolished, and the effect of this is, that the sickness generally disappears under such circumstances. But the tissues of the uterus at the seat of the flexion are sometimes left in a diseased state, being stiffened and unduly resistent, and thus the irritation is kept up.

Dr. Copeman's treatment would undoubtedly tend to remove this stiffening and constraint. He himself says, in his paper, "I wondered whether the relief to the vomiting so urgent and threatening to her life could have been effected by my having dilated the os uteri, and thus removed any undue tension which might be producing sympathetic irritation." Undoubtedly, there was undue tension; this tension was, I consider, situated at or near the internal os uteri, which is the situation of flexion under ordinary circumstances; and Dr. Copeman's procedure acted precisely in the way he conjectures. I submit to his careful judgment, and that of others accustomed to consider such problems, whether my explanation of the utility of his process is not the sound one.

I have been accustomed to treat cases of obstinate sickness in pregnancy by elevating the body of the uterus, and I have found that the same immediate good result follows as was observed in Dr. Copeman's cases; viz., the cessation of the sickness ; but I am quite prepared to hear that traction of the os uteri forwards will produce a like effect. Both procedures have the same result: the liberation of the tissues of the uterus at the internal os uteri from their cramped compressed condition.

There are other details, but at present I forbear to say more on the subject.

## IS STRICTURE OF THE URETHRA CURABLE?

By W. F. TEEVAN, B.A., F.R.C.S.,
Surgeon to the West London Hospital, etc.

UPON the answer to this most pertinent question depends our treatment; for, if there be no evidence to prove that we can remove the pathological conditions incidental to a stricture, then one of the chief inducements to operate for its relief no longer exists, and palliative measures assume an importance which they would not otherwise present. How comes it to pass that there is no subject in the whole range of surgery which elicits such varied and contradictory opinions regarding its treatment as stricture of the urethra? It is not difficult to find the reasons why. The contradictory statements as to the treatment of stricture of the urethra arise from two separate causes. After every operation for stricture, there are certain effects to be seen which are temporary, uncertain, and often misleading. At a later period, we observe other results, which are permanent and worthy of acceptance. The first kind are usually published in profusion; of the second we see scarce anything. Then, again, by some extraordinary combination of circumstances, we find that deaths after operations for stricture are rarely published. It thus appears that we are deprived of the most valuable evidence regarding the treatment of stricture of the urethra. So far as I know, no surgeon has been able to place before the profession a dozen cases of stricture which he has cured by operation, and which have been submitted to a crucial time-test. The matter stands thus: whatever operation we may select for the relief of a stricture, we shall fail to cure the patient; for, if he be really cured, he requires no after-treatment—prolonged for his life, be it observed. But, if no such treatment be pursued, we shall find out that the patient will infallibly have a return of his old complaint; thus proving that an operation, unless supported by a well regulated course of after-treatment for life, is only followed by temporary results. As a rule, there is no difficulty in restoring a contracted urethra to its normal calibre; but it is impossible to preserve the good we have achieved, unless we pass an instrument from time to time. We cannot cure; we can only remove troublesome effects, which will infallibly return unless we persist in our treatment. Pathologically speaking, no stricture is curable; but, practically, nearly all strictures are remediable. At whatever time after an operation we examine the urethra with a *bougie à boule*, we shall find that the pathological state is not removed, but only modified in some slight degree; for the soft velvety condition of the mucous membrane is replaced in the strictured part by a gritty unevenness of tissue, as felt by the *bougie à boule*.

A short time ago, I had an opportunity of examining, *post mortem*, the strictured urethra of a patient whose canal I had a year previously dilated up to a large size. Before I removed the parts, I passed a full-sized bougie into the bladder with ease, thus showing that the canal was still of a normal calibre; but, on laying open the bulb, the remains of a tunnel-stricture were very visible in the form of three longitudinal ridges of induration, each about one and a half inches long, and about the one-sixteenth of an inch in depth. These ridges did not disappear when the urethra was stretched laterally, and their yellowish appearance contrasted strongly with the healthy portions of the mucous membrane. Mr. Timothy Holmes records a case of death after the strictures had been forcibly ruptured, in which "the traces of the two strictures were quite perceptible in the urethra", although both admitted an ordinary-sized instrument. (See *Trans. Path. Society*, vol. xxi, p. 280.)

I have in my experience seen a few cases which would seem to prove that now and then the indurated lymph is wholly absorbed, and that the strictures were really and truly cured. But any deductions drawn from a few isolated cases must be regarded as worthless for practical purposes, as the following case will show, proving how unsafe it is to predict that there will be no relapse even under the most favourable conditions. A patient, whose strictured urethra I had restored by gradual dilatation to about its normal calibre, remained for two years without having any instrument passed, at the end of which time he came to report himself. The urethra was still as capacious as when I had last seen him, and the largest sized instrument could be passed with ease. Apparently, nothing could be more satisfactory; but, six months later, the patient presented himself, and said that contraction was beginning to return. I tried to pass the same sized bougie as I had done on a former occasion; but I could not, and had to use one two sizes smaller. One of the reasons why this patient had gone so long without any relapse was, that his urethra was naturally very capacious; and another was, that I had dilated his stricture up to an excessively large size, thus putting off the relapse for an unusually long period.

Of all the cases of operation for stricture that have come under my care, in which the operation was performed by myself or others, I have never yet met with one in which an examination with the *bougie à boule* did not detect some remains of the strictures, though years might have passed away after the operation. Nearly all the published cases of operation for stricture have been deprived of most of their value from the fact that the authors have given only the temporary effects of the operation, and not the trustworthy results which are to be seen a couple of years afterwards. On this subject, Mr. Cooper Forster made a most pithy and apposite remark in reference to a case of operation for stricture which was narrated at the Clinical Society. He said, "I do not care to see the patient now, but I should very much like to examine him two years hence." Herein lies the whole gist of the subject. The present state of the question is this: no surgeon has as yet been able to produce that evidence which would alone carry conviction; and so long as this is wanting, and we every day have cases of relapse after each and every kind of operation, we must come to the conclusion that no operation is desirable except in certain exceptional circumstances. Hence, therefore, as no operation can cure a patient, it is our duty never to recommend such a procedure unless it is absolutely called for, as we are not justified in endangering the safety of a patient's life, just to humour his whim, when we can achieve, by gradual dilatation, which is absolutely free from all danger, all that is open to us. The treatment of a stricture is a treatment for life-time, and he who fails to recognise this important truth deceives himself or his patient. Fifty years have now rolled away since the great Delpech wrote the following words, and no English surgeon has been able to reverse his judgment. "Quant à la coarctation elle-même, il est presque superflu de dire que nous avons bien vérifié combien cette affection est incurable, et ne peut être que soulagée passagèrement, et conserve une tendance invincible à se reproduire insensiblement. Il en est constamment ainsi, quels que soient les moyens par lesquels elle a été combattue. Ce serait abuser de la crédulité des malades et des médecins, et se jouer de la vérité, que de prétendre le contraire." (*Chirurgie Clinique*, vol. i, p. 273.)

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# ETHER AND CHLOROFORM.

By W. C. B. FIFIELD, M.D.Harvard, M.R.C.S.Eng., of Boston.

SOME one has been good enough to send me six copies of the BRITISH MEDICAL JOURNAL, of the date May 8th, 1875, containing a letter from Dr. Thomas Skinner of Liverpool, entitled Ether and Chloroform.

I had some idea of answering this letter, when I perceived that Dr. Skinner had answered it himself by saying that, out of hundreds whom he had witnessed administering chloroform in Edinburgh, London, Liverpool, and elsewhere, there are not six from whom he would take it. Could any statement be so severe as this? Could anything be more startling? Could any words give a more vivid idea of what a dangerous deadly agent is chloroform, or waken more quickly a vigorous public attempt on the part of the British public to forbid its use as an anæsthetic, when out of the hundreds or thousands of British surgeons who are daily employing it there are not six from whom Dr. Skinner would take it?

Surely, British wisdom was justified of her children when Dr. Sinclair told him (Dr. Skinner) that an American jury would deal very hard with him if a death occurred from his administration of chloroform, when even Dr. Skinner admits that he would not take chloroform from six of all the hundreds he has witnessed giving it.

An American jury would probably consider the matter in this light, viz., that whosoever administered chloroform by inhalation for relief from pain, knowing that sudden death may result from causes too numerous to mention, and even when no cause can be found for such death other than the agent employed, knowing also that another agent equally capable of producing such anæsthesia exists, which has been shown to be far more safe than chloroform, viz., sulphuric ether, shall be held criminally responsible for his temerity.

Leaving Dr. Skinner, I would ask to call attention to the various discussions and reports here in Paris on the subject of chloroform.

Firstly, Dr. Albert Bergeron has written a book, and a very good book it is, entitled *Chloroform in the Surgery of Children*. In this book, he seeks to prove exactly what Dr. Skinner has denied; and I heard Dr. St. Germain lecture about Dr. Bergeron's book at the Hôpital des Enfants Malades, and agree with Dr. Bergeron *in toto*, viz., that if chloroform can ever be given safely, it is to very young children. M. Bergeron is frankness itself. Speaking of cases where death occurs hours, or even days, after the administration of chloroform, he says: "But it is no longer the same in the series of facts, unhappily too numerous, where one sees death come abruptly, suddenly, the patient still on the operating-table, the surgeon having just finished, or even not having commenced his operation. These cases are not doubtful; it is truly to chloroform that they ought to be attributed. The discussion of them is difficult; and these are they which constitute the true necrology of chloroform, which the surgeons of Boston and Lyons have so often brought forward. Far be it from me to acquit chloroform with an adult."

M. Bergeron, however, meets with some ugly facts in regard to the perfect safety of chloroform in young children; notably, the five observations reported by M. Bouvier; but he escapes ingeniously from three or four of them. Hæmorrhages, relatively considerable, had taken place with three children; and the fourth has been recalled to life by artificial respiration, faradisation of the diaphragm, and methodical compression of the abdomen. This case was that of a child four years old. The fifth observation has been recorded at Berlin; it is that of a child, aged four years and three months. It was for a simple catheterism. Two or three minutes passed between the last inhalations of chloroform and the moment when the catheter was introduced; and during this interval the child breathed only pure air; the respiration and the pulse were carefully watched. It was at the moment that the catheter penetrated the bladder that respiration stopped; and, in spite of all efforts, the child died. It is said that the sleep had come on quickly, and that the quantity of chloroform was less than usually employed for children of this age. There was no necropsy. M. Bergeron says that he receives this case with difficulty, as a *post mortem* examination might have otherwise explained the death. M. Bergeron admits that, at a certain point chloroform may be considered as a toxic agent, and that in large doses it brings death.

In the lecture of M. St. Germain, to which I referred, he related some moving anecdotes of death from chloroform. One of these was that of a man who entered a hospital for the reduction of a dislocated hip. He had chloroform; the dislocation was quickly reduced; but the man was dead. M. St. Germain attributed many of these deaths during chloroformisation to the impurity of the agent employed, and the carelessness of assistants who *will* watch the surgeon. He referred to a point to which much attention is now given, that at the commencement of chloroformisation the pupil of the eye first becomes dilated; then, when perfect anæsthesia takes place, contracted; if waking or vomiting occur, the phenomena are reversed. During operations, the pupil must be maintained at the exact point of contraction, and it is a signal that the operation may be commenced. Hence, at present, in all Parisian hospitals, one sees the internes carefully watching the iris; but, in spite of all this, I saw the other day at La Charité, in the service of M. Gosselin, a patient suddenly lowered to the floor, head first (Nélaton's method), and vigorously flapped with towels to restore consciousness.

Dr. Skinner says "in all operations on the head and abdomen (teeth and jaws excepted) ether is best"—why, if chloroform be better than ether, I cannot see. Yet, here in Paris, chloroform is forbidden in disarticulation or resection of the jaws. I heard the other day a free professor at the École Pratique instructing his pupils in these operations. "One can't use chloroform", said he, "and you must make haste." M. Verneuil operates "avec une rapidité effroyante".

But the strangest proposition to bring about anæsthesia with the smallest possible amount of chloroform is that of M. Forné, who presented a paper to the Society of Surgery, entitled "Contribution to Surgical Anæsthesia", and upon which M. Lannelongue has written a report. It is a new method of "anæsthesia en deux temps". It consists in this. First, the patient is made to take a single dose of chloral varying between thirty and sixty grains, according to age (mark the minimum). The surgeon then waits until sleep may be obtained, usually less than an hour. At this moment, one proceeds to the administration of chloroform. M. Lannelongue says that this proceeding rests on the basis of the association of a narcotic with an anæsthetic, of which the first idea came to Claude Bernard, who experimentally applied it at the College of France. In surgery, Nussbaum, Rigault, and Sarrazin, Guibaut de St. Brieuc, Lutté, Goujon, and Sumay have applied it with success. M. Lannelongue sums up the gist of M. Forné's contribution as follows: "Inhalations of chloroform cease to be dangerous when administered during a chloralic sleep, by means of an apparatus admitting air freely to pass." M. Forné has, says M. Lannelongue, clearly stated the question, Is it possible to suppress the dangers inherent to inhalations of anæsthetiques? This is evidently the culminating point of the problem of anæsthetiques. The dangers of the employment of anæsthetiques vary according to the state of wakefulness or somnolence of the subject. During wakefulness, it is necessary to surmount resistance, emotion, fear, often very great. Thence arise two sorts of inconveniences conducting to veritable dangers. On the one side, to pass the period of excitability, it is necessary to give a quantity of chloroform as much greater as this period is longer. The patients are thus exposed to a true poisoning. On the other side, fear and fright with pusillanimous subjects, and they are very numerous, suffice for rendering an account of these cases when death has been rapid after the absorption of a small quantity of chloroform. By placing patients in a preparatory sleep, their resistance is annihilated, their fear is avoided, the economy is surprised by causing it to pass from sleep, which one can consider as the first degree of anæsthesia, to a complete insensibility.

The discussion which followed this report is most interesting.

M. Dolbeau said that for some time he had been struck with the danger of giving chloroform to patients who had taken chloral. He had remarked a tendency to chill and coldness, which was progressive. He cited cases. The first was that of a lady, with fissure of the anus, who habitually took syrup of chloral. When he arrived to make the operation, she was asleep; he could only half awaken her. Still, he chloroformed her in this state. He must admit that he used only a very small amount of chloroform, still he had very great difficulty to awaken her, and he affirmed that her state was sufficiently alarming. She spoke a few words, then slept again; and, although the weather was very hot, she continued to grow cold. Although in haste to go, he was obliged to remain with her more than an hour. The result was at last fortunate. Last year, he had seen an English general returned from India, in whom he had occasion to resect the lower jaw. He chloroformed the patient easily, and the awakening was prompt; but he remarked a singular tendency to grow cold, and to sleep again. He remained two hours with him; and when he was obliged to leave, his fears were far from being quieted. He left him in the hands of his aid, a doctor of medicine, much accustomed to the management of chloroform. Two hours later, he again saw the patient; he was then in a state of probable death; and it was only the next day that he was better. He then learned that the patient had taken 10 *grammes* (150 grains) of chloral before the operation. Hence M. Dolbeau has been brought to the conviction that it is dangerous to chloroform a patient who has taken chloral. It is necessary beforehand to inquire if one has taken chloral. After the taking of chloral, a very small amount of chloroform is required, and it is a phenomenon with which he had already occupied himself, viz., the medico-legal question, if it was possible to make an anæsthetic sleep succeed to a natural sleep. I make here a little digression to state that this is possible under certain precautions, and in this case with very little chloroform. Most often with adults, when one brings close to the face of an adult plunged in a natural sleep a compress wet with chloroform, an abrupt waking, mingled with agitation and convulsions, is provoked; but with children it is possible to make them pass from the natural to the anæsthetic sleep.

M. Demarquay declared that chloroform alone was sufficiently to be dreaded without chloral. He had witnessed this tendency to grow cold brought about by chloroform itself. Only some days since, he had chloroformed a lady for the removal of a tumour of the breast. There was a complete syncope; and, in spite of frictions, artificial respiration, etc., he had great difficulty to recall her to life. He revolted from this union of chloral and chloroform.

M. Sée rose against two affirmations of M. Forné. The first is, that the danger of chloroform is in ratio to the dose employed. This is not sustainable. Witness the sudden deaths during the first inspirations. The second is, that the patients who rebel against chloroform run greater dangers than those who readily submit and are resigned. Witness children, who make the greatest resistance, yet are the most easily chloroformed by reason of the enormous inspirations which they make.

M. Perrin had given 3 *grammes* of chloral before administering chloroform, with good result.

M. Lannelongue thanked M. Dolbeau for having drawn attention to the danger of associating chloral and chloroform. The action of chloral is different, according to the subject. Above all, relatively to the rapidity of its action, chloral can at once be reproached with a constant tendency to slowing the beatings of the heart and coagulating the blood. He would recall to recollection that chloroform has often a very prolonged action upon patients, who in these cases do not rise above it, but extinguish themselves, so to speak. It is evident, in this case, chloroform has the deleterious effects of a poison slowly absorbed. Ought one in the same order of ideas to siderate absolutely patients even for the smallest operations? or, is it necessary to one-quarter or one-half chloroform them, as M. Trélat had proposed? There was scarcely need, he thought, to insist on this latter practice; all surgeons follow it, so to speak, from instinct.

I recall that, when in Paris in 1870, I saw patients on hospital operating tables, one-half or one-quarter anæsthetised, undoubtedly from the instinctive conviction of the deadly nature of chloroform. The amphitheatres occasionally resounded with their yells.

M. Bergeron gives the following list, taken from the *Traité d'Anesthésie* of Lallemand and Perrin, of the causes of sudden deaths, after or during the use of chloroform: 1, pre-existing organic affections; 2, nervous state, emotion; 3, abuse of alcoholic drinks; 4, intervention of surgery; to which I would add, as seems to be admitted, 5, a peculiar influence of chloroform on the nervous organs, impossible to be foreseen, or to be remedied; 6, the use of chloral. Thus, it would seem that it is not possible to give chloroform to any one safely, because it can never be known who there is who is not the subject of one or the other of these causes.

Do not all this paraphernalia of air-bags and special apparatus, these proposals to give chloral and opium before inhalation, in order to lessen the amount of chloroform employed, this timid, one-fourth and one-half anæsthesia, bespeak the inward conviction, the instinctive knowledge, that death from its use may come, and come quickly and immediately, and none can tell why or whence it came? Let us, then, see no more tears, or hear no more cases of fathers and mothers, of widows and orphans, who weep their dead; the dead who, but a moment ago, lay down trustingly for the reduction of a dislocation, the opening of a whitlow, or the removal of a wen. Let us employ ether, to which no reproach exists, except its evil smell. Unpleasant it may be, but its unpleasant *smell* is not to be compared to the unpleasant *sight* of a corpse; a corpse that, but for the employment of chloroform, might still have been a living man or woman, or child. It has been objected that ether costs more. The expense of one funeral would pay for a deal of ether.

One word about the method of giving ether. Whilst it should be used freely at first, it is not necessary to abuse it. At a meeting of the Société de Chirurgie, a gentleman raised himself (a wonderful gymnastic feat) against the words, "American method" of giving ether. It was nothing but the method of Bonnet of Lyons, who turned on ether in floods, "et foudroyait ses malades". Bonnet had had two deaths. American surgeons call this drowning the patients, and I have often seen young internes sharply rebuked for so doing. One gentleman at the meeting referred to said that, in American hospitals, ether is given by special persons. This is not correct: internes, dressers, or even ward-tenders, often give it.

Lastly, as to what I said about ether in childbed, and proscription of the products of British brains. As to the use of ether in difficult cases of midwifery, I but spoke my own personal convictions; perhaps my countrymen will blame me for what I said in this regard. For England and British brains I cherish a most profound respect. The excellence of those brains is only surpassed by the goodness of English hearts.

Paris, May 1875.

# FIBRO-NUCLEATED TUMOUR FROM THE DURA MATER OF THE CERVICAL PORTION OF THE SPINAL CORD.*

By THOMAS S. DOWSE, M.D.,
Medical Superintendent of the Central London Sick Asylum, Highgate.

I HAVE ventured to trespass upon the time of this Society in bringing before its notice a form of tumour which, from its manner of growth, is of rare occurrence, and which will, I trust, be of interest not only in a medical, but also in a surgical point of view. To the physician, it will be interesting chiefly because of the symptoms of paralysis, which resulted from pressure upon the cord; and to the surgeon, because of its free mobility and non-adhesion to surrounding structures: a condition which might have led a bolder man than myself to attempt its extirpation. Nerve-tumours, we know, may originate in three different ways: 1, from the free surfaces of the meninges; 2, from the perivascular sheath; and 3, from the neuroglia. Those which grow from the dura mater are usually of three kinds; viz., spindle-celled sarcoma, myxoma, and psammoma. I will now briefly introduce to you the chief clinical points in this case.

John Page, aged 34, was admitted into the Central London Sick Asylum at Highgate, August 21st, 1872, and died July 10th, 1874. His father died of phthisis at the age of forty-nine; but, with this exception, the family appeared to be healthy. There was no history of fits, insanity, paralysis, or syphilis; and, until he was thirty years of age, he himself for the most part enjoyed good health. About three years ago, he first noticed an enlargement in the right side of the neck, which gave him no pain, and which was usually considered by the medical men whom he consulted to be an enlarged gland. When he first came under my care, the swelling was about the size of a duck's egg, hard to the touch, and freely movable, lying in the posterior superior triangle. He said that for six years he had felt a weakness in the back, between the shoulders, so considerable that he had bought a band to support himself; and about four years ago he first experienced coldness and numbness at the tips of the fingers. This was at first transitory, but at length became permanent, so that he was unable to pick up a pin or button his coat. This condition could not have arisen from want of muscular digital power, for he could bring the tips of the fingers well together, and was cognisant that they were so in apposition; but, when some foreign body was interposed between the cutaneous surfaces, this impressional cutaneous sense was not conveyed to his brain; hence he could not appreciate it. It was only through the medium of visual sense that he was made acquainted with its presence. If he took up a cup, he grasped it firmly, and held it tightly enough, while he was looking at it; but, immediately he lost sight of it, the grasp became relaxed, and down went the cup. This power of digital co-ordination was in abeyance from the want of cutaneous sense; but he was always helped by the aid of reflected as well as of direct vision: by the use of a looking-glass, for example. In addition to this condition of the hands, there was numbness of the right foot, which he dragged after him in walking. He complained of slight pain between the shoulders about the fifth dorsal vertebra, not increased by pressure, but augmented by fatigue. From this period, he gradually lost motor power in both upper and lower limbs; so that when admitted, two years ago, into the Hospital for the Paralysed, he was unable to walk, and could not even lift his feet from the ground.

When admitted into the Central London Sick Asylum in August 1872, he had a bad bed-sore, and was greatly prostrate. There was no want of cutaneous sensibility anywhere over the body, except at the tips of the fingers, more marked at the finger and thumb. In describing the symptoms, we will first commence at the

*Sensorium.*—Upon arriving, he felt stupid and heavy. He did not stagger. The eyes were bright, and there was an intelligent and even intellectual expression of countenance. The memory was good, and his mental powers were in no way affected. All his special senses were perfect. He had no shaking of the head or defect of speech; no divergence of the lingual movements; no dysphagia or dysphonia. Only when standing up or trying to walk was there spastic contraction of the left sterno-mastoid and trapezius muscles, drawing the head over the left shoulder. At ordinary times, inspiration was performed quietly enough; but, when he was not so well as usual, the breathing became jerky; he was unable to expand the chest; the head and shoulders were raised, and the extra-inspiratory muscles were brought into play. There was, in fact, defective *temporary* tone in the intercostal muscles, with some amount of cyanosis, and distressed facial aspect; and it was also quite evident, from his manner of breathing, that the diaphragm was more or less implicated. He said that his spine felt weak; but there was no deformity, and no especial tenderness upon pressure over the spinous processes.

*Upper Extremities.*—Both had undergone, and were undergoing, muscular wasting. The sense of touch was variable. When he closed the eyes, he sometimes appreciated the drawing of a penholder across his hand and fingers, even to its precise location. At other times, he did not feel it; or, if he did, he was not able to localise it. The movements of the upper extremities were very limited, on account of the muscular degeneration, which was more marked on the extensor than on the flexor side. The left hand was flexed; the fingers not into the palm, but the two distal phalanges upon the proximal. He had no voluntary power to extend the finger; but, when the left leg was automatically flexed, the fingers of the left hand became involuntarily extended. This relaxation of contractility in the fingers was immediately succeeded by contraction, again and again repeated. This coexistence of automatic nerve-force in the upper and lower extremities was a strange physiological phenomenon.

*Sphincters and Bowels.*—The bowels were usually very constipated, but occasionally relaxed. When this was the case, he had little or no power over the anal sphincter. He occasionally had retention of urine; and he always knew when this would be—not from general *malaise*, but from the offensive character of the urine.

*Lower Extremities.*—The muscular and general wasting was not so much marked here as in the upper. The right and left legs were both alike affected, and he had not the least power to stand. There was no anæsthesia. When lying in bed, he was able to draw his legs toward him, flex, and then extend them. He could also cross one leg over the other. Occasionally, they were subject to reflex movements; but reflex conditions were certainly not a marked feature in this case.

From November 1873, the man's condition changed but little. He at times suffered from retention of urine and very urgent dyspnœa. On July 9th, 1874, the day preceding his death, the dyspnœa was unusually urgent, and he became considerably cyanosed. On the night of the 10th, he suddenly expired.

*Necropsy*, twelve hours after death.—Cadaveric rigidity was marked. The body was fairly nourished, and there did not appear to be any extreme muscular wasting of the lower extremities; but there was some atrophy of the intercostals. Upon removing the calvarium, the dura mater was found to be healthy. There was slight opacity of the arachnoid, with some effusion. The vessels of the pia mater were engorged with black blood. When removed, the brain to all external appearance was healthy enough, as were the arteries, grey matter, and motor tract at the base. There was some chronic thickening of membranes lining the lateral ventricles, with supervascularity and slight excess of fluid. The removal of the cord was effected without hindrance as far as the second cervical vertebra. Here, occupying part of the cervical canal, was a foreign body, which was found to be in connection with the tumour of the neck to be presently described. When the cord and brain were removed, the seat of disease became readily apparent. In connection with the dura mater, posteriorly and laterally to the right, was found an abnormal substance pressing forwards and inwards upon the cord; and in one part especially it pushed the membranes before it to the size of a small bean, pressing forward the posterior nerves with the sensory ganglion, so that the ganglion could be distinctly seen, with the posterior and anterior nerves in connection with it. The third pair appeared to be thus implicated. This tumour was not adherent to the arachnoid membrane, and was distinct from any positive connection with the cord itself. Yet in this exact situation the cord, to the extent of about half an inch, had undergone change, undoubtedly from pressure, and presented a somewhat similar appearance as a cord would do where a fractured vertebra has been for some time pressing upon it. The cord, for a little distance above and below this, was slightly bulging, as from softening. The membranes were slightly supervascular; but there was no adhesion, nor effusion of lymph, or other sign of inflammatory change.

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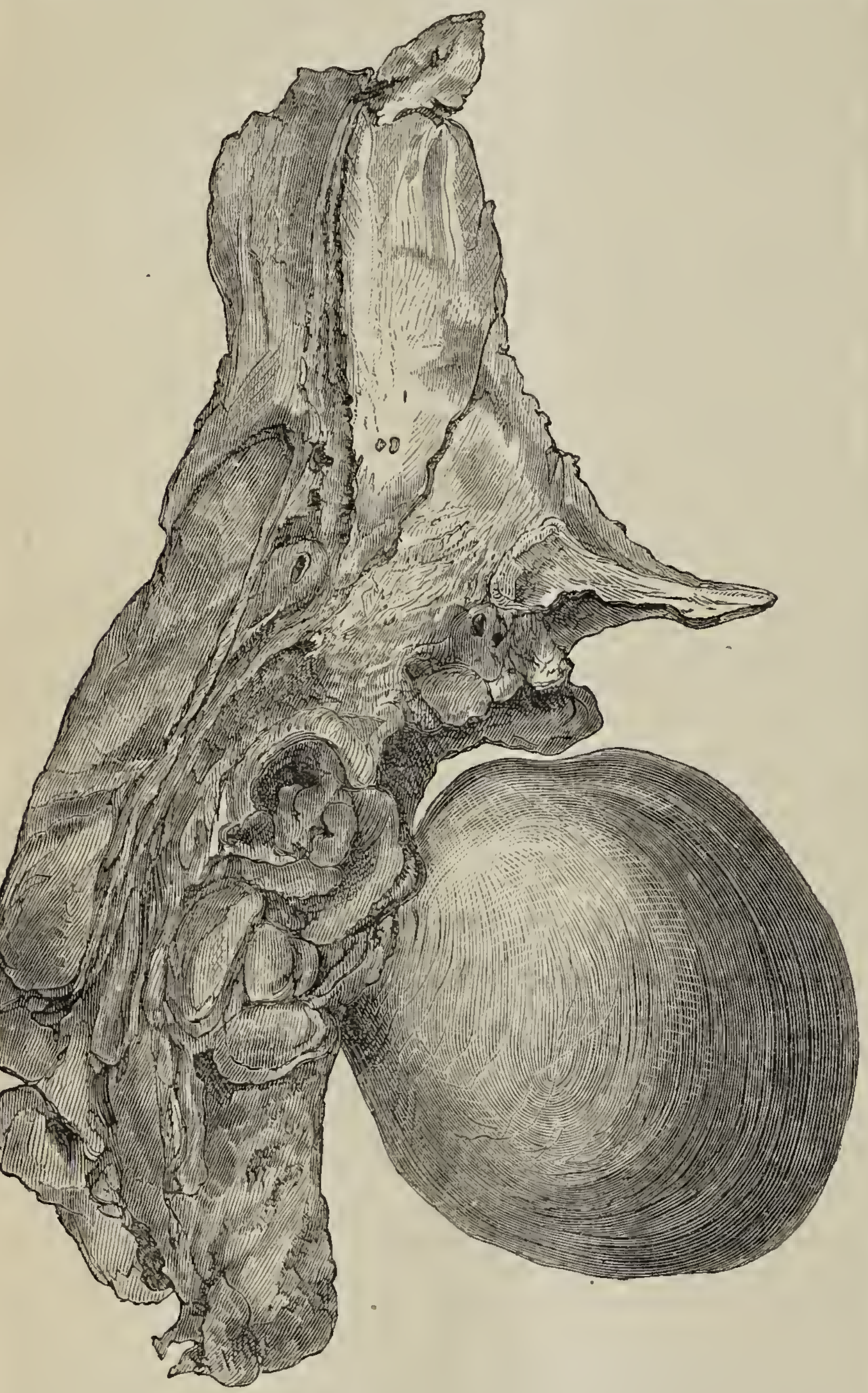
* Read before the Medical Section at the Annual Meeting of the British Medical Association in Norwich, August 1874.

*Tumour.*—In reference to the tumour, its connection with the cord was not diagnosed during life; neither was it supposed that it had anything to do with the man's paretic state. It was, it will be seen by the drawing, about the size of an orange, and passed between the second and third vertebræ. This portion evidently formed its pedicle, and there is not much doubt but that it originated from the connective tissue fibres of the dura mater. It was quite free from any trace of adhesion to surrounding textures outside the vertebral canal. Upon section, it was found to be tough, apparently homogeneous, somewhat elastic, and of a dirty white colour. Under the microscope, it presented a fibro-nucleated appearance; consisting, first, of round, oval, and puriform nuclei, with fine granules; secondly, of a multitude of fibres, which divided and subdivided into finer and finer branches; and these branches were connected with the nuclei and granules, and formed with them a network. Small matter of pigment-granules were scattered throughout the tissue.



## ON TAR AND THE IPECACUANHA SPRAY IN THE TREATMENT OF WINTER COUGH.

By WILLIAM MURRELL, L.R.C.P.

The following remarks on the administration of tar will, I hope, remove any difficulty which Mr. Cheyne and other gentlemen may have experienced in the use of this remedy. In the observations made by Dr. Ringer and myself, the drug used was wood-tar, the *pix liquida* of the *Pharmacopœia*. This was made into pills, each containing two grains, by mixing it, by means of a gentle heat, with a grain of wax and two grains of powdered liquorice root. Some difficulty was experienced in coating these pills, as the spirit used for this purpose dissolved out the tar. In private practice, we have therefore usually employed small capsules, each containing from two to three grains. Larger capsules, similar to those used for copaiba, are also made, but they contain a larger dose of the drug than it is necessary to administer in cases of bronchial catarrh. There are several other preparations containing this drug which are largely used on the continent, and might with advantage be introduced into this country. The *dragées de Christiania au goudron de Norvège* are elegant little bonbons, each containing five grains of tar. Tar-water or "eau de goudron" is also made, which contains two grains in the drachm, and may be taken in sugar and water, or with claret at dinner, the combination being almost tasteless.

The observations on the treatment of chronic bronchitis and winter cough by the ipecacuanha spray were originally published in August last. As a considerably increased experience of this method of treatment, both in hospital and in private practice, has not only confirmed our previous statements, but has added several new points of interest to our knowledge of the subject, a brief *résumé* may prove not unacceptable. The inhalations prove most useful in those cases in which the patient suffers from cough and dyspnœa on exertion during the winter, but is comparatively free from these symptoms in summer. The expectoration is usually abundant, and is often frothy and expelled with difficulty. There is never any true hæmoptysis, although the expectoration may be occasionally streaked with blood after a violent paroxysm of cough. This condition may be accompanied by considerable loss of flesh, lowness of spirits, and other symptoms, which quite incapacitate the patient from following his occupation during the winter months. In these cases, almost without exception, the patient either comes of an asthmatic or phthisical family, or he follows some employment which necessitates his exposure to cold, or wet, or dust. Many of these patients suffer from gout or chronic rheumatism. On making a physical examination of the chest, only a little emphysema may be detected, or there may be sibilus over both fronts and backs, with bubbling rhonchus at the bases. It is very necessary in these cases to ascertain the absence of organic cardiac mischief. A patient, who last year suffered from bronchial catarrh, and was greatly benefited by the ipecacuanha spray, applied for relief this winter. The old treatment was adopted with but little benefit; and, on a more careful investigation of the case, it appeared that the patient had, during her absence in the summer, suffered from rheumatic fever, and that the dyspnœa was due to mitral regurgitation. The spray has proved most successful in those cases of winter cough in which the dyspnœa is the prominent symptom. In true neurotic asthma, however, little or no benefit is derived from its employment, and it may even increase the frequency and duration of the paroxysmal attacks. The spray has been used with advantage in a few cases of phthisis, both in the early and in the advanced stages, but our experience upon this point has been limited.

The method of giving the inhalation may be now considered. In our earlier experiments, Richardson's double-balled spray-producer, such as is used for ether, was employed; but during the past winter the number of patients under treatment at the hospital has necessitated the employment of Siegle's steam spray-inhaler. The ipecacuanha wine was used either pure or variously diluted, the most usual strength being one part of the wine to one or two of water. The use of undiluted wine occasionally produces dryness of the throat and nausea, the latter symptom most frequently occurring in those cases in which the patient is not careful to expectorate the mixture of saliva and condensed spray which accumulates in the mouth. The quantity of wine used at each inhalation varied from a half to two drachms; in a few cases as much as an ounce was given, but with no advantage over the smaller quantity. The Richardson's spray-producer atomised one minim at each squeeze of the ball, so that about 150 squeezes were usually given when a mixture of one in two was employed. The Siegle's apparatus, when fully at work, vaporises a drachm in about three minutes. The inhalations were given daily, the patient usually requiring ten or twelve.

The benefit derived from the spray, though often prompt, is in many cases of several months' duration. All the patients under treatment last year who have returned this winter, have stated that they have been freer from cough and dyspnœa than usual during the summer months.

During the past winter, other drugs, including carbonate of ammonia, iodide of potassium, and tartar emetic, have been used in the form of spray in the treatment of these cases, but the results have not been satisfactory.

## OBSTETRIC MEMORANDA.

### A NOVEL TREATMENT OF OBSTINATE VOMITING IN PREGNANCY.

In perusing the Journal of this week, I was much struck with Dr. Copeman's communication on a "Novel Treatment of Obstinate Vomiting in Pregnancy", as it recalled to my mind a case that occurred in my practice some years ago which threatened the life of the patient; and, as it appears to me to have been relieved by similar means to those recommended by Dr. Copeman, I am induced to send the history of it.

On December 21st, 1868, I was called to see the wife of Captain M., who had just returned from a sea voyage around Cape Horn; she was thirty-two years of age, and seven months gone in her fourth pregnancy, naturally strong and robust, but now much reduced by incessant vomiting. The usual remedies—hydrocyanic acid, soda and calumba, and the nitrate of cerium—were prescribed for a few days to allay the gastric irritation, without the least effect, and not the smallest quantity of nourishment (such as milk and lime-water) could be retained. On the 24th, her condition became so precarious, that I suggested premature delivery; and, on consultation with another practitioner, this view being concurred in by the gentleman called in, I proceeded to the induction of premature labour by means of Barnes's bags, having first dilated the os as much as possible by the finger. When I saw her the same day, I found her condition much improved, having retained the medicine and some nourishment; I, therefore, removed the bag, and refrained from further interference for the present. About 5 A.M. on the following morning, I was sent for in a great hurry, and found she had been delivered by spontaneous expulsion of a male child, which only survived a short time. On inquiry, I found she had slept tolerably well during the night, and was aroused from her sleep by a slight pain, and found that the child was born immediately afterwards. She made a rapid recovery, and was out of bed in about a fortnight. I was struck at the time with the sudden cessation of the vomiting and her general improvement, which I attributed at the time to the means employed to allay the gastric irritation; but I am now led to think with Dr. Copeman, that probably the urgent symptoms were due to undue tension, and that the introduction of the bags into the os uteri may have been the immediate cause of relief. It is certain that, after the introduction of the bag, there was little or no vomiting. I am led to think that this was a case of vomiting due entirely to the pregnant state, and not to the combined effects of sea-sickness and the vomiting of pregnancy, from the fact, that this lady had been in the habit of going to sea with her husband, and was never much troubled with sea-sickness, and was subsequently confined at sea of a healthy child about a week before her arrival at Antwerp, the vessel having been longer on her passage than was expected; both mother and child did well. In conclusion I would remark, that I have found the nitrate of cerium (as recommended by the late Sir J. Simpson) most beneficial in the vomiting of pregnancy.

Jabez Thomas, L.R.C.P.Ed., Swansea.

### RUPTURE OF THE UTERUS.

I send this note in reference to Mr. Wood, having a professional but no direct personal interest in his case. Many years since, I was summoned by Mrs. Walter, one of the midwives of St. Marylebone, to Mrs. H., then some hours in labour with her ninth child. The head occupied the pelvic cavity, but did not advance, true uterine pains having ceased. The patient was low, but neither pulseless nor markedly collapsed. There were hurried breathing, and fixed pain in the abdomen, but the child was not felt through its walls. The forceps was resorted to, but not being readily applied, perforation was performed. The placenta not becoming detached was manually removed, when an enormous rent was discovered in the uterus, the hand passing freely into the peritoneal cavity as far as the lower border of the liver, and the great omentum "pulsated awfully" in front. (I can conceive a practitioner in his consternation attempting to remove the latter structure as an abnormal afterbirth.) There was scarcely any external hæmorrhage. Opium was given, but the patient sank twelve hours after delivery, and twenty-eight after the commencement of labour. Unfortunately, a *post mortem* examination was not permitted. Of course, men are sometimes incompetent, occasionally intoxicated; but, granting sobriety and ordinary qualification to the attendant, must he not be better acquainted with a case than a man called in at the end, or after death, to make the *post mortem* examination; the latter operation often indispensable to the solution of its obscurity? Assuming the report of the necropsy to be in the main correct, I ask, Will the gentleman who performed it oblige more ignorant practitioners by stating the distinctions between lacerations "resulting from force, and those resulting from natural (?) labour"? On what ground does he affirm that the "rupture did not exist prior to delivery"? Does he base his conclusions on hypothesis or on experience; in other words, how many cases of ruptured uterus has he attended, and what were their history and termination? Was the patient a multipara? and does he hold rupture of the uterus to be mostly due to violence applied to the uterine walls or to parietal degeneration? Trite as the proverb is, I cannot refrain from adding that it is frequently not difficult to exhibit wisdom after the event.

W. Boyd Mushet, M.B.Lond., M.R.C.P.

## SURGICAL MEMORANDA.

### SUPPURATION IN KNEE-JOINT FROM A FALL: COMPLETE RECOVERY OF MOTION.

Miss C., aged 19, first came under my notice on October 9th, 1874, complaining of slight pain in the left knee-joint on walking or standing. About five days before, while riding rather fast, she felt the saddle slipping round, and, to avoid falling with her foot in the stirrup, threw herself from the horse, and fell upon the knee. She complained of slight pain for a day or two, but did not take any particular care. On examination, the joint was slightly enlarged and hot, with pain on motion; pulse 112; tongue furred. There was slight increase of temperature in the body generally. She was ordered a calomel and jalap powder, rest in bed, and cold lotion to be kept applied to the joint. For the first two days, she went on well, and, on the third, imprudently got up; and, on the thirteenth, all the symptoms were much aggravated. I cupped the knee above the joint, and, on the two following days, applied six leeches daily, and gave at the same time antimonial salines and general antiphlogistic regimen. On the 15th, I put the leg up in cardboard, and swung it in Salter's swing. In spite of treatment, swelling increased until the 24th, when a large quantity of healthy pus escaped from the interior of the joint. Eventually, two other openings formed, and the three continued to discharge for a month, during which time she took bark and mineral acid, with a liberal diet. At the end of about a month the openings had closed, and, in another fortnight, the splints were discontinued, and passive motion commenced. This was continued for two months, and now (February 1875) the patient is able to kneel down, and walk almost without a limp. There can be no doubt about the locality of the pus, as the patient was seen by another medical man, who fully confirmed the diagnosis.

I held out to the friends no better termination than a stiff joint, as I had no idea that any joint so thoroughly filled with pus and discharging so freely, and for so long a time, could eventually repair itself. I did not feel certain about the existence of pus until the joint began to discharge, as there were no rigors or any symptoms to warrant the certainty. I did not open the joint as recommended by some surgeons, as the escape was free, and there was little tendency to bagging.

W. G. Kemp, L.R.C.P.Lond., M.R.C.S.Eng.,
Wellington, New Zealand.

### SPINA BIFIDA, TREATED BY THE ELASTIC LIGATURE: RECOVERY.

The series of cases of so-called spina bifida, or, perhaps more correctly, meningocele, which have lately appeared in the Journal, induce me to contribute one which came lately under my care in the Leeds General Infirmary; more especially because I treated it in a different manner from those hitherto published, and the result was not only successful, but much more speedily attained.

M. F., aged 8 weeks, the child of healthy parents (who had previously twice had twins, one only of the four children yet surviving, but none having presented any malformation), was brought to the hos-

pital on January 7th, 1875, on account of a globular bluish-coloured fluctuating tumour in the cervical region, of the size of a tennis-ball, which filled up the hollow between the occiput and the fold corresponding to the tops of the scapulæ. The tumour was pediculated, the pedicle being about the thickness of a man's thumb. The attenuated skin which covered it was too tense to admit of much impulse being felt when the child cried; but its transparency enabled one to recognise the arrangement of blood-vessels characteristic of the cerebro-spinal meninges. On pressing the point of the finger upon the under side of the pedicle, a small hole could be felt corresponding with the deficient arches of two (perhaps only one) of the cervical vertebræ. Here a slight impulse was felt when the child cried. The child was puny, and apparently not possessed of much vitality; but there was no paralysis, nor any deformity of the limbs. The parents were told that it would probably die soon in any case, and that the only chance for it was the removal of the tumour, but that interference was scarcely justifiable. The child was then taken away, but in a week was brought back, the parents saying they had "considered to have something done" if possible. In the interval, the tumour had increased, and became more turgid and tense, seeming as if it would burst. I accordingly admitted mother and child, and having passed a fine elastic ligature four times tightly round the pedicle, enveloped the tumour in cotton-wool. All the first night, the child was restless, crying, and vomiting the breast-milk. Still it sucked, though the milk was rejected directly. A few drops of brandy in a spoonful of warm water given several times, checked the sickness, and thenceforth it began to thrive. The surface of the tumour soon became vesicated and the fluid contents oozed away, reducing the bulk. On the fourth day, the sac was sloughing. The ligature was partially unwound and tightened up. On the sixth day, the pedicle separated, when no hole was visible, nor any oozing of cerebro-spinal fluid from the stump. The sac was examined, and found to be a true meningocele. The wound rapidly healed, and the child gained in weight daily, and was discharged at the end of the fortnight. It may be remarked, that the ossification of the cranial bones was less complete than usual at the age of eleven weeks. The anterior and posterior fontanelles communicated by means of an unclosed sagittal suture, and the sphenoidal sutures were also imperfectly united. When last seen, April 2nd, there was scarcely any scar to be seen, and very slight deficiency in the bones could be felt. The child was plump and healthy, but it had a certain idiotic wandering of the eyes. EDWARD ATKINSON, M.R.C.P.Eng.,
Surgeon to the Leeds General Infirmary.

## NASO-PHARYNGEAL POLYPUS.

C. M., a boy aged 14, having a large naso-pharyngeal polypus, presented himself to me about three months ago. The tumour could easily be felt behind the soft palate. He said that he was in danger of being suffocated by it, especially at night, when he was asleep. I ligatured the free end of the polypus with a bit of fine twine, and, the strangulated portion having sloughed off in two or three days, he has never since suffered from dyspnœa. Having formed a noose with a single knot, I slipped it behind and round the tumour with the fingers of the left hand, and with one finger of the right hand fixed the knot in front of it, when two assistants pulled each one end of the ligature until the tumour was strangulated. A second knot was then made, and the ends of the ligature cut near the knot. In consequence of the persistent efforts at vomiting, provoked by the fingers in the pharynx, there was some difficulty in fixing the ligature on the tumour. This simple plan will obviate the necessity of having recourse to tracheotomy, and will be useful to those who may not feel justified in attempting a radical cure with the knife. A case reported in the JOURNAL of March 13th, and another case reported about the same time in *Le Progrès Médical*, p. 120, in which a radical cure was attempted, terminated both fatally. In C. M.'s case, the portion of polypus removed was about three-eighths of an inch in length.

JEREMIAH DOWLING, M.D., Tipperary.

## LARYNGEAL POLYPUS EXPELLED BY COUGHING.*

MRS. S., aged 51, gave the following history. Her mother died of polypus of the womb at the age of 48. She enjoyed perfect health until thirteen years ago, when, without apparent cause, she became gradually hoarse, and had to clear the throat before speaking, but had no pain or other inconvenience. This continued, "being always worse at the menstrual period", up to one year ago, when she caught cold. Her voice then became reduced to a whisper, and her breathing, especially when lying down, was very difficult. She sought advice, and had her throat sponged with tincture of perchloride of iron, which relieved the hoarseness. Soon after the second application of the astringent, she felt something suddenly loosen in the throat and flap about during respiration. From this time, a loud rattling occurred in the throat whenever she drew a long breath or attempted to lie down, which she could only do on the right side, as, when she lay on the left, something seemed to fall over the passage and entirely stop her breathing. These distressing symptoms continued, depressing her mentally and physically, up to December 29th, 1874, when I was called in to see her, on account of hæmorrhage from the throat, which continued slightly for ten hours, at the end of which time she coughed and brought up a substance, with great relief. The hoarseness continued for a day or two, gradually diminishing. Three days afterwards, she spoke clearly, breathed freely, had lost her careworn expression, and could sleep well in any position. I used the laryngoscope, but could find no scar, and the larynx appeared to be quite healthy. The tumour was oblong, with rounded angles, measured six lines long, three broad, and two thick; it had a red colour and velvety feel, but was quite firm when pressed between the finger and thumb. The pedicle which was attached to one extremity was one and a half lines long by half a line thick. Under the microscope, it presented the appearance of myeloid sarcoma.

ARTHUR WILLIAM ROBSON, M.R.C.S.Eng., Leeds.

## DISLOCATION OF THE KNEE (LATERAL.)

THE following case, which was under my care, occurred on board a ship at sea seven months ago. An ordinary seaman was ordered aloft to loosen the foretop gallant sail, after some heavy weather, the vessel still rolling heavily. While engaged in doing so, the sail now loose and flapping, flew up in his face and knocked him off the yard, and he fell on to the forecastle below, a drop of about fifty feet. On examination, his injuries, besides severe contusions, comprised fracture of the lower third of the tibia and fibula of the right leg, and dislocation at the knee of the left tibia, externally; the outer condyle of the femur could be felt resting on the inner articular surface of the tibia. Reduction was easily accomplished by flexing the thigh on the abdomen and extending the leg; and a little rotation and manipulation succeeded in restoring the bones to their proper positions. A long splint to the outer side, and a short one to the inner side of the limb, together with cold lotions to the knee (which was much swollen), was applied. Complete immobility was furthermore guaranteed by long sand-bags on each side of the leg. After a fortnight, when the swelling at the knee had considerably gone down, tincture of iodine was painted all round the joint, and the latter was firmly and evenly strapped. Under this treatment, twice repeated, the swelling entirely subsided. I thought it better to limit motion in the joint for some time to come; a gum-and-chalk bandage was, therefore, put on, which was made removable at pleasure. The injuries of the other leg were attended to, and the lad made an excellent recovery. Six weeks after the accident, he was able to move about on crutches, although cautioned to use great care.—J. EDWARD SCHÖN, M.R.C.S.Eng., Kilburn.

## COTTON-WOOL IN THE TREATMENT OF EAR-DISEASE.

WHILE perfectly aware of the improvement in hearing sometimes resulting from the insertion of small pledgets of cotton-wool (or similar substance) into the meatus auditorius in cases of perforation of the membrana tympani, my object in writing was to obtain opinions on the relative value of cotton-wool, charpie, and lambs'-wool when introduced into the meatus (when there is any discharge from that canal), whether they be used for the purpose of pressing on the membrane or not. On this point, Mr. Hodgson does not touch in his note of March 27th. Gruber (*Lehrbuch der Ohrenheilkunde*, page 251) insists strongly that the retention of fibres of cotton-wool in the meatus is not a theoretical consideration, but that practically, since he has abandoned cotton-wool, he has had to treat much fewer cases of abscesses, diffuse inflammation, etc., of the meatus. As the discussion of this question has touched on the treatment of perforations of the membrane by artificial appliances, I should like to mention Gruber's modification of Toynbee's artificial membranes, in which wire is dispensed with, and the patient is able to make his own membranes. Through the centre of a circular piece of thin India-rubber is passed a piece of silk, and firmly knotted on one side; on the other, it is cut off about three inches long. The forceps used to place this membrane in position has the following construction. From the extremity of one of the blades of a short pair of broad-bladed forceps springs, at an angle of about 130 deg., a thin steel rod, two inches long, having fixed at its extremity a very small ring. The silk of the membrane having been passed through this ring, the membrane is drawn up to the ring, and held in that position by the silk being grasped between the blades of the forceps. The membrane can now be introduced and left in the required position by releasing the silk from the grasp of the forceps. The silk can then be cut off to the required length, and the end of it tucked into the concha. The forceps seems to be improved if the blades be made to cross, as in the bull-dog forceps. Last year, I saw this instrument at Vienna, and the above description is taken from what I then saw of it. I have had one or two made since my return, and they seem to me a decided improvement over the membranes with wires. Besides the advantages that the patient is able to supply himself with membranes, and that no wire is left in the ear to move about when firmly knotted, the silk is said to be much less liable to be loosened from the membrane than the wire.

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* Read before the Leeds and West Riding Medico-Chirurgical Society.

E. CRESSWELL BABER, M.B.Lond.

# REPORTS

OF

# MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

## HERBERT HOSPITAL, WOOLWICH.

### CASE OF POPLITEAL ANEURISM: TREATMENT BY COMPRESSION: RECOVERY.

(Communicated by Surgeon W. W. QUINTON, Army Medical Department.)

J. W., AGED 40, twenty years' service, a sergeant-blacksmith in the School of Gunnery at Shoeburyness, was sent up from that station to Woolwich on January 23rd, 1875, and was admitted on the same date into the Herbert Hospital, with a superficial pulsating tumour about the size of a turkey's egg, and of the same shape, occupying the lower half of the left popliteal space.

He stated that he first noticed the tumour about ten days previously, and that he could assign no cause for its appearance; that he had been a married man for the last thirteen years; that in his youth he had had an attack of venereal disease, but never secondary symptoms of any kind. The heart-sounds were normal, and his general health good. Pressure on the femoral artery at any point quite stopped pulsation in the tumour.

The leg being semiflexed and laid on its outer side, treatment by compression was commenced at 11.50 A.M., on January 24th, by means of two thigh-compressors; one for the upper part of the femoral in the groin; the other for the artery at the lower portion of Scarpa's space. The pads of the above instrument were to be used alternately, with a view to completely arrest the flow of blood through the tumour.

January 25th. Pressure had been endeavoured to be kept up; but, on account of the pads being too hard and conical, the circulation into the tumour was not altogether arrested. He had half a grain of muriate of morphia last night, and slept three hours.

January 28th. Pressure had been continued as above; when it was relaxed, the tumour pulsated.

January 29th. Pressure was constantly kept up yesterday to 8 P.M., when a very severe paroxysm of pain in the leg came on. Twenty-five grains of chloral-hydrate gave no relief; nor did forty minims of Battley's sedative. Subsequently, the pain was so intense, that no pressure could be borne, and it was wholly left off. After a second draught of Battley's sedative (forty drops), he fell asleep and slept till three o'clock this morning, when finger-pressure by relays of orderlies was commenced.

January 30th. Digital and mechanical pressure kept up alternately as far as possible to 7 P.M. yesterday, when two new thigh-compressors, which had been procured during the day from Messrs. Evans and Wormull by Surgeon-Major Manley, V.C., were applied over the artery—one high up in the groin, the other about the middle of the thigh—to act on the vessel alternately. The pads of these instruments were well stuffed; those of the previous two were of plain ebony, uncovered, and for that reason could not be borne for any time. These instruments had been acting well through the night (he could bear either of them for an hour at a time), completely arresting the flow through the tumour, and were still borne without any great amount of irritation. The leg was slightly œdematous, but there was no pain or loss of temperature. Forty minims of Battley's sedative were given last night, and afforded much sleep.

January 31st. Pressure was kept up as above all yesterday and through the night. From 3 P.M., there was uneasiness, as of cramp in the calf of the leg; and, at 8 P.M., paroxysmal and excruciating pain came on in the same place and over the whole of the knee-joint. Under the advice and personal superintendence of Surgeon-Major Manley, pressure was not relaxed, but opium was given as under: Battley's sedative—forty drops at 8.30 P.M.; twenty drops at 8.40 P.M.; twenty drops at 9.5 P.M.; and twenty drops at 9.30 P.M. The influence of the drug became apparent after the last dose, and he had sound sleep from 10 to 12.45 P.M., during which time pressure was kept up by one instrument without inconvenience or pain. At 12.45, the point of pressure was changed by the other instrument being made to act, and he slept till 3.15 A.M., when, pain coming on again, twenty drops more of Battley's sedative were given, and since then he had had much sleep and but little pain. When pressure was relaxed, pulsation returned in the tumour.

February 1st. He had spent the last twenty-four hours without pain, and had slept much during the night, pressure having been kept up constantly so as to completely arrest the flow through the tumour. The compressors were now removed (10.30 A.M.) and no pulsation in the tumour was perceptible. There was much œdema of the limb, but the temperature was good. Perfect rest was enjoined; the leg was kept semiflexed on the thigh; a flannel roller was applied from the foot upwards.

February 2nd. He had passed a good day and night with the aid of forty minims of Battley's sedative at 10 P.M. The œdema decreased. There was no return of pulsation.

February 3rd. There was no pulsation, no pain; the œdema was subsiding.

February 4th. He had a good night's rest, and was doing well. The leg was slightly extended. The tumour was well defined and hard. Perfect rest was enjoined.

February 6th. The œdema had quite disappeared from this date, the tumour continuing to become consolidated; strict rest in the recumbent position was maintained up to March 1st, when he was allowed to sit up in bed.

March 5th. He was permitted to walk about the ward. The flannel roller was continued.

March 21st. He had a walk in the garden.

April 14th. The tumour had been gradually decreasing in size until now no trace of it remained. He was this day discharged from the hospital with free use of his leg, in order that he might join his family at Shoeburyness and resume his duties there.

The points of interest in this case seem to be as under:

1. The large size of the tumour, and from its pulsation so near the surface, the short time which seemed available for treatment;
2. The marked benefit derived from the use of opium and the large amount of this drug which had to be given on the night of January 30th, before the pain was allayed. Without it, the treatment by compression, which resulted so favourably, would certainly have had to be discontinued.

## WESTERN INFIRMARY, GLASGOW.

### CASE OF LINEAR ATROPHY OF THE SKIN.

(Under the care of Dr. MCCALL ANDERSON.)

[Reported by CHAS. J. PLUMER, M.D.]

J. M., AGED 16½, was admitted into Ward 11 of the Western Infirmary on January 26th, 1875, complaining of partial falling of the hair, with occasional sensations of stinging and formication in the skin of the scalp, and increasing distortion of the face, of eighteen months' duration. The patient, who is very tall for his age, and rather thin, but otherwise healthy in appearance, stated that he had always enjoyed good health, with the exception of scarlet fever, when fourteen years old, from which he made a good recovery. His occupation, that of an engineer, is laborious, and entails exposure to alternations of heat and cold; but he has always been well cared for, and his habits have been temperate. Eighteen months ago, the hair began to fall out from the middle and anterior part of the scalp; and, about eight months later, he noticed that the skin of the middle of the forehead was somewhat thinner and paler in colour than that covering the rest of the face; the contrast in colour being most marked in cold weather. At this time, also, he began to be troubled with creeping and pricking sensations in the scalp. This change in the appearance of the skin extended downwards gradually over the front of the nose, and to the chin, and the nose became slightly drawn to the left side.

On admission, the patient's general health was good; but slight comparative dulness, and some roughening of the respiratory murmur, were detected at the apex of the right lung in front, and also at the right shoulder. A portion of the scalp (extending from near the crown forwards, about two inches broad and three inches and a half antero-posteriorly) was denuded of hair; on this part, and over the forehead, a little to the left of the middle line, the skin, to the breadth of an inch and a half, was decidedly paler in colour, less easily moved by the subjacent muscles, thinner, and less easily pinched up; and showed more distinctly the inequalities of the bones beneath, than that covering the surrounding parts. The same change was observable on the front of the nose, and on the left side of the chin. The nose was drawn slightly to the left side; the left eyebrow was paler in colour and less bushy than the right; the left side of the chin, and, indeed, the whole left cheek, appeared smaller than the right; and the portion of the tongue on the left side of the dorsal furrow was both narrower and thinner than that on the right. The comparative sensitiveness of the skin on the two sides of the face was carefully tested (by Dr. Knox), with the following result:

| Parts supplied by the | | Distance between the points of compasses, when *two points* could be distinctly felt by the patient on the | |
|---|---|---|---|
| | | Right side. | Left side. |
| Supra-orbital | Nerve | 12-16ths inch. | 11-16ths inch. |
| Nasal | ,, | 15-16ths ,, | 13-16ths ,, |
| Infra-orbital | ,, | 8-16ths ,, | 8-16ths ,, |
| Mental | ,, | 8-16ths ,, | 8-16ths ,, |
| Auriculo-temporal | ,, | 1.6-16ths ,, | 15-16ths ,, |
| Buccinator | ,, | 1.6-16ths ,, | 14-16ths ,, |
| Tongue and side of Lip | | 7-16ths ,, | 6-16ths ,, |

It was also found that the interrupted galvanic current could be more distinctly felt on the left side of the face generally than on the right, but as well on the affected portions of the skin (excepting the scalp) as on the sound parts of the left side.

No affection of the cornea could be discovered, and the patient could read equally well with both eyes; nor were the other special senses at all impaired.

There are some points of resemblance between this case and the atrophic lesions of the skin noticed by Dr. Kaposi, in Hebra's *Diseases of the Skin*, vol. iii, 1874 (translated by Mr. Waren Tay, and published by the Sydenham Society), who says: "White scar-like streaks, and spots, round or oval, varying in size from that of a bean to that of half a crown, are occasionally met with in women who have never been pregnant, and also in man. . . . By the touch, we detect that these streaks and spots are somewhat depressed below the level of the surrounding skin, and that where they occur the skin is thinned. If a finger be passed over the affected part, we obtain the impression that the portions corresponding to the atrophied streaks are situated in a depression or furrow of the skin. . . They are most frequently met with in the neighbourhood of the anterior brim of the pelvis, over the gluteal muscles, and in the neighbourhood of the trochanters; less frequently on the anterior surface of the thigh, and on the extensor surfaces of the arm." On microscopic examination, he found the epidermic and mucous layers very much atrophied; the latter lay flat on the corium; after addition of acetic acid, the Malpighian layer separated in its entirety from the corium, the surface of which showed an uniform contour without any conical projections. The separated mucous layer showed a similar flat surface, unprovided with depressions for the papillæ, towards the corium. The papillæ, therefore, had entirely vanished. The network of connective tissue and elastic fibres consisted of very thin bundles, between which only extremely few and slender blood-vessels existed. The subcutaneous fat-lobules were devoid of fat-cells; the acini of sebaceous glands were indicated only by isolated roundish nests of molecular, yellowish-brown masses; one or two attenuated hair-follicles were found, with fine hairs, whose root-sheath was made up entirely of flat epidermic lamellæ. No trace of the cells of the outer root-sheath to be seen; no indication of any sweat-glands.

B. S. Schultze, who examined several hundred cases, found that, in thirty-six per cent. of women who had never been pregnant, or who were not far advanced in pregnancy. and in twenty-five per cent. of tall men, the streaks existed upon the thighs and buttocks. He is therefore of opinion that the rapid growth of the pelvis causes this partial atrophy by stretching the skin; that in women, in whom the pelvis increases chiefly in breadth, streaks occur, having a direction chiefly parallel to the long axis of the body; while in men, in whom the pelvis increases rather in length, the streaks take an oblique course.

Erasmus Wilson, in vol. i of the *Journal of Cutaneous Medicine*, p. 143, and in *Diseases of the Skin*, p. 404, speaks of striæ atrophicæ neuroticæ as lines in the skin corresponding with this course of a cutaneous nerve, and produced by atrophy of the tissue of the corium, consequent on paralysis of the nerve, and gives two cases. In the first, a lad aged 17, who had received a blow on the forehead, while flushed with excitement, perceived, on the reddened skin of the forehead, a white line, which followed the course of the supraorbital nerve, from the inner extremity of the eyebrow to the vertex of the head. A few years afterwards, the skin in the course of that line became anæsthetic and atrophied; and a similar disorganisation on the side of the root of the nose, and on the ala nasi, showed that the nasal as well as the frontal nerve was involved in the injury. In the second, a young man, aged 17, of nervous temperament and weakly constitution, suffered severely from frequent attacks of catarrh, and occasionally from hay-asthma and violent sneezings. On the morning following an unusually prolonged fit of sneezing, he observed a white streak crossing his forehead in the direction of the supraorbital nerve. The streak, by degrees, became insensible and attenuated, and ended, finally, in a permanent fissure, which, twelve years later, resembled the mark left by a sword-wound of the skin.

In a work *On the Treatment of Diseases of the Skin*, by Dr. McCall Anderson, 1872, three cases of atrophy of the skin are mentioned; in two, the atrophy consisted of a narrow white depressed line, extending from the supraorbital notch nearly perpendicularly over the brow, along the track of one of the branches of the supraorbital nerve; in the third case, the atrophy implicated small irregular patches of skin upon the leg, brow, upper lip, and neck, below the right ear. These were regarded as neurotic affections, but no explanation could be given of their occurrence.

Louis Lande, in *Essai sur l'Aplasie lamineuse progressive, celle de la Face particulière*, Paris, 1870, refers to an atrophy following measles, angina, impetigo of face, pains in the head, etc. The disease began with peeling of the skin, the sensibility nothing much impaired, and, in ten out of eleven cases, affected the left side only; the lips, tongue, and palate, might also be atrophied. He regards the affection as one essentially of the cellulo-adipose tissue, and independent of any affection of the trophic nerves—hence his term *l'aplasie*.

Again, in the *Gazette Médicale de Paris*, April 24th, 1875, a case of atrophy is mentioned (occurring in a woman in the third month of pregnancy), extending from the root of the nose to the fronto-parietal suture, in the middle line; of which the writer says that it is the first case of the kind in which the lesion has been observed in the middle line; and on account of this central position, and, also, because no antecedent injury or other cause for its occurrence was known, he concludes that it cannot be due to any lesion of the trophic nerves, but that it is another instance in support of M. Lande's opinion, above referred to.

While there are many points of resemblance between the case at present under Dr. McCall Anderson and those referred to by different authors, there are others which deserve special mention. On looking at the lad's face, it is at once apparent that there is some general unilateral deformity, and that this depends in great measure upon a difference in the size of the usually symmetrical bones of the two sides, and is not altogether due to a loss of substance in skin and subcutaneous tissue. The left ramus of the lower jaw is shorter by about an inch than the right, while the left half of the body of that bone is shallower and less bulky than the right, though equal to it in length. The superior maxillary and malar bones of the left side also appear to be somewhat smaller than those of the right. Again, the whole substance of the left cheek, including the buccinator muscle, seems to be less bulky than that of the right; and this accords with the patient's statement that he generally avoided masticating on the left side, because he found some difficulty in keeping the food between his teeth, and that the mucous membrane was apt to be bitten when he tried to do so.

It is also particularly to be noticed that, instead of being anæsthetic, as in Wilson and Lande's cases, the skin over the affected parts is rather more sensitive to touch and to galvanism than that covering the rest of the face; and the affected is also more sensitive than the healthy side of the tongue. The atrophy, again, in this case seems to be purely idiopathic, inasmuch as there is not the least suspicion of any injury which might have, either directly or indirectly, led to it; though it must not be forgotten that, in the chest, we have some evidence of a tendency, at least, to degeneration of tissue.

The treatment adopted has been simple. Soon after admission, the patient was ordered a mixture containing wine of iron and Fowler's solution; which, except for a few days, when it seemed to cause some gastric disturbance, has been steadily continued; good nourishing food, and daily exercise in the open air in fine weather. During the last two months, the continuous galvanic current (four to eight cells of a Stöhrer's battery) has been applied to the atrophied parts of the skin, by passing a carbon pole lightly over them, and also to the tongue. For the last week or two he has had cod-liver oil. It is satisfactory to be able to record some improvement, however slight, in such a case. The affected portions of skin are not so definitely marked as they were, and more nearly resemble the rest of the face in colour and texture. They feel thicker when pinched up, and are more easily moved by the underlying muscles. The left cheek is less flat than it was, and the patient says that he can now masticate without difficulty on that side. The nose, also, is less drawn towards the left side. The dulness and roughened breathing are still present at the right apex; but the general health continues perfectly good. There is, therefore, ground for hope of at least an arrest of the atrophy, though it is, perhaps, too much to expect the entire removal of so extensive a lesion.

# REVIEWS AND NOTICES.

## VITAL STATISTICS OF OUR CONVICT POPULATION.*

In an introduction to this publication, which takes the form of a small "Blue Book", Colonel Ducane, the Chairman of the Directors of Convict Prisons, points out the peculiar fitness of Dr. Guy for undertaking such a work; and we know no one better qualified than he is to arrange figures carefully and instructively, or to express in words their real value and signification. If, therefore, in the following remarks, we question some of the conclusions at which Dr. Guy has arrived, we do so rather by supplying considerations which, we think, ought to have been taken into account, than by doubting the accuracy of his tables and figures, or by any attempt at their rearrangement.

The "results" before us comprise the first and second parts of a consideration of a convict census taken in 1862, and of another taken in 1873, the same day (March 31st), being chosen in each case. In Section 1 of the first part, Dr. Guy gives some tabular information regarding the mental and bodily condition of male and female convicts as they were found in 1873. This he embodies in the following statements.

"Nearly half our male convicts are able-bodied; more than a fourth healthy, but not robust; and less than one-fourth either ill, or fit only for light labour."

"More than three-fifths of our male convicts are free from infirmity or defect; more than one-fifth are subject to deformity or defect, congenital or acquired; and much less than one in five are diseased in body or mind."

He then adds the general comparison, that "fewer women in proportion can be termed able-bodied or healthy, while a much larger number are either ill or fit only for light labour".

From the same tables, the following conclusions are drawn. "Male convicts are less subject to nervous disorders, but more liable to chronic diseases, than female convicts; while a larger proportion of male than of female convicts are subject to deformities and defects, congenital or acquired." He adds, that "the excess under the head of deformities or defects may probably be explained by the greater number of mutilations self-inflicted by male convicts". Looking to the numbers, we find that 199 female convicts per 1000 are physically deformed or defective. This seems to be a large proportion; and, in relation to it, we are not surprised to find that 32 per 1000 more among the males should be similarly conditioned. We would not, with Dr. Guy, seek the explanation of this excess in the greater frequency of self-mutilations among the males. With the exception of a run of cases that took place at one prison, we believe that such self-mutilation as would result in "bodily deformity or defect" is not common among male convicts, and that among females it is practically *nil*. We would rather expect to find that the explanation of the excess lies beyond the prison-walls, and in the greater liability to accident which men have in following laborious or dangerous occupations outside.

Section 2 takes up the comparison of the male convict population of 1873 with that of 1862, as regards fitness for labour, and shows the mental and bodily condition of both males and females. Regarding the labour-capacity of the men, the following are the results: the numbers being reduced to the uniform scale of 1000.

| | 1862. | 1873. |
|---|---|---|
| Able-bodied ... ... ... ... ... | 477 ... | 484 |
| Healthy, but not robust ... ... ... | 243 ... | 286 |
| Not healthy, but fit for light labour ... ... | 228 ... | 166 |
| Ill and under treatment ... ... ... | 52 ... | 64 |

"The figures in this table", says Dr. Guy, "do not justify the impression which appears to prevail among some medical officers of convict prisons, that the male prisoners have degenerated, and become less fit for labour, since the date of the first census. With the exception of some increase in the prisoners under treatment for illness, the figures of the table favour the belief that the convicts, as a class, are more fit for labour in 1873 than they were in 1862." He continues:— "Nor do the figures of the following table, which exhibits the bodily and mental condition of male convicts in 1862 and 1873, encourage the belief, that the prisoners, as a class, are physically degenerate. There were more men in 1873 free from infirmity or defect than there were in 1862; fewer of the other three classes."

| | 1862. | 1873. |
|---|---|---|
| Weak mind, insanity, and epilepsy ... ... | 41 ... | 30 |
| Scrofula and chronic disease of lungs and heart | 111 ... | 109 |
| Deformities or defects, congenital or acquired | 247 ... | 231 |
| No infirmities or defects ... ... ... | 601 ... | 630 |

These statements of Dr. Guy are of vital importance in all questions regarding the health and sanitary relations of our convict prisons and their inmates; and, as we believe the data upon which they are made to be incomplete, we decline to accept them as a true exposition of the case, and we make no apology for entering more fully into the matter than was our original intention. Now, what position do we take up with regard to the statements just quoted? We admit that there are more male convicts in 1873 free from infirmity or defect than there were in 1862; but we cannot admit that this negatives the impression, that the prisoners, as a class, have degenerated and become less fit for labour; and why? Because male convicts, free from infirmity or defect (*i.e.*, healthy able-bodied convicts), were sent abroad in considerable numbers up to the year 1862, whereas the same class of convicts was retained at home for some years prior to 1873. Let us see what the relative numbers were. Taking the three years preceding 1862, we find that, out of an average population of 6,323 male convicts, 1,552 were transported; while, in the three years preceding 1873, only 80 prisoners were sent out of this country from an average population of 8,205. Or, taking it at an uniform rate, only nine men per 1,000 were transported just before the census of 1873, while as many as 245 per 1000 were transported before that of 1862. And, as only healthy and able-bodied men—men free from infirmity or defect—were transported, it thus happens that the large proportion of 236 of the healthiest convicts per 1,000 of population were retained and included in the 1873 census, as compared with the census of 1862. Surely this must be taken as exerting a most material influence on the comparative estimate as to health and fitness for labour at the time of the two censuses; and yet Dr. Guy does not mention it. We cannot bring ourselves to accept conclusions on this subject drawn from tables which leave out the important correction due to the question of transportation. It does not concern us here to prove that the impression of "some medical officers of convict prisons" as to the comparative physical degeneracy of prisoners since the date of the first census, is correct: all we care to show is that, upon Dr. Guy's data and figures, this impression is not proved to be unjustifiable.

With regard to the smaller number returned in 1873 under the head of "not healthy, but fit for light labour", it may be worth bearing in mind that the "charm" and attraction of light labour is greatly reduced since the first census by the fact that, on the "mark" system, men in light labour lose time, and are kept longer in prison (and perhaps have less food); so that convicts nowadays prefer to exert themselves, and work at ordinary labour rather than forfeit liberty. But, taking it for a moment that Dr. Guy is right in limiting himself to the tables he gives, and in drawing therefrom the conclusion, that there are more men "free from infirmity or defect" in 1873 than in 1862, even this will not necessarily negative the impression of prison medical officers referred to; for, granting that a greater number reach the standard of "able-bodied and healthy", this is no proof that the general physical capacity for labour of men so returned is also greater; nor is it in itself a proof that this capacity has not degenerated. Let us take the case of a regiment with its fixed standard for recruits. It is surely possible for a surgeon to find that, although the numerical strength of his corps is no less than it was ten years ago, the physical capacity of the men has appreciably fallen away; that there are fewer who rise high beyond the standard, and a larger proportion who just pass, and no more. Such a surgeon would be quite justified in forming an impression that the soldiers of his regiment, although quite as numerous, or more so, were nevertheless not the same class of men that they used to be; that, in fact, as a body, they had physically degenerated. This, we take it, is the sort of impression formed by prison medical officers regarding the prisoners (with no recruiting standard) who pass through their hands.

Now, curiously enough, Dr. Guy finds that female convicts who, we would point out, *are not affected by the question of transportation*, have very considerably degenerated, as the following table, corresponding with that given for males, shows.

| | 1862. | 1873. |
|---|---|---|
| Weak mind, insanity, and epilepsy ... ... | 24 ... | 38 |
| Scrofula and chronic disease of lungs and heart | 85 ... | 90 |
| Deformities or defects, congenital or acquired... | 136 ... | 199 |
| No infirmities or defects ... ... ... | 755 ... | 673 |

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* *Results of Censuses of the Population of Convict Prisons in England taken in 1862 and 1873.* By William A. Guy, M.B., F.R.C.P., F.R.S., formerly Medical Superintendent of Millbank Prison. Blue Book: Spottiswoode and Co.

He attempts no explanation of this most marked falling off in the comparative condition of the females.

Now, as we have no reason to think that the physical relation between the male and female convicts of 1873 was in any way different from that of 1862, and as there has been evident and unexplained deterioration in the females, we seem in this to have grounds which go to support the impression as to the degeneracy of the male population.

Section 3 of this part deals only with the results of the census of 1862 as to age, mortality, and mental condition in relation to crime. The question of mortality in convict prisons as it was fourteen years ago, and in its relation to the death-rate among certain selections from free populations is so complex and hypothetical in many respects, that we cannot attempt to enter upon it here. Some curious comparative results are shown, not unfavourable to the convict population.

Part 2 enters upon the rates of mortality prevailing in our convict prisons at different periods. It is shown that the average annual mortality of male convicts for the eighteen years ending with 1872 is 139; of females, 142; and that the annual mortality in both sexes is liable to considerable fluctuation.

Dr. Guy points out that there is an increase in the death-rate of our convicts, male and female, of late years; that, comparing the eight years ending with 1870 with those ending with 1862, this increase among the males is no less than 20 per cent. And he adds, "Speaking roughly, a half of this excess of mortality prevailing among convicts is due to causes which they share with outside populations". And the same is said to be true of the females. What about the other half of the increase in the death-rate of late years? If it be not due to causes which convicts share with outside populations, it should be traceable to some cause or causes peculiar to convicts. Now, at page 33, Dr. Guy gives a tabular comparison of the deaths of males in convict prisons, and out of them, and he says that "the question whether our convict prisons have a special death-rate due to causes operating within the prisons themselves, and independent of those that affect the free population, is so far answered in the negative, and he has already (page 25 *et seq.*) expressed his belief in the satisfactory sanitary condition of the convict establishments. This leads us rather into a fix. What do Dr. Guy's "results" show? They show: 1. That there is an increased mortality in later years among both male and female convicts, especially among the former; 2. That one-half of this increase is due to causes common to convicts and free population, leaving the other half (no inconsiderable number) to be accounted for on special grounds from the convict side; 3. But our convict prisons in themselves have no cause for a special death-rate, and their sanitary condition is satisfactory; 4. That, while the health-returns for females are unfavourable, and point to a degeneracy in 1873 as compared with 1862, those for male convicts are favourable, and show a higher standard of bodily condition, thus nullifying the impression of some medical officers as to their degeneracy. (We here leave out, as Dr. Guy does, all notice of transportation and its effects. According to these "results", we have among the female convicts an increased death-rate, which is in keeping with the general signs of physical degeneracy, and which is not out of harmony with the considerations that apply to the circumstances. But, as regards the male convicts, we are asked to believe that, as a body, they are comparatively stronger and more healthy, while there is a considerable increase in the number of deaths as well as in the number "ill and under treatment"; and this in the absence of any special prison cause for mortality.

To sum up: the comparative increase which Dr. Guy has shown to have taken place in the mortality among convicts in late years must connect itself with one or more of three conditions: 1. Influences common to convicts and free people; 2. Influences peculiar to convict prisons; 3. Physical degeneracy of the class received into convict prisons. One-half of the increase Dr. Guy puts down to "common influences"; the other half—*i.e.*, the surplus increase beyond that arising from common influences—must rest with peculiar prison influences and with physical degeneracy, the two other conditions. But we take it, on Dr. Guy's showing (in which, we believe, he will receive the general support of prison medical officers), that the existence of such unfavourable influences peculiar to convict prisons cannot be made out. We are, therefore, left with "physical degeneracy" as the explanation of the "surplus increase". This we have seen to be the case among the females; but, as Dr. Guy does not admit, even on the testimony of "some medical officers of convict prisons", that male convicts have degenerated, we leave him to furnish some other explanation. Meanwhile, we prefer looking upon the increased mortality among male convicts as going *pari passu* with some amount of physical degeneration as among the female convicts, and not as concomitant with greater health and strength, in which case we would be compelled to fall back upon a faulty condition of the prison arrangements and system as the cause of the special increase. But here we must leave the subject.

There is a good deal of interesting matter brought out in this publication, and we regret that we are not able to take it up. We can recommend these "results" as well worthy of perusal and study.

We have endeavoured to show where the risk lies in accepting Dr. Guy's conclusions. If he had confined himself to absolute statements regarding the two censuses, no one was better able to give the returns a just and practical interpretation. As it is, he has instituted comparisons between the two years and periods upon figures, and without taking all the modifying influences into consideration. He has even challenged as unjustifiable the impressions arrived at by prison medical officers; upon what grounds, and with what success, we have seen.

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MANUAL OF PUBLIC HEALTH FOR IRELAND. By THOMAS W. GRIMSHAW, M.D., etc.; J. EMERSON REYNOLDS, F.C.S., etc.; ROBERT O'B. FURLONG, M.A.Dub., Barrister-at-Law; and JOHN WILLIAM MOORE, M.D., etc. Pp. 336. Dublin: Fannin and Co. London: Longmans, Green, and Co. 1875.

As stated in the editor's preface, a Manual of Public Health for Ireland became a necessity on the passing of the Public Health (Ireland) Act, 1874. The Irish Act differs from those passed for the rest of the kingdom, in that it lays down who are to be sanitary officers, and places the duty on the dispensary medical officers; provision being of course made for the appointment of others in addition, as well as superintendent officers, where it seems necessary to do so. Although in England it practically happens that the Poor-law medical officer is frequently appointed officer of health for his district, he is not necessarily so; whilst the different circumstances, arrangements, and extent of districts in Ireland make the position of health-officers in that country somewhat peculiar. It was, therefore, an urgent necessity to publish a work of this sort for their instruction and guidance; and accordingly the authors of the present treatise have taken for their model the manual published in England by Mr. Ernest Hart and his coadjutors.

The earlier part (Chapters I and II) is devoted to a *précis* of the Sanitary Acts which have been passed for Ireland, and a compendium of the duties required from sanitary officers. Chapter III gives a complete list of the Acts both in present operation and now repealed, as well as an alphabetical table of miscellaneous Acts bearing on public health; followed, in Chapter IV, by a copious index to all the Acts. This part of the work seems well arranged, and will be especially useful to sanitary officers and their subordinates. Chapter V contains a good and simple digest of the principles of statistics, compiled chiefly from Parkes, Quetelet, and Radicke. The suggestions for the statistics of *disease* refer to a want much felt by scientific inquirers; but we cannot help regretting the use of the barbarous word *morbility*, which, in sound at least, is suggestive of *measliness*. *Morbosity* even would be better, although not a pretty word. The succeeding chapters are devoted to the statistics of births and deaths, in which the particulars on those points as regards Ireland are gone into, with a somewhat surprising result, for the births in Ireland to those in England appear to be only as four to five; the general and, we believe, well founded belief being that the Irish are particularly prolific. This was clearly shown by the comparatively large population up to the famine of 1845-7; and the statistics quoted are more probably due (as suggested by the Registrar-General of England) to defective registration, than to anything radically different in the constitution of the race. Some remarks upon the influence of temperature on mortality confirm the views of Dr. Arthur Mitchell mentioned in the BRITISH MEDICAL JOURNAL of February 20th; viz., that cold affects chiefly the aged, and heat the infant population. Thus, in Dublin, in the years 1867 and 1868, the following were the details.

| | | Deaths under 5 years. | Deaths over 60 years. |
|---|---|---|---|
| 1867, the first quarter of which was intensely cold.......... | 1st quarter. | 24.9 per cent. of total deaths. | 23.5 per cent. of total deaths. |
| 1868, a year of great heat..... | 3rd qr. | 41.5 do. do. | 16.9 do. do. |

Chapter VIII is devoted to the question of population, and forms a good digest of the subject, both as a general question and as a particular one affecting the United Kingdom, and especially the Irish part of it. We observe a misprint on page 128, line 18 from the bottom, where the actual increase of the population in England and Wales during the present century is stated to have been 1.55 per cent., whereas it ought to be 155 per cent. Chapter IX gives a brief sketch of physical development, chiefly from the researches of Quetelet; quoting also Principal Forbes's tables, which show the superior average size and strength of Irish over English and Scotch students of the same ages. Chapter X gives a summary of preventable diseases, and Chapter XI a *résumé* of the causes and favouring conditions of zymotic diseases in general; whilst Chapter XII treats of special zymotics. The next chapters refer briefly to diseases caused by insufficient and unwholesome food, to constitutional diseases, and to the diseases of artisans. Chapter XVI treats of diseases arising from vicious habits, including drunkenness and venereal diseases; and here we are glad to see that the authors fully appreciate the value of the Contagious Diseases Acts in checking the progress of disease, and we would commend to the opponents of the Acts the following paragraph.

"Why should not the benefit of the Contagious Diseases Acts be extended to the civil population, it having been proved by experience that these Acts are efficient for the diminution of venereal disease? Legislation for the prevention of venereal diseases, although tending to increase the safety of the people, cannot be described as protection for prostitution. Prostitution and the keeping of houses of ill-fame are not in any way legalised by the enforcement of the Contagious Diseases Acts, although there is a popular belief that such is the fact. The case is almost entirely parallel to that of legislation with regard to drunkenness. Drunkenness and the promotion of drunkenness in public-houses are treated by the State as crimes; so is prostitution. A drunkard is prevented by the State from inflicting physical injury upon himself or his neighbours when drunk, by his arrest and confinement; but such taking care of a drunkard is not considered by any one a protection and prevention of alcoholic excess. So the prostitute, when dangerous from being affected by venereal disease, is prevented from inflicting physical injury on herself or others (or the children of herself and others, for the disease is hereditary) by arrest and detention until harmless; but in neither case does the State protect or approve of the moral sin of alcoholic excess or of illicit sexual intercourse."

The succeeding chapters treat of food, adulteration, water-supply and water-analysis, ventilation, sewage, contagion and disinfection, hospital-construction, and meteorology. To our mind, this is the weakest part of the book, for there are several inaccuracies; and the section is both redundant and deficient, for much is left out that might well be put in, whilst some of the processes are complicated, and others of but little practical usefulness. Probably further experience of the requirements and capabilities of sanitary officers will bring about an improvement in this direction, and thus increase the value of an otherwise handy and useful work. At the end, there are appendices giving a directory of the sanitary districts in Ireland, a list of chemical reagents and apparatus, and tables of meteorological constants.

## NOTES ON BOOKS.

SALT'S *Medical Electrical Apparatus, and how to use it*, is one of the best catalogues of apparatus which we have seen issued by any instrument-makers. It is very freely illustrated, and generally very correct. The intending purchaser will find here a good guide of shapes, prices, etc., provided he already knows his own mind as to his wants; otherwise he will be at a loss in selecting. A preliminary perusal of Dr. Althaus's excellent report on modern medical electric and galvanic instruments will clear his views on the subject, and help him to make his selection.

STRICKER'S well known and splendid *Manual of Histology* does not need here a new eulogy at our hands. Its value as an elaborate exhaustive treatise, including the most recent discoveries and methods of investigation, is fully established and widely known. There has lately appeared an excellent American edition, for the most part translated—and most excellently translated—by American authors. It is published by W. Wood and Co. of New York, and Trübner of London. It forms a great octavo volume of 1,100 pages.

WE have before us the Annual Reports of two asylums,* to which attention was much directed during the superintendence of their late chiefs, Dr. Clouston and the lamented Dr. Thurnam. Though the present reports are brief, they tell a satisfactory tale of usefulness; the proportion of recoveries at the Wilts being 48.5 of the admissions, a higher percentage than has been reached during the last six years; while that of the Cumberland is 46.6. The average in all the English county and borough asylums, as given in the last Report of the Commissioners in Lunacy, was only 33.95 per cent. The deaths at the Wilts Asylum were 16.8 per cent. on the average daily number resident. Dr. Burman remarks on this unusually high rate of mortality, which is, he says, attributable to the very unfavourable nature, as to age and bodily condition, of many cases lately admitted. The deaths at the Cumberland Asylum amounted to 9.8 per cent., the rate of the preceding year being only 5.7. We believe that at the latter asylum the patients get no beer; on the other hand, the bill for wine and spirits amounts to £202, and of porter and ale to £111. At the Wilts Asylum, the cost of the beer is £558, and of the wine and spirits £72. The charge for patients at the Wilts Asylum is 9s. 4d. per week; at the Cumberland, 9s. 11d. In both asylums, the number at the end of the year were less than at the beginning. At the Wilts Asylum, they fell from 480 to 442; and at the Cumberland, from 418 to 406.

## SELECTIONS FROM JOURNALS.

### SURGERY.

A CASE OF VARICOSE ANEURISM OF THE FEMORAL ARTERY.—Dr. Czerny relates, in Virchow's *Archiv*, vol. lxii, the case of a man, aged 20, who had, in consequence of a stab with a knife, a traumatic aneurism at the lower third of the thigh. Eight weeks after the injury, the patient came into hospital at Freiburg. Compression by instruments had already been tried in vain; and, after his admission, digital compression was employed ten or eleven hours daily for six days, and then forced flexion for four days, but without any marked result. The femoral artery was tied at its upper third with catgut; but, in three weeks, the aneurismal *bruit* returned. The limb was then enveloped daily for three weeks in an elastic bandage, and circulation was arrested for about twenty-five minutes each day by means of India-rubber tubing. As the pulsation returned in spite of this treatment, the aneurism was laid bare four months after the injury, and, after being separated from the adjacent parts, was laid open. It was now found that there were two openings in the aneurism, one leading into the artery, the other into the femoral vein. The artery was tied above the sac, the vein below; and the sac was extirpated. Healing was impeded by erysipelas, but was complete in six weeks. The sac consisted of firm connective tissue from 0.1 to 0.3 inch thick. On microscopic examination, the membrane presented nearly parallel bundles of connective tissue, with abundance of cells, many of them pigmented, and numerous blood-vessels. The cells increased in proportion towards the interior, so that the inner surface presented the appearance of granulation-tissue. Injection of the wall of the aneurism revealed a system of canals like lymphatics, having a communication with the blood-vessels.—*Wiener Medizinische Wochenschrift*, No. 18, 1875.

TREATMENT OF TETANUS BY PERFECT REST.—Dr. Renzi (*Gazetta Medica Italia Provincie Venete*) finds that, both in animals and human beings attacked by tetanus, light renders the tetanic contractions more frequent and more intense. It may likewise be experimentally demonstrated on animals, that absolute rest and the absence of every cause of excitement render tetanus less violent and less fatal. Of three cases of acute tetanus in which complete rest alone was employed, two were cured. The patients were placed in a perfectly dark and isolated room; every noise and cause of excitement was avoided; and the patients were only visited at long intervals, to give them drink. In the fatal case, hydrate of chloral had been administered in the form of injection, and seemed to still further impede the respiration, already affected by the progress of the disease.

### MEDICINE.

A PATHOGNOMONIC SYMPTOM OF THE MORIBUND CONDITION.—Dr. John Shrady, in a paper upon the Moribund Condition recently read before the Yorkville Medical Association of New York, maintained that the earliest and therefore most valuable symptom of approaching death was the up and down movement of the trachea; that the inferior laryngeal nerve, owing to a partial paralysis or impairment of its function, is concerned in the production of this phenomenon, and sounds the first note of alarm that the medulla oblongata is invaded. This tracheal symptom is particularly prominent in fatal cases of uræmic convulsions, opium-poisoning, apoplexy, and delirium tremens; the air then ceases to stimulate the glottis, the respiratory movements are impaired, and the lungs can no longer decarbonise the blood. In pneumonia, this symptom is of especial value, anticipating alarming changes in pulse and temperature; while, in phthisis, Dr. Shrady has known it to be a precursor of death three weeks in advance. Its presence or absence in membranous croup should be, in his opinion, an important element in the prognosis of a given case of tracheotomy.

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* *Annual Report of the Cumberland and Westmorland Lunatic Asylum*, 1874; *Annual Report of the Asylum for the Insane Poor of the County of Wilts*, 1874.

## BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1875.

SUBSCRIPTIONS to the Association for 1875 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, MAY 29TH, 1875.

## THE GERM-THEORY.

WE think it may fairly be said that, in the recent discussion at the Pathological Society on the Germ-Theory of Disease, the controversy entered on a new stage. No one who followed the very interesting and very ably conducted discussion can have failed to be struck by the manner in which speaker after speaker, on the side of those who were supposed to favour the theory, repudiated the crude form of it which was some time ago commonly held. Probably the most able advocate of the theory, or of that modified form of it which he maintained—Dr. Maclagan of Dundee—freely admitted that (1) specific disease may originate *de novo*, and said (2) that "he was not aware that any advocate of this theory had distinctly stated that bacteria cause the phenomena of disease". A few years ago, no man who made these admissions would have been any longer looked on as an advocate of the germ-theory. No doubt, in the remarks he went on to make, Dr. Maclagan justified his claim to be so considered; but we cannot help being struck at his large, if philosophical, preliminary admissions; nor can it be denied that they usher in a new phase of this controversy. Not long ago, when the organic forms badly named micrococci in general came to be first recognised by microscopists under their generic names of bacteria, vibrios, etc., their causal connection with disease-phenomena was so commonly assumed, that all that was thought necessary in order to prove it was to demonstrate their existence in any given case. Any one who doubts this has only to remember Mr. Lister's experiments on organic infusions, and on discharges removed from wounds, to satisfy himself of its truth. But perhaps a still more striking proof of it will be considered the statement of Professor Tyndall in his letter to the *Times*, after the discovery by Dr. Klein of the organisms in the discharges from Peyer's glands, that now the very *materies morbi* had been discovered. It has only very recently been supposed that these organisms may not, after all, bring us into relation with the very *fons et origo mali* itself. The course of the discussion, indeed, is a striking example of the course which such a controversy must inevitably take, given the constitution of the human mind; and it has found its counterpart over and over again in the history of philosophy—so much so, that any one thoroughly conversant with the history of human thought and opinion might almost have predicted what lines it would follow. The same causes, in fact, which determined some modern philosophers to assume a material substratum for properties which were the only facts in the case, and which afforded Bishop Berkeley a vantage-ground he well knew how to use, which by and bye grew into the pure phenomenalism of Hume, and which have led in our own time to the statement by John Stuart Mill of his definition of mind and matter—these same causes now determine the direction which this controversy on germs is taking; and any one who thoroughly understands them may almost venture to predict how it will and must inevitably end. These causes are two: a tendency and an assumption. The tendency is that almost irresistible one in the human mind to suppose a concrete cause for phenomena having certain properties; while the assumption is, that the future will resemble the past. Both of these are at work here, and are so intimately united, indeed, that it is difficult to separate them. The phenomena of disease, and particularly of what is called specific disease, have such properties as can only, it is thought, or at least as can best, it is said, be accounted for by the supposition of the existence of a germ or seed from which they arise; while the possible existence of such germ is rendered probable because, in fact, germs do exist abundantly in other parts of Nature. This being so, when bacteria were found, they were assumed to be the very germs in question; and, now that it is proved they cannot be, a further origin of them is contended for in the supposition that still smaller and yet undiscovered germs exist which cause the bacteria. This argument is, of course, very difficult to meet; because, if the existence of such organisms could, by some refinement in our means of investigating, be demonstrated, it would of course be still open for the theorists to say that they in turn were caused by some others still smaller.

But surely the burden of leading proof has now changed sides, and it becomes the duty of those who maintain the existence of things which no man has seen, to prove that they do exist. Those who hold that life does originate *de novo* may surely challenge their opponents to produce to them the organisms which they assert to be the cause of the phenomena in question; while it does not seem a sufficient reply, that notoriously other germs do exist, and that therefore, probably, if inquiries were further prosecuted, the existence of these germs might be demonstrated. We have purposely put the point in this form, because, although pathologically the question is rather as to the origin of disease than as to the origin of life, if the spontaneous origin of the latter were proved, the very analogy of nature, which is now much made use of against the theory, could then be invoked to prove true for disease what would be admitted regarding healthy life. And this mode of stating the question has, as it seems to us, the additional advantage of bringing into prominence the amount of influence which the assumption of which we have spoken, that the future will resemble the past, has had upon opinion on this question. This assumption, generally referred to under the phrase "the analogy of nature", is constantly appealed to, and forms avowedly, as Dr. Bastian well stated in his address, a main part of the argument. To say, for example, as has been done by so many observers, ancient and modern, that specific disorders are like fermentation, and to assume that therefore most probably they will be found, like it, to depend on germs, is only to state the argument in its barest form. It seems, indeed, to have escaped most of the speakers, though it did not Dr. Bastian himself, that the whole foundation of this argument was removed when it was shown that fermentation might take place in all its steps, from first to last, without the presence of germs or any organisms at all. Now, if this be so, and the statement of Pasteur on the subject has not been disputed, one form at least of fermentation may take place without the occurrence of germs; and, if specific disorders resemble fermentation in their course, why may they not resemble that form as well as those in which organisms are found? Nor must it be assumed that there are no instances in nature which might justify the assumption of an origin of diseases capable of reproducing themselves apart from germs. The instance given by Dr. Murchison, on the authority of Dr. Lyon Playfair, regarding the action of oxalic acid on oxamide, is at least a striking one; and the argument from analogy is just of such a nature as to justify us in founding on one instance almost as much as on a large number.

We have said so much on the principles underlying the mode of reasoning followed in such a case as this, because some confusion seemed to be present in the minds of several of the speakers, which occasionally prevented them from seeing the real value of the arguments they advanced. When the facts come to be weighed, it may be more difficult to say where the balance of evidence lies. On the side of the supporters of the germ-theory, it is urged (and no doubt the weight of their case lies in the specific disorders), that the phenomena of fever are far more rationally accounted for by the supposition of germs than without their presence. Again, fever, it is said, could not in all circumstances reproduce itself, and no other fever, if it did not do so by throwing off numerous germs by which it is propagated. Then, it is said, it is impossible otherwise to explain the definite course of seven, fourteen, or twenty-one days, which the disorder runs, on any other supposition. Thirdly, there is the fact that such disorders are propagated in the same system only once. Further, it is said to be difficult to account on any other supposition for the selection by the various poisons of the locality which they affect. Lastly, in order to get over the statement that organic fluids lose their power of infection in proportion to the number of bacteria present in them, it is contended that, just as pus-cells undergo a bacterial degeneration, so may the minute organisms which, some say, are the cause of the bacteria themselves. When pus-cells undergo this degeneration, they lose their infecting power; and so, it is thought, may the minute organisms in question. In stating this argument, Dr. Maclagan made one or two assertions which were not allowed to pass unchallenged at the time. Thus he said that living organisms evolved heat in the process of their growth, and thus he accounted for the pyrexia of the febrile state. Surely the contrary fact is true; viz., that living organisms absorb and do not evolve heat in the process of growth; and surely the combustion of the tissues in fever suffices to account for the increased temperature. Then he said that organisms consume nitrogen. But, if they consume it, how should it be found in the excreta of fever-patients? Should it not be appropriated by the organisms in question, and retained by them? But, passing by these questions, and passing also the bold statement that these supposed minute and hitherto unseen organisms have an albuminous constitution which renders them capable of the bacterial degeneration, it is replied by the other side, that it is quite as possible to account for the phenomena of the febrile state without the intervention of germs as by their aid. Matter in a state of change may, when it comes into relation with a complex organism, bring into action changes which result in the febrile state; and it may induce a set of changes similar to that which it is itself undergoing, and so a given fever may tend to reproduce itself. As to the definite course run by fevers, however, the exceptions are very numerous, even typhus itself varying a few days in different cases; while typhoid is particularly prone to variations, some cases lasting twenty-one days, and others, which may have been directly caused by the former, running on for forty or even fifty. Other fevers differ also from members of the same group; thus scarlatina is very variable, in proportion as the cervical and other glands are or are not affected. Then, as to the system being susceptible to a given fever only once, what is better recognised by medical men than that patients *may* and often *do* take the same disorder more than once? All that can be said is, that it is the rule not to be affected more than once. Then, as to the locality affected, surely the intervention of germs is not required, since, as Dr. Murchison showed, arsenic and other inorganic substances show similar affinities. If the germ-theory be correct, it is difficult to account for the absence from the blood of fever-patients (with, at any rate, very few exceptions) of these organisms. And in the case of relapsing fever, where the spirilla is found, it is even more difficult to account for its disappearance during the intermission, and its reappearance during the relapse. Further, the discovery of germs in pathological conditions loses much of its importance when it is considered that they may also be abundantly demonstrated in various parts of the healthy organism. Lastly, the sudden invasion, cessation, and disappearance of the continued fevers are difficult to explain on the germ-theory, though the difficulty does not disappear on the other. In particular, it becomes impossible on this hypothesis to account for the first instance of any specific disorder.

On the whole, we may congratulate the Pathological Society on the discussion, on the ability with which it was conducted, and on the weight of the opinions advanced. Time will, no doubt, determine more precisely the exact value of each; but we think one outcome of the debate was clearly the opinion that, whichever may in the end prove the correct view, the contagion-theory has been too exclusively held. And if to us the balance of evidence seemed to be against the germ-theory, we by no means take for granted that the contrary was proved, but would rather wait for new light than commit ourselves to any hastily formed opinion.

## APOPLEXY AND DRUNKENNESS.

THERE have occurred recently several cases which illustrate very painfully the remarks we made November 8th, 1873, on difficulties in the diagnosis of the cause of apoplexy. That a man who is ill should be locked up in a police-cell for drunkenness, and that he should die a few hours later, is an exceedingly bitter thing to all concerned, and most so to the relatives of the deceased. Those who read the newspapers will be aware that every now and then a mistake occurs leading to this result. Recently there have been so many cases of this kind, that public feeling is deeply roused. Several cases are now being legally inquired into. Sir William Fraser has giving notice of a motion in the House of Commons, regarding two cases. We refer particularly to but one case, that which is the subject of Mr. Houghton's letter.

It is, however, scarcely possible for us to comment on this class of cases, without reproducing in effect what we have already said in the article we wrote a year and a half ago. We then insisted in the plainest language that it was not simply difficult, but occasionally altogether impossible, to tell whether a comatose patient was suffering from the effects of alcohol, or from some fatal intracranial lesion. Recent events justify our remarks. We may very legitimately express our astonishment that Dr. Hardwicke should speak as if there were no difficulties in the diagnosis of the condition of Truby when Mr. Houghton saw him. It is a mere platitude to say that a mistake in such a case is a most regrettable circumstance. The important thing in a judicial inquiry is to consider the matter without emotional bias. With many of the public, this will not be possible. The proposition, "Here is a mistake leading to sad consequences", is automatically attended by the ungenerous feeling that somebody ought to be punished. Then, again, it is proverbially easy to be wise after the event. No doubt there are very many people who, after the *post mortem* examination has cleared up the pathology of the case, think that a diagnosis ought to have been made. Retrospective sagacity in diagnosis, where error is impossible, is a plentiful article. Probably some will have in their mind's eye a patient who is apoplectic according to text-books on medicine, some of which are apparently written not for the sake of teaching practice, but to make things "clear and simple". How different the case of Truby from the text-book's case of apoplexy when Mr. Houghton first saw him! There was no history, except for the misleading fact, that the man was picked up in the street; he smelled of drink. He could speak, and, indeed, said he had been drinking. There was no local paralysis, and he walked when assisted. Let it not be forgotten that the patient was seen by two other medical men, and that they did not feel justified in diagnosing apoplexy, although they saw him some hours later than Mr. Houghton.

It is quite true that, in the article to which we have referred, we urged that people who seemed drunk should be very carefully tended, if there be any likelihood of their being really ill. But a hospital cannot take people into its wards for drunkenness. If, after careful examination, a house-physician come to the conclusion that a patient *is* drunk, what is to be his next step? It would appear that, to avoid the possibility of a mistake, he should admit every applicant, whether he believed him to be drunk or not. This routine admission would be, to use the words of a great orator, "a false reptile prudence, the result not of caution but of fear". What would be the consequence of taking in the drunken? It would be to keep out people who are really ill, many of whom would die miserably.

We would take this opportunity of urging once more, that it is occasionally quite impossible even for the most experienced to make a correct diagnosis of the cause of coma in a patient of whose antecedents we can learn nothing. We urge it again, because it is not a widely accepted doctrine. There are medical men who are very willing to admit that the diagnosis of the causes of apoplexy may be difficult to some people, but, nevertheless, have great confidence in their own power of diagnosis. But, most unfortunately, their reasons for diagnosis often seem to be deeper than ordinary reasoning, and thus not to admit clear statement in words. "There 's something about the patient, etc."

Hence, these sagacious persons can do nothing to help the less sagacious in their difficulty. Some who have no sense of humour lay claim to a sort of medical intuition. Doubtless there are persons who are like Coleridge's housekeeper, in that their conclusions are trustworthy, although their conscious reasoning is not accurate. But the fear is, that what is described as ineffable sagacity, is occasionally a deplorable facility of coming to routine conclusions on any kind of evidence. We have never denied that it is easy to predict correctly in most cases; we stated our belief that a machine could be made which would make a correct diagnosis "in most cases". One reply to an assertion of difficulty in diagnosis of drunkenness, is the narration of a case in pseudo-dramatic style, being a marvellously correct diagnosis of drunkenness under difficult circumstances. Here the narrator may be simply illustrating his own audacity in guessing; for the rub is, that he states no facts trustworthy in diagnosis, and his "reply" is only an anecdote which leaves the scientific question untouched.

WE understand that Mr. Cooper Forster of Guy's Hospital has consented to be nominated this year for the Council of the Royal College of Surgeons.

DR. BENJAMIN WARD RICHARDSON, F.R.S., has been elected President of the Public Health Section of the Social Science Association at the ensuing meeting in August.

THE Committee who are raising the testimonial to Señor Garcia, have appointed Dr. Elsberg of New York Honorary Secretary for the United States; Dr. Smyly for Ireland; Dr. McCall Anderson for Scotland; and Dr. Simpson of Manchester for the north of England.

THE following quotation from the *Field* developes a curious logical consequence of a belief in maternal impressions. It is contained in a letter on the "New Norwegian Game-laws".

> "One word *par parenthèse.* Upon my return to Trondhjem (bringing game, including a hare), I met an acquaintance, who, seeing the hare, besought me, with much earnestness, to cut off its nose. I inquired his reason for wishing me to mutilate the animal thus. Replied he, 'I do so for your sake; you are rendering yourself liable to a fine. It is an article of belief here that, should a woman in an interesting condition see a hare which has not been deprived of its nose, her child will be born hare-lipped. The law protects the unborn.'"

SIR WILLIAM FRASER, on the House going into Committee of Supply on Friday, will move an address for copies of the evidence taken before Mr. Coroner Bedford, on April 27th last, of the inquest held on the body of Charles Farmar, found in the streets; and who, being suspected of drunkenness by the police, died on the same day of typhus fever; of the evidence taken before Mr. Hardwicke, also on the 27th of April last, on the body of a woman, supposed to be Harriet Alice Hardy, found by the police when dying in the street, and charged by them with drunkenness, who expired on the same day from apoplexy; of the expressed opinion of the coroners and juries in both cases; and of the verdicts.

THE premature decease of Mr. Moore, demonstrator of Practical Physiology at St. George's Hospital, calls for a special tribute of regret. An earnest and enthusiastic student, trained at St. Thomas's Hospital, he published in 1867, when only eighteen years of age, some careful chemical observations on brain-crystals. For the last three years, he has filled, with credit and usefulness, the functions of a hospital teacher; and his book called *Notes of Demonstrations on Physiological Chemistry*, recently published, is a very useful little manual. At the time of his death, he was engaged on some elaborate experiments on the effects of tobacco, for which he would have received a grant from the British Medical Association.

MR. CROSS's announcement that the Government will appoint a Royal Commission to inquire into the facts relating to experiments on animals will be received with general satisfaction. We urged that course long ago, and it is only to be regretted that Mr. Cross did not make up his mind earlier.

UPON this decision being announced, Dr. Lyon Playfair intimated his intention to withdraw his Bill pending the inquiry, and, of course, Lord Henniker will do the same. In no case would the Bills have passed this session, as we should have felt it our duty (notwithstanding that Dr. Playfair's Bill is not very seriously objectionable in effect) to organise a parliamentary opposition to both, and, at this period of the session, no opposed private Bill stands a chance of passing. Our main objection to Dr. Playfair's Bill is, that it seems to yield to an utterly unjust and ignorant clamour, and stigmatises by implication persons of the most humane character and benevolent actions. The institution of inquiry will be satisfactory to all; at least, we shall now have the real facts impartially investigated, and candidly stated.

TWO of Dr. Tilt's works, his *Handbook of Uterine Therapeutics*, and his book on the *Change of Life*, have been recently translated into Italian. The Italian Government have now made him a Knight of the Crown of Italy.

THE discussion on puerperal fever at the Obstetrical Society will be resumed on Wednesday next, when "it is expected that Dr. Arthur Farre will make some observations".

MR. MANBY's letter, which we publish this week, expresses what is, we imagine, the general impression of disappointment at the attitude of the Council of the Royal Medical Benevolent College on the subject of the reform, urged upon them by a large and influential body of subscribers, of their present mode of electing scholars and pensioners to the benefit of the charity. For ourselves, we must express the opinion that the Council misapprehended the importance and gravity of the question. The answer of the Council does not grapple with any of the facts or arguments which constitute the essence of the case; it shows even a strange misconception of the real gist of the complaint, and affects to answer the memorial of thirteen hundred governors without even appreciating their objects and opinions. The Council must have felt from the tone of the few speeches on the occasion, that their present position is untenable, and that no mere verbal fencing will suffice to allay the deep and righteous feeling of indignation aroused by the blind injustice, cruel hardship, and unequal dealing inherent in the present system of election by open canvassing. *Nolumus mutare* is always an ungracious form of decree; in such a case, and defended by such reasoning, it is quite intolerable.

SOME of the arguments used by the official defenders of the present costly, cruel, and inefficient mode of distributing the benefits of the charity were peculiarly inappropriate in the mouths of medical men. It was pointed out by Mr. Hird that every subscriber in paying his subscription purchases a privilege; this he characterised as inalienable, except by Act of Parliament. Have we not heard this stale fallacy urged at every hospital where open voting was in vogue for the election of medical officers, when the improved method of election by a committee has been mooted? We all know that where, as at Mr. Hird's hospital, for example, the right of election of medical officers lies with the whole constituency of governors, the trouble, cost, and risk of canvassing have been found to operate very injuriously; and that the hardship and discouragement to the really best candidates have been such that the governors have been urged by the medical officers and other real friends of the institution to resign their right of election into the hands of a properly constituted committee of selection appointed by themselves, whose choice they formally ratify. This change of proceeding has been very widely adopted in metropolitan and provincial hospitals, to the great relief and advantage of medical candidates, and the great benefit of the institutions. On such occasions, the old fallacy which Mr. Hird trots out about inalienable privileges of subscribers has commonly been aired, but it has always been summarily relegated to the green yard; and we appeal to Mr. Hird to say whether he seriously means to urge it as valid upon the present occasion. We believe it to be of no force whatever. It is the undoubted privilege of the governors in general meeting to delegate their powers to a committee of selection, without Act of Parliament.

THERE is another kind of fallacy commonly brought forward on such occasions as these, when it is desired to quiet troublesome reformers. We are going on very well, what more can be wanted? Of this, Dr. Carr of Blackheath—a very vigorous and thoughtful man—constituted himself, on this occasion, much to our surprise, the spokesman. But how is the general prosperity of the College an answer to this particular complaint? The College flourishes because its objects command sympathy; and because we all feel that there are numerous persons in great need of its charities. We trust that it will flourish more and more. If anything could impede its progress it would be loss of confidence in the executive; and this may easily be brought about if, in answer to complaints that the benefits of the College are distributed by a method involving unnecessary expense and hardship to the candidates, and affording no guarantees for a just discrimination of their claims, the Council and its defenders can find nothing better to say than that they have received a great deal of money during the year, and propose to perpetuate the notable defects in the mode of distributing it.

THE expedient which the Council have suggested that those governors who object to see the bounties of the College distributed to the most ardent electioneerer or the most wealthy candidate, instead of the most deserving, should simply stand aside and be placed on a separate list, while all the abuses to which they object continue unreformed, is really too childish to need much further discussion. Why should the Council be surprised that rational men do not adopt it? What can Dr. Carr, or Mr. Hird, or Mr. Hancock say in favour of it? What is the meaning of it? What does it amend? They do not, of course, suppose that the governors who desire to see justice done to the candidates can be satisfied by being told, "Never trouble about the candidates, let them take their chance, and fight it out among themselves. If you like, we will make you a passive bystander, and then you will have no trouble about the matter." That is not likely to satisfy anyone. If the proposition mean anything more than this, perhaps some one of the gentlemen we have named, or some official representative of the College, will kindly explain it. We cannot see in the suggestion any reply whatever to the prayer of the memorialists.

THERE is a good deal of complaint that the date fixed for the meeting of the General Medical Council is very inconvenient. There will not be much work ready to hand when it does meet; mainly the reports of some of the visitors of examinations.

THE Emperor of Brazil has sent to Professor Virchow of Berlin a very interesting collection of skeletons and skulls (including some found in old caverns in Brazil) along with an autograph letter.

THE Medico-Physical Society of Florence announces that no award of the Galligo prize of 500 *lire* (£20) has been made for 1875; and offers two prizes each of the above named value to be competed for in 1876 and 1877. The essays must be either descriptive of some important original research, or illustrative of some important subject in syphilography or the diseases of children. They must be sent in before April 1st in each year.

A CASE has lately been tried before the tribunal at Zutphen which has excited some sensation. The family of a widow lady was attacked with typhus in the winter of 1873. The disease broke out in October, and medical attendance was discontinued in the following February. The family were attended for the first eight weeks by Dr. S., the local practitioner; and afterwards by Dr. D., who resided at another place at some distance. Dr. S. sent in a bill for 1600 *francs;* Dr. D. (or rather, his widow, as he had lately died) one for 3210 *francs* 37½ *centimes.* The case came before the tribunal with reference to the latter bill. Three medical practitioners were appointed assessors to examine the charges, and arrived at the following result: for 30 visits in consultation, 405 *francs;* for 68 visits alone, 612 *francs;* for medicines, 399.40 *francs:* in all, 1416 *francs* 40 *centimes.*

### THE GERMAN SANITARY ASSOCIATION.

THE invitations to the meeting of the German Sanitary Association, which will this year be held in Munich on September 13th, 14th, and 15th, have been issued by the acting secretary, Dr. A. Spiess of Frankfort. The programme is very copious; the following questions have been proposed by the committee for discussion. 1. The determination of a plan for examining into the local and temporal causes of epidemics of typhus: reporter, Professor von Pettenkofer; coreporter, Dr. Port. (It must be remembered that the term typhus includes also enteric fever.) 2. The sanitary requirements of new buildings, especially in new quarters of large towns: reporter, Dr. Varrentrapp; coreporter, Engineer Burkli-Ziegler. 3. The sanitary requirements as regards diet in orphan asylums, barracks, prisons, and almshouses for old persons, and also in public kitchens: reporter, Dr. Voit. 4. On the object, means, and limits of a sanitary police control over some important articles of food, especially bread and meat. 5. On public slaughter-houses and the introduction of a general supervision of the slaughtering business and of a compulsory inspection of meat: reporter, Burgomaster Gobbin; coreporter, Dr. P. Börner. A sixth subject is proposed for discussion by Dr. Leut of Cologne; viz., the establishment of a general law for Germany on the examination of dead bodies, with, as far as possible, a medical determination of the cause of death.

### PHARMACY IN JAPAN.

THE Dutch *Pharmaceutsch Weekblad* of April 25th contains an article by Dr. Geerts of Kiyoto, in which he gives some interesting information on the adulteration of the drugs imported from Europe into Eastern Asia. With the view of obviating adulteration, laboratories have been established by the Government in Yedo, Kiyoto, and Osaka, for the purpose of examining drugs, and of giving Japanese youths practical instruction in pharmacy after having passed through a theoretical course of natural science. Dr. Dwars, formerly of Amsterdam, is at the head of the laboratory at Osaka; and Dr. Geerts occupies a similar post at Kiyoto. The Japanese Government have ordered that any druggist who has in his possession sulphate of quinine or iodide of potassium in the adulterated state, shall be punished for the first offence by a fine of 50 *yan* (about £5).

### HIGH TEMPERATURES.

APROPOS of the case reported to the Clinical Society by Mr. Teale of Scarborough, Dr. J. G. Bacon of Saratoga writes as follows to the *New York Medical Record.*

"Thinking a brief statement of two cases of pneumonia, which I have still under treatment (though now convalescent), might interest your readers, as regards temperature, I submit them. The first case, a girl aged 16 years, strong and full-blooded, had pneumonia of the left lung. Temperature began rising up to fifth day, when it stood, as carefully noted by a self-registering thermometer, 107.5. The sixth day it fell to 104 deg. by evening. The condition of the patient otherwise showed no cause for alarm, as far as consultation could decide. She is now about, and free from cough, and gaining her strength fast. The second case was her brother Frank, aged 20 years. He was seen twelve hours after he began to complain. Pulse 165, wiry. Slightly delirious. Examination revealed pneumonia of right lung. Temperature, very carefully taken thirty-four hours after I called, was 110 deg. I could not believe my eyes until I had repeated the experiment several times with the same result. The expectoration was nearly pure blood for forty-eight or fifty hours; cough harassing. Now, here is a strange feature (to me) in this case: the temperature was 110 deg. at 5 P.M., and next morning, at 9.30 A.M., it had fallen to 99 deg., or rather, 98.08 deg. The treatment was iodide of potassium and tincture of aconite during the night. An intense diaphoresis occurred, which continued for twenty hours."

### SIR WILLIAM FERGUSSON'S PORTRAIT.

WE are requested to state, that subscribers to the above portrait will, on application to Mr. Valmär at No. 30, Golden Square, W., be presented with an impression of the plate. It is satisfactory to note, that the painting has suffered in no respect at the hands of the engraver, and that the excellent mezzotint by Mr. F. Joubert, reproduces with marked fidelity the characteristic likeness so appreciated by Sir William's numerous friends.

### THE DEATH FROM ETHER AT MANCHESTER.

IN reference to this case, Mr. Arthur Bracey of Birmingham writes to us the following.

"I take this opportunity of recording a case which occurred at the Birmingham Eye Hospital under my care about two years ago, and which was attended by very alarming symptoms. During the inhalation, the patient, a little boy, became very pale, the pulse at the wrist could not be felt, the breathing appeared to be suspended, and, in fact, death seemed imminent. Artificial respiration was had recourse to as well as the other means employed on such occasions; and, after much perseverance, animation was restored, and no further ill effects resulted. It was afterwards found that we had been using the ether prepared for local anæsthesia (Robbins's) in mistake for sulphuric ether, and this was considered to have been the cause of the trouble. Although sulphuric ether is largely used as an anæsthetic at this hospital, I do not know that a parallel case to the one I have described has occurred."

In connection with Mr. Bracey's remarks, we would make mention of a note on the death at Manchester, and on the amyls as anæsthetics, by Dr. Benjamin W. Richardson, published in a contemporary last week. Dr. Richardson agrees with a writer in our pages that the death at Manchester was not due to pure anhydrous ether, though that fluid is not absolutely free from danger, but that the etherial fluid employed on the occasion was the compound fluid introduced by Dr. Richardson some years ago, solely for purposes of local anæsthesia. The fluid in question is a mixture of amyl-hydride and anhydrous ether, the two fluids being blended until the specific gravity is .650; it was never intended for general anæsthesia, and has, in Dr. Richardson's belief, always been sent out by the manufacturers, Messrs. Robbins, distinctly labelled and described as for local use. Dr. Richardson believes it to be perfectly clear that the death at Manchester was not produced by pure anhydrous ether, but by syncope. It appears that the patient was much perturbed mentally, and that death resulted from failure of the heart. Dr. Richardson avails himself of the opportunity to point out that the lighter bodies of the amyl series are not to be recommended as general anæsthetics, as their extreme insolubility and low boiling points render them dangerous in action. Also, when they kill, they kill from the heart, a fact specially observable of amylene, amyl-hydride, and amyl-chloride. He therefore suggests, that it is important not to employ the members of the amyl family until more is known about their physiological value, as they have as yet been systematically studied as general anæsthetics only by Dr. Richardson himself and by Dr. Snow, and their combined experience is against their employment.

### NET-HAMMOCK FOR INVALID TRAVELLING.

ON May 20th, 1875, a girl, lately in the Westminster Hospital, was conveyed by rail from Victoria to Margate in one of Seydel's hammocks. She was recovering from the effects of a severe burn, having granulating surfaces on her right arm and shoulder, left leg, and body. The chaplain and one of the sisters accompanied Mr. Richard Davy, who had charge of the patient. The hammock was slung in a parcel-van, which had been kindly provided by Mr. Mortimer Harris, manager of the London, Chatham, and Dover Railway; its points of suspension were nine feet apart, and the girl was easily placed into the net, her feet being towards the engine. She experienced no pain whatever throughout the journey (two hours and three-quarters); and stopping or starting caused neither jar nor jolt. Undue swing of the hammock on passing round curves was controlled by a slender cord held in the girl's left hand. Mr. Richard Davy considers that this hammock system of conveying invalids is most ready and practical; for the patient may be carried on the same net from his or her bed in the hospital to that of the convalescent home. Moreover, the luxury of such a swing-couch must be of the highest value in moving patients from spot to spot: *e.g.*, in sending hernia patients to hospital; and in cases of accidents, railway collisions, etc. On the return journey from Margate, the sister, chaplain, and surgeon, tested the hammock as a railway couch, and cannot overpraise it as a medium for quiet repose. Mr. Davy would recommend our railway companies to run hammock-vans, so that this easy mode of travel may be available for professional or commercial men; and, in short, for any who would limit by prevention the ill effects of wear and tear through railway vibration.

### RECENT URBAN MORTALITY.

DURING last week 4,785 births and 3,303 deaths were registered in London and twenty other large towns of the United Kingdom. The annual rate of mortality was 22 per 1000 persons living; and the rates in the various towns, ranged in order, were as follow: Leicester, 15; Portsmouth, 16; Sunderland, 18; Newcastle-upon-Tyne, 19; London, Edinburgh, and Salford, 20; Nottingham, 21; Bristol, 22; Dublin, Birmingham, and Liverpool, 23; Wolverhampton, 24; Hull, 25; Sheffield, 26; Leeds, Manchester, and Norwich, 27; Glasgow, 28; Oldham, 30; and Bradford, 32. The average zymotic rate was 3.2 in the eighteen English towns, and ranged from 1.5 and 2.1 in Sunderland and Portsmouth, to 5.8 and 6.3 in Hull and Norwich. The high zymotic rate in Hull was caused by the prevalence of scarlet fever and whooping-cough, and that in Norwich by the fatality of whooping-cough. Seven deaths from small-pox occurred in Birmingham. In London 1,983 births and 1,325 deaths were registered; the births were 312, and the deaths 69, below the average. The death-rate was 20; a lower rate than has prevailed in any week since October last. To the seven principal zymotic diseases 201 deaths were referred, being 35 below the average, and equal to an annual zymotic rate of 3.0 per 1,000 persons living. The fatal cases of whooping-cough were 91, and exceeded the average by 26; to scarlet fever 31, to measles 23, and to fever 25 deaths were referred. The deaths referred to diseases of the respiratory organs were 244, and exceeded the average by 21. In greater London 2,380 births and 1,556 deaths were registered. In outer London, the general and zymotic death-rate were 16.0 and 1.1 respectively, against 20.0 and 3.0 in inner London. The mean temperature of the air at Greenwich was 53.9, or 0.3 above the average. On Saturday the 15th instant, it had been so high as 66.2 deg., and 13.8 deg. above the average, and it fell on Wednesday the 19th to 47.6, or 6.0 below the average. The general direction of the wind at the beginning of the week was east; and during the latter part of the week was south-west. Rain fell on four days to the extent of 0.27 of an inch.

### KASHMIR MEDICAL MISSION.

WE have received the report of the Kashmir Medical Mission for the year 1874. Some of our readers will feel an interest in it for the sake of the late Dr. Elmslie, who carried on the work for four summer seasons, and others for the sake of his successor, Dr. Theodore Maxwell. He opened his dispensary in the middle of May, and rented a native hut close by to accommodate a few in-patients, the majority of whom were operation cases. He generally saw from 130 to 160 patients each morning, many of them having come great distances in order to obtain European medical advice. The total number of cases seen during eight months was 1,924, and the number of operations performed was 69. The dispensary had to be closed in the autumn, in consequence of the rule which prevented Europeans from remaining in Kashmir during the winter. The Government of India has now, however, abolished this rule, so that in future it is hoped that Dr. Maxwell will be able to reside permanently in the valley. A hospital has been built at the Maharajah's expense, which will be opened for the reception of patients this season. No opposition has been raised by the authorities to the medical work carried on by Dr. Maxwell: indeed, many of the native soldiers were among the patients. The valley contains 400,000 inhabitants, and numbers of traders are constantly passing through from the countries beyond. The native doctors are worse than useless. Not to speak of the advantages to the inhabitants of Kashmir themselves, the importance of having good medical and sanitary advice in a district which is one of the inlets to our own dominions is obvious. If such medical missions were established in all our frontier towns, they might do much to check the spread of cholera and other epidemic diseases.

### LIVERPOOL LOCK HOSPITAL.

WE have much satisfaction in announcing the appointment of our well known and energetic associate Mr. F. W. Lowndes as surgeon to the Lock Hospital, to fill the vacancy created by the transference of Mr. Chauncey Puzey to the Northern Hospital. Mr. Lowndes's claims and qualifications were so generally recognised, that a "walk over" was anticipated, and, in fact, was practically almost realised, Mr. Lowndes having polled 153 votes, while his competitors Mr. Lewtas scored 34 and Dr. Lambart 9 only. Apart from the local interest this contest has excited, it serves to illustrate the inconveniences of the present system of electing the staff of some of our medical charities. The constituency to be canvassed by candidates for honorary medical appointments in this institution numbers about 1000; but of these, even in strongly contested elections, not more than from 200 to 300 take sufficient interest in the matter to induce them to record their votes. In the present instance, less than one-fifth of those entitled to vote availed themselves of the privilege. The result is, that not only are candidates subjected to considerable unnecessary trouble and expense, but a competition, which ought to be based solely upon the scientific merits and professional claims of the candidates, frequently degenerates into an unseemly struggle of personal interest and social influence, which is creditable neither to the *prestige* of the institution nor to the status of the candidates. The evil has been long and widely felt, but no completely satisfactory solution of the difficulty has yet been attained. Much in this direction has, however, been accomplished in other large towns, as Manchester and Birmingham; and, even in some of the large medical charities of Liverpool, an improved system of conducting these elections has been introduced. We may reasonably hope that in due time the desired reform may be still further extended.

## SCOTLAND.

THE Edinburgh Town Council have subscribed £50 to the Simpson Memorial Fund, and the same amount to the Livingstone Memorial Fund.

AT a meeting of the Lanark Town Council last week the plans and specifications prepared by Mr. Cassels, for introducing the water of the loch into the engine-well for supplying the town was approved of. The work is to be hurried on as fast as possible.

AT the last meeting of the Royal Society of Edinburgh, a paper was read by Professor Turner, on the "Placenta in Ruminants a Deciduate Placenta", which gave rise to considerable discussion.

THE meteorological returns for the eight principal towns of Scotland during the month of April, show that the month has been remarkable for high temperature and small rainfall, with high barometric pressure. The rainfall measured in inches is less than half the mean rainfall of April for the last twenty years. Dundee recorded the highest mean temperature, 48.2 deg. Fahr.; and Glasgow the lowest, 46.8 deg.

THE Royal Commission appointed by Government to inquire into the pollution of the Clyde, sat in Glasgow for several days last week, Sir John Hawkshaw presiding. Its principal object was to receive suggestions, and devise the best means for purifying the river, and a number of witnesses were examined, and numerous schemes suggested with more or less of detail.

LIBRARY OF THE UNIVERSITY OF ILLINOIS

### WATER-SUPPLY OF FORFAR.

AT a meeting of the Forfar Police Commissioners on Monday last, there was read a letter from the chairman of a meeting of influential manufacturers and others, enclosing a resolution to the effect that there is an immediate necessity on the part of the commissioners to find for the town an adequate supply of water by gravitation. A long discussion followed, during which several members expressed their conviction that the water-supply for the town is sufficient, and were averse to the introduction of an artificial supply. Ultimately the matter was referred to a committee.

### THE MORISON LECTURES.

THE first of the six annual lectures on mental diseases, under Sir A. Morison's endowment, was delivered on Tuesday 18th, by Dr. Batty Tuke, before the Royal College of Physicians. He chose for his subject "Recent Observations on the Anatomy of the Membranes of the Encephalon", and after a brief recapitulation of the tenor of last year's course, on which the proposition that mental insanity was a symptom of cerebral disease was strenuously maintained, entered into the question of the minute anatomy of the investments of the brain. Dr. Tuke alleged that he had made out, and showed a number of beautiful preparations and diagrams illustrating the point, that there are only two membranes instead of three, as usually taught, covering the brain, namely, the dura mater and the pia mater, and that the arachnoid has no existence as a separate membrane; and he showed that this is not a mere question of terms, by pointing out many pathological and physiological questions which are affected by it.

### HEALTH OF EDINBURGH.

THE health of the city of Edinburgh has been very good for some weeks past, the death-rate having reached last week the satisfactory figure of 20 per 1,000. There were only six deaths recorded from zymotic diseases, two of these being from scarlatina and two from hooping-cough. These figures show a good general sanitary condition, when we remember that the estimated population numbers over 200,000.

### THE MEETING OF THE ASSOCIATION IN EDINBURGH.

A GENERAL meeting of all the committees for the reception of the British Medical Association next August, was held on Monday the 17th instant, at the Royal College of Physicians. Reports were given by the several secretaries of the amount of work done by each committee, and the arrangements were found to be progressing in a satisfactory manner. Of course, nothing more than the preliminaries, particularly that essential one the collection of funds, which are coming in well, have been at present undertaken; but we hope soon to be in a position to give a general sketch of the social proceedings as distinguished from the work of the meeting.

### LECTURES ON INSANITY IN GLASGOW.

DR. YELLOWLEES, the recently appointed superintendent of the Royal Asylum at Gartnavel, is at present conducting a course of lectures on Insanity. The class meets on Saturday, alternately at the University and at the Asylum, the lecture at the latter place being in the form of a clinical demonstration. We feel sure that, when this course comes to be known to the students, it will be much appreciated and taken advantage of.

### GLASGOW WESTERN INFIRMARY.

THIS institution flourishes so far as the number of patients goes. It seems, however, that people have not yet learnt that money is wanted for its support. A public meeting was held the other day, the result of which will, no doubt, be the collection of sufficient subscriptions for its efficient maintenance.

# IRELAND.

SEVERAL cases of scarlatina having occurred to the troops stationed at Enniskillen, a tent has been erected on the hospital ground on an elevated position, for the isolation of the disease, where the patients suffering from this contagious malady are being treated.

A COURSE of popular lectures on subjects connected with Public Health is at present being delivered, under the auspices of the Dublin Sanitary Association, in St. Matthias's School House, Dublin. The third of the series will be given by Dr. Tweedy, on the 25th instant, the subject being that of "Contagion and Disinfection"; and other lectures on similar subjects will be delivered each Tuesday in June.

### DRUNK OR DYING.

A WOMAN injured by a blow of an umbrella in a street fray in Dublin, was brought to Jervis Street Hospital in a semi-comatose condition. A resident surgical pupil was on duty, and, seeing that the woman's eye was injured, that she was stupid, and in bad company, he came to the conclusion that she was drunk, and sent her home with her friends. She was brought back, however, in a few hours; and being carefully examined, she was found to be suffering from fracture of the bone of the skull, the result of the thrust through the orbital plate of the frontal bone. The patient died the following day. The mistake in diagnosis was an excusable one, but the sending away a patient from a hospital in a semi-comatose condition is completely inconceivable. We are informed there is no house-surgeon at Jervis Street Hospital. Can this be true?

### SUPERANNUATION OF POOR-LAW MEDICAL OFFICERS.

AT a meeting of Poor-law medical officers held at Ballymena lately, the following resolution among others was passed. "That, in our opinion, there should be an uniform retiring allowance for medical officers throughout Ireland, and that allowance should not be contingent on the voting of boards of guardians, but be settled by the Local Government Board." We have advocated, on more than one occasion, a change in the present law for awarding retiring allowances to dispensary medical officers, but consider that it should be fixed by Act of Parliament, and not left to the discretion of any Board, no matter how impartially it may be constituted.

### PURIFICATION OF THE RIVER LIFFEY.

THE case of the Corporation of Dublin against the Port and Docks Board, lately referred to, for not taking action in this matter, has, as was expected by all parties, not excluding the corporation themselves, broken down, the summons being dismissed; and things now remain as they were. The Local Government Board has not the slightest intention of interfering, although one would fancy that the ample powers possessed by that body would allow their taking an active part in a matter of such importance to the citizens and visitors or Dublin.

### ROYAL COLLEGE OF SURGEONS OF IRELAND.

THE annual report and statement of accounts for the year ending April 5th last, of this College, has been issued; and leaving the details of income and expenditure, a few matters may be referred to which may be of interest to our readers. During the past year, forty-five candidates were admitted to the fellowship of the College, a hundred and twenty-four received the diploma in surgery, and twenty-two obtained the diploma in midwifery; so that the entire number on the lists of the College amounts to 414 Fellows, and 2,635 licentiates. Of the donations to the museum one would appear to call for special recognition, viz., upwards of three hundred specimens of anatomy and pathology were lately presented by Professor Bevan, and are stated to be an extremely valuable collection. Steps have been taken to enlarge the museum and library, the expense not to exceed the £5,000, and Mr. Symes's plans for that purpose have been adopted by the Council. At a meeting of the Council, held on April 1st, it was resolved that eight examiners should be elected for the future, instead of seven, the previous number; and, in accordance with this resolution, the amended Bye-law of the College having been forwarded to Mr. Secretary Cross, received Her Majesty's approval on April 29th; in virtue of which the Council elected, on May 4th last, eight instead of seven examiners for the ensuing year. In reference to the salaries of medical officers under the provisions of the Public Health Act, the Council, on November 5th, unanimously resolved: "That the Council of the College, having had their attention directed to the very inadequate scale of remuneration, in a very great number of instances, fixed upon by the sanitary authorities, not only in this city but throughout Ireland, as salaries for the medical officers employed under the provisions of the Public Health Act, feel it to be their duty respectfully to urge upon the Local Government Board the propriety of their taking such steps as will secure for said officers a scale of remuneration more in accordance with their social and professional status, and with the important and arduous nature of the duties expected at their hands."—Since last week, another candidate for the Council has come forward, viz., Dr. E. H. Bennett, professor of surgery in the University of Dublin, and surgeon to Sir Patrick Dun's Hospital. A meeting of the Fellows will be held on the 31st instant, to receive the annual report of the Council for the past year.

### JERVIS STREET HOSPITAL.

MESSRS. COLLINS and KILGARIFF have been appointed surgeons to this institution. Mr. Collins is a graduate in arts and medicine of Dublin University, and a licentiate of both the Dublin Colleges. He was a distinguished student of Trinity College, Dublin, and early distinguished himself in medical literature by the publication of a report on Cerebro-Spinal Meningitis, in the *Dublin Medical Journal*. Mr. Kilgariff is a Fellow of the Irish College of Surgeons, a licentiate of the College of Physicians, and demonstrator of Anatomy in the Catholic University School of Medicine.

### THE IRISH PHARMACY BILL.

THIS Bill, introduced by the Chief Secretary and Solicitor-General for Ireland, has been printed. Its object is to institute a pharmaceutical society for regulating the qualifications of pharmaceutical chemists. The Bill contains thirty-one clauses. The preamble clearly defines the evils which the Bill proposes to remedy. Among the leading statements contained in the preamble are the following. A great deficiency exists throughout Ireland of establishments and shops for the sale of medicines and for compounding of prescriptions, and great inconvenience thereby arises to the public in many parts of the country. To remedy such inconvenience, it is expedient to amend the Act of 1791, and to enable persons who, although they do not desire to practise the art and mystery of an apothecary, desire, and are qualified to open a shop for the retailing, dispensing, and compounding of poisons and medical prescriptions to keep open for the purposes aforesaid. For these purposes it is expedient that provision should be made for the formation of a pharmaceutical society in Ireland, for the examination of persons desiring to keep open shop, and for the registration of such as may be found, on examination, to possess a competent practical knowledge of pharmaceutical and general chemistry and other branches of useful knowledge as shall fit persons to keep open shop for the dispensing and compounding of prescriptions of duly qualified medical practitioners. Persons registered as pharmaceutical chemists in Great Britain shall be entitled to register as chemists in Ireland, and *vice versâ*; and that with respect thereto provisions such as are in this Act contained should be made. The first portion of the Bill deals with the constitution and incorporation of the Pharmaceutical Society of Ireland, and it describes who are to be the persons who may be elected members, term of office of president and vice-president, rotation, etc.; fees, fines on unqualified persons selling drugs. Registration is not to entitle to the practice of medicine.

## NORFOLK AND NORWICH HOSPITAL.

THE attention of the profession has been already called to the prevalence of hospital diseases (more especially pyæmia) in the Norfolk and Norwich Hospital. The discussion on Pyæmia at the Clinical Society in February 1874 elicited from Mr. Cadge the fact that twenty-one fatal cases had occurred in the institution during a period of three years. Dr. Copeman, in his presidential address delivered at the annual meeting of the British Medical Association at Norwich last year, speaking of the hospital, alluded to the "frequent occurrence of pyæmia after surgical operations"; and Dr. Beverley, one of the assistant-surgeons, read two papers at the same meeting, in which he gave statistical information on this subject, from which it appeared that pyæmia had been the cause of considerable mortality after operations and injuries during recent years. In addition to the above, three fatal cases were reported as occurring among the accidents received into the hospital from the Thorpe collision; and we learn that the experience of the first few months of this year has been even more disastrous, for erysipelas as well as pyæmia contributed to swell the hospital death-rate. Under these circumstances, the hospital authorities summoned Captain Douglas Galton to their aid, with a view to elicit his opinion on the best means of improving the sanitary condition of the hospital. Captain Galton's Report has been published, and consists of a quarto pamphlet of eight pages, with coloured plans.

Having premised that the Norfolk and Norwich Hospital was built in 1771, in the shape of the letter H—a plan which has been materially interfered with by subsequent additions of wards and administrative buildings—Captain Galton analyses the present hospital accommodation, and gives a list of the number of beds, and of the superficial and cubic space in each ward. There are at present 117 beds, divided amongst thirteen wards, some of which (excepting private wards) contain four or five beds, and none more than ten. In some wards, the floor-space amounts to 166 square feet per bed, as the highest; in others, 100, which is the lowest; whilst the cubic space per bed ranges from a minimum of 1,500 to a maximum of 2,500 cubic feet. This good allowance of floor and cubic space per bed is the result of repeated reductions in the number of beds which the staff have made from time to time, regarding overcrowding as the chief cause of the frequency of pyæmia. Not long since, the hospital contained 148 beds. The wards themselves, as originally designed, had windows on each side, with beds between them; but now many of them have the circulation of air around them seriously impaired, and windows closed by additional buildings and corridors giving access to additional wards. The only means of ventilation are the windows and open fireplaces of the usual construction; the former three to four feet from the floor and ceiling. The sculleries and water-closets are attached to, and open directly into, the wards, instead of being cut off by ventilated lobbies. The floors are of deal, and the joints very open. The nurses for the most part sleep in a small space in the ward, divided from it by a partition about eight feet high. Another grave defect pointed out by Captain Galton is, that the entrance-hall, situated in the centre of the building, is used as the out-patients' waiting-room; and, although it is cut off from the main corridors by swing doors, a large quantity of impure air must pass into the corridors and staircases of the hospital.

Captain Galton deals with the following "points which are laid down by the medical staff as the more urgent requirements: 1. The removal of the out-patients' department from the main building; 2. The addition of eighty beds in some well-contrived new building; 3. The provision in such new building or buildings of several small wards adapted for the isolation of infectious cases, and for the convenient treatment of several special diseases; 4. The removal of the dead-house, etc., from contiguity with the wards; 5. The providing proper accommodation for the nurses, and improved laundry arrangements.

"With regard to these requirements, the following questions arise. 1. Are there such evils attached to the present building as to render any expenditure on its improvement unadvisable? 2. What is the best form in which to build the new wards, and where upon the grounds belonging to the hospital should such new wards be erected? 3. Where would it be best to place the out-patient department, and what would be the best form and arrangement of it? 4. Where should the dead-house, etc., be placed? 5. What further alterations and improvements can be made in the present hospital to improve its sanitary condition? 6. Is it necessary for this purpose that any of the more recent additions to the present hospital should be removed, bearing in view the increased accommodation which will be provided by building new wards on the recently acquired land?"

Of these questions, Captain Galton writes: "The one which governs the whole is, whether the evils attendant upon the present hospital are so great as to render its improvement unadvisable. The building is an old one; the best wards contain defects which cannot be entirely removed. But, although undoubtedly a new hospital on the best modern principles would be far more satisfactory in its sanitary, administrative, and general arrangements, than the present building with the necessary additions, yet, having regard to the very large expenditure required for providing modern hospital accommodation, I am disposed to suggest that the present building should be retained and improved as far as possible." We think, however, that if there are defects which cannot be removed, if a new hospital would be better in the interest of the patients than the old one, this latter, and not the "large expenditure", should be the true principle on which judgment must be given.

Captain Galton proposes to treat the points raised by the medical staff as follows.

*In-patients.*—"New wards should be so placed as to ensure that there shall be a free circulation of air round them. Impediments to the circulation of air should be removed from the vicinity of existing wards."

On the land recently purchased, Captain Galton proposes to erect three new pavilions of two storeys, containing 132 beds in all; and, in order to provide for the due circulation of air round the central pavilion, he proposes the demolition of part of a wing of the original H building; the new pavilions to be connected with the existing hospital by means of a corridor on the ground-level. Captain Galton's directions are such as to secure for the new wards all the modern improvements which sanitary science can suggest or modern hospital administration require. The accommodation in the existing hospital is to be reduced to fifty-seven beds. No fewer than sixty are to be sacrificed, partly by the partial or total demolition of existing wards.

Are not the risks too great of retaining a hospital which, according to the evidence of its own surgical statistics, has been infected with pyæmia so extensively and for so many years? In the Sixth Annual Report of the Medical Officer of Health, Dr. Bristowe and Mr. Holmes, after pointing out various defects in the building incident on its antiquity and on the subsequent additional buildings, thus conclude: "Still, on the whole, the ventilation is quite adequate for the cases in the wards; and the average of cubic feet per bed is in general 1,200 to 1,300, and only in two small wards below 1,000." At this time (1863), the hospital contained 148 beds. During the past ten or twelve years, pyæmia has been more or less prevalent, averaging, according to the statistics already quoted, 4.2 cases per year (in ten years from 1864 to 1873), but ranging as high as 7 in 1868, and 12 in 1873; or, taking the total number of deaths in these ten years after operations and injuries at 109, no fewer than 42 of them were from pyæmia. In the same period (1864-73), 725 major operations were performed. Of these, 90 died; and of these 90 deaths, 24 were from pyæmia. Minor operations also have not escaped.

Much has been done, on the recommendation of the medical staff, to improve the sanitary condition of the hospital. Ventilation has been improved; sponges have been abolished from the wards; and a considerable reduction has been made in the number of beds per ward; but all to no purpose. Partial measures having proved inefficient, more radical means, such as emptying the hospital entirely for some months, throwing it open to the purifying influence of the atmosphere, scraping all the walls, painting the woodwork, disinfecting the linen and furniture, dispersing the establishment, should yet be tried, before either the hospital should be condemned or half its beds sacrificed, and certainly before any new pavilions in connection with it should be commenced. It might be expedient to follow the example of the Radcliffe Infirmary at Oxford, and seek the assistance of the Local Government Board, whose medical advisers might be able to effect discoveries with which Captain Galton's report does not profess to deal, and which have escaped the notice of the staff and committees.

The *Accommodation for the Nurses*, which is shown by the report to be very defective, is remedied by the removal of the "nurses' bunks" from the wards, and the conversion for this purpose of two large wards, whose ventilation is impaired by their surrounding buildings; but two of these wards would be restored to their former healthy condition of opposite windows by the removal of the museum. This, however, Captain Galton is not prepared to propose; but it is suggested that both it and the dead-house would, for many reasons, find a more appropriate place in the north-eastern portion of the site.

*The Out-patient Department* Captain Galton removes from the main building, and places in the southern corner of the hospital; and he recommends the demolition of the physicians' and surgeons' rooms, situate on each side of the board-room; but he does not restore this part of the hospital to its original shape by the removal of the board-room and chapel above it.

Captain Galton's further suggestions may be summed up in the removal of a block of buildings containing two small wards above and children's wards below, with the corridor leading thereto; of another corridor on the west of the building, which obstructs the light and ventilation of an important accident-ward; and of a recently added corridor on the upper floor; the substitution of ventilating fire-places for those in use; the introduction of Sherringham's ventilators; the filling up the joints of the floor, and oiling and beeswaxing them; together with the cutting off the water-closets and lavatories from the wards by ventilating lobbies.

This report by Captain Galton possesses general as well as local interest.

## A MEDICAL DEFENCE ASSOCIATION.

A MEETING of medical practitioners who had responded to the letters of Mr. George Brown, which were published in the BRITISH MEDICAL JOURNAL of April 24th and May 15th, inviting members of the profession to join him in forming a society for the purpose of preventing unqualified practice, was held at the residence of Mr. G. Danford Thomas, M.R.C.S., deputy coroner for Central Middlesex, on Friday evening, the 21st instant. Among those present were Dr. Stevenson, Messrs. Maclean and Brooks of Paddington; Dr. Leslie of Westminster; Mr. Drew of Gower Street; Messrs. Sebastian Gardner and G. Brown of Islington; Mr. Harrison of Shepherd's Bush, etc. Mr. Thomas, having been voted to the chair, said that for a considerable time past he had felt that something ought to be done to check the practices of quacks and unqualified persons; and when he read the letter of Mr. Brown, which was published in the BRITISH MEDICAL JOURNAL of April 24th, he at once communicated with him, and offered the use of his house for a meeting of medical men interested in the movement. The proposed society deserved the support of every medical man; and, if carried out successfully, would not only promote the welfare of the profession, but confer a vast benefit on the public by preventing them from falling into the hands of those who were not competent to treat disease. The movement had evoked much sympathy from country practitioners, who, he believed, were much interfered with in their practices by unqualified persons. Among provincial medical men who had written to Mr. Brown offering their support, were Dr. Waddell of Norwich; Mr. Wotton of Bingham, Nottinghamshire; Mr. J. H. Wathen of Fishguard, Pembrokeshire; Dr. Stanley Haynes of Malvern; Mr. J. O'Flanagan of Houghton-le-Spring; and Dr. Croucher of Brighton. Mr. George Brown proposed, and Dr. Leslie seconded, the following resolution, which was carried unanimously: "That this meeting approves the formation of a society for the suppression by every legitimate means of medical and surgical practice by unqualified persons, and that the society be entitled British Medical Defence Association." The annual subscription was fixed at ten shillings and sixpence. The following gentlemen were elected members of the provisional committee for the purpose of carrying out the preliminary measures necessary for the formation of the Association, viz.: Drs. Stevenson and Leslie, Messrs. Maclean, F. H. Hume, Harrison, S. Gardner, W. H. Drew, J. E. Brooks, G. D. Thomas (Honorary Treasurer), and George Brown (Honorary Secretary, *pro tem.*) The proceedings terminated with a vote of thanks to Mr. Thomas for his kindness in permitting the meeting to assemble in his house, and for his able conduct in the chair. Names of gentlemen willing to join the Association will be received by the Honorary Secretary, 12, Colebrook Row, Islington, N.

# ASSOCIATION INTELLIGENCE.

## METROPOLITAN COUNTIES BRANCH.

AN ordinary meeting of this Branch will be held at 11, Chandos Street, Cavendish Square, on Friday, June 4th, at 8 P.M., when Dr. Robert Barnes will read a paper on "Some Physiologico-Pathological Phenomena of the Circulation in Pregnant Women".

ALEXANDER HENRY, M.D. } *Hon.*
ROBERT FARQUHARSON, M.D. } *Secs.*

## MIDLAND BRANCH.

THE general annual meeting of this Branch will take place in June, at the Derby Infirmary; President, T. SYMPSON, Esq., F.R.C.S.; President-elect, A. H. DOLMAN, Esq., M.R.C.S., etc.

Gentlemen intending to read papers, are requested to communicate with F. W. WRIGHT, *Honorary Secretary, pro tem.*

Full Street, Derby, May 1875.

## SOUTH EASTERN BRANCH: WEST SUSSEX DISTRICT.

THE next meeting will be held at Horsham, on Tuesday, June 8th. The Chair will be taken by THOMAS B. GREENWOOD, Esq., of Two-Mile-Ash.

Gentlemen who wish to read papers, are requested to communicate with the Honorary Secretary by Saturday, May 29th.

WM. J. HARRIS, *Honorary Secretary.*

13, Marine Parade, Worthing, May 17th, 1875.

## YORKSHIRE BRANCH.

THE annual meeting of this Branch will be held at the Medical School, Leeds, on Wednesday, June 9th, at 2.30 P.M.

After the meeting, the members will dine at the Great Northern Hotel. Tickets, 6s. 6d. each.

Gentlemen intending to bring forward communications, or join the dinner, are requested to communicate with the Secretary.

W. PROCTER, M.D., *Local Secretary.*

24, Petergate, York, May 18th, 1875.

## NORTH WALES BRANCH.

THE twenty-sixth annual meeting of the North Wales Branch will be held at Rhyl, on Tuesday, June 15th, at 1 P.M.; under the presidency of D. KENT JONES, Esq., of Vochriew.

The dinner will take place at 3.30 P.M. Tickets, 7s. 6d., exclusive of wine. T. EYTON JONES, M.D., *Honorary Secretary.*

The Priory, Wrexham, May 22nd, 1875.

## SOUTH-WESTERN BRANCH.

THE annual meeting of this Branch will be held by direction of the President-elect, PAUL W. SWAIN, Esq., F.R.C.S., on Thursday, June 17th, at 1 P.M., at the Royal Albert Hospital, Devonport.

Previous to the meeting, arrangements will be made for any members who desire it to visit the Dockyard; and, after the meeting, a marine excursion in a steam-launch is proposed.

A paper is promised on the Ethics of Consulting Practice, by W. P. Swain, Esq., F.R.C.S.; and the Secretary will be glad to receive the names of members proposing to read short papers.

The dinner will be held at the Royal Hotel, Devonport, at 5.15 P.M. Tickets, exclusive of wine, 7s. 6d.

JOHN WOODMAN, F.R.C.S., *Honorary Secretary.*

2, Chichester Place, Exeter, May 25th, 1875.

## LANCASHIRE AND CHESHIRE BRANCH.

THE annual meeting of this Branch will be held in the Town Hall, Chester, on Wednesday, June 30th, at 1 P.M.—JOHN SKAIFE, Esq., President; Dr. DAVIES-COLLEY, President-elect.

The dinner at the Grosvenor Hotel at 5 P.M. Tickets, 7s. 6d., exclusive of wine.

*Communications.*—1. Lymphoma or Lymphadenoma in a Child. By Dr. Oxley.

2. Supracondyloid Amputation of Thigh. By Dr. Chaworth Lyster.

Notice of papers (which must not exceed fifteen minutes) should be forwarded at once to the undersigned. None received after June 12th can appear in the circular.

A. B. STEELE, *Honorary Secretary.*

54, Rodney Street, Liverpool, May 28th, 1875.

## CAMBRIDGESHIRE AND HUNTINGDONSHIRE, EAST ANGLIAN, AND SOUTH MIDLAND BRANCHES.

THE combined annual meeting of the above Branches will be held in the Anatomical Museum, Cambridge, on Friday, July 2nd, at 2.30 P.M.; G. M. HUMPHRY, M.D., F.R.S., President.

The dinner will take place in the Hall of St. Peter's College, at 6.30 P.M. Tickets, 17s. 6d. each.

Members intending to read papers, or to be present at the dinner, are requested to intimate their intention, at their earliest convenience, to one of the Honorary Secretaries.

J. B. BRADBURY, M.D., Cambridge.
B. CHEVALLIER, M.D., Ipswich.
J. B. PITT, M.D., Norwich.
J. M. BRYAN, M.D., Northampton.
*Honorary Secretaries.*

Cambridge, May 1875.

## BIRMINGHAM AND MIDLAND COUNTIES BRANCH: MICROSCOPICAL SECTION.

A MEETING of this Section took place at the Midland Institute on April 30th; Dr. W. HINDS in the chair.

*Corpus Striatum from a Case of Chorea.*—Dr. RUSSELL brought before the Section some sections by Mr. P. Bindley, the Pathologist to the General Hospital, taken from the corpus striatum of a girl, aged 17, who had died in the hospital of violent chorea, with very high temperature, four days after cessation of movements. The symptoms resembled those of typhoid fever. After making a few observations on Dr. Kirkes's well known paper in 1863, Dr. Russell proceeded to notice the hypothesis of obstruction of the small vessels of a particular part of the brain, first suggested by Dr. Hughlings Jackson as constituting the pathological foundation for chorea. Having pointed to the physiological and clinical support received by the hypothesis, he proceeded to read a brief abstract of the cases of chorea in which death had occurred, and in which *post mortem* examination afforded confirmation of the embolic theory. His own specimens closely resembled those described by Dr. E. Long Fox of Bristol (*Medical Times and Gazette*, October 8th, 1870), excepting in their being of a far more limited character.

*Sections of Choroid in Chronic Glaucoma.*—Mr. PRIESTLEY SMITH exhibited portions of the choroid coat from an excised eye-ball, and also one lateral half of the eye-ball preserved in glycerine jelly. The eye had been totally blind for twenty years, probably from chronic glaucoma. Latterly there had been ciliary injection and pain. The pupil was dilated; the iris was of of a dull grey colour, with a well marked black ring at its free border. This ring proved to be due to exposure of the uveal layer, through extreme atrophy and springing of the anterior fibrous layer. The retina was detached in part. The choroid showed numerous morbid pigmentation-patches, the pigment from which had in some places invaded the retina. The choroid was, moreover, thickly studded, especially in the equatorial region, with large round cells just visible to the naked eye, and resembling grains of sand. Under the microscope, these appeared to be giant-cells undergoing colloid degeneration.

*Melano-Sarcoma of Eye-ball.*—Mr. LLOYD OWEN contributed some specimens of interest, and also made remarks thereon, especially in reference to the pigmentation of the tissues involved.

*Section-cutting by the Freezing Method.*— At the previous meeting of the Section, Mr. LAWSON TAIT gave a practical illustration of the section cutting process by the freezing method, cutting sections in the presence of the members. Mr. Tait also gave an almost exhaustive history of the various means employed in staining and mounting animal tissues, describing the special qualities of many of the staining agents.

*Addison's Disease.*—Mr. P. BINDLEY exhibited specimens of sympathetic ganglia and sections of suprarenal capsule from a case of morbus Addisonii.

## BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE sixth ordinary meeting of the Session was held at the York House, Bath, on Thursday evening, May 13th; F. MASON, Esq., President, in the chair. There were also thirty members present.

*New Members.*—F. W. Hanham, Esq. (Bath), Charles Newman, Esq. (Bristol), T. H. Thomas, Esq. (Shirehampton), F. W. Smith, Esq. (Westbury), and Henry Alford, M.D. (Taunton), were elected members of the Association and of the Branch.

*Papers.*—The following papers were read.

1. Dr. J. G. SWAYNE read a paper on Adhesion of the Placenta, which led to a discussion, in which Messrs. Bartrum, Stone, Collins, Leonard, Andrews, Waugh, Craddock, Laurence, Brabazon, and Moir took part.

2. Dr. GOODRIDGE read a Case of Chronic Ulcer of the Stomach, on which Dr. S. Smith and Dr. Colthurst made short observations; but the lateness of the hour prevented further discussion.

## BORDER COUNTIES BRANCH: SPRING MEETING.

THE spring meeting of this Branch was held in the Board Room of the Cumberland Infirmary on Wednesday, May 12th. The President of the Branch, Dr. GREEN of Kendal, took the chair at one o'clock; and there were present eighteen members and four visitors.

The minutes of the last meeting were read and confirmed.

*New Members.*—The following gentlemen were elected members of the Association and Branch: George Barkley, M.D. (Frigrighouse), F. Murchison, M.B. (Dumfries), A. C. Munro, M.B. (Dumfries).

*Representatives in the General Council.*—The following gentlemen were elected to represent the Branch on the General Council of the Association, viz.: J. A. Campbell, M.D. (Carlisle), J. Gilchrist, M.D. (Dumfries), T. F. I'Anson, M.D. (Whitehaven), S. Lockie, M.D. (Carlisle), and J. Smith, M.D. (Dumfries).

*Papers.*—The following papers were read.

1. *Paracentesis of the Chest.*—Dr. BARNES (Carlisle) read a paper in which he pointed out the value of paracentesis of the chest, and the class of cases in which the operation is suitable, and then considered briefly the objections which have been urged against it and the best method of performing it. After discussing briefly the history of the operation and the great improvements made in recent years in the instruments used, the cases in which the author had used paracentesis were referred to. These cases illustrated the advantages of the operation in simple acute pleurisy with effusion, in large effusions into the pleural cavity occurring as a complication of enteric fever, in chronic pleuritic effusions, and in empyema. Other conditions which call for paracentesis were alluded to. The dangers of the operation were usually overstated. It is better to operate soon than to leave effusions in the pleural cavity and allow the formation of false membranes to bind down the lung.

2. *Poisoning by Coal-Gas.*—Dr. LOCKIE read an account of a case of poisoning by the inhalation of coal-gas. It was that of a young man, assistant "boots" at an hotel, who was found in bed in an unconscious condition in a room in which an escape of gas had taken place from the sliding gaselier, presumably during the whole night. One of the two jets was found burning, and there was a strong smell of gas in the apartment when first entered by his fellow-servant. The chief characteristics of the case were complete coma, lividity of the features, oscillation of the eyeballs, rapid but fluctuating respiration, odour of coal-gas in the breath, rapid and feeble pulse, and high temperature, rising to 106.7 in the axilla shortly before death, which occurred sixty-eight hours and a half after he was discovered. Various remedies were tried, including the inhalation of oxygen and cold affusion. At the necropsy, numerous small clots were found in the brain; the right cavities of the heart were engorged with fluid and clotted blood; the lungs were of a dark claret colour, mottled with bright pink; and the kidneys also were congested.

3. *Traumatic Tetanus successfully treated by Calabar Bean and by Croton-Chloral-Hydrate.*— Dr. MCGREGOR read the accounts of two cases. The first case was that of Thomas Smith, aged 30, who, in April, 1874, was knocked down by a cow, which trampled on his hand, crushing the ring finger. Dr. Lindsay of Shap, who saw the man, dressed the wound, which, instead of healing, led to lock-jaw about a week thereafter. Dr. McGregor saw the case in consultation with Dr. Lindsay, and found that, though the wound had granulated, the finger was much swollen, and some affection of the bone was evidently present. On examination by the probe, a comminuted fracture was discovered. Amputation was performed at once. The symptoms for a few days ameliorated considerably, but returned with increased severity; he had severe attacks of spasm, opisthotonos, etc. He took large doses of bromide of potassium and syrup of chloral. He slept; but when he was awake, the fits returned constantly, and so on for a fortnight, till croton-chloral was given, when immediate relief was obtained. He recovered. The second case was that of Richard Bell, aged 17, who, on December 24th, 1874, injured his back while carrying a bag of lime up a stair. Soon afterwards, he was seized with tetanus. His teeth were clenched; his whole body stiff; the back was frequently arched; he had frothing at the mouth, wild stare of eyes, and could not swallow; some thought it hydrophobia at first. Dr. McGregor gave him at first croton-chloral-hydrate in ten-grain doses; but with no effect except sleep. He then had Calabar bean in doses of from one-eighth, and afterwards, one-fourth of a grain every four hours. He made a gradual recovery after a month's treatment in all. The remedy which seemed to have cured the former case had no effect on this. Perhaps, it was due to the one being from peripheral (finger) irritation, while the other was central (spine).

Animated discussions followed the reading of all these papers; and at the conclusion it was found that there was not sufficient time left to take into consideration the report of the Birmingham and Midland Counties Branch on the treatment of habitual drunkards. It was, therefore, resolved to postpone this subject until next meeting.

*Committee of Cumberland Infirmary.*—The following resolution, passed at a meeting of the Committee of the Cumberland Infirmary, was read: "That the Secretaries of the Border Counties Branch of the British Medical Association be requested to intimate to their meeting the pleasure which it gives this Committee to receive them at the Cumberland Infirmary." It was moved by Dr. I'ANSON, seconded by Dr. SMITH, and carried unanimously: "That the thanks of this meeting be accorded to the Committee of the Cumberland Infirmary for their resolution, and for their courtesy in allowing the use of their Board Room to the members of the Border Counties Branch of the British Medical Association."

This terminated the business at the ordinary meeting, and the members then proceeded to visit the wards of the hospital and to inspect many cases of interest.

*Dinner.*—The members and their friends subsequently dined together at the County Hotel; Dr. Green occupying the chair, and Dr. I'Anson the vice-chair.

# REPORTS OF SOCIETIES.

## CLINICAL SOCIETY OF LONDON.

FRIDAY, MAY 14TH, 1875.

SIR WILLIAM JENNER, Bart., M.D., D.C.L., F.R.S., President, in the Chair.

*The Cause of some of the Eruptions which have been classed as Hydroa.*—Mr. HUTCHINSON stated that his principal object in bringing this subject before the society was to ask attention to a hitherto unsuspected cause of the eruption. The term hydroa had been given, he remembered, by M. Bazin, about fifteen years ago, to a peculiar bullous or vesicular eruption which, although not very common, was a disease of considerable importance, from its being liable to be mistaken for small-pox on the one hand, and for certain forms of secondary syphilis on the other. The main features of the disease were stated to consist in the rapid appearance of a symmetrical eruption affecting by preference the face, backs of the hands and forearms, and less frequently the buccal mucous membrane, and fronts of the knees and legs. Its spots, at first erythematous, quickly became bullous or vesicular, tending to spread at their edges and subside at the centre, and rapidly undergoing spontaneous cure. The eruption was usually attended by little or no constitutional disturbance, or occasionally by slight rheumatic symptoms and effusion into one or more joints; finally, in some cases the disease showed a tendency to recur after long intervals. The disease appeared to have no alliance with either pemphigus or herpes, nor was there any difficulty in diagnosing it from these maladies. M. Bazin had not, so far as the author knew, offered any satisfactory suggestion as to the cause of the disease, nor had Mr. Hutchinson been able to assign any cause at the time when he published a series of cases in 1870. (See BRITISH MEDICAL JOURNAL, 1870, vols. i and ii.) The occurrence of other cases, however, and a reconsideration of the facts relating to those already referred to, had induced him to believe that in not a few instances, perhaps in the majority, hydroa was caused by iodide of potassium. The fact that the iodide was universally known to cause in many persons a slight eruption of acne or lichen on the face was alluded to, and allusion was made to the severe eruptions which occasionally followed the use of the bromide of potassium. The author was not aware, however, that attention had been called to the iodide as an occasional cause of severer eruptions, such as hydroa. Drawings were handed round, illustrating several cases in which it was quite certain that the hydroa eruption had been caused by this drug, and others in which from circumstances in the patients' history its previous administration was highly probable. It was of special importance to recognise this occasional effect of the iodide, because, from the similarity between hydroa and some syphilides it was otherwise quite possible to diagnose the eruptions as syphilitic and treat it by the very drug which had caused it. The author believed that this danger was not an imaginary one, and that the persistent administration of iodide of potassium to patients suffering from iodide hydroa was now and then the cause of very serious ulcerating skin-disease with grave constitutional symptoms. Particulars of one such case occurring in Mr. Hutchinson's practice were narrated, in which a patient presenting skin-ulcerations exactly resembling those of tertiary syphilis continued to become worse and worse while treated with iodide; and who immediately improved and rapidly quite recovered when the drug was omitted. In two cases the eruption was experimentally produced a second time. The author did not consider that iodide of potassium was the cause of all cases of hydroa, believing it probable that there were cases in which other agencies were at work. He suggested with reference to these latter that they might in the future be found to depend on other drugs, or on special articles of diet. Attention was called to the similarity between the author's drawings of *hydroa* and the illustrations of *erythema multiforme* and *herpes iris* given in Professor Hebra's *Atlas of Skin Diseases*, which were also handed round for comparison. He also referred to a good cast of Bazin's hydroa in the museum of the St. Louis Hospital, in Paris, which had been the means of attracting his attention to the subject. He felt no doubt that this cast and M. Bazin's descriptions referred to similar cases to those which he had met with. Lastly, Mr. Hutchinson showed drawings of a form of vesicating erythema which, although allied to hydroa, was to be distinguished from it by tolerably well-marked symptomatic differences, and was not, in his opinion, caused by the iodide.

The PRESIDENT asked if Mr. Hutchinson had examined the contents of the bullæ for iodide of potassium. When a patient was salivated by the drug, the saliva was found to contain a large amount of the iodide.—Mr. HUTCHINSON had not tested the contents of the bullæ for the salt.—Dr. TILBURY FOX perfectly agreed with Mr. Hutchinson in much of the ground he had travelled over, certainly in so far as his description of the disease agreed with Bazin's. In seven or eight cases which he had seen, there was no evidence of the patient having taken iodide of potassium. In some cases, the patients had enjoyed good health until the appearance of the eruption, for which they had at once presented themselves for treatment. He could not say whether the cases of Bazin were allied to those produced by the iodide; he thought the alliance of hydroa was rather with herpes and pemphigus. He had seen hydroa with large bullæ. In one case, urticaria first appeared, and bullæ afterwards came out. Herpes, hydroa, and pemphigus, seemed to be nearly allied.

*Acute Fatty Degeneration of the Heart.*—Dr. T. H. GREEN read notes of the case of a girl aged 19, who was admitted into Charing Cross Hospital, under his care, suffering from heart-disease. She had a moderate amount of mitral obstruction, with regurgitation and enlargement of the right ventricle. The girl was weakly and anæmic; but whilst she kept quiet and was well fed, her heart did its work sufficiently well to prevent the occurrence of any marked cardiac symptoms. There was no trace of anasarca or of any pulmonary symptoms. After she had remained in the hospital about seven weeks, as, with the exception of some anæmia and debility, she seemed fairly well, arrangements were made to send her into the country. At this juncture, menstruation reappeared. It had been absent for three months. It was more profuse than usual; and the girl now commenced to vomit her food. The vomiting persisted, and the girl died in six days, with symptoms of exhaustion and failure of cardiac power. At the *post mortem* examination, the heart was found enlarged, especially the right ventricle and left auricle. The mitral orifice was contracted and funnel-shaped, and the orifice would admit a large forefinger. The muscular tissue of the heart had undergone extensive fatty metamorphosis: this was universal. The aorta was very narrow; and below the orifice of the large vessels from the arch, would admit only the tip of the little finger. The vessels generally, like the heart, had undergone fatty metamorphosis, but to a less extent. The other organs presented the appearances which result from moderate but long-continued mechanical congestion. Dr. Green remarked that the points of interest in the case were—1. The rapid way in which exhaustion and death had supervened in a case of valvular cardiac disease, in which the cardiac affection was producing but few symptoms, and in which dissolution resulted without the occurrence of any acute inflammatory complication: 2. The extensive fatty metamorphosis of the heart and other muscles found after death. The fatty metamorphosis, which caused the death of the patient, must have been due to imperfect tissue-oxidation, resulting from—(*a*) the condition of anæmia induced by the profuse menstruation and inability to assimilate food; (*b*) the diminished supply of blood to the tissues, resulting from the mitral obstruction and the smallness of the arteries.

In answer to questions, Dr. GREEN stated that the patient had no anasarca, and had not, during the earlier part of her illness, serious symptoms referable to the heart. After death, the liver and kidneys were found slightly hardened. The veins of the heart were not examined. The pulse was feeble during the last four days of life. The patient never fainted.

*Absence of Pulsation in both Radial Arteries, the Vessels being full.*—Dr. BROADBENT gave particulars of this case. The patient, a man aged 50, died from cirrhosis of the liver, with ascites. For thirty years he had been known to have no pulse at the wrist, the fact having been discovered after a fall from a railway carriage in motion. While, however, there was no pulsation in the radial arteries, or in the subclavians or their branches, these vessels were evidently full of blood, and could be rolled under the finger; the venous and capillary circulation also was vigorous. By raising the arm, the blood fell back, and left the artery of the wrist empty and collapsed. Pulsation was good in the left carotid and in the femorals; feeble in the right carotid. On *post mortem* examination, the peculiar condition of the circulation in the subclavian was found to be due to a slight abnormality in the mode of origin of the branches given off from the arch of the aorta. The left carotid artery arose close to the innominate, and caused a constriction at the mouth of the latter vessel; the left vertebral, again, instead of coming from the subclavian, sprang from the arch of the aorta, close to this artery, and gave rise to a constriction of its orifice. In both cases, the original narrowing was increased by a ring of atheroma round the vessel already constricted, the aorta generally and its branches being free from disease. The small and rigid opening, with a full sized and elastic vessel beyond, perfectly accounted for the absence of pulsation without cessation of circulation; and it was interesting to find that the cause of the similar condition of the two wrists was a repetition at two separate points of a similar abnormality, instead of a single lesion, as had been expected. It was interesting, again, to see that undue strain at the narrowed orifices had caused the development of atheroma at these two points where alone disease of the arterial coats was present.

Mr. MORRANT BAKER inquired whether any sphygmographic tracing was taken, because, although the impulse of the blood-current at the wrist might be imperceptible to the touch, yet the more delicate instrument might have been able to register it.—Dr. BROADBENT replied that the attempt had been once made, but without the least success; and that the experiment was not again tried.

*A Case of Dilated Heart from Valvular Lesion, in which the Right Ventricle was tapped by error, not only without harm, but with relief of symptoms.*—Dr. GEORGE EVANS related the particulars of this case. A woman aged 27 was admitted into the Middlesex Hospital, under his care, on February 22nd, 1875. She was then suffering from acute rheumatism and heart-disease, probably the result of a former attack of the same disease. The area of præcordial dulness was increased; there were murmurs at base and apex, and there was considerable dyspnœa. By the 26th, the præcordial dulness had increased considerably; there was very obvious bulging of the chest-wall; the heart-sounds were "muffled"; the distress of breathing was excessive, threatening very speedy death; and on consultation, it was determined to tap the pericardial cavity, with the hope of relieving the more distressing symptoms. A fine trocar was introduced by Mr. Hulke, to the depth of about half an inch, in the fourth interspace, about half an inch to the left of the sternum. On removing the trocar, a gush of dark blood issued from the cannula, and the instrument was felt to be moved in accordance with the action of the heart. The cannula was almost immediately withdrawn, not more than about a drachm of blood having been removed. During the operation, no change was observed in the patient's pulse; after it, she expressed herself as feeling relieved; and that night was the best that she had passed since admission. During the next few days she seemed better; the præcordial dulness gradually diminished. She had signs of pleuropneumonia of the right lung at the time the operation was performed; and there was some fluid effusion in the right pleural cavity, and, later, in the left. After improving in general condition for a week or two, she gradually succumbed to general œdema, four weeks after the operation. It was decidedly the opinion of those present at the operation, that the trocar was inserted into the right ventricle. At the *post mortem* examination, the heart was found to be extremely enlarged, with an universally adherent pericardium, the adhesions being evidently of considerable age. The interest of the case lay in the fact that (presumed) puncture of the right ventricle not only led to no ill results, but apparently gave temporary relief in a perfectly hopeless case; and it also illustrated the difficulty of diagnosing between pericardial effusion and an extremely and rapidly dilated right heart.

In reply to the PRESIDENT, Dr. EVANS stated that no trace of a cicatrix could be found in the substance of the heart nor on the inner wall of the ventricle, although search was most carefully made.—Mr. HULKE said there was no doubt that the fine trocar entered the heart, for it oscillated with the cardiac pulsation. Another time, he should prefer to connect the needle with some kind of exhausting chamber, and to push it in very slowly; one might then stop immediately fluid appeared. The position he had chosen he considered to be the best one at which to tap the pericardium; it was away from the heart's apex and the internal mammary artery. He was very much concerned when he saw the blood flow; but, in half an hour, the woman expressed her thanks for the relief afforded her.—Dr. SOUTHEY had seen a similar case at St. Bartholomew's Hospital, in which the trocar entered the left ventricle; and in a little while the patient died with the pericardium filled with blood. In that case, the surgeon was quite sure his trocar had entered the heart from the movements he felt.—The PRESIDENT remarked that death was not due simply to the instrument perforating the heart, but to the subsequent pressure of the blood which escaped into the pericardium.—Dr. BROADBENT quite agreed with the President in that remark, and thought the relief in Dr. Evans's case was not due to the escape of a drachm or two drachms of blood, but that the benefit was produced by the operation stimulating the heart to increased action, so that it could more thoroughly expel its contents. It was, in one sense, a pity that more blood was not taken at the operation.—Dr. YEO referred to a case in which puncture was made to relieve pericardial effusion. The child lived for weeks, and, after death, a scar was found in the heart, but no ill-effects had resulted from the puncture.—Mr. HUTCHINSON asked if any adhesions of the pericardium were found in that case.—Dr. YEO replied, "None".—Dr. FARQUHARSON gave particulars of a case which he had formerly brought before the Medical Society of London. The heart of a boy had been punctured by a knife to the depth of half an inch at the apex; the accident was followed by intense collapse and pericarditis. In looking up the literature of the subject, he had found in the BRITISH MEDICAL JOURNAL reference to some observations by Dr. Steiner of Vienna, who had announced, as the result of experiments upon animals, that either ventricle might be punctured with a needle without evil effect, but that puncture of either auricle with the needle was always followed by fatal hæmorrhage.—The PRESIDENT, in reference to Dr. Broadbent's remarks, considered that two drachms of blood taken from an overdistended right ventricle might surely relieve it, enable it to act more vigorously, and so have a good effect.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MAY 25TH, 1875.

SIR JAMES PAGET, Bart., D.C.L., LL.D., F.R.S., President, in the Chair.

### ON THE TREATMENT OF NASAL LUPUS BY EXCISION.

BY JOHN GAY, F.R.C.S.

THE object of this paper was to show that lupus exedens is a topically malignant form of ulceration; and that the alleged cures of this affection by constitutional means are probably due either to errors in diagnosis, or the inclusion under the generic term "lupus" of forms of disease with which typically it has no natural affinity or alliance. From the ulcers, for which, from its objective features, it is most likely to be misapprehended, viz., epithelioma and rodent ulcer, it may be clearly distinguished (*a*) by the periods of life at which these diseases are most prone respectively to attack individuals, (*b*) by their several histological features, (*c*) by some certain dissimilarity in their objective symptoms, and (*d*) by the test of systemic contamination, as indicated by ganglionic infection. Bearing on the practical point in the paper, which is its curability by excision, the question of its systemic complication is of the first importance, and in this respect the author inferred from the results of his experience of the knife as a remedy, as from his observations on the idiosyncrasy of persons affected with lupus, that it is, like rodent ulcer, as shown by Mr. Hulke's investigations, essentially a local disease. It may, and certainly does, occur in persons with some of the ordinary general systemic indications of struma, but not, so far as the author has observed, with those of strumous joints or glands. The conclusions to which dermatologists have come with regard to the influence of systemic remedies is favourable to this view of its essential character; for they have been compelled consistently to deny to drugs any therapeutic influence over an established lupoid sore. The only principle upon which it can be successfully treated is that of eradication by topical means. Caustics, however, have repeatedly failed, apparently from a want of definite aim in using them. There has been no clear mode laid down of ascertaining the depths to which the virus of lupus has penetrated from its ulcer surface; consequently, the amount of tissue that has to be destroyed in order to ensure its perfect eradication has been a matter of conjecture. The author believed that the limits of the poisoned tissue may be satisfactorily determined; and that these are not so wide as to be beyond the reach of the destructive powers of caustic potash. The objection to this agent, however, and the pre-eminent favour in which the author was disposed to hold excision, arose from the fact that in nasal lupus, especially in which disfigurement follows in the event of its being removed by caustic cicatrisation, or an advance towards it, must be allowed to take place before any restorative operation of a plastic kind can be done, one of the most important objects in the treatment of cases of this kind. If the removal of the diseased parts be made by the knife, any such operation that may be deemed expedient may be simultaneously done, and thus tissue is saved, the loss of which would be incumbent on the use of caustic. Cases were cited illustrative of the mode of treatment which the author recommended.

Mr. JOHN MARSHALL agreed with Mr. Gay that it was necessary to destroy the tissue around the margin of the ulcer. He had found the galvanised cautery most efficacious for the purpose of removing the diseases.—Mr. GAY recognised the high value of the galvanic cautery, but thought that the use of the knife economised the proceedings when a plastic operation was necessary to remove the deformity.

### CASE OF DOUBLE FACIAL PALSY, WITH LOSS OF TASTE IN THE FOREPART OF THE TONGUE. BY ROBERT MACDONNELL, M.D., F.R.S.

The author gave a detailed account of a case of complete paralysis of the portio dura of the seventh pair of nerves in an otherwise healthy young man, twenty-four years of age, occurring on both sides. There was no evidence of any central lesion of the brain, nor were any other cerebral nerves engaged. There was complete loss of the sense of taste in the forepart of the tongue, which the author attributed to paralysis of the chorda tympani. Tactile and thermic impressions were perceived in the forepart of the tongue quite as distinctly as in healthy persons. In conclusion, the author compared his case with one recorded by Dr. Althaus in vol. lii of the *Medico-Chirurgical Transactions*, in which there was paralysis of the fifth pair on both sides, and in which the sense of touch in the tongue was lost, that of taste persisting.

### ON THE SO-CALLED PARTIAL DISLOCATION OF THE HUMERUS. BY EDMUND OWEN, F.R.C.S.

(Communicated by GEO. G. GASCOYEN, F.R.C.S.)

In this paper, the author endeavoured to show, by the aid of four recent dissections, that the cases which have been recorded as examples of true partial dislocation of the humerus are due to the effects of disease rather than of accident. The case instanced by Sir Astley Cooper in his *Treatise on Fractures and Dislocations*, and that described by Mr. John Soden in the *Medico-Chirurgical Transactions* (vol. xxv, 1841), which had hitherto been considered as evidence that this form of displacement may result from "injury", were specially referred to as lending support to the opinion advanced by the writer.

Mr. GASCOYEN had examined Mr. Owen's specimens; signs of disease of the parts were certainly present in them. He had long doubted the possibility of partial dislocation of the shoulder upwards, not being able to see by what means the head of the bone could be held up.—Mr. GAY was disposed to think that partial dislocation might occur, and that the morbid conditions of the joint diseased were secondary. He had seen, in conjunction with Mr. J. Hutchinson, a case of a gentleman who had had a fall, and in whom there was distinct evidence of dislocation upwards and forwards. The joint was immovable. A bandage was applied with the view of bringing the bone into its normal position; and, when the patient was seen some time afterwards, the dislocation was in a great measure reduced, and a considerable amount of power of motion regained.—Mr. HOWARD MARSH said that no doubt some of the cases described as partial dislocation were instances of chronic rheumatic arthritis; but he also thought that partial dislocation might occur. The head of the bone might be held up through displacement of tendon of the long head of the biceps.—Mr. OWEN, in replying, said that in some of the specimens described the tendon had been torn through.

### CASE OF CONGENITAL DEFICIENCY OF THE PERITONEUM, RESULTING IN INTESTINAL OBSTRUCTION, AND SIMULATING AN ABDOMINAL TUMOUR. BY LAWSON TAIT, F.R.C.S.

On January 21st, the author saw Miss M., in consultation with Dr. Hickinbotham and Mr. Pugh. She had been suffering for three weeks from severe symptoms of intestinal obstruction, for which no treatment gave any effectual relief. At no time had there been any symptoms of peritonitis. She was thin and of small size, the temperature was normal, and the pulse a little over 100. There were obstinate vomiting and slight headache. A small tumour in the rectum was diagnosed as an ovarian cyst. A tumour, about the size and shape of a large lemon, existed in the left hypochondriac and lumbar region. It seemed to fluctuate obscurely. It was dull on percussion, and could not be moved freely. The patient died on the 24th; and on the evening of the same day a *post mortem* examination was made. There was no appearance of an abdominal cavity, the tissue of the anterior wall seeming to run on to the stomach and small intestines; and these latter lay matted together looking like the convolutions of the brain, but not covered with any glistening membrane. The coils were readily separable, and their union was due to an abundance of ordinary areolar tissue. Nowhere was there any trace of inflammatory action. The tumour in the left lumbar region was found to be composed of a number of knuckles of intestine, which were occupied by numerous nodules of hard fæces. The inability of the intestines to move these masses onward seemed to constitute the whole cause of the obstruction; there was no actual constriction. In the pelvis, none of the usual peritoneal limitations existed, so that it was impossible to identify the organs *in situ*, and it was only after very considerable dissection that the tumour which had been diagnosed as ovarian was found to be really so. The menstrual history of this patient was marked by no great abnormality, and there was no history of peritonitis.

## MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

WEDNESDAY, APRIL 7TH, 1875.

P. H. WATSON, M.D., Vice-President, in the Chair.

*Exhibition of Patients.*—Dr. T. G. STEWART showed a case of Chorea in a girl, who, on admission to hospital, had been unable to stand, but had rapidly improved under the use of ether-spray, applied to the spine for five minutes at a time twice daily, as recommended by Dr. Hammond of New York.

Mr. ANNANDALE showed a man in whom he had tied the carotid artery for Aortic Aneurism, on the principle of distal ligature. An improvement in the symptoms had followed the operation, though the tumour still pulsated in the root of the neck.

Mr. JOSEPH BELL showed a case of complete Excision of the Ulna, which he performed about three months ago, in the subperiosteal method, for progressing cario-necrosis in a strumous child. Reproduction of the whole bone had taken place, with perfect movement in every direction.

*Exhibition of Specimens.*—Mr. ANNANDALE showed a small tumour of the upper jaw, which illustrated the advantage of a careful examination by the ophthalmoscope in cases of doubtful tumour; also a hand which he had amputated for an epithelial tumour in an old cicatrix; also a good specimen of fungating soft cancer in the head of the tibia; also a piece of the condyle of the femur which he had excised in a bad case of knock-knee; also the parts removed by amputation at the ankle after a previous operation of excision of the os calcis; also the parts removed in an excision of the head of the humerus and an excision of the knee-joint.

Mr. JOSEPH BELL showed the arm of a woman, aged 35, which he had recently amputated at the shoulder-joint, in consequence of its enormous development and ulceration from elephantiasis and tubercular anæsthetic leprosy. She was not syphilitic, and had never been out of this country. She had made a good recovery.

Dr. T. G. STEWART showed the parts concerned in a case of pericarditis with pneumonia, in which his house-physician had tapped the pericardium with the aspirator, and drawn off fourteen ounces of serum with flakes of lymph. There was also ulcerative endocarditis.

Dr. JAMES DUNSMURE, jun., showed a beautiful specimen of a brain distended and compressed by fluid in the ventricles, and exhibiting also a tumour as large as a walnut in the left lobe of the cerebellum.

Dr. P. H. WATSON showed the parts removed in an excision of the hip-joint, in which the acetabulum had given way, and part of the femur had escaped into the pelvis; also parts removed in excisions of wrist and knee-joints; also various calculi removed by lithotomy. One of thirty years' standing had been removed from the urethra of a patient, whose urethra had been severed by an accident in youth, and obliterated for three inches, with a fistulous opening in the perinæum. He had, however, been accused of being the father of an illegitimate child.

*Hæmatinuria.*—Dr. WARBURTON BEGBIE read a paper on hæmatinuria. After giving an account of the labours of previous observers and doing justice to Harley, Parkes, Dickinson, Greenhow, Sir W. Gull, Roberts, Thudichum, Pavy, Wiltshire, Murchison, and Sir Thomas Watson, he gave in considerable detail a very marked case carefully observed by himself. In this case, the dark urine occurred daily after midday, except on Sundays, on which day the patient remained in the house. A copious brown sediment deposited from the urine, which also coagulated on the use of heat and nitric acid. The sediment contained brownish red granular matter, with numerous granular casts of the tubuli uriniferi. A careful chemical examination of the urine by Dr. Affleck showed that the urine, when abnormally coloured, contained one-fourth less urea than when free from colour; and that there was no distinct evidence of the presence of bile-acids in either case. The case improved under the use of sal-ammoniac in twenty-grain doses, given in solution in water thrice daily. Dr. Begbie detailed another case which he had seen of the same nature; and concluded by a discussion of the pathology of this interesting disease and its relations to the temporary albuminuria described by Dr. G. Johnson, and the transient neurotic albuminuria of Dr. Laycock.—A discussion ensued, in which the President, Dr. T. G. Stewart, Dr. Smart, Dr. Clouston, and Dr. Gillespie took part.—Dr. SMART alluded to the possibly splenic origin of the blood in some cases of hæmaturia.—Dr. CLOUSTON reported a case of circular neurosis, in which at times the patient became thin and passed bloody urine.

*Treatment of Stricture of the Urethra.*—Mr. ANNANDALE read a paper on the treatment of certain cases of stricture of the urethra by a combination of internal and external division. He used Maisonneuve's instrument for internal division.—A brief discussion, in which Dr.

Watson and Mr. Bell took part, followed upon the risks of dividing more mucous membrane than was necessary by this plan.—Mr. ANNANDALE replied.

*Operation for Intussusception in a Child.*—Mr. JOSEPH BELL read a case of operation for intussusception in a child. The intussusception was a very large, well marked, and severe one. Pain and vomiting were urgent. After the failure of large injection and inflation, he (with the assistance of Dr. Kirk of Bathgate, the medical attendant) cut into the abdomen in the middle line, and carefully unravelled the invagination which was very long and complicated. The intestines were easily returned; flatus and fæces escaped *per anum;* no further vomiting followed; but, unfortunately, the child was too much exhausted, and died in the course of the ensuing night. The child was three years and a half old.—Mr. ANNANDALE approved of the operation; and believed it should be done, as even an exploratory incision would do no harm, and gave the patient the only chance.—Dr. WATSON also thought such attempts should be made; but, in relating some cases in which he had operated for obstruction in adults, pointed out possible difficulties. He also told of a case of recovery without operation.—Mr. BELL replied, referring to Mr. Hutchinson's successful case in a child.

## PATHOLOGICAL SOCIETY OF DUBLIN.

### SATURDAY, MARCH 20TH, 1875.

ROBERT MCDONNELL, M.D., F.R.S., President, in the Chair.

*Acute Primary Miliary Tuberculosis.*—Dr. HAYDEN exhibited most of the viscera of a man aged 30, who had been admitted to hospital with an anomalous fever upon him. It resembled typhoid, but neither rose-spots were present, nor was there any diarrhœa. The range of temperature also was irregular, and there were evening remissions in the fourth week. The extremes were 99 deg. and 103 deg. On the twenty-eighth day, the temperature was 101 deg. Rapid breathing now set in, and the pulse rose. The percussion-sound over the chest was resonant, and subcrepitant *râles* were heard throughout. At the necropsy, the lungs were found to be everywhere studded with granular masses of miliary tubercle; their substance was hyperæmic, and they were full in volume. The heart was small. The liver was enlarged, fatty, and also studded with deposits of miliary tubercle, indicated by specks of hyperæmic markings. The hepatic cells were filled with oil-drops. The spleen was large and filled with granular deposits of tubercular matter; the kidneys were similarly affected. Beyond the presence of some hyperæmia, there was no intestinal lesion, Peyer's patches being healthy.

*Fatal Peritonitis from Foreign Body in the Vermiform Appendix.*—Dr. FINNY showed the vermiform appendix and neighbouring parts from the body of a woman, aged 27, who had enjoyed good health until very recently. She came into hospital suffering from severe pain in the lower part of the abdomen; the temperature was 97.5 deg. She died in two days. There was general peritonitis, the visceral layer of the serous membrane being covered with lymph, especially on the right side (ileo-cæcal region). The omentum was glued to the cæcum, and a foreign body was found protruding from the vermiform appendix. Three holes existed in the appendix, which presented a gangrenous appearance. The foreign body proved to be a pin, which was imbedded in a mass composed of calcium phosphate, calcium carbonate, and biliary and fatty matters.

*Coexistence of Gout and Chronic Rheumatic Arthritis.*—Dr. E. H. BENNETT laid on the table two casts and a series of osseous specimens. The patient, a drayman of intemperate habits, whose favourite beverage was porter, presented, in the course of his illness, the following train of maladies and symptoms:—Cardiac distress, enlargement of liver, slight ascites, anasarca of lower extremities, articular pains, hæmorrhage from rectum, and albuminuria. His joints were deformed, resembling the changes due to both gout and chronic rheumatic arthritis. The mobility of the lower end of the ulna, so noticeable a feature in the latter affection, was especially well marked. After death, the pathological phenomena of both diseases were discovered. The patella exhibited an osteophyte on its side and fibrillation of cartilage. On the outer condyle of the corresponding femur there was a grooving, as in chronic rheumatic arthritis. A white deposit of urate of sodium coexisted. Knobs of chalky deposit in the pinnæ of the ears (Garrod) yielded uric acid. The kidneys were gouty, but without deposit. The urine had contained that form of albumen which is not precipitated by nitric acid.

WE are informed that Lord Hotham has sent a donation of £52 : 10 to the Model Houses Association for improving the Dwellings of the Industrial Poor, and the Diffusion of Sanitary Knowledge.

# CORRESPONDENCE.

## RESPONSIBILITY OF MIDWIVES: REMARKS ON DR. MATTHEWS DUNCAN'S LETTER.

SIR,—In a letter from Dr. Matthews Duncan read at the last meeting of the Obstetrical Society of London, and printed in your JOURNAL for the 15th current, reference is make to the case of Elizabeth Marsden, a midwife recently convicted of manslaughter at the Manchester assizes, and sentenced to six months imprisonment. As it appears to me that the perusal of that letter is likely to convey an erroneous impression to the profession at large, I feel it my duty to make one or two remarks upon it.

Dr. Duncan, in stating his belief that Mrs. Marsden has been "severely, and probably also unfairly, dealt with", frankly admits that he judges "from the meagre reports in the weekly medical journals". Now, it so happened that, although I was not engaged in that particular case, other assize duties necessitated my being at the court, and I had the opportunity of hearing the whole case. Before the trial commenced, I confess that, from the reports that had reached me, I was disposed to think the indictment an injudicious one, and to pity the accused; but, when having heard the evidence, I saw clearly in what particulars she had failed to do her duty, I felt that she deserved punishment, and that her sentence was a just one.

Dr. Duncan says: "I feel sure the case would have broken down had it been tried in a proper manner." Now, in reference to this point, I must say that Mr. Justice Field appeared to me to realise to the fullest extent the importance of the case, both in its bearing on the medical profession and on the administration of the law in the future. I feel quite sure that, if he could conscientiously have pointed out to the jury a loophole for escape, he would most gladly have done so. He had evidently occupied himself during the evening preceding the trial in making himself acquainted with the opinions of the best available authorities on the subject of puerperal fever. He had the excellent chapter in Schröder's *Midwifery* open before him. He showed perfect acquaintance with the conflicting opinions of various authors as to the etiology of the disorder, and he exhibited throughout the trial an untiring patience and an earnest desire to make the most of every point which, in his admirable and wellnigh exhaustive address to the jury, the counsel for the accused urged on her behalf. The medical witnesses for the prosecution showed no animus, and, in fact, gave no evidence that I myself, if called upon, should hesitate to give, though, of course, it would be a very painful duty, if any duly qualified practitioner were to act in the way this midwife had done. For my own part, I do not think the verdict would have been affected by the production of scientific witnesses for the defence; the question was not one as to the contagious or non-contagious character of puerperal fever. The woman had received no instruction, theoretical or practical, in the art of midwifery, except such traditions as may have been handed down from her mother, who practised as a midwife before her. It was for her, then, to listen to the repeated warning of an educated practitioner; she could not be supposed to be influenced in her conduct by any definite personal opinion, for she had no means of forming one.

In summing up, the judge expressly laid down a distinction between the legal responsibility of a person who is a professed midwife and a person who simply does her best in an emergency, without making midwifery her profession; he showed that the former is bound to bring to the exercise of her calling a reasonable amount of care, prudence, and skill, while from the latter nothing of the kind is expected; he pointed out that the fact (which had been urged in her favour) that the accused woman possessed no certificate from a lying-in hospital made no difference so long as she deliberately undertook the sole management of patients. Finally, in passing sentence, he expressed his opinion that the verdict was the only proper one, and particularly alluded to the fact of her having received "what appeared to him a very plain warning". I do not know that I shall be transgressing the limits of propriety if I say that I overheard the prisoner's counsel describe the sentence as "most fair and thoroughly deserved".

I must not occupy more of your space than necessary, and, therefore, I hasten to say, that the culpable carelessness of life, for which the woman was punished, lay in the fact that, when informed of the nature of the illness in the first three cases, and distinctly warned that, as they were generally held to be of a highly infectious character, it was her duty to abstain from attending any other woman for the present, she used words to this effect: "I am engaged to attend Mrs. So-and-so, and expecting every day that she will send for me. I shall go, and, if I lose her, I will give up." What was that but recklessly and deliberately risking a human life? Where is the surgeon to be found who would make so cool and culpable an experiment?

Dr. Duncan, in his private experience, has "never had a series of cases, not even two near one another", and he goes on, with admirable candour, to say: "I believe such an occurrence would drive me away from my practice, whatever my theoretical views might be." Dr. Duncan's strong common sense and common honesty are here brought into play, though it be to the damage of his own case. After such an admission, of what use in the argument is it to tell us that, in thirty years of obstetric experience, he has not, "as a precaution, given up work for a single day".

I, in common with every practitioner in this neighbourhood whom I heard allude to the subject, read with pain and surprise some words which are reported to have been uttered by Dr. Duncan in his address at Norwich (see BRITISH MEDICAL JOURNAL, August 15th, 1874, p. 216); and, if it had been so like a battle between the armies of Lilliput and Brobdignag, I should have yielded to the temptation to notice them at the time. I quote them now to show how very strongly Dr. Duncan's theoretical views have been expressed, and how entirely unacquainted he appears to be with the self-sacrificing behaviour, under such circumstances as he is depicting, of the ordinary English general practitioner; at any rate, as he is met with in this neighbourhood. "Many say", says Dr. Duncan, "that the practitioner who has a case of puerperal fever must give up his practice, and go through various processes, and not return to his avocation for a period varying from a fortnight to six weeks. . . . Of the many who propound or teach such doctrines I have never known one who practised them, and I cannot say their feelings on reflection are to be envied."

It happened, at the very moment when these words are said to have been spoken, that I was in daily attendance upon a private patient, in whom a severe illness had been ushered in by rigors four days after her confinement, and that, in consequence of this, I had myself made arrangements with a professional neighbour to attend all my midwifery cases for at least a month. As a matter of fact, I did not attend a labour myself for an interval of two months, and I explained the reason to my patients. Since that time, two of my immediate neighbours, one of them the lecturer on obstetrics at our School of Medicine, Dr. Thorburn, have given up their obstetric practice for a time from similar considerations; and for each of them I have attended patients who had duly bespoken their services, and to whom they had sent word that they could not fulfil their engagement.

I do not desire to dogmatise about puerperal fever, though, for so short a career, I have gone through some very painful experiences as regards sporadic cases occurring in my own practice; I do not even assert that puerperal fever is as contagious as is generally supposed; but I do say that, until the evidence for its communicability be weakened or overturned, we are bound to act as if it were highly contagious. This is the doctrine I uphold, and for which I made, and should again in like circumstances make, a personal and pecuniary sacrifice; and I believe by far the majority of the private practitioners in Manchester and Salford hold a similar opinion and adopt a similar rule of practice.

I remain, sir, yours sincerely, CHAS J. CULLINGWORTH,
Surgeon to St. Mary's Hospital, Manchester.
Manchester, May 22nd, 1875.

## APOPLEXY OR DRUNKENNESS.

SIR,—The following case has been brought prominently before the public; and as it has been somewhat misrepresented, I trust that you will find space in your paper to insert these explanatory remarks.

On Monday, the 10th instant, at 12.15 P.M., I was called to see a man who had been brought in by the police. They had found him lying in the Hampstead Road. When I saw him, he was sitting on a couch in the casualty room, leaning on one arm. The man was breathing quietly, without stertor. There was no duskiness of the face. The pupils were equal, and of average size; the arcus senilis was well marked. The pulse was moderately strong, and the arteries were rigid. There was no paralysis anywhere. The breath smelt of spirits. The man was drowsy, but answered questions when spoken to in a rather loud voice; there was no thickness of speech. He gave his name, and said he had been drinking whiskey. I was told by the police that some person had given him a little brandy; they knew nothing more about the man. There being no signs of any serious disease, I gave the man a mustard emetic, which he swallowed without difficulty. As this did not act at the end of five minutes, I went away to get some ipecacuanha wine. On my return, the man was standing, partially supported by the police, and vomiting, without any undue straining. After being sick, the patient seemed clearer; he answered questions, and could stand and walk with slight assistance. I then directed the police to take charge of him, and he walked out of the hospital with them.

The next morning, I was informed that he had been readmitted, with well marked symptoms of apoplexy. Further evidence transpired at the inquest to show that the patient could not have had much to drink.

This is a plain statement of the treatment which Dr. Hardwicke denounced as "simply atrocious", and "almost criminal". He considered that emetics were not the proper treatment for drunkenness, and thought rest in bed, with careful watching, the best procedure in such cases. Being dissatisfied with the medical evidence, Dr. Hardwicke had the hall-porter sworn, and allowed members of the jury to question him on the diagnosis of disease from drunkenness; this led to the "disgracefully unbecoming levity of the medical students", referred to in the papers.

In conclusion, I beg to point out that the deceased was seen late in the evening by two medical men, and that even then they did not consider him to be suffering from apoplexy.—I am, yours obediently,

WALTER B. HOUGHTON, M.B., B.S. Lond., M.R.C.S.,
L.R.C.P., Senior House Physician.
University College Hospital, May 24th.

## ROYAL MEDICAL BENEVOLENT COLLEGE.

SIR,—I hope every subscriber to every charity will be stirred to endeavour to remodel the present well recognised evil of charity elections, not resting till the subject is most fully ventilated. In common with hundreds of others no doubt, I am disappointed at the result of the gathering on the 19th instant in Soho Square. First, I would take exception to the part of the report referring to "the option of governors desiring not to be canvassed, and that so few responded", etc.; while absolutely it is not at all surprising, because there is no waste of common sense to see that this is not the point at issue at all, but simply that a few are spared an imagined *ennui* of being canvassed, while their real feeling as to the present cruel mode of election is not ascertained. Besides, we all know what a common receptacle the waste-paper basket is for many printed papers not otherwise fairly and properly brought to notice. There can be no doubt that hundreds of the circular letters have been so thrown aside as useless; for who really cares as to being canvassed or not? The care, or rather, vexation, is, that the canvassing cards shall cost the poor widow or her friends from £25 to £30 an election, the pith and marrow of the thing being the fallacious mode of election, the expense and vexation attending it, etc.

Talk of charity election! it is no such thing. It is no charity at all: certainly it is not public charity. The most that can be said of it is, to call it private charity, by which the wrong party is relieved. It is not charity to the really indigent, but it is charity to the rich or well-to-do friends or relatives of a candidate who may or may not be fairly well-to-do also. Therefore, I hold that the charity is abused, because very often the weak still "go by the wall", while the patron or patrons of the other class are the parties benefiting by the charity, from the simple fact that their money and influence are used for their *protégés* (probably relations) *pro hâc vice* only, in order to palm them upon some public charitable institution for three, four, or more years, by which they (the patrons) are rid of all further expense for that term at least; whereas, failing admission, they are kept liable to an annual call for their aid, as all well-to-do relatives should be. For to whom should a poor widow look for aid, except to such of her own or "husband's" friends who may have better means? And where, I would ask, is the family without some such friends? Yet, if such be really to be found, let them have the full benefit of a really charity voting institution, this being best obtained, in my opinion, at the hands of a committee of council of such charity.

I must next take exception to the ground of finances, and should be glad to know that half or even a tenth of the money representing "the large sum *en bloc*" really existed as a set-off against the £240 value of the four vacant scholarships. As honorary secretary for nearly twenty years, I may have received five guineas from the friends of candidates for the sake of the vote *pro hâc vice*, and, therefore, I infer it cannot be.

Thirdly, I take exception, again (and I do all this in deference to the College authorities), to the part referring to infringement upon the Act of Parliament. Will anyone be found to tell me that our House of Commons has one member who would not see in a moment the necessity for rescinding, or even repealing, such part of the Act as long experience has shown to be patently injurious and cruel to the widow and fatherless?

Next, we are assured that "the Council would accept any suggestion for simplifying the conduct of elections". To my mind, nothing is more simple and easy; and my first suggestion would be, that the council convene another extraordinary general meeting of subscribers and governors by advertisement in the daily papers, as well as in the medical journals; and that the local secretaries be specially invited to attend, and bring with them or send (where unable to attend) the voucher or wish of each one of their respective subscribers. Then see if the list will not swell from 1300 to at least half as many thousands, which I expect would absorb at least three-fourths of the whole.

A few words, in conclusion, and in anticipation of the great objections assigned and dreaded.

It is argued by the opposing party that subscriptions will be withdrawn if the system be altered. I believe in no such result, but have good reason to know that, in many cases where a guinea is now given, another will be added under an improved system. And, alas! on the other hand, I have good reason to believe that, under the present system, subscriptions will be withheld. In truth, I have already intimated this to the secretary, asking him not to calculate upon my continued subscription or further efforts to induce others, since it is a positive fact, that my already reduced list of subscribers have every one committed his objection to the present system upon paper for the use of the Charity Voting Reform Association, and I am sure that, if every local secretary would take the same trouble, the same result would accrue.

Surely it must be obvious—patently obvious—to every one that not one in a thousand subscribers to any charity is so because he or she expects to have a candidate to bring forward who must be relieved; nay, the contributions to these charities emanate from the broad and philanthropic principle of *Nemo sibi vivat*. And, if anything further be wanted in deprecation of the present objectionable traffic in voting, let me refer your readers to some *à propos* extracts from the *Queen* newspaper of May 1st in the BRITISH MEDICAL JOURNAL of the 22nd instant.

And now I pray you to pardon me for troubling you at such length, and say, if you will, that I have charity-voting on the brain, while I will say, God bless and help the widow and fatherless!—I have the honour to be, sir, your most obedient servant, FRED. MANBY.

East Rudham, May 24th, 1875.

### THE CASE OF ARTHUR O'CONNOR.

SIR,—You will permit me to make a few observations upon Dr. Harrington Tuke's letter in your last number, concerning Arthur O'Connor now confined in Hanwell Asylum. There would seem to be little doubt that the young fellow is now insane, and Dr. Tuke, naturally enough, endeavours to take advantage of the fact to justify what he said and did, and call in question what others said and did, in this case at the Central Criminal Court three years ago. But, after all, the real point is, not whether O'Connor is now insane, but whether he was insane at the time of his trial in 1872. Certainly "scientific evidence" signally failed to convince a jury that the plea of insanity was justifiable, and public opinion strongly endorsed the verdict which consigned O'Connor to prison.

Of course, I do not pretend to say that Dr. Tuke is not infallible, although I call to mind many cases in which he has not succeeded in establishing his infallibility in a court of law. But I venture to affirm that he is not correct in stating that the case of O'Connor at the time of his trial represented only "scientific evidence" of the expert on one side, and unaided legal obtuseness on the other. Dr. Tuke knows, as well as I do, that O'Connor was seen by Dr. Sutherland (an expert) and Dr. Bond before the police magistrate committed him for trial, and pronounced him to be of sound mind; that Mr. Gibson, the surgeon of Newgate, subsequently saw him daily, and was of the same opinion; and that another expert, in the person of myself, acting on instructions from the Treasury, had two interviews with him, and certified that he was a responsible agent, though a wild and flighty youth, who had poisoned his mind by the worst company—a bad and morbid literature.

Dr. Tuke himself broke down so miserably in what he calls "scientific evidence" at O'Connor's trial, and the counsel for the Crown took such skilful advantage of the circumstance, that the jury did not require any evidence from the other side, and the case was stopped, as much to Dr. Tuke's satisfaction as to that of everybody else in court.

But Sir John (now Lord) Coleridge (who will, I am sure, appreciate Dr. Tuke's graceful forgiveness of him) was acting upon instructions, and from medical evidence which had been furnished him, in the "caustic" but legitimate cross-examination to which he subjected O'Connor's leading medical witness.

It is not correct therefore, to state that this trial was a case of Doctors *v.* Lawyers, and that the Attorney-General "utterly ignored experienced medical testimony". The Attorney-General did nothing of the kind. It was a case of Doctors *v.* Doctors. And why not? When are doctors, or lawyers, or the public unanimous? Was there no conflicting "scientific evidence" about Oxford, Townley, Wyndham, Watson, and a host of others?

But to recur to the evidence in this particular case; is it fair in Dr. Tuke to state that there was no medical evidence ready on the part of the Crown, when he knows that I saw O'Connor, that I was in court at the trial, and have more than once discussed with him the subject of this unhappy lad's insanity? Again, did Dr. Maudsley coincide with Drs. Tuke and Sabben? If so, why did he not give evidence at the trial? Because (I think my memory serves me correctly, but I am not quite positive) he told me himself that he considered O'Connor perfectly competent to understand the nature of his plea of "guilty".

Anyhow, there was known to be a medical difference about this case, and Dr. Tuke was fully cognisant of it. It cannot, therefore, be very good taste in him to intimate to Lord Coleridge that he "must surely now deeply deplore his share in a proceeding which consigned a sick and insane boy to degrading punishment", and at the same time invite "the English bar to more extended study".

For myself, I do not shrink from the responsibility which I incurred in pronouncing O'Connor to be not insane at his trial in 1872, and in advising the Treasury to this effect. And certainly Dr. Tuke did not give any "scientific evidence" to make me alter my opinion. That I was not insensible, at the same time, to the dangers which might be in store for O'Connor, the following passage from a summary of his case, which I wrote in the *Lancet* three years ago, clearly sets forth. "Physiologically and psychologically this instructive case may be summed up thus: Arthur O'Connor is a delicate, finely strung, impressional youth, with unfavourable hereditary proclivities, and weak bodily frame. He is constructed of that material out of which, under misdirection, insanity is too frequently generated; but, under direction, a fine order of intelligence is equally to be developed. With careful management, good diet, fresh air, and wholesome teaching, his mental and physical structure will both improve. His apologists have mistaken honest but foolish political convictions for 'delusions', and an act of mock heroism for an 'insane impulse'. He has neither delusions nor illusions, nor hallucinations. He has been improperly handled, and has made a young fool of himself. If the future will handle him, or rather if he will handle the future, differently, he should become a wise and sensible (though he will never be a strong) man."—I am, Sir,

Your obedient servant, EDGAR SHEPPARD, M.D.

Colney Hatch, May 23rd.

# PUBLIC HEALTH
AND
# POOR-LAW MEDICAL SERVICES.

### SMALL-POX STILL EPIDEMIC IN BIRMINGHAM.

THE Registrar-General's recent weekly returns have shown an increase in the fatality of small-pox in Birmingham. In the week ending the 15th instant, 12 deaths from this disease were registered within the borough, of which only five occurred in the Small-pox Hospital. This is, to a certain extent, evidence of failure in the attempt to isolate the cases by treating them in hospital. The last quarterly report of the Medical Officer of Health for Birmingham contains some valuable information relating to the fatal prevalence of this disease within the borough during the first three months of this year. The number of reported cases was 366, and the deaths were 85. Of the 366 cases reported, 321 were stated to be vaccinated, 39 or 10.7 per cent. were unvaccinated, and 6 were not stated as to vaccination. The 85 deaths from small-pox included 59 of persons stated to be vaccinated, 23 not vaccinated, and 3 doubtful. The percentage of deaths to cases in the first quarter of the year was 18.4 among the persons described as vaccinated, and 59.0 among those unvaccinated. There is considerable doubt whether, in many of the cases described as vaccinated, vaccination had ever been successfully performed. The percentage of deaths from small-pox to total cases averaged 23.2 per cent., and exceeded the proportion in the corresponding period of the three years, 1872-3-4, when it was 12.0, 17.8, and 16.2 per cent. respectively. This increased fatality among small-pox cases is not a hopeful sign, and requires investigation. Through the want of satisfactory vaccination statistics, it is impossible to ascertain what proportion of the population of Birmingham is vaccinated; if this information were available, it would be possible to show the value of vaccination as a protective from attack, as well as in reducing the mortality to less than a third of that among the unvaccinated.

## THE HEALTH OF BIRKENHEAD IN 1874.

The medical officer of health for Birkenhead, Mr. Francis Vacher, has published his report upon the health of the borough during 1874, which compares most favourably with that of its neighbour Liverpool. The population of the borough is estimated at 50,000, showing a far greater rate of increase since 1871 than prevailed between 1861 and 1871. As the birth-rate, however, calculated upon this estimate is equal to to 42.8 per 1,000, it would appear as if the population cannot be much, if at all, overstated, although the estimate appears to have been made upon no very satisfactory basis. After correction for deaths occurring in the workhouse outside the borough, and for those occurring in the Borough Hospital of non-residents in Birkenhead, the death-rate in the borough during 1874 is given as 22.6 per 1,000, which was almost identical with the rate in London, and was lower than the rate in any other of the eighteen large English towns, except Portsmouth, where it was so low as 20.4 per 1,000. The Birkenhead rate, although rather higher than in 1872 or 1873, was considerably lower than the average rate in the ten years 1864-73, and 9.4 per 1,000 lower than in Liverpool. The death-rate from zymotic diseases in 1874 was 4.8 per 1,000 within the borough, against 3.9 and 3.7 in 1872 and 1873, although 1.1 per 1,000 lower than the rate in the ten years 1864-73. Only one death was referred to small-pox in the year, although the disease was imported into the borough on two distinct occasions. The medical officer of health, however, reports that the sanitary authority of the borough still neglects to provide a hospital for the treatment and isolation of cases of infectious diseases, and remarks that, in this respect, Birkenhead is in a defenceless position against the attack of epidemics, to which the borough from its position is always liable.

## MILK-ADULTERATION IN NEW YORK.

The importance from a sanitary point of view of checking the sale of impure and adulterated milk appears to be fully recognised in New York, where several retail milk dealers have been arrested, charged with this offence, and *imprisoned* instead of *fined* on the charge being proved. The result of this has been that twenty-three wholesale dealers in milk, doing business in that city, have petitioned the Board of Health to appoint inspectors to attend the several railway-stations, and, on the arrival of the usual milk-trains, to examine, inspect, and test the milk as it arrives, in order that such as may be impure and unfit for public sale may be seized and destroyed. The petitioners offer to defray the expenses of such an inspection if, in the opinion of the Board of Health, they could not properly be made a public charge. The plea for this petition is, that the larger proportion of the adulterated milk sold in New York, and for the sale of which the retailers have been imprisoned, is adulterated by the farmers and producers before it comes into the city. The same difficulties as to adulteration are continually cropping up in England, not only as to milk, but other articles of food. The retail dealers wish to shift the responsibility for the adulteration on to the wholesale dealers, and the wholesale dealers on to the manufacturers or producers. We hold, however, strongly to the opinion, that the State can only take cognisance of adulteration in articles actually sold to the public, and that it is right to fix upon retailers the responsibility of knowing what they sell, leaving to them their remedy against the wholesale dealers or manufacturers. This course may sometimes press hardly upon small retailers, but it is manifestly to the interest of the public and of the consumer.

## POOR-LAW MEDICAL APPOINTMENTS.

Baker, A., L.R.C.P.Ed., appointed Medical Officer for the Aysgarth District of the Aysgarth Union.

Croly, Richard, L.K.Q.C.P.I., appointed Medical Afficer, Public Vaccinator, and Registrar of Births, etc., for the Tinahely Dispensary District of the Shillelagh Union, county Wicklow, *vice* J. W. Rogers, L.K.Q.C.P.I., resigned.

Ferguson, Daniel, L.R.C.P.Ed., appointed Medical Officer and Public Vaccinator for the Mallwyd District of the Dolgelley Union, *vice* R. Griffiths, M.R.C.S.Eng., deceased.

Hodges, Britton, M.R.C.S.Eng., appointed Medical Officer for the Parish of Membury, Axminster Union.

Jackson, Henry, M.R.C.S.Eng., appointed Medical Officer for No. 4 District of the Barnstaple Union.

Lavin, M. D., L.R.C.P.Ed., appointed Medical Officer to the Bushey District of the Watford Union, *vice* W. E. Burton, L.R.C.S.I., resigned.

Michell, George, M.R.C.S.Eng., appointed Medical Officer for the Gwennap District of the Redruth Union, *vice* H. Harris, M.D., whose appointment has expired.

Patterson, Thomas, A.B., M.D., elected Medical Officer to the Oldham Workhouse, *vice* Samuel Jackson, M.R.C.S., retired.

Popham, Thomas, L.K.Q.C.P.I., appointed Medical Officer to Bantry Workhouse and Dispensary, Physician to the Fever Hospital, and Sanitary and Consulting Medical Officer of Health, Bantry Union.

Richards, G., L.R.C.P.Ed., appointed Medical Officer for the High Easter District of the Dunmow Union.

Ridley, James, L.K.Q.C.P.I., appointed Medical Officer and Registrar of Births, etc., for the Tullamore Dispensary District of the Tullamore Union, King's County, *vice* John Ridley, L.K.Q.C.P.I., resigned, and since deceased.

Sandell, H. W. A., L.R.C.P.Ed., appointed Medical Officer for the Milton District of the Gravesend and Milton Union, *vice* — Goedicke, Esq., resigned.

Spicer, Northcote William, jun., M.R.C.S.Eng., appointed Medical Officer and Public Vaccinator for the Parish of Chardstock, Axminster Union.

Sutherland, John R., L.R.C.S.Ed., appointed Medical Officer to the Rainton District, Houghton-le-Spring Union, *vice* Wm. Curry, M.R.C.S.Eng., resigned.

Walshe, Thomas P., L.K.Q.C.P.I., appointed Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Ballyroan Dispensary District of the Abbeyleix Union, Queen's County, *vice* R. O'Kelly, L.K.Q.C.P.I., resigned.

Watson, A. M., M.D., appointed Medical Officer for the Workhouse and the Penistone District of the Penistone Union, *vice* G. F. Leigh, L.S.A., deceased.

## APPOINTMENTS OF MEDICAL OFFICERS OF HEALTH.

*Bately, John, L.R.C.P.Lond., appointed Medical Officer of Health for the Borough of Great Yarmouth.

# MILITARY AND NAVAL MEDICAL SERVICES.

## NOTES FROM ALDERSHOT.

[FROM AN OCCASIONAL CORRESPONDENT.]

There are grievances in the department which are self-created, and therefore remediable. A thorough absence of organisation is felt throughout the department. The grades have no specified or assigned duties. Surgeons-major are performing precisely the same duties as when they entered the service. They performed during their fifteen years of subordination. This is not the case with any other branch of the service, and I am at a loss to conceive why it has been considered necessary with medical officers. This was not the case under the regimental system, and I would now suggest clearly allotted duties to the two grades of executive officers. To the *seniors*, or surgeons-major, in *large stations*, where there are general hospitals and several corps together, I would allot the station-hospitals. One of their number should be appointed the "medical officer in charge", and be responsible for the administration of the hospital solely. To the others I would hand over the treatment of the sick; not to exceed fifty patients per man. To secure to every medical officer the minimum amount of *leave* to which he is entitled, seven medical officers should be provided for every two hundred and fifty sick, or in that proportion. This would enable each man to have his two months' leave *per annum*. To the *juniors*, or surgeons, I would assign regimental duty, one at least per corps; attendance at rifle and gun practice; orderly duty; and when required to move with troops, to accompany them. These officers should not be called upon to perform mounted duties; these should devolve upon the surgeons-major, officers with the relative rank of field-officers; and all of them should be in receipt of forage, if relative rank "carries with it all the advantages of the rank with which it corresponds". To secure to the juniors also their two months' leave, for the duty to be done by six, seven should be allotted. I would propose, also, that the officers of both grades should be appointed to the station. Were these suggestions carried out in a liberal spirit, an amount of happiness would be, or ought to be, secured to the medical officers, which they have not hitherto enjoyed. At *small stations*, wherever there is a station hospital, I would locate a surgeon-major, who would be the station medical officer. He would be assisted by a surgeon or surgeons, according to the size, troops, and requirements generally of the garrison. No obstacle should be put in the way of officers at small stations getting their leave, as is the case now. There are some medical officers who are overworked, I know; there are others, it is equally certain, who do not do their share. The absence of organisation is sufficient to account for inequality in the distribution of labour. Without data, how can it be otherwise? The calculation already given would rectify this evil, or enable the complaint to be traced to its source.

## ARE ARMY MEDICAL OFFICERS ATTACHED TO REGIMENTS, DEPARTMENTAL OR REGIMENTAL OFFICERS?

We really think that the different branches of the War Office might have come to an understanding among themselves whether the Army Medical Officers attached to regiments are regimental officers or departmental officers; that is, whether they belong to regiments as majors or captains of regiments do (for it is only by belonging to the regiment that they can be regarded as regimental officers), or whether they are departmental officers engaged in professional duty with regiments; attached, in fact, as Royal Engineer officers are when they happen to be sent for duty with regiments. It seems to be a very simple thing to settle; but it is evident there is no common understanding on the subject among the officials of the War Department. A short time ago, the Secretary of State for War stated in the House of Commons that the army medical officers had ceased to be regimental officers, and even as far back as March 22nd, 1870, a general order was published, stating "that medical officers no longer form part of regimental establishments". Yet we have now before us the copy of an official letter, sent from the financial branch of the War Office, to a medical officer attached to a regiment on a foreign station, informing him that he is a regimental medical officer; that, because he is a regimental medical officer, he is not entitled to servants' allowance during the period of absence from his regiment, and calling upon him to refund money which was paid to him on account of this allowance while he was on his regular period of leave in the past year.

The general order says the medical officer is not a regimental officer; the Secretary for War announces the same fact; the recent changes in the hospital arrangements of the Army Medical Department have made it notorious to all that he is not a regimental officer, but the financial secretary, in spite of all this, declares he is a regimental officer, and must forfeit one of his allowances in consequence. Surely such contradictions, involving as they do injustice to individuals, ought not to be allowed to continue. It is a subject well worth the attention of some member of the House of Commons; for the paltry plan of regarding army medical officers as regimental officers when the financial officers find means of deducting some of their pay or allowances by placing them in that class of officers, and, on the other hand, of considering them as departmental officers when some saving to the Government can be managed by placing them in this latter class, is one fertile source of the discontent which is well known to prevail among them. Why should this uncertainty be allowed to exist? Why should it not be definitely settled that army medical officers are to be regarded on all occasions as departmental officers, and all financial secretaries and paymasters be ordered to deal with them in matters of pay and allowances only as departmental, and never as regimental, officers, so long as the present system of army medical administration is continued?

## NAVAL MEDICAL APPOINTMENTS.

Bennett, Staff-Surgeon William R., M.D., to the *Pembroke*, additional, for temporary service.
Brown, Surgeon Richard G., to the *Salamander*.
Clifton, Fleet-Surgeon Samuel, to the *Monarch*.
Coppinger, Surgeon Richard W., M.D., to the *Discovery*.
Cruice, Staff-Surgeon W. H., to the *Implacable*.
Eustace, Fleet-Surgeon Richard, to the *Achilles*.
Fisher, Staff-Surgeon W., to the *Pembroke*, additional, for temporary service at Melville Hospital.
Moss, Surgeon Edward L., M.D., to the *Alert*.
McCleahy, Surgeon Edwd., to the *Duke of Wellington*, additional, for the *Victory*.
Mulock, Surgeon Edward R., to the *St. Vincent*.
Ninnis, Staff-Surgeon Belgrave, M.D., to the *Discovery*.
Olive, Staff-Surgeon Edward, additional, to the *Royal Adelaide*.
Rail, Fleet-Surgeon John, to the Plymouth Division of Royal Marines.
Sutherland, Staff-Surgeon G. W. J., to the *Boscawen*, for temporary service at Portland sick quarters.
Thomason, Staff-Surgeon W. J., additional, to the *Royal Adelaide*.
Trevan, Surgeon M., to the *Flora*, additional, for service at Ascension.
Whately, Surgeon Alfred W., to the *Boscawen*, from the *Sea Flower*.

# MEDICO-PARLIAMENTARY.

### *HOUSE OF COMMONS.—Friday, May 21st.*

*Medical Officers of the Army.*—Dr. Lush gave notice that on Friday, June 18th, he would move that, in the opinion of the House, the position of medical officers in the army, with respect to their pay and rank, was unsatisfactory, and that the matter should undergo revision.

*Sale of Food and Drugs Bill.*—On the consideration of this Bill, as amended, Dr. Cameron moved an amendment to the effect that samples of articles alleged to be adulterated should be marked and sealed by the analyst. The House divided. The numbers were: For the amendment, 17; against it, 53—majority against, 36. The report on amendments was then agreed to.

### *Monday, May 24th.*

*Small-pox in Galway.*—Mr. G. Hardy, in answer to Captain Nolan, said the training of the Galway Militia had already been postponed in consequence of the prevalence of small-pox in that county, and the War Office authorities were waiting for reports to see whether it might not be necessary to dispense with the training altogether for this year.

*Vivisection.*—Dr. Playfair asked the Home Secretary whether the Government intended to advise Her Majesty to appoint a Royal Commission to inquire into this subject with a view to legislation.—Mr. Cross said that there were at present two Bills before Parliament relating to the subject involved in that question. It was a subject about which considerable anxiety was felt, and as to which he ventured to say that very little was known by a great many members of that House. Therefore, it was the intention of the Government to issue a small Royal Commission to make inquiries into that matter, in order that they might have full information before they attempted to legislate on the subject. Under those circumstances, he would suggest that the right hon. gentleman opposite should allow his Bill to stand over until the inquiry was completed.—Dr. Playfair said that, after the announcement made by the Home Secretary, he would move on Friday that the order for the second reading of the Bill he had introduced be discharged.

### *Tuesday, May 25th.*

*The Public Health Bill.*—The order for committing the Public Health Bill having been read, Colonel Barttelot observed that more time ought to have been allowed for the consideration of the principle of the measure before entering upon the details in committee, and that the Government should give explanations relating to the medical officers and the water-supply in rural districts.—Sir L. Palk also stated several objections to the Bill, and especially to its having too much of a permissive character.—Dr. Playfair, while regretting that the Bill had been pushed forward too rapidly, pronounced it a good consolidation measure, that would receive his hearty support.—Mr. Newdegate pointed out the necessity of making provision for the storage of water in the mining districts, and in towns which, like Birmingham, were in elevated situations.—Mr. Henley criticised the manner in which the Bill was drawn, and cited it as an illustration of the too common practice of composing Bills by pitchforking other Bills into them without reference to antecedents, relatives, and other matters by which alone sense could be made of them.—After some remarks from Dr. Lush and Sir H. Johnstone, Mr. Sclater-Booth assured Colonel Barttelot that there was no intention to extend into the country any system of medical inspection from London beyond that now prevailing. While he desired to follow the policy of his predecessor as to the appointment of medical officers, he was not inclined to commit himself absolutely to the opinion that in certain places and under certain circumstances the Poor-law medical officers might not meet the necessities of the case. The Bill would give the Local Government Board an useful power of compulsion in regard to the formation of districts. With respect to the water-supply in mineral and elevated districts, he should have been glad to provide machinery for supplying the defect had it been possible to do so by this Bill, but the difficulties he had met with were insuperable. He promised, however, on behalf of the Government, that the subject should be fully considered, and they would not hesitate to appoint a Royal Commission if it appeared that the question could in that way be more rapidly brought to a satisfactory conclusion; otherwise, they would proceed to legislate on their own responsibility. Referring to the permissive character of the Bill, he owned that he was not prepared to carry the compulsory principle further at present, and possibly risk the whole measure by introducing provisions that would be likely to excite strong opposition. As a codification of the law, he believed the measure was complete.—Mr. Stansfeld was of opinion that the right hon. gentleman was fully justified in asking the House to give him their assistance in passing the Bill, and he trusted they would go into committee without delay in order that it might become law as quickly as possible.—Some observations were also made by Mr. Whalley, and the House, having gone into committee, proceeded with the consideration of the clauses, of which 198 out of 341 were agreed to, when progress was reported.

# UNIVERSITY INTELLIGENCE.

## UNIVERSITY OF CAMBRIDGE.

Anatomy and Physiology in the Long Vacation.—Professor Humphry gives notice that there will be classes for instruction in Osteology daily during July and August, at 10 A.M., viz.:—For Human and Comparative Osteology at the New Museums on Mondays, Wednesdays, and Fridays, beginning on Monday, July 5th. These are intended for Students of Natural Science as well as for Medical Students. No fee will be required. For Human Osteology at the Old Anatomical Museum on Tuesdays, Thursdays, and Saturdays, beginning on Thursday, July 1st. Fee, one guinea. There will also be classes for Practical Histology at the Old Anatomical Museum on Mondays, Wednesdays, and Fridays, at 12. Fee, one guinea. Gentlemen who have entered to the Human Anatomy Class are admitted to all the above without additional fee.

# MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners on the 20th instant, viz.:

Messrs. G. H. Voelcker, Kensington: Augustin Bernard Kelly, Camden Town; Wm. Murrell, L.S.A., York Street, St. James's; and C. E. Matthews, Bristol, students of University College. Herbert Cotton, L.S.A., Ipswich; Adolphus Bevan, L.S.A., Peckham; and D. T. Evans, L.S.A., Carmarthen, of Guy's Hospital: W. D. Hemming, Notting Hill Terrace; Walter Hutchinson, Leominster; and T. M. Sibbald, Ontario, of King's College. J. P. Garlike, Tulse Hill; and E. W. Young, Henley-on-Thames, of St. George's Hospital. S. H. Fisher, Tiverton, Devon, of the London Hospital. T. J. Hitchins, L.S.A., Plymouth, of St. Mary's Hospital. T. A. Dixon, Upleatham, Yorkshire, of St. Bartholomew's Hospital: B. J. Massiah, Clifton, Bristol, of the Bristol School; A. E. Williams, L.K.Q.C.P.I., Liverpool, of the Liverpool School; T. H. Palmer, Warwick, of the Birmingham School; and J. P. Prince, M.D., New York, Boston, United States, of the New York School.

The following gentlemen passed the Primary Examination for the Fellowship on the 25th instant.

Messrs. F. R. Fisher, diploma of membership dated April 26th, 1867; L. E. Kay Shuttleworth, M.A.Cantab., and E. L. Robinson, students of St. George's Hospital; H. H. Clutton, B.A.Cantab., January 26th, 1875, and H. J. McC. Todd, of St. Thomas's Hospital; N. C. Macnamara, April 17th, 1854, of King's College; Griffith Griffith, January 24th, 1865, of the University and Liverpol Schools; Bennett May, L.S.A., January 23rd, 1868, of the Birmingham and Edinburgh Schools; L. H. Stevenson, of Guy's Hospital; F. S. Eve, of St. Bartholomew's Hospital; and Richard Atkinson, of the London Hospital.

The following gentlemen passed on the 26th instant.

Messrs. A. B. Barron, diploma of membership dated January 21st, 1873, of King's College; F. S. Edwards, Walter Pye, and G. Henry Cressey, of St. Bartholomew's Hospital; C. F. Pickering, and W. M. Evans, of Guy's Hospital; W. P. Mears, and W. R. Stewart, of the London Hospital; C. E. Pronger, of St. Thomas's Hospital; E. B. Turner, of St. George's Hospital; G. C. Henderson, of University College; and F. A. Southam, of the Manchester School.

Thirty-three candidates out of the fifty-six examined, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their anatomical and physiological studies for three months.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.—The following gentlemen passed their first professional examination for the double qualification during the April and May sittings of the examiners.

Messrs. Joseph Greasley, Melton Mowbray; James Payne Baker, Kent; Francis Sydney Smyth, Great Yarmouth; Cuvitt T. Rundle, India; Arthur G. Sandberg, Rotherham: John C. Mackay, Portsmouth; Robert Blumer Heslop, South Shields; Henry Godfrey James, County Tipperary; Thomas Joseph Monaghan, Tuam; Charles E. Bentley, Bombay; R. K. W. Redpath, Edinburgh; A. T. Duncan, Banffshire; J. H. G. Drummond, Manchester; Alex. Wm. Macleod, Yarmouth; Thomas C. McCormick, Castlederg; John Adam Watson, Edinburgh; Henry Hunter, Bradford; Rodolphe Durand, Mauritius; Alfred Edwin Harris, Cork; Thomas Boyle, Maghera.

The following gentlemen passed their final examination, and were admitted L.R.C.P.E. and L.R.C.S.E.

Messrs. Thomas M'Laughlin, County Derry; Francis Grier, County Armagh; John Percival Smith, Great Yarmouth; William Deane Perrier, Cork; John Kendall, Lancashire; Henry Augustus Fitzroy Nailer, Madras; Hargreaves Hallis Halls Hanson, Melton Mowbray; Frederick Matthew Page, Corfu; Alexander Dalton Murray, Edinburgh; John Fernis Oliver, Durham; John Mackay, Sutherlandshire; Thomas Hatfield Walker, York; William Ingram Keir, Musselburgh; Adam Reid, Lisburn; Samuel Montgomery, Straidarron, Derry; Samuel Montgomery, Ballynahinch; Wm. Ballingall, Dunfermline; Frederick Musson Rees, Bermuda; Amos Rogers, Bradford, Canada; John Gunn, Beaverton, Canada; James Stitt Thomson, Dalkeith; Joshua John Cox, Clifden, Ireland; Frederick James Richard Fosbrooke, Wigan; Walter Thurmond Ramsden, Yorkshire; John Samuel Crampton, Borrisokane; Henry Francis Elliot, Devonshire; Archibald. Alex. Hamilton, Cawnpore; John Harris, Wexford; Sydney Walter Spark, County Cork; Daniel Birtwell, Clayton-le-Moors.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—The following gentlemen passed their first professional examination during the April and May sittings of the examiners.

Messrs. Griffith H. Davies, Wisconsin; William Blockley, Boughton, Gloucester; Edward Roland Cowcher, Bath; Samuel Aird Jolly, Portarlington; Arthur Wm. Thomas Mickle, Kirbywiske; Thomas James Hanan, Cork; Edward Burgess, Kincardineshire; James Lyle Hueston, County Derry.

The following gentlemen passed their final examination, and were admitted Licentiates of the College.

Messrs. John George Garson, Orkney; Wm. James Bond, Londonderry; George Henry Seymour James Bankier, London; Andrew M'Lachlan, Ayr; Alfred Croudson Tunstall, Bristol; Frederick C. Maitre Gasett, Toronto, Canada; Adam Frederick John Mickle, Yorkshire; Alexander M'Kechnie, Jura; W. Fearnley, West Hardwick: Charles Smith Lunan, Blairgowrie; John Rogerson Hamilton, Dumfriesshire; Henry Arthur Fenton, Doncaster; William Fleming Phillips, Glasgow: Wm. Edward Ramsden Wood, London; George Crichton, Perth; Edward Prince Vines, Reading.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, May 20th, 1875.

Bruce, Peter, Colville Square, Notting Hill
Cundell, George Richard, Lock Hospital, Harrow Road
Lory, William Manley, Exeter
Massingham, John Payne, Ripley, near Derby

The following gentlemen also on the same day passed their primary professional examination.

Anderson, Charles Morten, University College
Martin, John Michael Harding, University of Edinburgh, and Royal Infirmary, Liverpool

## MEDICAL VACANCIES.

THE following vacancies are announced:—

ASHBY DE LA ZOUCH UNION—Medical Officer for the Second and Third District. Salary, £20 and £20 per annum.

BINGHAM UNION—Medical Officer for the Workhouse.

BIRMINGHAM GENERAL DISPENSARY—Resident Surgeon. Salary, £130 the first, £140 the second, and £150 the third year, with furnished apartments.

BRADFORD INFIRMARY AND DISPENSARY—Physician. Applications to be sent on or before June 12th.

CHELTENHAM GENERAL HOSPITAL AND DISPENSARY—Honorary Medical Officer at the Branch Dispensary. Applications on or before June 5th.

CHERTSEY UNION—Medical Officer for the Windlesham District. Salary, £50 per annum.

COOTEHILL UNION—Medical Officer for the Drum Dispensary District. Salary, £100 per annum, and £25 as Sanitary Officer, with fees. Applications to be made on or before June 7th.

DURHAM COUNTY ASYLUM—Assistant Medical Officer. Salary to commence at £100 per annum, with board, lodging, and washing. Applications on or before June 1st.

EVELINA HOSPITAL, Southwark Bridge Road—Registrar and Chloroformist. Salary, £30 per annum.

FRIENDLY SOCIETIES MEDICAL INSTITUTE, Northampton—Out-door Assistant. Salary, £120 per annum. Applications on or before June 1st.

FROME UNION—Medical Officer and Public Vaccinator for the First District. Salary, £144 per annum, and Midwifery Fees. Applications on or before June 7th.

HOUGHTON-LE-SPRING UNION—Medical Officer for the Rainton District. Salary, £25 per annum.

KILKENNY UNION—Medical Officer for the Tullaroan Dispensary District. Salary, £103 per annum, and £20 as Sanitary Officer, with vaccination fees. Applications on or before June 7th.

KNOCKBAIN AND KILLEARNAN, Parishes of—Medical Officer. Salary for Knockbain, £50 per annum; and for Killearnan, £35. Applications on or before June 15th.

LIMERICK UNION—Resident Medical Officer for the Workhouse. Salary, £150 per annum, with apartments and rations. Applications on or before June 2nd.

LONDON TEMPERANCE HOSPITAL—Visiting Hospital Surgeon. Applications to the Rev. Dawson Burns, Honorary Secretary, 112, Gower Street.

LONGFORD UNION—Dispensary Medical Officer. Salary, £100 per annum, with £25 as Sanitary Officer, and fees. Applications on or before June 2nd.

LOUTH UNION—Medical Officer for the Tetney District.

NEWMARKET UNION—Medical Officer for Nos. 1 and 3 Districts. Salary, £85 per annum.

NORWICH DISPENSARY—Resident Medical Officer. Salary, £120 per ann., and residence.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL—House-Surgeon.

QUEEN'S COLLEGE, Birmingham—Professor of Pathology.—An additional Professor of Physiology.—An additional Demonstrator of Anatomy.—Applications not later than the second Friday in June.

ROYAL FREE HOSPITAL, Gray's Inn Road—Surgeon. Applications on or before June 28th.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY—Assistant House-Surgeon. Salary, £65 per annum, with board, lodging, and washing.

TORBAY INFIRMARY—House-Surgeon. Salary, £100 per annum, with board and lodging.

WELLINGBOROUGH UNION—Medical Officer for the Workhouse and the Wellingborough District.

WHITEHAVEN AND WEST CUMBERLAND INFIRMARY—House-Surgeon and Dispenser. Salary, £130 per annum, with furnished apartments and attendance. Applications on or before June 1st.

## MEDICAL APPOINTMENTS.

*Names marked with an asterisk are those of Members of the Association.*

*FARNFIELD, Walter E., L.R.C.P.Ed., appointed Visiting Medical Officer to the British Home for Incurables, Clapham Rise.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.*

### BIRTHS.

ANDERSON.—At 3, Arniston Place, Edinburgh, on May 18th, the wife of Robert Anderson, M.D., Seaton Delaval, Northumberland, of a daughter.

MARTIN.—On May 25th, at the Limes, Walkden, the wife of William Young Martin, L.R.C.P.Ed., of a daughter.

### MARRIAGE.

LYONS—CORMACK.—On Tuesday, May 25th, at the British Embassy, Paris, by the Rev. Edward Forbes, D.D., *R. T. Lyons, Esq., Surgeon-Major 28th Regiment Bengal Infantry, to Eliza Grace, third daughter of *Sir John Rose Cormack, M.D.

## OPERATION DAYS AT THE HOSPITALS.

**MONDAY** ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

**TUESDAY** ......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

**WEDNESDAY**..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

**THURSDAY**....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.

**FRIDAY**.........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

**SATURDAY** ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

## MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

**WEDNESDAY.**—Obstetrical Society of London, 8 P.M. Adjourned Discussion on Puerperal Fever. Some interesting specimens will be exhibited at the beginning of the meeting. The discussion on Puerperal Fever will then be resumed by Dr. Savage.

## NOTICES TO CORRESPONDENTS.

**CORRESPONDENTS** not answered, are requested to look to the Notices to Correspondents of the following week.

**PUBLIC HEALTH DEPARTMENT.**—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

**AUTHORS** desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

**CORRESPONDENTS**, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

**COMMUNICATIONS** respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

**A FELLOW.**—The annual election of Fellows into the Council of the College of Surgeons will take place on Thursday, July 1st. There will be three vacancies.

### DIPHTHERIA.

SIR,—Having had a number of cases of diphtheria under my care lately, I am induced to submit the following observations. The symptoms, separately or collectively, may be extremely severe or very mild; the pellicles may vary in colour and thickness, may appear on the second, and become detached on the third day, or remain for several days, and after separating, be replaced by fresh ones. There may be much fœtor, or none may be perceptible; the debility, even after mild attacks, may be severe. In one case in which the pellicle appeared on the tonsils on the second day, and separated on the third, croup occurred a day or two afterwards, and this was followed by pleurisy, and then by pericarditis, from which it might be inferred that some of the ordinary cases of croup occurring in infants may be preceded by exudations on the tonsils, only they are seldom suspected, as probably as in this case there does not appear much departure from the ordinary health until the laryngeal symptoms occur. The serous membranes being affected, would indicate that diphtheria, when epidemic especially, may cause a number of affections of a certain type in other tissues besides mucous membranes, giving rise to iritis, jaundice, influenza, bronchitis, pneumonia, etc. Several cases of diarrhœa occurring in those who had had exudations on the tonsils, or in those residing with others who were suffering from diphtheria, very much resembled cases of mild typhoid; the diarrhœa, however, was generally to be controlled by opiates, which I have not found to be the case during typhoid epidemics.

Severe neuralgia sometimes precedes diphtheria. A man, contrary to advice, had a tooth extracted on account of severe aching, and on the next day was laid up with a severe attack of diphtheria. This case was followed by quinsey.

The treatment has been chiefly by salts of ammonia, followed by the ammonio-tartrate of iron, sometimes combined with tincture of aloes. Mercurials gave great relief in the cases of iritis.

Those suffering from constitutional debility, whether arising from old age, chronic disease, or intemperance, appear to have little chance of recovering when attacked by diphtheria, especially when the lungs or other important organs are involved.—Yours truly,

WALTER LATTEY.

Southam, May 17th, 1875.

**M. T. FRENCH TEXT-BOOKS.**—Several works are now used by French scholars: among them is Jamain's *Manuel de Pathologie Chirurgicale*, 2 vols., 12mo. Paris: Germer Baillière. A more extensive and very commendable work is in course of publication, but only four volumes have been published; viz., Duplay's *Traité élémentaire de Pathologie externe.* Paris: Masson.

**CORRESPONDENTS** are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

### THE FAMILY OF THE LATE MR. R. THOMAS, SURGEON, ETWALL.

THE following subscriptions have been received on behalf of the above.

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| N. C. Curzon, Esq., Etwall Hall | £25 | 0 | 0 |
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| "A Master Mason" | 5 | 0 | 0 |
| J. Smith, Ironville | 2 | 0 | 0 |
| Mr. J. W. Barry, Ramsgate | 1 | 0 | 0 |
| Mrs. Hooper, Burton-on-Trent | 2 | 0 | 0 |
| John W. Wolfenden, Esq., Tutbury | 2 | 2 | 0 |

**LONGEVITY** is thanked for his photograph of Pleasance Smith, the widow of Sir Edward Smith, who has just entered on the 103rd year of her age.

**ETHNOLOGIST.**—The skull of the unfortunate Eugene Aram is in the museum of the College of Surgeons.

### ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following were the questions on Surgical Anatomy and the Principles and Practice of Surgery, at the pass examination for the diploma of Membership of the Royal College of Surgeons on the 14th instant. 1. Describe the course and relations of the internal pudic artery; and specify the operations in which any particular branch of it is liable to be wounded. 2. Describe the operation of resection of the elbow-joint; and enumerate, in their proper order, the parts divided. 3. What complications may accompany an apparently simple stab of the abdomen, two inches to the right of the umbilicus? and what would be the immediate appropriate treatment, according to circumstances, of the case; 4. How may the patella be fractured? Describe the principle of the treatment of this injury, and the various appliances used. How do these fractures unite? and on what does the subsequent efficiency of the limb depend? 5. Describe the structural changes which must precede completed bony anchylosis. 6. What is a hæmatocele? If subjected to incision, what are the pathological changes which precede the cure?—Candidates were required to answer at least four, including one of the first two, of the surgical questions.—The following were the questions in the Principles and Practice of Medicine on the following day. 1. You are called to a child acutely ill with sore-throat: how would you distinguish between cynanche tonsillaris, scarlatina, and diphtheria? Give a short description of these three diseases. 2. Describe briefly a case of locomotor ataxy, of progressive muscular atrophy, of lead-paralysis, and of general paralysis of the insane. Mention also briefly the different forms of electricity and galvanism used in medicine, and their mode of application. 3. Mention the medicines contained in the *Pharmacopœia* which are used as diuretics; and state the doses which you would give. Write two prescriptions in full for diuretic mixtures.—The half-yearly examination for the Fellowship of the College was commenced on May 21st, when fifty-six candidates presented themselves for the primary or anatomical and physiological examination, to whom the following questions were submitted. 1. Give the dissection required to display the sacral plexus of nerves; and describe the course and relations of its several branches within the pelvis. 2. What arteries supply branches to the vertebral column, the spinal cord, and its membranes? How are these distributed? Describe the position and arrangement of the veins in the vertebral canal. 3. When a person is at once and completely deprived of food, describe the mode of death; and state the circumstances which, in such a case, influence the duration of life. 4. Describe the mucous membrane of the genito-urinary apparatus in the male, stating precisely the structural peculiarities, and the sources of vascular and nervous supply of each part.—N.B. All the questions were required to be answered.

**A PROVINCIAL TEACHER.**—At the half-yearly primary examination for the Fellowship of the College of Surgeons, which was brought to a close on Wednesday last, we understand there were fifty-six candidates, of which number there were eleven who had received their education altogether in the provinces, and seven who had studied at metropolitan and provincial schools combined. The dates of membership ranged from 1854 to the present year; some had passed the primary membership, and five had not passed any examination. The names of those who passed this examination will be found in another column; but those who pass the final examination, which will be brought to a close this day (Saturday), will not be published until submitted for confirmation to the Council.

**A FELLOW (Liverpool).**—The annual election of Fellows into the Council of the College of Surgeons will take place on Thursday, July 1st. The notices of the meeting, with full instructions as to nomination of candidates, etc., have, we understand, been forwarded to every Fellow in the United Kingdom whose address is known to the Secretary of the College.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

### UNQUALIFIED ASSISTANTS.

SIR,—As the suggestion of Dr. D. A. O'Sullivan, concerning unqualified practitioners, has met with the approval of a few of your correspondents, I beg, on behalf of English unqualified assistants, that you will allow me a portion of the valuable space in your JOURNAL to set forth a common sense view of this question.

The appointing of so-called "consulting medical law officers" would not be a wise proceeding, as they would have no authority to prosecute. A man does not infringe a letter of the law by prescribing and compounding for his patients any medicines he pleases; neither does he act illegally when he performs any surgical operation successfully which he may deem necessary. On the other hand, any person who wilfully uses any title or designation that may lead the public to believe that he is a physician, surgeon, or general practitioner, can be prosecuted for such offence. A man, therefore, cannot be punished for practising medicine or surgery as long as he does not use any title or designation to lead the public to believe that he is legally qualified to do so.

I would like to know what your correspondent, "who wishes to see quacks abolished", would do with all the English unqualified assistants. He makes a great mistake when he imagines that the profession will permit the law which he suggests to come into operation, viz.: "That any person, male or female, who visits, or in any way treats a patient for a disease, and receives in return an acknowledgment for any services given to man, woman, or child, suffering from disease, should be liable to a fine or imprisonment, as the case deserves." According to your correspondent, if one man receive a thorn in his foot, and another pick it out; or if a child's bowels become constipated, and an unskilled person treat the child with castor-oil, such person will be acting in the responsible capacity of physician; the operator or prescriber in each of these cases would be either fined or imprisoned. Then the question is, whether it would be humane to punish one individual for affording medical or surgical aid successfully to a fellow being? I think a negative reply would be found very appropriate. It is a question whether the qualified or unqualified assistants are the more successful in practice. The unqualified assistant is usually a gentleman who has had the advantage of a few years' training under the eye of a general practitioner with extensive practice, and a few lessons at hospital and collegiate studies. Such men, I maintain, are more competent to discharge the duties of a general practitioner than they who have been hurried in and out of an anatomy room or the wards of a hospital for twenty-four months, without a single patient being trusted to their care; merely listening or not to the daily lectures of the professors, and perusing their text-books for theoretical knowledge, and are finally crammed for an examination, in order to obtain their diploma. To which class of men could patients be more safely entrusted? The editor of the *Lancet* has stated, in 1870, "It is unquestionable that there are a great many unqualified assistants who are very valuable servants to their employers, and whose misfortune it is, rather than their fault, that they are unqualified. Many such men have made the most of their opportunities, and have become very useful for the ordinary routine of practice." The learned editor goes on to remark, "that there are lessons to be learned by being an assistant to a general practitioner, which cannot be learned in walking hospitals and following the most gifted physician round his ward". I feel keenly that many of the present diplomas are too easily obtained, simply because they are obtained by means of money and time, without a sufficient test of professional knowledge; and the sad result is, that a highly honourable profession is lowered and degraded; for those who obtain their diplomas without any great professional knowledge, cannot compete with the hard working and experienced practitioner, and they therefore descend to mean subterfuges, contemptible quackery, and a system of pandering to the ignorant, and thus harass and injure their betters. The truth of this I can prove by pointing to some worthies in different parts of the country. I have known several legally qualified men of recent date lamentably deficient in practical knowledge, and whose diagnostic skill is at a very low ebb indeed. As an assistant of some years' standing, and having for a considerable time been engaged in extensive iron works and colliery practices, where the most extended opportunity is afforded for the obtaining of a practical knowledge of the profession in every branch, and also bearing the highest character, in addition to reading hard, I cannot help feeling the suggestion of your correspondent a great injustice to us all. If we were otherwise than competent to discharge our duties, it is obvious that medical practitioners would not engage our services. My two predecessors, who were qualified men, "got the sack"; one for being overburdened with professional pride and ignorance, the other for being drunken. My present salary is more than that of most qualified men, for the simple reason that my principal considers me of infinitely more value to him than any of the many qualified assistants whose services he had the misfortune to engage.

In conclusion, I would advise your correspondents not to be so practical in the way of offering suggestions. If they would consider for a moment that their diplomas are no real protection for the practising of their profession, and endeavour to cause them to be so, then they would be doing a real service to their brother practitioners.

Hoping that I have not extended my remarks to an inconvenient length for publication,—I am, Sir, your obedient Servant, J. L., Unqualified Assistant.

Wales, May 3rd, 1875.

M. (St. George's).—Mr. Henry Lee will commence his course of lectures at the College of Surgeons on Monday next.

MR. A. JOHNSTON.—We do not think that there is any occasion to depart from the ordinary rules of social etiquette in such cases as that mentioned.

### MR. STARTIN'S TREATMENT OF ECZEMA.

SIR,—I have been in quest of a prescription of the late Mr. Startin—a lotion for eczema. I fancy it contains carbonate and oxide of zinc. Perhaps some of your readers are familiar with it, and would be able to give the formula, and oblige, yours faithfully, J. R. SWANTON, M.D.

Bantry, Co. Cork, May 20th, 1875.

ROYAL COLLEGE OF SURGEONS.—Mr. John Steele Perkins, L.S.A., of South Street, Exeter, was admitted a Fellow of the College of Surgeons at a meeting of the Council on the 10th instant. His diploma of membership is dated June 4th, 1830.

PROCUL NEGOTIIS.—We are very much disposed to agree with our correspondent on the subject of his letter; but the question is one too closely connected with financial matters for us to deal with.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, twelve o'clock.

### BELL AND SIMPSON.

MR. SAMPSON GAMGEE has reprinted, in a pamphlet, his excellent study of the character of these two intellectual giants. His essay is drawn in the form of a parallel and analysis of their respective characters, and is altogether a masterly literary sketch. The following extract embodies the results and lessons which Mr. Gamgee draws from the life and works of the two great surgeons.

"'The battle of life' is an expression as literally true as it is metaphorically apposite. The man who contemplates mental conquests with large and varied intellectual endowments, developed by opportunity and culture, is in the position of a general with a numerous and well-equipped army marching into an enemy's country. Skirmishes and feints, reconnoitring expeditions and flank movements, have their uses in all combats; but, at the critical moment, the secret of success is concentration—a fixed purpose and a resistless onslaught. It was in concentration that both Charles Bell and James Simpson failed. They did not know when to stop, and to gather up their forces for one great work. Different as their natural dispositions were, unequal their rewards in time, high as the verdict of posterity will exalt the reputation of Charles Bell, Simpson's great faults must not dim a just perception of the brilliant services which he rendered. His contemporaries have not been slow to honour him. Modern Edinburgh has witnessed few more impressive sights than the public funeral of Sir James Simpson, and his memory is to be perpetuated by a statue, and a hospital to bear his name. Sir Charles Bell's grave, marked by a plain stone, is in a corner of the old churchyard at Hallow, near Worcester. When I visited it, the other day, to read the inscription, I had to wipe off a layer of frozen oak-leaves—not an unworthy covering of the cold remains of such enduring greatness. The rector's wife, who kindly led me to the spot, and who is a direct descendant of the Mrs. Holland whose guests Sir Charles and Lady Bell were when he had the fatal seizure, stated that, in her life-long recollection, no stranger had ever inquired for the grave; Lady Bell had been its only visitor so long as her strength permitted her annual journey to Worcester. Should not something be done to erect to Charles Bell's memory a fitting monument? Unequal as were their merits and fortunes, both men, though in different ways, were great teachers. Bell and Simpson have left us an inheritance beyond price: a collection of works which the students of this and succeeding generations may read with the certain confidence that, while they will stimulate their ambition, they will impress them, also, with a sense of modesty and reverence. They illustrate how great defects often coexist with the highest endowments; and in estimating the work of others, they teach that, accurately as the balance of right and wrong must be held, it is yet true, in judging the works of men, that those who are the most charitable are in the end also the most just."

J. H. J.—The letter appears to us in bad taste, and not worthy of the occasion.

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COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. G. M. Humphry, Cambridge; Dr. Edis, London; Dr. J. W. Moore, Dublin; Mr. W. E. Farnfield, London; Mr. G. Brown, London; Dr. Grimshaw, Dublin; Mr. J. C. Johnson, Cannanore, India; Mr. T. Sympson, Lincoln; Mr. C. Cullingworth, Manchester; Dr. F. J. Brown, Rochester; Mr. J. P. Ronayne, M.P., Queenstown; Mr. John P. Latimer, Plymouth; Dr. Edgar Sheppard, Colney Hatch; Mr. Arthur Bracey, Birmingham; Dr. Alfred Hill, Birmingham; The Secretary of the Pathological Society; Mr. T. Churton, Erith; Dr. J. D. Hewson, Stafford; Dr. J. Milner Fothergill, London; Mr. Eastes, London; Dr. R. Farquharson, London; The Registrar-General of Ireland; Dr. T. L. Brunton, London; Mr. T. M. Stone, London; The Secretary of Apothecaries' Hall; An Associate; The Registrar-General of England; Dr. W. Fairlie Clarke, London; Mr. Howard Marsh, London; Mr. Richard Davy, London; The Secretary of the Obstetrical Society; Dr. Graily Hewitt, London; Dr. McKendrick, Edinburgh; Mr. Jacob Thomas, Swansea; Mr. E. B. Hartley, British Basuto Land; Mr. Jabez Hogg, London; Mr. H. Campbell Pope, Birmingham; Dr. John Haddon, Eccles; Dr. P. H. Watson, Edinburgh; Mr. Augustus Johnston, Ambleside; Mr. John Marshall, Dover; Our Dublin Correspondent; Mr. R. H. B. Nicholson, Hull; Dr. Rabagliati, Bradford; Mr. John Henry Guiltar, Birmingham: Mr. Walter B. Houghton, London; Mr. Eccles Haigh, Liverpool; Our Edinburgh Correspondent; Dr. J. Birkbeck Nevins, Liverpool: Dr. W. J. Mickle, London; Dr. Philipson, Newcastle-on-Tyne; Mr. Edward Mathews, Redditch; Mr. H. C. Burdett, Greenwich; Mr. R. Torrance, Matfen; Dr. E. J. Tilt, London; Dr. J. Munro, London; Dr. Quinan, Dublin; Mr. R. W. Buckley, London; Dr. Greenhow, Dublin: Mr. W. W. Reeves, London; Mr. L. Herbert Jones, Watford; Mr. Henry Jackson, London; Mr. F. Manby, East Rudham; Dr. Procter, York; Mr. G. Barnes, Chard; Dr. A. B. Steele, Liverpool; Dr. A. B. Brabazon, Bath; Mr. Edward Trimmer, London; Mr. Eben Davies, Swansea; Mr. T. M. Cameron, Lerwick; Mr. A. Jackson, Sheffield; Mr. G. Radford, Benrhydding; Dr. R. Lord, Crewe; The Secretary of the Model Houses Association, London; Dr. G. Oliver, Harrogate; Dr. Wiltshire, London; Dr. W. Craig, London; Mr. E. S. Copeman, Norwich; Mr. Francis Vacher, Liverpool; Dr. T. S. Clouston, Edinburgh; Dr. Parsons, Dover; Dr. Siordet, Geneva; Dr. S. Martyn, Clifton; Dr. J. M. Bryan, Northampton; Mr. J. Woodman, Exeter; Mr. C. Maclean, Applecross; Dr. Beverley, Norwich; Dr. Bradbury, Cambridge; Mr. J. Williams, Croydon; Mr. R. S. Ellis, Willingham; Dr. D. Mackay, Inverness; Mr. Hudson, Sheffield; Dr. E. L. Watts, Douglas; Dr. A. Ogston, Aberdeen; Mr. W. H. Gardner, Folkestone; Mr. W. Tay, London; Dr. Payne, London; Mr. F. Jordan, Birmingham; Dr. Will, Aberdeen; Mr. V. Jackson, Wolverhampton; Mr. P. W. Squire, London; Dr. W. Farr, London; Dr. A. Smart, Edinburgh; Dr. B. Foster, Birmingham; Dr. Batten, Gloucester; Mr. G. Macpherson, Chichester; Sir C. R. McGrigor, London; Dr. J. Sawyer, Birmingham; etc.

# AN ADDRESS
ON
# THE RELATIONS OF MEDICAL MEN TO THE STATE.

*Delivered at King's College, London.*

BY

THE RIGHT HON. LYON PLAYFAIR, M.P., C.B., F.R.S.

I AM sorry that it is now thirty-five years ago that I was a student of medicine in the sister college in Gower Street; but my feelings of sympathy for medical students have not deadened with age, and I can participate in your successes almost with the freshness of youth. Though I never qualified myself as a medical man, it is most agreeable to me to find, on occasions like this, that the medical profession keep up their fellowship with me. In fact, at the present time, I happen to be president of the section of State Medicine of the British Medical Association, which meets this year in Edinburgh, and, in this quasi-medical capacity, I propose to address you in reference to the benefits which the public may in future enjoy from the application of your knowledge to the purposes of the State. The connection of the State with medical men is very old, but it is strengthened as knowledge advances.

How different now is the position of medicine from its condition when governments applied to it for aid in former centuries! When the French kings consulted the medical faculty of Paris what they should do to stop the great plague which scourged France in the fourteenth century, the advice given was in these words: "If rain come during the day, a little fine treacle should be taken after dinner, and fat people should not sit in the sunshine." And long after that medicine was in a deplorable state, both as to the causes of disease, and necessarily, therefore, as to the remedies which should be used. Do you happen to recollect, even during a period rendered illustrious by the life of Sydenham, the scene round the deathbed of Charles II? Fourteen physicians signed his prescription, and their collective wisdom determined that the head of the poor dying monarch should be burned with red-hot irons, and they forced into his resisting mouth a loathsome volatile preparation distilled from human skulls. What was the origin of this slow progress and helplessness of ancient medicine? It was that, in no offensive sense, a doctor was an empiric, groping his way by trial and error, and having no sun of science to illumine him in his dismal path. And so it was long before he attained to the true dignity of his profession. I recollect, when I was a boy, that a regular character in almost every play and farce was a pompous physician with a gold-headed cane. He was the object of ridicule, which unfailingly appealed to the laughter of the vulgar. But this representation of the medical man has altogether disappeared from the stage, because now it would be incomprehensible. Its survival, I will presently show, remains among us in a different form. But science has cast her mantle over the physician, and clothed him with honour. There is not a single branch of medicine which is not now under the dominion of science; in fact, I know no class of men and no profession which has a more catholic kind of education than medical students. You are first obliged to show that you have received a liberal education by an examination before you begin your professional studies, and then you have a curriculum of abstract and applied sciences, the fault of which consists not in its narrowness, but possibly in its too great breadth. A medical man of the present generation cannot be a narrow man. His profession is too varied to render it possible for any member of it to see society only through monochromatic spectacles. And this renders the medical man both a power and a danger to society at large.

Perhaps even more than the priest, the medical attendant becomes a confidant of the inner circle. His wide education and general knowledge often make him a valuable counsellor and friend when disease weakens the judgment and impairs the faculties of the patient. But this renders him a danger, unless his conduct be guided by a high sense of honour. The code of honour which the profession has laid down for itself has been sufficient, with the rarest exceptions, to preserve it unstained in its relations with society. Nevertheless, a reaction against the medical man naturally arises, both in the discharge of his private and his public duties. The patient, who is doomed to passive obedience when he is ill, is apt to show his independence, and sometimes a suspicion of his medical adviser, when he is comparatively well. This feeling, which has only a subdued expression in individuals, becomes magnified into positive dislike of the medical profession in its relations to the body politic; for the public officer of health has to deal with the body politic just as the private physician has to deal with the body of an individual. As the private doctor has to consider the hereditary transmission of disease to his patient, has to look to the conditions of his upbringing, and to the conditions, both physical and moral, to which he has been exposed, so must a public health officer look to all such conditions as affecting a community, for that represents the sum of all the moments of health of the individuals composing it; in fact, in a state each individual represents a single living particle in a man. Nutrition consists in the waste and restoration of particles; so, in a State, the death of an individual and the birth of another are strictly analogous to the waste and restoration of particles in individuals. When the rate of mortality is high in a community, disease is indicated, just as abnormal waste in an individual leads you to look for the causes of disease; and thus it happens that each community has been forced to appoint its own public officer of health just as each individual requires to have his own doctor. But the public officer of health comes into contact with the aggregate suspicion and resentment of the community of which I have spoken. He is too much a man of science to be treated with ridicule as in ancient times; but the survival of this antagonism between the strength of health and the weakness of disease still exists, and is vented on the public health officer in a manner which would be annoying, if it were not irritating. This is constantly seen in the House of Commons. Every bill relating to sanitary matters more and more throws power and responsibility on the public officers of health.

In some cases, as in the Bill for the Dwellings of the Poor, he is made the motor power of the whole measure. But each new confidence is bestowed under protest, and is yielded after much show of suspicion. If you were to believe the speeches which are made, medical men, instead of being the saviours of humanity, are the enemies of mankind. The country is determined not to be ruled by them, and yet is continually bestowing upon them increased powers. What does all this mean? Simply that communities are acting like individual patients. They try to resist the admission that they are in a state which requires an abnegation of their own will, and a submission to the orders of their medical advisers. They kick against the need, but yield while they kick. And so you find everywhere, very unequally, and with many misgivings, all communities appointing their own public doctors, just as individuals select their own private physicians. For the future, this will be a great field open to growing medical men. By prudence and honesty of purpose, they will overcome the prejudices which now exist to their public employment. Your education as private practitioners must, however, be supplemented by further knowledge for the discharge of public duties, because these require a special application of general knowledge, which is gradually methodising itself into a special division of medical practice. This has naturally been created by the unselfish labours of many medical men, even while engaged in the arduous duties of private practice. As an illustration of this fact, take the instance of Dr. Budd of Bristol, who has given to public health much valuable experience as to the conditions under which epidemics spread. As long ago as 1845, I made Dr. Budd's acquaintance, while examining into the state of Bristol, as a Royal Commissioner of Public Health, and ever since then followed with interest his many researches and memoirs on the origin and spread of epidemics. His own health unhappily broke down in his labours to promote the health of communities, just as that of Dr. Rumsey of Cheltenham has given way under like conditions of public usefulness. Surely such instances as these ought to be sufficient answers to the unreasoning suspicions of the influence of medical men on public affairs. Can there be an example of more unselfish labour than the effort of a medical man to extirpate disease, on the very existence of which his daily bread depends? And yet who is the man in each district who wars against filth, which forms the soil on which a large class of diseases take root? Sometimes there is a fine muscular Christian, such as Kingsley was, who uses his priestly influence to combat the filthy habits of his people, as a means of promoting health. Far more frequently it is the doctor, and not the priest of the parish, who has to incur the odium of reforming local abuses. Read Kingsley's novel called *Two Years Ago*, and you will find the fact excellently illustrated by himself. Every medical man, however much he may be engaged in private practice, can be a sanitary missionary, acting for the prevention as well as for the cure of disease.

The different methods of propagation of disease are becoming better studied, and unsuspected sources of diffusion are now known to be amongst the most common vehicles of transmission. Extensive epidemics, which in ancient times would have been attributed to occult influences, are now traced to polluted water and tainted milk. The great Sydenham, sagacious as he was, did not look around him, but beneath him, for the origin of epidemics. He thought that they emanated from the bowels of the earth, *interiora terræ viscera*. But now we have learned by closer observation to find their origin in our immediate surroundings. The physician has two duties in each case of communicable disease. He has to cure his patient, trace the origin of the disease, and prevent its recurrence among others. This is a noble and an unselfish duty; and in its performance will disappear those relics of prejudice against the medical profession which still linger in society, and find its most obvious expression in his relations to the public service. Take an instance. What utter unreasonableness there is at the present moment in the manner of conducting the crusade against vivisection. That there has been unnecessary indifference to animal suffering in experiments made on living animals, especially in foreign countries, is no doubt true; and the truth justified attempts at legislation, so as to conduct experiments with the view of obtaining the scientific object of the investigation in the most humane manner. In concert with Darwin, Huxley, Burdon Sanderson, and others, I tried to frame a code of morals which might be accepted by physiologists as an example of the manner in which such experiments should be conducted; for I fully recognised the fact that the law would be powerless to restrain such operations, if it were so severe and unreasonable as to drive the operators to perform them in privacy. No system of inspection, no registration, would enable the law to discover individual experiments performed in private, if it were the interest of the experimenter to conceal them. If the law for restraint of cruelty is to be operative, it must be so fair and reasonable as to enlist the sympathies and co-operation of humane men of science. Without this, you might as well expect an experimentalist to publish the contortions of a frog under a scalpel, as you would suspect the keen fisherman to tell the Society for the Prevention of Cruelty to Animals how a frog writhed when placed on a hook, in order to catch a pike. But a reasonable law to regulate the conduct of such experiments would be accepted as a guide, and would find co-operators in the experimenters. It would do more, because the community of science is great; and a law which did not obstruct science, but still prevented cruelty in its pursuit, would soon be accepted by foreign nations.

The very power which we possess over the lower animals involves a responsibility in its exercise. It is no justification of the voluntary infliction of animal suffering that Nature itself is cruel, and that the support of life is incident to death and suffering. If Nature were far more red-handed than she is, if the suffering which we are compelled to inflict on animals daily and hourly were, as it probably is, a hundred or a thousand times greater than the physiologist ever perpetrates, that does not lessen his responsibility to avoid the deliberate infliction of pain in the prosecution of his researches. His very knowledge of the structure of animals is an additional reason for applying his skill to avoid the unnecessary production of pain by all the means which the progress of science gives him to carry out painless operations.

I need scarcely say that I do not agree with those who would prohibit vivisection, even for the purposes of scientific investigation. Medicine is no longer confined to the records of symptoms and to the trials of remedies to alleviate them. The investigation of vital phenomena by observation and experiment is rendering medicine a science which, like all other sciences, requires a direct and careful questioning of Nature. It would be disastrous to the progress of medicine if we were to restrict the means of research in the sciences of anatomy, physiology, or even chemistry by refusing to discoverers in these sciences the power to test their discoveries on living organisms. It is a mean view of scientific progress always to put the *cui bono* test to every experiment, though every discovery, however remote may appear its practical application, becomes ultimately beneficial to man.

Harvey had higher objects than the practice of medicine in discovering the circulation of the blood. Haller inquired into the nervous system, not with a view to the mere cure of disease, and was followed by Bell, Marshall Hall, Weber, Bernard, Brown Séquard, and many other physiologists in a spirit of abstract philosophical inquiry, though all their experiments have ultimately reflected great benefit on the human race. The suffering and death which they inflicted on the lower animals in their researches have, like the sacrifices of old, brought collateral benefits to humanity. It is not in the more direct application of such experiments to the cure of disease, as when Jenner vivisected animals to produce vaccination, that the benefit of such experiment is greatest. These are immediate and palpable benefits which come home to the vulgar; but the widening of the boundaries of knowledge always produces increased power and happiness to the human race.

It is right, in my opinion, that experiments leading to such important results should be pursued, even at the sacrifice of a certain number of lower animals. But no suffering and no sacrifice should be made without justification. The very fact that the ultimate consequences of such researches lessen the amount of human suffering, by teaching us how to alleviate disease, renders it more imperative that all the resources which modern science has placed at our disposal for the mitigation of pain, should be used in experiments on the lower animals. It is fortunate, then, that in the agitation of the public mind on this subject, nothing precipitate has yet been done, and that a Royal Commission, which is likely to be presided over by Lord Cardwell, a very humane, but at the same time, a prudent and sagacious nobleman, who fully appreciates science, is appointed to inquire into the whole subject.

But I find that I have been giving you somewhat of a Parliamentary speech, so I must conclude. In taking leave of you, I congratulate all the students of this important medical school in the choice of their profession. It is one in which they may be eminently useful to their fellow men; and in this feeling of usefulness, through intelligent labour, they will find their highest and purest enjoyment. I have tried to show you that your knowledge may be made to extend benefit far beyond your immediate patients,—for a physician should look upon medicine as a sort of religion, and on himself as a priest of humanity, bound to spread his sphere of usefulness to all within his range.

## A CASE OF VARICOSE ANEURISM OF THE LEFT ORBIT, CURED BY LIGATURE OF THE DISEASED VESSELS.

By F. P. LANSDOWN, M.R.C.S.Eng.,
Senior Surgeon to the Bristol General Hospital.

My patient, Mr. H., was wounded at the inner side of the left upper eyelid by the bursting of a soda-water bottle while he was in the act of stooping and opening a hamper. Being on the spot, I saw him at once. The wound penetrated the upper lid; it was about half an inch in length. The eyelids were distended to their utmost by effusion of blood into their cellular tissue, and an artery was jetting blood from the wound. I brought the edges of the wound together with a suture, which stopped the bleeding; and, in a few days, he was apparently well. In about six weeks, however, the eye gradually became prominent, the eyelids swollen, and the veins of the conjunctiva tortuous and distended. In a few weeks, a small pulsating tumour was discerned at the inner angle of the orbit, beneath the cicatrix of the old wound. There was a distinct murmur heard over this, as well as over the eye. The sight was perfect. Rest was enjoined, and remedies used to restrain the circulation. Pressure was applied to the little aneurism by means of a truss, hoping to compress it against the inner wall of the orbit; but, as this gave rise to much pain, and pressed the tumour into the orbit rather than arrested the pulsation, it was discontinued. About this time, he saw Mr. Bader and Mr. Higgins of Guy's Hospital; and, from the fact of the retinal veins being as dilated as the superficial veins, Mr. Bader considered it probable that there was an aneurism deep in the orbit, and advised ligature of the carotid. I preferred trying an exploratory operation. Accordingly, on February 18th, 1874, I cut down and opened up the old wound, exposing a small globular pulsating tumour, with a large tortuous vein coming off from the front of the sac, and passing to the back of the orbit. Between the eye and the aneurism, there were several smaller vessels going to and surrounding the sac, which made the operation tedious. Having found the feeding vessel, I placed a carbolised ligature on the cardiac and distal sides of the aneurism, and closed the wound. On the fourth day, the sac was discharged from the wound. In a week, the eye had returned nearly to its natural level, and my patient made a steady and complete recovery. Now, more than a year since the operation, no one could notice any difference in his eyes.

Remarks.—I send this case, as showing that dilatation of the ophthalmic vein may simulate deep-seated aneurism in the orbit. Here a communication between the nasal artery and vein was sufficient to produce a considerable deformity. In its general characters, it appears to resemble the case brought before the Royal Medical and Chirurgical Society by Mr. Rivington (British Medical Journal, March 27th). I may say that, had the operation failed to cure, it was my intention to excise the globe, which, in my opinion, would be a much more satisfactory and a less hazardous operation than ligature of the carotid which should only be done as the last resort.

# ABSTRACT OF CLINICAL LECTURES

DELIVERED AT

# ST. BARTHOLOMEW'S HOSPITAL.

BY

SIR JAMES PAGET, Bart., D.C.L., LL.D., F.R.S.,
Consulting Surgeon to the Hospital.

## IV.—On Gouty Affections of the Skin, and of the Digestive and Vascular Systems; and on the Treatment of Gout in Surgery.

Sir James Paget, in the early part of the lecture, pointed out the relations existing between gout and various forms of diseases of the skin, such as psoriasis, eczema, urticaria, prurigo, pruritus, etc. These relations were not to be found in any anatomical features, or in any peculiarity of appearance: an eczema or a psoriasis in a gouty person could not generally be distinguished by its own characters from one that occurred in a patient who had no gout. It was in connection with the treatment of these cases that the diathesis was important. It was as necessary, or rather much more necessary, to consider the person's constitution than the specific characters of his local disease. In following this rule, we must look to all the circumstances and antecedents of the case. For example, if eczema were found in a patient who had already had gout in its regular form, there must be a strong suspicion that the eruption depended on gout, and it must be treated in this view: such treatment was as much called for here as it would be in a case of inflammation of a joint in one who was known to be gouty; and the same must be held for psoriasis, or any of the forms of prurigo. If they were met with in those who presented some of the minor signs of gout that had been described in former lectures, or even if they were seen in the elder members of families in which gout was very prevalent, it must be carefully considered whether they were not dependent on the same constitutional defect, whether they were not incomplete gout appearing in the skin, just as, in another man, it might appear in the bronchial tubes, or in the proper texture of the lungs, or in the joints. One character which these affections of the skin evinced in common with other gouty diseases, was the sudden manner in which they were often developed: thus they might occur suddenly in the night, without any previously suspected cause, unless it were some indigestion or some unusual diet of the day. This peculiarity was well marked in the more acute cases of gouty eczema, and gouty psoriasis of the skin. And some help in diagnosis could be gained from the observation that they were uniformly made worse by those articles of food that were notoriously bad for complete gout—fermenting drinks, beer, champagne, hard food, salt, etc. However, this was a point on which too great reliance was not to be placed, for nearly all skin-diseases, both acute and chronic, were made worse by the kinds of food just mentioned. There was a short rule that used to be given in the out-patients' room, and it certainly was a good one. The patients were told to have nothing salt, strong, sour, or sweet. It might seem that such a rule shut patients out from all the comforts of life in respect to diet: it was meant, however, merely as a rule against the excessive or too ample quantities of strong drinks, acids, salt, and sugar, which many persons habitually used in their diet. But the main point to be insisted upon was that, in the study of all affections of the skin occurring in elderly persons, the question whether the disease was associated with a gouty constitution should be looked to; for if this were forgotten, treatment would be very likely to fail. Here a caution was given against a danger that might arise out of the present method pursued in the nomenclature of skin-diseases. Their classification had grown very minute of late, and it was founded mainly on an anatomical basis. There was nothing in it that could afford any indication of the constitutional condition with which the various forms of disease were associated; and there was certainly some likelihood that this important side of the question might be overlooked. Among other cases of skin-disease in relation to gout, were ulcers of the integuments, which followed collections of urate of soda in the form of chalk-stone. Where these collections occurred, repeated attacks of inflammation in the skin over them ensued, and then an ulcer formed, weeping out continually a thin ichorous pus, with chalky matter. These ulcers, which were very troublesome to manage, might be treated with water-dressing, or with solution of soda, until the deposit was removed, and then, to promote their healing, with solution of nitrate of silver painted over their surface.

Another form of skin-disease often seen, especially in old men, was an eczematous ulcer about the ankle. There were a number of persons who suffered from eczematous ulcers, as they might be called—that is, they had eczema, some portion of which became the seat of a thin, shallow layer of ulceration. This condition was frequently intolerably painful, especially when the patient lay down, or while he was in bed. Patients constantly complained that when they were in the warmth and quietude of the bed, the pain became an agony. Nearly all such ulcers were gouty. In many persons the ulcer was associated with a varicose state of the veins; not, it was to be observed, with the large tortuous blue veins that are commonly termed varicose, but with large clusters of the smaller veins, collected about the ankle or some part of the leg. These clusters were not all blue, but some were as bright as if they contained arterial blood. It was often said that the ulcers in these cases depended upon varicose veins, and even that the varicose veins were the source of the eczema. That view, however, was a fallacy. Many of those who had varicose veins never had any symptom of eczema. Both the eczema and its superficial ulceration depended on incomplete gout, and the presence of the varicose veins was merely a coincidence.

Some gouty affections of the digestive organs were next referred to. There were many persons who could tell almost certainly by the state of their tongue that they were about to be attacked with gout. It was not meant that there was any one condition of the tongue that was met with in all patients alike; but that many men learnt by experience that, when they found their tongue coated in a particular way, it indicated the coming of gout. Each man knew his own tongue in this sense. All he had been able to observe in these cases was, that a thin white fur was coated thinly over the whole tongue; yet some patients could tell by it, and tell truly, that their gout was at hand. There was one disease of the tongue, however, that was found associated with gout, viz., psoriasis: a condition in which the mucous membrane became smeared all over with a thickish opaque white covering, which some had compared with a layer of mucus left behind by a snail tracking its way over wood. This condition of psoriasis might be very frequently seen in the syphilitic patients in the hospital, and it was very difficult, by the characters of the disease itself, to discriminate between the syphilitic psoriasis of the tongue and the gouty; but it might be taken that, in the great majority of cases, the disease depended on one or other of these constitutional conditions; there seemed to be exceedingly few cases but the syphilitic and the gouty in which psoriasis of the tongue occurred.

Then, again, respecting certain diseases of the pharynx and soft palate in elderly persons. An elongated uvula was in old people, he would not say always characteristic of gout, but it was very suggestive of it. There were few except gouty persons who habitually had at or after middle age an elongated uvula. In nearly all signs would be found, either of the well marked complete gout or the minor forms which had been spoken of. And there was a condition of what might be called pharyngitis, which was often associated with this, when the whole of the mucous membrane of the pharynx passed into a condition very like that of the elongated uvula, looking clogged, heavy, œdematous, and, as it were, slow to move, and covered with an unusually thick glossy epithelium. The pharynx, it was remarked in passing, was a part to be carefully studied for the indications it afforded of constitutional disease. Thus there was a condition of the pharynx which was almost always an evidence of tuberculosis, in which it was covered with granular prominent glands. Again, scrofulous disease was often found here. Dr. Brinton had described what he regarded as a gouty form of dysphagia, and he was so good an observer, that it was not likely he was mistaken; but he (Sir James Paget) could not say that he had been able to recognise the condition in any cases he had seen.

As to gouty dyspepsia, little need be said in the course of a surgical lecture; but it might be remarked that dyspepsia was more common in the gouty than in almost any other class of patients, such as the tuberculous, the scrofulous, the anæmic, the nervous. And there were some features always prominently marked in the dyspepsia of the gouty. These persons suffered especially with acidity and flatulence, and they were patients with whom many articles of diet habitually disagreed, making them, as they vaguely expressed it, "bilious", or giving them headaches. These offending articles of diet also frequently brought out some of the minor signs of gout with great rapidity. Many persons, if they took beer, or champagne, or any drink which was incompletely fermented, were almost certain to find, on waking next morning, that their knuckles were stiff and painful, or that they had burning palms or soles, or some neuralgia about the scalp. This development of certain symptoms after the use of certain articles of diet was, indeed, so uniform, that it afforded a valuable test of the existence of the gouty constitution, just as the speedy effect of mercury or iodide of potassium indicated the presence of syphilis, or that of quinine the presence of ague.

These were not, he thought, indifferent or minor facts; they were really among the things that must be often used in practice.

The lecturer then passed on to refer to gout as affecting the vascular system. It had been held by some observers that atheromatous disease of the arteries was mainly due to the gouty constitution. There were, however, many grounds for doubting this; and probably all that could be said was that, as severe or long-continued gout induced extensive degenerative changes in almost all the textures of the body, the arteries were affected in common with the rest. Certainly aneurism was less frequent in the gouty than in the syphilitic, and senile gangrene was not more prevalent among elderly gouty persons than among other classes of patients at the same age. Gouty disease of the veins—gouty phlebitis—however, was undoubtedly a very common affection. It was by far the most frequent form in which anything that could be called idiopathic phlebitis occurred. It was perhaps one of the most frequent of the irregular forms of gout; and any case of phlebitis occurring without an apparent cause in an elderly person might be suspected to be of this nature, particularly if the attack were very sudden.

This closed the list of the minor signs and forms of gout that Sir James Paget mentioned; but he remarked that his aim had not been to refer to all that could be collected, but rather to select such specimens as might direct the attention of his hearers to the subject, and induce them to study it carefully for themselves. Then, as to the treatment of gout as it was seen in surgery: at the first glance, it might appear that the treatment of gout could be summed up in a few sentences; certain rules were always good; certain medicines were always useful. But it must be remembered that gout was an affection that mixed itself with whatever other constitutional defect was present in the patient it attacked; and thus not only were there modified forms of gout, but there must be, to meet these, modified forms of treatment. Of course, the treatment of a gouty man who was also scrofulous must be different from that required for one who was syphilitic, or nervous, or healthy besides his gout. Then, again, the gout needed very different treatment according to its intensity. There was no doubt that colchicum had a remarkable influence upon all cases of complete gout; and it might probably be taken as a rule that the more complete the form of gout was, the more it affected the joints, and held to those without shifting to other textures, the more marked would be the benefit that would result from colchicum. Given in appropriate doses at right times, it undoubtedly materially shortened an attack of complete gout in any joint, especially in or about the foot. Colchicum had a comparatively small range of utility in incomplete gout, or in the irregular form that had been mentioned as usual in surgical practice; for instance, the utility of colchicum in acute gouty eczema was very limited, and the same must be said of it in acute gouty phlebitis. It should be noted that in those who were scrofulous or tuberculous, and at the same time gouty, colchicum must be given, in order that its depressing influence might be avoided, in small doses, and with quinine, or iron, or some other tonic. What had been said of colchicum, might be said also of another medicine that was esteemed as specific. Veratrum, commonly given as veratria, had a definite influence upon complete gout; it was to be doubted whether it had any effect at all on incomplete gout.

As to diuretics, diaphoretics, and purgatives, these were often useful; but this, probably not because they had any direct influence on the gout itself, but because they corrected some coincident defect of health; they promoted excretion, which was frequently very imperfect in gouty persons.

There were three things chiefly which had to be considered for all gouty persons. First, the drinking of a certain extra quantity of water, there was no doubt, was essential for the maintenance of health in many of these patients. An excellent plan was to drink water in the early morning. Many gouty persons were able to diminish, or even get rid of their minor symptoms of gout, by drinking half a pint of water while they were dressing in the morning, and before they had taken any solid food. Those who found an excess of lithic acid or of lithates in their urine should take some alkaline water instead of plain water, and they should drink enough to render the urine clear and free from deposit. Many of the German alkaline waters, such as the Carlsbad and the Vichy, were very useful; or those that were purgative as well as alkaline might be employed when the bowels were confined. Secondly, as to baths and thorough washing: in gouty persons, as a rule, the skin acted inefficiently, and therefore all gouty persons—in common, indeed, with all others—should use a bath every day. It was, however, doubtful whether cold water should be used by those who were elderly. If there were a tendency to neuralgia, or to any of the more painful forms of rheumatic troubles of the joints, or lumbago, or even general feebleness of the circulation, tepid water should be used. And, in order to secure a thorough cleansing of the skin, mere cold or mere warm water was not enough; the greasy material that collected on the surface must be washed away with soap and good rubbing and frictions. Persons who were fat and whose skins were hairy might have a Turkish bath, but thorough daily washing with warm water and soap was all that could be required. And, in connection with the bath, was a matter that was too seldom attended to in England, though it was productive of much benefit in the various health-resorts in Germany,—the custom of going to bed for an hour or two hours directly after the bath had been taken. In Germany, the patient, after taking some slight amount of food to avoid faintness, had his bath, and then went to bed for some short time. Probably, under these circumstances, quite as much good was done in bed as in the bath; while the body was covered and completely at rest, and the nervous system tranquillised, the skin acted freely. If our English baths were used with the same care in this respect as is taken in those abroad, we should work much better cures with them. Thirdly, as to diet: gouty folks should be very moderate in all their food—not, however, too abstemious, for these patients were seldom really vigorous, or able to dispense with a nutritious diet. But moderation should be observed, particularly in respect to the use of stimulants; and each patient must select for himself, or be advised to take what suited him best. There was a prevalent opinion that spirits were better than wine; but he doubted whether this was really true. The chief point was, that whatever stimulant was taken should be used in the most strict moderation.

In his concluding remarks Sir James Paget said, that he felt he had been lecturing on a number of things about which, unless they were accepted under the limitations within which he had endeavoured to place them, fallacies might easily arise. What he had in his mind chiefly was, first, the broad general rule that disease was not to be studied as if it could be learned by morbid anatomy alone; but, that in every living patient we had to study what probably lay under every disease as a definite form of morbid constitution; it might be a mixed or a simple one, but there was in every man a definite constitution to be studied as the thing chiefly in him to be treated. And even there might be in each person something not to be called constitutional, but to him so peculiar, so distinctly of his person, that it must be considered in every question that arose concerning his health or the treatment of his disease. Then, next he had tried to show that among these constitutions, one which must be studied in surgery was the gout, and that in surgery this must be studied, not by the typical characters which it presented in its complete and typical forms, but by certain minor characters which it presented, and of which any one taken alone might be fallacious, but of which five, six, or eight, or more, taken together, if they occurred in the same person or in different members of the same family, might be as sure evidence of gout, as even the most typical gouty inflammation in the foot or in the great toe was. Then he would go beyond that and say, that every constitution to which patients were subject must be studied in the same way, not alone by its typical characters but by those minor characters which it presented in lesser degrees; for in these cases we were able to bring in the whole force of what was called accumulative evidence. A single matter might be worth little; two might be worth more than twice as much; and so on, until by multiplying characters we came to absolute evidence of the existence of the constitution, as complete as would be the evidence of the typical sign.

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THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The half-yearly examination for the diploma of fellowship was brought to a close on Saturday evening, when thirteen out of the twenty-four candidates examined were informed that they had acquitted themselves to the satisfaction of the Court of Examiners, and at the ensuing meeting of the Council would be recommended for the diploma. We insert in another column the questions submitted to them as the written portion of the ordeal. The dates of membership ranged from 1854 to 1874, and we are informed that seven candidates were rejected for the first time, three for the second time, and one for the fifth time. The names of the successful candidates will be published after the next meeting of the Council.—The retiring members of the Council of the Royal College of Surgeons, Messrs. Prescott Hewett (vice-president), Spencer Smith, and John Birkett, will offer themselves for re-election. The announced new candidates for election, taking them in the order of seniority of fellowship, are Mr. John Cooper Forster, surgeon of Guy's Hospital, a fellow by examination, April 11th, 1849; Mr. Edward Law Hussey, senior surgeon to the Radcliffe Infirmary, Oxford, also a fellow by examination of August 16th, 1849; and Mr. Alfred Smee, F.R.S., senior surgeon to the Royal General Dispensary, a fellow by election of December 13th, 1855. The official circular, convening the annual meeting for Thursday the 1st proximo, has been sent to every fellow of the College whose address is known to the secretary as qualified to record his vote. Those who have been elected but not yet signed the bye-laws will not be allowed to vote.

# ABSTRACT OF LECTURES
# ON SYPHILIS;
AND
# ON SOME LOCAL DISEASES AFFECTING PRINCIPALLY THE ORGANS OF GENERATION.

*Delivered at the Royal College of Surgeons of England,* 1875.

By HENRY LEE, F.R.C.S.,
Professor of Surgery and Pathology to the College.

## Lecture I.

*Introduction.—Hunter's Idea of Life.—Life of the Blood.—Morbid Poisons.—Animal Poisons.—Different Modes of Action: constitutional, local, mixed.—Inoculation of Poisons.—Inoculation of Blood.—Transplantation of Teeth.—Inoculation of Syphilitic Blood.—Hunter's Conclusions.—Reinfection.—Inoculation by Simple Contact, by means of a Blistered Surface, by the Lancet, by Hypodermic Injection, by Transplantation of Teeth.—Vaccino-Syphilis.—Digital Inoculation.—Legal Liability.—Hereditary Syphilis.*

Mr. Lee, in commencing his first lecture, remarked that the natural and diseased structures, illustrated by the specimens in the museum of the College, had been demonstrated with much energy and talent; but, with regard to the fluid parts of the body and their diseases, and especially with regard to its diseased secretions, much still remained to be said. To the fluid parts of the body, Hunter appeared to have directed his especial attention, and this was particularly true with regard to the healthy and diseased secretions connected with the organs of generation.

The lecturer then referred to the various opinions expressed as to the mental character of John Hunter, and said that, with regard to the present subject, the object and aim of Hunter's life and the character of his mind had been well summed up by Coleridge, who says: "That the true idea of life existed in the mind of Hunter there cannot be the least doubt, but it may, perhaps, be doubted whether his incessant occupation and his stupendous industry in the service both of his contemporaries and of posterity, added to his comparatively slight acquaintance with the arts and aids of logical arrangement, permitted in many instances his *fully* unfolding and arranging it in distinct, clear, and communicable conceptions. Thus the light which occasionally flashes upon us seems at other times, and frequently, to struggle through an unfriendly medium, and even sometimes to suffer a temporary occultation. In order to dissipate the undeniable obscurities, and to reconcile the apparent contradictions found in his works, to distinguish, in short, the numerous passages in which, without, perhaps, losing sight internally of his own peculiar belief, he yet falls into the phraseology and mechanical solutions of his age, we must distinguish such passages from those in which the form corresponds to the substance, and in which, therefore, the nature and essential laws of vital action are expressed as far as his researches had unveiled them to his own mind without disguise."

That this description gives us a correct idea of Hunter's mind, and that in every dissection he made, and in every preparation he has left, he believed that he was investigating and illustrating the results of some living process, is, Mr. Lee thought, shown by the fact that he summed up the labours of his life by his work on the *Blood*. Hunter insists much on the living principle of the blood, and thinks that there is an analogy between the actions which we can trace in the blood itself and in other parts of an organised being. Without some such principle to guide us, he observes, we are dissecting a dead body, without having any reference to the living, or even knowing it had ever been alive. Although Hunter appears to have arrived at the idea that the blood is alive, from his own independent observation, and says that he had started the opinion, yet in truth it is as old as any writings which we possess. In the oldest Hebrew records the idea is vividly set forth, that "the blood is the life". But, even in comparatively modern days, there were some who, before Hunter, attributed life to the blood. In evidence of this, Mr. Lee quoted some passages in which Milton and Shakespeare attributed life to the blood.

Morbid poisons, Hunter observed, are many, and have different powers of contamination. Those which affect the body either locally or constitutionally, but not in both ways, he called *simple.* Those which are capable of affecting the body both locally and constitutionally he called *compound.*

A poison may affect only the part in contact with it, and may act either mechanically or chemically, or may affect the vital action of that part. Thus powdered glass acts mechanically, corrosive sublimate acts chemically, and the matter of cancer acts only on the living principle of the part. Another mode in which a poison acts is upon the constitution of the individual. This constitutes it a morbid poison. As examples may be cited, jail fevers, and different forms of secondary inflammation where there has been no open wound. A third form in which a poison may act is on the nervous system; and, as examples, Hunter cites the occasional effects of poisoned arrows, honey, mussels, nux vomica, and probably the bite of a mad dog, which produces no specific visible effect on the injured part.

Those poisons which are liable to affect the body both locally and constitutionally, Hunter calls compound or mixed. The mixed action is of two kinds—first, when it produces inflammation of the parts, and at the same time affects the whole constitution, as in the venereal disease; and, second, where a local disease, as the itch, is followed by some secondary complication, such as erysipelas; or like the jail fever, which acts first on the constitution, and may be followed by certain local diseases; or, like the vaccine inoculation, which produces a local disease, followed by a general constitutional influence.

Some of these poisons do not affect the constitution until ulceration takes place, and a knowledge of this fact enables us sometimes very materially to modify or to prevent their general results. Each specific poison has its own latent period before it affects the constitution, but upon what this depends has not hitherto been determined.

Animal poisons, Hunter observes, act principally on living parts. Some affect the skin by simple touch, as those belonging to certain sea-insects, the ant, etc. The poisons produced by other animals cannot operate unless conveyed into a wound which brings them into contact with the living principle. This has over and over again been asserted with regard to the syphilitic poison, but Hunter took a different and more correct view. Animal poisons which require a wound before they produce their effects on other living animals are very active, and they act in proportion to the quantity of the poison used.

Those which poison by the touch first produce a soreness, and some swelling and inflammation, which is of the adhesive kind, although the swelling is generally œdematous. Those which act externally and locally do not occasion swelling at any distance. They all appear to have their particular distance, unless increased by rubbing. The poisons inserted into the skin, on the contrary, produce sometimes a very extensive local effect, quite independent of any constitutional affection. The sting of a wasp or a hornet will produce in a couple of hours swelling, redness, heat, and pain, over a surface larger than the palm of the hand. The natural poisons which produce constitutional effects also produce local actions, but these are not so fixed as those which produce local results only. Suppuration of the part to which the poison is applied rarely happens, but by absorption this may sometimes happen, as in common bubo.

Morbid poisons, according to Hunter, probably arise from a diseased state of the body or part, and may originate either spontaneously or from the application of similar matter from another animal. They have all a period of incubation. Some of these poisons are lost, and some are losing ground daily for want of frequent communication. Some of these act in a fluid state, and some in a state of vapour. The venereal poison requires contact, and affects generally those parts which are most frequently in contact. Some affect the secretions, so as to make them poisonous, as the saliva in the mad dog. Some of these are local, and others both local and constitutional. Some affect the whole system rapidly, but not so the venereal. Every part of the body is more or less susceptible of being affected by those poisons. There are three ways in which they may affect a living being: 1. When the effect is always local and never reaches the constitution; 2. When the constitution alone is affected; and 3. When the disease has both local and constitutional manifestations.

These principles of Hunter's I shall have abundant opportunity of illustrating: 1. With regard to the local syphilitic sore, which, as I believe, never affects the constitution; 2. Where the constitution alone is affected, as in hereditary syphilis; and 3. Where a local disease precedes the constitutional manifestations.

Reference was then made to Hunter's well-known experiments on transplantation of parts of the body; of the testis of one animal to the peritoneum of another, and of a tooth to the comb of a cock. The healthy actions of the two parts would thus be in perfect sympathy; and not only may healthy influences be thus transferred from one part to another, but diseased actions may be likewise so communicated. Cases were then referred to in which the transplantation of teeth in the human subject had been followed in about a month by symptoms of syphilis, the nature of the disease being proved not only by the general characters, but by the effect of mercury in curing it. Two of the cases are recorded by Hunter, and one by Dr. William Watson in the *Medical Transactions of the College of Physicians of London*, published in 1785. At the time that such cases as the above were recorded, had not the idea taken possession of some men's minds that absorption of syphilitic poison under the circumstances was impossible, the diseases described would doubtless have been assigned to their right cause. In some of the cases care was taken to wipe the surface of the tooth before it was transplanted, and it was thought that, by so doing, every chance of inoculation would be prevented, but a brief reflection will show that such a precaution could not affect the living actions going on within the tooth.

That syphilitic blood, or the germinal elements of the blood, may be conveyed from a diseased to a healthy person has been demonstrated by several observations. A case is recorded by Waller, in which a boy, aged 15, was inoculated with the blood of a syphilitic woman on July 27th, 1850. The inoculations were performed by means of a scarificator, and the blood was inserted into the wounds with a small piece of wood, and with lint soaked in the blood. At the end of three days the scarifications were healed. On August 31st, thirty-four days after the inoculation, syphilitic tubercles appeared; and in the course of a month the lad presented also an eruption of roseola, stains over the whole body, and papules. Lindwurm records a case in which a patient, aged 71, affected with an incurable ulceration of the face, was inoculated with the blood of a woman who was syphilitic, and eight months pregnant. The inoculation was performed by means of the ordinary instrument used for subcutaneous injections. Four weeks afterwards, a red tubercle appeared on the inoculated spot; well marked syphilitic symptoms afterwards appeared. In a case recorded by Gilbert, a patient, affected with lupus of the face, was inoculated with some blood taken from a large scaly patch, of a red copper colour, on the forehead of a syphilitic patient. This patch afforded no secretion. The inoculation was performed on February 9th, 1859, on the upper and anterior surface of the forearm. It was followed after fifty days by a red scaly papule, a painful enlarged gland in the axilla, roseola, scaly pimples on the arms, scabs among the hair, and mucous tubercles around the anus and at the umbilicus. There was no disease of the organs of generation.

The lecturer then gave a detailed description of the experiments performed in 1860, by Professor Pelizzari, on inoculation with the blood of patients suffering from constitutional syphilis.

The principle illustrated in the foregoing cases, namely, that the blood of a syphilitic patient may, under certain circumstances, communicate the disease to another patient who has not previously had syphilis, had been demonstrated by the cases recorded by Hunter, in which the transplantation of teeth had been followed by syphilis.

In the experiments which Hunter made, he was led to the conclusion that the products of constitutional syphilis were "not capable of acting in some respects on the same body or same state of constitution as that matter does which is produced from a (primary) chancre". He says that the secretion from a chancre generally when absorbed produces a bubo, but that we never find a bubo arising from a secondary sphilitic sore. When there is a venereal ulcer in the throat, no buboes appear in the glands of the neck. Venereal sores on the arms, or even suppurating nodes on the ulna, do not as a rule produce swelling of the axillary glands, although these will very certainly be affected if syphilitic matter from a primary chancre be inoculated on the skin of the arm. Again, when syphilitic blotches or nodes form on the legs and thighs, the specific affection of the glands in the groin, which accompanies primary infection, does not occur.

These considerations so far biassed Hunter's mind, that some of his expressions might lead to the conclusion that the secretions from the secondary syphilitic affections were not inoculable. He mentions, however, that it was asserted in his day that ulcers in the mouths of children derived from constitutional and hereditary disease, produced the same disease upon the nipples of women who suckled them. That is, the children were contaminated either by their mothers or fathers; the child received the disease by hereditary descent; and the nurse was infected by the child.

Hunter concluded that the syphilitic poison did not act on *the same body* when reinoculated as when received for the first time. He drew perfectly logical and accurate conclusions from his experiments, and all subsequent experience has borne them out. The venereal poison, when inoculated upon the same body as that which produced it, does not produce the same effects as when inoculated upon another non-syphilitic subject. It has been somewhat hastily concluded that Hunter's idea was that the products of constitutional syphilis would not be inoculated. He, however, held it an open question, but maintained that, from his experiments performed upon the patients themselves, it appeared not to be so. On the other hand, the cases which he has mentioned, reviewed in the light of more recent observations, clearly show, not only that the products of constitutional disease may be communicated, but that the blood itself may be the means of imparting the disease. Mr. Lee here gave an instance of the direct communication of syphilis by means of blood, as observed in the case of a gentleman, who had never had syphilis, and who had contact but not intercourse with a lady who had not quite recovered from her monthly period. It was subsequently ascertained that the lady had had an old syphilitic affection; and, at the time she had a copious viscid tenacious discharge from the uterus. The disease in this case was communicated by simple contact, previously to which there was no lesion on the skin or mucous membrane of the gentleman.

That the blood, if not the direct means of conveying the syphilitic disease, may be the means of imparting a wonderful morbid energy to some other fluids in the human body, may be further illustrated by the now large number of cases in which syphilis has been communicated, when diseased blood, or some of its constituents, has accidentally been inoculated together with the vaccine lymph. The lecturer here gave an account of the series of cases which occurred in the practice of Dr. Marone of Lupara in 1856. The vaccine lymph was sent in glass tubes, and was observed to be mixed with a little blood. Twenty-three children were affected; they came of parents who had not previously shown symptoms of syphilis, and their general health had been good. In consequence of the infection of the children, the disease showed itself subsequently among the nurses and mothers of the children, and among the husbands of some of the women, and other persons. In some of the patients seen by Dr. Marone, the syphilitic symptoms continued in children, nurses, and mothers, until April 1859.

Previously to the outbreak of this terrible malady, Dr. Marone states that he had had no experience of syphilis among these villagers. "It is my duty in the cause of truth", he further adds, "to state fully, that these inhabitants of Lupara were in no wise blind to the connection between cause and effect on the occasion of this painful occurrence; so that, in fact, I was pointed out as a guilty party in the catastrophe which had occurred; and this is the reason why I was silent at the time, not only on my own account, but also for fear of discrediting one of the most important discoveries of our science. Vaccination was declared to be the foundation of all this misery. Now that I have seen that other surgeons have met with a like series of facts, whatever may happen to myself, I have disregarded personal considerations, and am no longer able to refrain from publishing the above-mentioned details, conceiving it to be a duty that I owe to science." Dr. Marone draws the following brief conclusions from his most interesting and affecting narrative. 1. The syphilitic disease was really transmitted in the above-recorded cases by means of vaccination; 2. The children vaccinated suffered first, and became the means of transmitting the disease to others; 3. The lymph used for the purpose of vaccination was impure, being mixed with blood, and that the result shows how necessary it is to abstain from using lymph of that description.

Mr. Lee had not himself seen any case of vaccino-syphilis during the progress of inoculation; but a case fell under his care in 1859, in which a child who had been vaccinated at the age of seven months was brought to hospital a year and a half afterwards with numerous dark copper-coloured patches over his body, and especially on his lower extremities. He also had chronic enlargement of a gland in the axilla. The child was treated by mercury, and recovered.

When blood-inoculation is referred to, it does not necessarily imply that the inoculated matter contains the red corpuscles of the blood. It is probably the white corpuscles, or some derivative from them, which contains the life-giving power both in healthy and diseased actions. A fluid derived from the blood may therefore be inoculable, so as to produce disease, although not in any way tinged with red particles.

In concluding the consideration of cases of blood-inoculation, where the blood has appeared to give an energy and power to other secretions which they would not otherwise have, I must not omit the comparatively large number of cases in which both medical men and midwives have become infected in attending women during their confinement. I must have seen at least a dozen cases of the kind, although it would be difficult for me to recall even two or three where chancres appeared on the fingers of surgeons or attendants of ordinary patients. This surely does not arise from the fact that contact is more frequent in the former class, nor could it be supposed to depend upon the local manifestations of the disease being more virulent or more general in the second. All experience would give a direct negative to both these suppositions.

I may also note that syphilis, contracted on the hands of surgeons and midwives in attending labours, appears to be followed by exceptionally severe results. Such cases are of painful interest in a physiological and practical point of view, but they become sometimes much more so in a medico-legal aspect. In a case lately tried in the Court of Queen's Bench, where a surgeon was supposed to have communicated syphilis to a patient in attending her during her confinement, the observations of the Lord Chief Justice contain a brief summary with regard to the legal points.

In addressing the jury, he says: "I am very glad that you are relieved from deciding one of the most doubtful cases which it has ever been my lot to try. I mean the question whether any legal liability attaches to the defendant by reason of the unfortunate accident which has happened, through his means, to the female plaintiff. I say which has happened, because I cannot bring myself to doubt that it was through his act, either in the delivery of Mrs. —— of the child which was born, or in the after process which forms the concluding part of the delivery of a woman by a medical man, that somehow or another his diseased finger was brought into contact with her and caused her illness. Of that, I think you would in the end have had very little doubt. As to how far his acting in that delivery, under the circumstances in which he was placed, amounted to a legal liability in respect of negligence is another matter. Moral imputation, I think, there can be none upon him. No one supposes for a moment he dreamed at that time that his finger was diseased. But whether, as a medical man, looking to the antecedent circumstances, suspicion ought to have been created in his mind, which, if it once arose, would have been a sufficient reason why he should not engage in such an operation as that, is another and a very difficult question indeed."

If, in such a case, it were ever established that a patient was entitled to recover damages from a medical man who had unconsciously been the means of communicating the disease, the converse ought in all justice to hold; and a medical man ought to be able to recover compensation when infected by a patient. For, under such circumstances, a patient is quite as likely to suspect the existence of syphilis as a surgeon.

The liability of syphilis to be communicated by digital contact has been long observed. In the first treatise published in the English language upon the *Lues venerea*, William Clowes, one of Her Majesty's chirurgeons, in the year 1596, mentions that he had known divers persons infected who were free from any disease of the organs of generation. "I have known", he says, "not many years past, three good and honest midwives infected with this disease, called lues venerea, by bringing a-bed three infected women of three infected children; which infection was chiefly fixed upon the midwives' fingers and hands."

The same author also notices the hereditary transmission of syphilis, or its liability to be transmitted by the breast. It is not always clear to which he refers. He also quotes the following case from Ambroise Paré. "An honest citizen granted his most chaste wife that she should nurse the child that she was lately delivered of, if she should keep a nurse to be partaker of the travel and pains. The nurse that she took by chance, was infected with lues venerea, therefore she did presently infect the foster child, and he the mother, and she the husband and the two children which he had daily at his table and bed, not knowing of that poison which he did nourish in his own body and entrails. But, when the mother considered and perceived that her child did not profit or prosper by the nourishment, but continually cried and waxed wayward, desired me to tell her the cause of that disease, neither was it any hard matter to do, for his body was full of small pocks, whelkes, and numerous pustules; and the breasts of the nurse and mother being looked on were eroded with virulent ulcers; and the body of the father and his two sons, the one about three years, and the other four years of age, were infected with the like pustules and swellings that the child had; therefore, I showed them that they were all infected with the lues venerea, whose beginning, and, as it were, provocations, were spread abroad by the nurse that was hired and her maligne infection. I cured them all, and brought them to health, except the sucking child, which died in the cure; and the nurse, being called before the magistrates, was punished in prison and whipped closely, and had been publicly whipped through the streets of the city, if it had not been for the honour of that unfortunate family."

## LARGE DOSES OF ARSENIC IN CHOREA.

After reading the communications of Drs. Eustace Smith and Spender, I am reminded that quite eight years ago I frequently heard Dr. Heslop of Birmingham extol arsenic above any other drug in the treatment of chorea. The combination of arsenic and quinine, as recommended by Dr. Spender in his work on *Ulcers*, in the treatment of herpes zoster, seems to show that arsenic is a most valuable remedy, and a drug worthy of a more extended trial, in neuropathic disorders.

L. Herbert Jones, Watford.

# CLINICAL LECTURE
ON
# GRANULAR DEGENERATION OF THE KIDNEY:

### WITH ESPECIAL REFERENCE TO THE THEORY OF "ARTERIO-CAPILLARY FIBROSIS".

By GEORGE JOHNSON, M.D., F.R.S.,
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Gentlemen,—A patient in an advanced stage of that form of Bright's disease which is called the "small red granular kidney" has a kind of pulse which is rarely met with in any other disease, and which may, therefore, be looked upon as almost pathognomonic of a contracted kidney. In the wards, I often direct your attention to this characteristic pulse, and ask you to compare it with other forms of pulse. I propose now to describe the peculiarities of this pulse, to show you with what other pathological conditions it is commonly associated, and to give you an explanation of the phenomena. In doing this, we shall have to discuss some questions of high scientific interest and practical importance.

Our wards usually contain one or more patients in whom the phenomena which I am about to describe may be observed and studied. A man who left the hospital a few days since was a good typical case. W. S., aged 40, a harness-maker, stated that he had drunk moderately of beer and spirits, but he had been a hearty eater, and had suffered from dyspepsia. He had had neither gout nor rheumatism. For a year and a half, he had suffered from weakness, and latterly from palpitation and shortness of breath. His urine had been pale and copious, and he had had to get up once or oftener in the night to pass it. There had been no dropsy. The urine was of pale colour; the specific gravity varied during his stay in the hospital from 1010 to 1016. At first, the albumen was copious (one-fourth), but, after a few days, it diminished by one-half; the quantity ranged from fifty to seventy ounces, and the scanty sediment which it deposited contained a few granular and small hyaline casts. The heart's apex was felt in the sixth intercostal space external to the mammary line; the area of cardiac dulness was increased; there was a strong heaving impulse, a distinct doubling of the first sound, but no abnormal valvular murmur. Pulse 100, full and with difficulty compressed. The walls of the artery felt soft and elastic, but they were tense, as if from high pressure of the column of blood within them.

In the next bed but one to this patient, there is a man, C. C., aged 59, who was admitted with hemiplegia, probably the result of cerebral hæmorrhage. We often compared the pulses of these two patients. The hemiplegic man has a radial artery whose walls are hard, probably from calcareous degeneration; but there is no evidence of that high arterial tension which is so remarkable in the case of chronic renal disease, and the heart's impulse is little increased. Now, what is the explanation of the full, firm, and tense radial pulse in the renal case? The kidneys are probably in an advanced stage of granular contraction. There are the physical signs of hypertrophy of the left ventricle of the heart; and, if we had the opportunity of examining, we should find that the terminal arterioles throughout the body, but especially those of the kidneys, the skin, and the mucous membrane of the alimentary canal, have their muscular walls much hypertrophied. This is the anatomical condition which we have found in a large number of cases. What, then, is the theoretical explanation of the phenomena? Briefly, it is this: a large proportion of the secreting structure of the kidney has been destroyed, and many of the uriniferous tubes are denuded of their gland-cells; the blood, therefore, is contaminated by excrementitious material; this morbidly changed blood excites, through the vaso-motor nerves, the contractility of the terminal muscular arterioles; the contraction of the arterioles tends to impede the systemic circulation; this resistance excites more forcible contraction of the left ventricle of the heart. Continued forcible contraction of muscle, especially of involuntary muscle, results in overgrowth of the muscular tissue, and so we find a correlated hypertrophy of the resisting regulating muscular arterioles and of the walls of the propelling left ventricle. Here, too, we have the explanation of the full tense radial pulse. The blood, forcibly driven into the systemic arteries by the strong left ventricle, passes slowly on into the capillaries, in consequence of the resistance offered by the firmly contracted hypertrophied muscular arterioles; the arterial trunks, therefore, are kept in a state of abnormal fulness and tension. The explanation of the difference between the pulse of this renal patient and that of the hemiplegic man with atheromatous arteries is this: in the renal case, the impediment to the circulation which causes the arterial tension is in the arterioles beyond the finger placed on the radial pulse; in the other case, whatever impediment to the circulation results from the atheromatous condition of the arteries is mainly on the cardiac side of the pulse-feeling finger; and the radial artery, though hard, is not tense.

You will find that, as a rule, in cases of granular kidney, there is a direct relation between the destruction of the renal gland-cells, the hypertrophy of the left ventricle of the heart and of the muscular arterioles, and the tension of the systemic arteries. A careful observation of the physical signs of cardiac hypertrophy and arterial tension will often assist you in the diagnosis and prognosis of these cases.

Probably most of you are aware that the explanation of these phenomena which I have now given you has been called in question by Sir William Gull and Dr. Sutton, who, in a paper published in the fifty-fifth volume of the *Medico-Chirurgical Transactions*, deny the existence of the arterial hypertrophy, and claim to have discovered a degenerative change in the minute arteries and capillaries, to which they have given the name of hyalin-fibroid degeneration or arterio-capillary fibrosis, and which they believe to be the cause of the cardiac hypertrophy. My comments on this supposed discovery will be found in the fifty-sixth volume of the *Medico-Chirurgical Transactions*, where I have shown that the appearance which is described as a hyaline fibroid degeneration, more especially as seen in the arteries of the pia mater, is no other than a *post mortem* change in the external coat of the minute arteries, produced by the glycerine in which their specimens were mounted. The appearances which they describe are entirely different from the well known atheromatous, calcareous, and oily degeneration of the minute cerebral arteries and capillaries, and quite distinct from the so-called lardaceous or waxy degeneration of the small vessels.

Sir William Gull and Dr. Sutton have published no reply to my criticism, neither have they acknowledged its justice. I therefore propose to refer to evidence of various kinds recently published by different observers: evidence which I believe to be as strongly confirmatory of my discovery of arterial hypertrophy as it is inconsistent with the theory of arterio-capillary fibrosis.

In a recent number of the BRITISH MEDICAL JOURNAL (April 3rd, 1875), you will find an able paper by Dr. Atkins of Cork, in which the author fully confirms my microscopic observations. He describes and figures, as I have done, the hypertrophy of the muscular walls of the arterioles, and he shows that the hyalin-fibroid change is an artificial *post mortem* result of the action of glycerine upon the vessels.

In 1873, Dr. Galabin published an interesting pamphlet *On the Connection of Bright's Disease with Changes in the Vascular System*. In this paper, the author shows very conclusively that mere degeneration of the vascular system, which the theory of arterio-capillary fibrosis assumes to be the cause of the hypertrophy of the left ventricle of the heart, does not afford an adequate explanation of the phenomena. He shows, by a tabular analysis of the *post mortem* records of Guy's Hospital, that hypertrophy of the left ventricle is more constantly associated with granular kidney, than with even extreme degeneration of the arteries when the kidneys are healthy. The inference is, that the renal degeneration is a determining cause of the cardiac hypertrophy. Then it is found that, in cases of lardaceous disease of the kidneys, hypertrophy of the heart is very rare. "Now," as Dr. Galabin remarks, "if hypertrophy of the heart were generally due solely to degeneration of the coats of the arterioles, it would be strange that in granular disease, in which such degeneration is much greater and more undoubted, no such hypertrophy is found." Dr. Galabin admits the existence of hypertrophy of the muscular walls of the arterioles, and agrees with me that the "hyalin-fibroid" appearance is a result of the action of glycerine upon the fibrous tunic of the small arteries. Then, passing on to the evidence derived from the sphygmograph, he shows, as Dr. Sanderson and others had done before, that, in cases of granular kidney, the arterial tension is greater than can be accounted for by atheromatous or any other form of degeneration of the arteries. Dr. Galabin also gives some sphygmographic tracings, which show that even in cases of *acute* Bright's disease there is an increase of arterial pressure and tension. His interpretation of these tracings is that, "even in the early stages of acute nephritis, such an impediment to the circulation may occur from altered quality of the blood; that the arterial pressure is increased, and the heart's contraction made more laborious. If this be true, it is easy to understand that this state of things, if continued long enough, will cause the muscular walls both of heart and arteries to hypertrophy."

Dr. Sibson, in his Lumleian Lectures (*Lancet*, March 28th and April 11th, 1874), has shown that, in cases of acute Bright's disease, there are an increase of arterial tension, as shown by the sphygmograph, distension and incipient hypertrophy of the left ventricle, doubling of the first sound, and intensified metallic second sound over the aorta. The explanation of the doubling of the first sound is this (I quote Dr. Sibson, who has paid especial attention to this phenomenon). "The left ventricle, owing to the resistance offered by the tight arteries to the expulsion of its contents, continues its contraction later than the right, which has expelled its blood into the pulmonary artery with comparative ease. The shock of the first sound is heard at the end of the contraction of the ventricle." Hence, in consequence of the left ventricle contracting more tardily than the right, there is a doubling of the first sound. I have often pointed out to you an analogous doubling of the first sound in cases of extreme emphysema of the lungs with hypertrophy of the *right* ventricle. Here, in consequence of an impeded circulation through the lungs, there is great tension of the pulmonary artery, and the contraction of the *right* ventricle is completed later than that of the left. The intensified metallic second sound over the *aorta* in cases of Bright's disease is explained by the high tension of the artery and the forcible closure of the semilunar valves. We get a similar accentuation of the second sound over the *pulmonary artery* when the circulation through the lungs is impeded by emphysema or by valvular disease on the left side of the heart.

The systemic arterial tension which results from the contamination of the blood by retained urinary excreta is exactly analogous to that which occurs when *unaërated* blood is circulating through the systemic arteries. Many of you must have seen, as I have, Dr. Rutherford perform the following experiment. The muscles of a dog are paralysed by the injection of curare. The animal is kept alive by artificial respiration. A dynamometer is introduced into one of the carotids, and connected with the kymograph so as to measure the blood-pressure. Now, when the artificial respiration is suspended, and dark unaërated blood passes into the systemic arteries, the blood-pressure immediately begins to rise, and it steadily increases until the impeded circulation through the lungs cuts off the blood-supply to the left side of the heart. There is but one possible explanation of the facts, and it is this. The unaërated blood in the systemic arteries excites the contraction of the muscular arterioles, and the resistance to the circulation thus occasioned increases the arterial tension. It appears, then, that whether the blood be contaminated by urinary excreta or by retained carbonic acid, in either case the muscular arterioles are excited to contract; thus the movement of blood is impeded, and arterial tension is induced.

That contraction of the muscular arterioles is the cause of the impeded circulation, and of the consequent arterial tension, is proved almost to demonstration by the influence of nitrite of amyl in lessening the arterial tension. Nitrite of amyl, when inhaled, has the power of causing rapid and extreme relaxation of the arterioles, and consequent injection of the capillaries; and Dr. Broadbent was the first to show that, in a case of contracted kidney with high arterial tension, this tension was much lessened by the inhalation of nitrite of amyl. Dr. Sibson has repeated this experiment with the same result. "Under the influence of the amyl, there was less tension; and, as the tension was removed, the doubling of the first sound over the artery was lost." It is obvious that the nitrite of amyl could have no influence upon arterial walls rendered rigid by degeneration of their tissue, which Sir William Gull and Dr. Sutton assume to be the cause of the arterial tension in cases of granular kidney. With reference to this amyl experiment, I think it right to point out one possible source of fallacy. It is possible that the drug may to some extent lessen the force of the heart's contraction, and so diminish the arterial tension; but, so far as I know, there is no reason to suppose that it has such an influence on the heart, while the evidence of its relaxing effect upon the muscular arterioles is conclusive.

The authors of the theory of "arterio-capillary fibrosis" express their belief that the changes in question, "though allied with senile alterations, are probably due to distinct causes not yet ascertained". Now, although advanced granular contraction of the kidneys is less frequent than other forms of Bright's disease in early life, yet it is common enough in persons below middle age to take it out of the category of senile degenerations. Sir William Gull and Dr. Sutton mention one case occurring in a girl nine years of age; and Dr. W. H. Barlow of Manchester has published a typical case in a child five years and eleven months old (*Lancet*, August 1st and 8th, 1874). In that case, with small granular kidneys, "the heart was large, and the left ventricle much hypertrophied". Quite recently we had a fatal case in a cook of intemperate habits, J. G., aged 25. The kidneys weighed four ounces each; but they were in an advanced stage of red granular degeneration. The heart weighed twenty-two ounces, the left ventricle being much hypertrophied. The walls of the larger arteries were healthy, and presented no appearance of degenerative changes. No doubt, atheromatous degeneration of the large arteries is often associated with granular kidney. This is partly a result of the alcoholic excess to which these patients have often been addicted; partly it is, perhaps, caused by the influence of blood charged with urinary excreta; and partly it is excited by the strain to which the large arteries are subjected in consequence of the excessive force of the hypertrophied left ventricle and the great resistance offered by the hypertrophied muscular arterioles; one accidental result of this arterial tension being the not infrequent occurrence of cerebral hæmorrhage.

The statement that the granular kidney is the result of "causes not yet ascertained" is not in accordance with my own experience. I maintain that there are few cases of this form of disease which are not traceable to some probable exciting cause. Amongst the most common causes is the excessive consumption of animal food and of alcoholic stimulants, either with or without the association of decided gouty symptoms; but I have seen many cases in which, as I believe, this form of renal disease has resulted from chronic dyspepsia in persons of strictly temperate habits. This probably has been the cause of the disease in our patient, W. S. In general terms, it may be stated that this form of renal degeneration, with all its numerous sequelæ, is mostly of gastric origin. The one condition common to all these cases is, that the destruction of the renal gland-cells, which is the essential anatomical feature of the disease, is directly caused by the continued excretion of abnormal and irritating materials, the products of faulty digestion. In the history of Dr. Barlow's case before referred to, it is stated that the child "would not take her meals regularly, but at odd times; would desire strange dishes; sometimes ate ravenously, and frequently vomited her food". In that case, it is pretty certain that the renal degeneration had its origin in gastric disorder.

The dyspeptic tendency is sometimes inherited; it is often associated with habitual excess of food and stimulants; but it occurs not rarely without such excess. This form of kidney-disease is comparatively rare in early life, because young persons are less exposed to its exciting causes. Dyspepsia and alcoholic excess are not common in young subjects, and even in older persons the exciting causes must continue to operate for a long time before they result in the renal degeneration which we are now discussing. When the disease occurs in elderly subjects, it is not usually a *direct* result of senile decay. As, in persons of any age, the hasty swallowing of unmasticated food, so, in those advanced in years, the loss of the molar teeth, and the consequent impairment of the power to masticate, may be the first link in a series of dyspeptic troubles resulting ultimately in the destruction of the renal gland-cells, with atrophy and granular contraction of the kidney.

With regard to the etiological relation between chronic dyspepsia and degeneration of the kidneys, I am glad to have the confirmatory testimony of so excellent a clinical observer as Dr. Murchison. After quoting my observations on this subject in my published *Lectures on Bright's Disease*, Dr. Murchison says: "Numerous cases which have come under my own observation, and which I have carefully watched, have satisfied me as to the strict accuracy of Dr. Johnson's description" (*Functional Derangements of the Liver*, pp. 78 and 80).

This form of renal disease is not usually associated with dropsy, except to a slight extent in the very advanced stages, when the urine sometimes becomes scanty. In the earlier stages of the disease, the urine is usually copious and of low specific gravity, and, as a rule, more or less albuminous; but albumen may be very small in amount, or even entirely absent. Granular casts, composed of fibrine entangling disintegrated epithelium, are generally present in variable numbers; and in the advanced stages of the disease, when many of the uriniferous tubes have lost their epithelial lining, the granular and hyaline casts have a diameter equal to that of the denuded tubes in which they have been moulded.

The copious secretion of urine in these cases has sometimes been erroneously attributed to the increased vascular tension. It is possible that increased pressure on the *capillaries* of the kidney might cause an increased secretion of urine; but the firm contraction of the hypertrophied renal arterioles counteracts the injecting force of the strong left ventricle, and thus prevents an increased afflux of blood into the capillaries of the kidney. There is no reason to suppose that high arterial tension has any direct tendency to cause a free secretion of urine. The probable explanation of the copious secretion of urine is, that the products of faulty digestion exert a diuretic influence upon the kidney analogous to the action of sugar in cases of diabetes. We do not attempt to explain the copious flow of diabetic urine by an increase of blood-pressure, but we account for it by the diuretic influence of the sugar; and we know that the long continued secretion of sugar by the kidneys often results in serious degeneration of the renal gland-cells.

I should not have thought it right to occupy so much time as I have done in this lecture with a theoretical discussion, if I were not convinced that a true theory of this disease, while it is essential for the correct interpretation of some of its most remarkable clinical phenomena, is also suggestive of important preventive and remedial measures.

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# ON THE MEDITERRANEAN COAST OF THE SOUTH OF FRANCE IN ITS MEDICAL ASPECT.

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## III.

On sitting down to write the first of the present series of communications, it had occurred to me that the course most likely to interest my readers was to begin by considering the class of invalids, mostly consumptive, sent to winter in the South, together with the usual progress of disease under the favourable conditions met with on the Riviera. I next appealed to physiology for explanations of the influence of the winter climate of the Mediterranean coast upon health as shown by clinical observation; these considerations were embodied in my second communication. On the present occasion, I propose adding shortly to the subject of the last paper, and then illustrating the influence of the climate of the South by relating in a very abstract form the result of my practice at Nice and Cannes, with reference to those of my patients who have wintered near the Mediterranean coast at a slight elevation above the sea.

I have stated, as may be remembered, that a class of consumptive invalids who spend the winter in the South, derive especial benefit from a residence in some high place at a little distance from the Mediterranean sea-side; while with others the chronic stage is prolonged by a sojourn in a sheltered and warm spot close to the sea. The main characters of those cases which do best at a certain elevation are, as a rule, a liability to febrile symptoms and a tendency to hæmoptysis; while patients whose lives are clearly prolonged in a warm though depressing sea-climate are usually those whose energy or *vis naturæ* has become exhausted. They lack the power of recuperation if placed in a bracing air; or, should this capability be left to some extent, as is usually the case, it soon wears out in a high and bracing locality, and the result is a state of debility; while a much better plan would have been to husband strength by selecting a residence in a climate which calls only for a small expenditure of natural or vital energy. A similar overstraining of vital powers is occasionally produced by the too long continued use of cold water. I have met with a young girl (aged 12) who delights in sea-bathing. In autumn, she bathes in the Atlantic, and in the winter-time has a daily plunge in sea-water taken up to the villa near Nice where she resides. So long as she takes the baths, she is in a state of exuberant health; but, on stopping them, she soon becomes anæmic and weak. This was particularly marked this last winter, when, after the baths had been continued for seven weeks, I recommended that they should be given up, fearing a reaction; which, indeed, came on just as I had anticipated. Of course I did not suggest the resumption of the baths, although the immediate result would probably have been beneficial. Where the advantages of a bracing treatment are so generally acknowledged as they are in England, we should be careful not to run into extremes. There is no reason, because a means of treating diseases is successful in many cases, that it should be carried out too far, and become productive of mischief on that account.

We cannot but wonder at the amount of useful labour which can often be performed by a certain class of consumptive invalids under climatic circumstances essentially relaxing or even depressing; they have only to submit to certain rules, which after a time constitute a mode of living pleasant in many respects. There is a very interesting physiological experiment of Claude Bernard which bears most distinctly on the present subject (*Substances Toxiques*, p. 131). A sparrow was placed in a bell-jar of a capacity of about two *litres* (three pints and a half), full of common air. After a lapse of three hours, the bird was dying; but, on being withdrawn from the jar and warmed, it took to flight. The air in the receiver then contained 3.5 per cent. of oxygen, and 17.5 per cent. of carbonic acid. After the bird had remained in the jar for two hours, being still very lively, a second and a third sparrow had been placed in the same receiver, and both these birds had died nearly instantly. When the first bird, which had been taken out of the receiver still alive, had recovered its entire vitality, it was put afresh into the jar, where it died immediately. In this experiment, the first sparrow experimented upon had become diseased, in consequence of its having converted the oxygen of the air it had to breathe into carbonic acid. There followed a depressed state of all its functions, and a species of equilibrium became established between the degree of vitality of the animal and the condition of the atmosphere in which it was placed. Bernard observes: "In an infinite number of cases, you will meet with instances of resistance from animals weakened or ill. The explanation of the circumstance that a person can live in a room where a man in good health would die, is the fact that the body has a tendency to adapt itself to the medium which surrounds it, and takes less and less oxygen in proportion with increasing debility." In another experiment reported by Claude Bernard, and performed by Messrs. Regnault and Reiset, a marmot in a state of hibernation was placed in a receiver containing enough air to keep up its respiration for twenty-four hours. It woke up during the experiment, and died after consuming the amount of oxygen destined to keep it alive for a longer period, had it continued to hibernate. On that same occasion, another hibernating marmot, which happened to have been placed in the receiver together with the one which awoke and died, continued to live in the hibernating state.

We thus account for the fact that consumptive invalids sometimes do well under circumstances which may prove debilitating to healthy persons; while these same patients would become worse in a bracing air, or, if slightly benefited at the time, would feel less well, and exhausted, on returning to the relaxing climate of the seaside, which they ought not to have left. A striking case of the kind occurred to me this last winter. A gentleman twenty-eight years of age, who had been consumptive for many years, with a tendency to hæmoptysis, whose body was greatly emaciated, and in ill-health in other respects, took up his residence in an hotel near the sea, situated in what I should call the non-bracing climate of Cannes. He called upon me shortly afterwards; and, fearing a return of hæmoptysis, I advised him to remove from that hotel into another away from the sea, on the high ground, where he would breathe a pure bracing air. He adopted my suggestion, but unfortunately failed to benefit by the change. He very soon began to sleep less well than he did at the seaside, and then became restless, uncomfortable, miserable both mentally and physically, regretting he had left the hotel where he first resided. This gentleman soon afterwards gave up Cannes altogether.

The object sought by the treatment of consumption in the South is, of course, first of all a cure, if possible; but, short of this desired result, very great benefit and a considerable extension of life may be attained by acclimatisation to the Mediterranean sea-side in the winter season. Thus at Cannes, Nice, and Mentone, and I have no doubt also at Hyères, Algiers, and other places similarly situated, patients with cavities in their lungs return every winter, feeling occasionally better, and often in the same state of health, or but little if at all worse. On inquiring into the cases of all kinds I have treated both on the hills near Nice, and also on the high ground at the back of Cannes, I find them to amount to fifty-seven in number. Of these, eleven patients recovered their health entirely, thirty-eight improved, six became worse (all cases of consumption), and two died; of the latter, one died of consumption, the other of diphtheria contracted on the spot. The number of cases of phthisis under my care on these stations amounted to nineteen, of which only one died during that period. This patient was a lady in a very weak state when she arrived at Nice, exhibiting the physical signs of cavities in both lungs, and symptoms of active disease in other respects. According to my advice, she wintered at Cimiès, where she spent the last few months of her life, merely suffering from occasional paroxysms of dyspnœa. She sank early in the spring. Of the eighteen cases left, eight are known to me to have died subsequently to their leaving the hills. On the other hand, I could bring forward several cases of phthisis attended with very great improvement after a succession of winters spent in the South. It is difficult, however, in some of these successful instances, to be quite certain that the disease was originally of a tubercular or pneumonic nature. A gentleman, aged 24, called on me on June 25th, 1869. Since the end of the preceding month of November, he had been troubled with a dry cough, and had had one attack of hæmoptysis; he was anæmic, and looked thin. Physical signs: right apparent falling in at apex; some degree of dulness on percussing clavicle; decided humid crepitus and loud vocal resonance at that apex. No other pulmonary change. A brother had died of consumption. In October 1869, he weighed 8 st. 10¾ lbs. On January 16th, 1875, or six years later, this gentleman was residing at Cannes, when I saw him. He was then enjoying remarkably good health, walking six hours without over-fatigue. Physical signs: respiratory murmur harsh at right apex, with vocal resonance, and rather less loud there than at the corresponding spot on the left side. No record as to the percussion-note; to the best of my recollection, it was entirely free from dulness. He then weighed 9 st. 2¾ lbs. This gentleman has spent every winter in the South, principally at Cannes, since 1869. I have also under my care a lady who lives in winter on the Cimiès hills near Nice; she exhibits the physical signs of chronic congestion of the base of the left lung, with malnutrition of the pulmonary organ (as evinced by occasional attacks of hæmoptysis). Although not very strong, she goes about and acts much like a person in good health. This is the third winter I have attended her, and there is little or no material change in the physical signs of her chest. On the other hand, there could be no mistake about the consumptive nature of the following case. A young lady who spent the the last winter at Cannes, in a house situated at one hundred feet above the sea, and exhibiting, early in the season, unmistakable signs of softening at the right apex, with a cavity, is now the picture of health, the cavity having dried up. She has gained no less than 1 st. 8¼ lbs. between November 9th, 1874, and March 20th of the present year.

Of course, among the total number of cases referred to above, there were a few patients who had been taken ill during their residence in the South, where they had not come for the sake of their health. Besides consumption, I had to attend cases of quinsy, chronic irritation of the pharynx and larynx, failure of the action of the vocal cords, bronchitis, hæmoptysis, pneumonia (one case), asthma, cerebral debility from overwork, hysteria, general debility, erysipelas (two cases, one very severe), rheumatism, simple continued fever (one case), measles (two cases), psoriasis (one case).

The most striking beneficial influence of the change from the sea-side to the hills I have met with, was observed in the following instances: one case of pneumonia; one case of uncontrollable hæmoptysis without any positive pulmonary disease; one case of simple continued fever; one of chronic bronchitis; one of phthisis. The first two cases were very remarkable, the acute symptoms subsiding immediately in the first, and shortly afterwards in the second. The hæmoptysis, which nothing could arrest, and had been productive of great debility while the patient was at Nice, ceased three days after her removal to Cimiès (spring of 1873); and nine days later she was well enough to leave for Ireland. I have heard this last winter from Dublin that she is doing well. The case of simple continued fever was that of a young girl aged 13, with a slender and tall figure and a flushed face (weight of body, 6 st. 13½ lbs). I first saw her at Nice on January 25th, 1874, when her pulse beat 164 times per minute, and her temperature under the tongue was 101.7 deg. She had but an indifferent appetite. There was nothing the matter with the lungs or any other organs, and she had menstruated regularly during the previous six months. Her mother informed me that for years she had been subject to similar attacks. She was very fond of sitting in the sun, either in her room or out of doors, and seldom used a parasol. I treated the case with quinine and tincture of digitalis. On January 31st, 1873, temperature 103.5 deg.; pulse 146. On February 4th, she left Nice for rooms in an hotel on the Cimiès hill, and the next day I already found her better. On the 7th, she was much better; her appetite was returning; temperature 101.4 deg.; pulse 126; an attack of erythema nodosum on both legs. February 11th. Appetite very good; temperature under the tongue, after an exposure of six minutes, 98.6 deg.; pulse 98, strong and regular. She was looking much better; was taking cod-liver oil, besides the quinine and digitalis. On February 19th, the pulse rose to 120 per minute; temperature 99 deg. She looked and felt, however, very much better, having recovered her strength and appetite. Weight of body, 7st. 2½lbs., being a gain of three pounds in about fourteen days. She then left for Florence. The case of chronic bronchitis to which I have referred was accompanied with a very distressing cough and much prostration. I attended this lady at Nice from the 2nd to the 28th of February, 1872, when, as the treatment appeared to be of no avail, she moved up to Cimiès, in accordance with my advice. She gained strength and health very rapidly in her new residence, but was still suffering from paroxysms of cough when she left for Switzerland on the 9th of April following. The case of phthisis is one which may be taken as a type of a number of other similar instances of caverns in the lungs without any febrile symptoms. The patient arrived at Nice early in January 1872, in a wretched state of exhaustion, and with softening in progress at the right apex. On January 9th, I clearly diagnosed a cavern at that spot. She began improving very materially at Nice. On February 24th, she moved up to Cimiès, and remained there till April 9th, then looking quite well, although her voice was still weak. She spent the latter part of the winter 1872-73 at Nice, hardly as an invalid; and in September 1873 I found her at Geneva, very tolerably well.

Some people object to the hills near the Mediterranean on the ground that they are colder and less well sheltered from the winds than the seaside. It is true that on the chain of the Maritime Alps, about forty miles from the Riviera, the weather must be very severe in winter; and even at such a place as Grasse, one thousand feet above the sea, and at rather less than an hour from Cannes by rail, the winds must be very cold and trying in the winter months. Such is not the case, however, on the hills and high ground in the immediate neighbourhood of the Mediterranean coast. I do not recollect, this last winter, except once, seeing any snow upon the slopes, which rise to a height of about seven hundred and seventy feet, near Cannes. That exceptional occasion was on the night of February 17th, when people at Cannes could witness the remarkable phenomenon of a snowstorm accompanied by lightning and thunder. I have gone all over the hills to which I am referring, and observed a number of spots sheltered in a great measure from the easterly and north-westerly winds, and well adapted for a winter residence.

While wintering at Nice, I placed on January 5th, 1873, a minimum thermometer (by Casella) in a small cairn on the northern side of a pile of stones erected on the summit of Mont Pacanaglia, a hill rising to a height of 1,890 feet above the bay of Villefranche. The cairn was not fully open, but air reached the instrument freely through a few loose stones which were placed at its entrance in order to conceal the thermometer. I examined the instrument on the 25th of March following, when it registered 0.7 deg. C. (30.8 F.) During that same lapse of time, the lowest reading of the minimum thermometer at Nice was 0.5 deg. C. (32.8 deg. F.) on the 13th and 14th February. It therefore appears that at 1,890 feet high, on a spot nearly towering over the Mediterranean, the temperature had been but very little colder than at the seaside. One observation, however, is not enough to settle the question. I should consider the radiation of heat to be decidedly greater at that height than at the sea-level, as I remember seeing ice one afternoon about a quarter or a third of an inch in thickness in a small pool sheltered from the sun on the slopes of that mountain, while what little ice had formed at Nice during the night had disappeared long before noon. It may be added, that on two or three occasions in winter I have observed snow to fall on the summit of Mont Pacanaglia, but do not recollect seeing it at a lower level than two or three hundred feet from the highest point, and after a very few hours it melted away entirely. I have also made a few comparative observations as to the temperature at the top of the Cimiès hill and in the town of Nice below. The minimum at Cimiès (300 feet above the sea) was placed against the trunk of a tree, and was consequently exposed to radiation in a greater degree than the minimum at Nice. The latter was hung up outside the wall of a house, against the shutter of one of the windows, on the north side of a high second floor.

| | Cimiès (300 feet high). | Nice (sea-level). |
|---|---|---|
| February 19th | 34.9 deg. Fahr. | 40.1 deg. Fahr. |
| ,, 20th | 35.6 ,, | 37.4 ,, |
| ,, 22nd | 38.3 ,, | 40.1 ,, |
| ,, 23rd | 37.4 ,, | 40.1 ,, |
| ,, 27th | 37.4 ,, | 42.8 ,, |
| March 3rd | 38.3 ,, | 40.1 ,, |
| 4th | 34.9 ,, | 39.2 ,, |

If we allow a correction of about 3 deg. Fahr. for the difference in the exposure, the readings of the two instruments will not differ much.

I do not wish it to be understood that the climate of the hills is not at all colder than that of the seaside; but it should only be considered as a trifle colder, which is certainly not sufficient to detract from the usefulness of the light, fresh, and invigorating air of these charming resorts. Their great drawback is the want of accommodation. At Cimiès, there are two hotels, or one hotel and one pension or boarding house. These, however, can only afford room for a very limited number of invalids. At Cannes, there are most admirable sites, between one hundred and five or six hundred feet high, for large hotels or a number of villas, where shelter from the winds, a southern aspect with exquisite views, and a pure bracing air, could be enjoyed. The hills are skirted with beautiful woods, through which delightful walks might be made. Moreover, a canal, with a full supply of pure water destined to the use of the town, makes its way along the slope near the top of the hill, and would, I believe, afford means of erecting a bathing establishment, where the water might be turned to great advantage. It is true that there is still a want of carriage-roads, by means of which the various parts of the hills could be reached; but one excellent road has already been made, and others will undoubtedly be opened later.

I have attempted, in my three communications, to establish rules, founded on physiological data, calculated to act as a guide when medical advice has to be given with reference to the advisability of wintering on the Mediterranean coast. These may be summarised in a few words as follows.

1. The state of the vital power left in the patient is to be carefully ascertained.

*a.* If the vital power, although at a low standard, do not appear to be declining, and if the case be decidedly chronic, benefit may be expected from a winter's residence near the Mediterranean coast, on the sea-level, in a warm sheltered spot.

*b.* If the vital power be declining rapidly, although perhaps the affection may not be of long standing, it is questionable whether the South will arrest this downward progress. The air of the hills near the Mediterranean may check the evil for a time—say, perhaps, for half or two-thirds of the winter season; but the disease is not unlikely after that period to resume its ascendency.

*c.* If the vital power should keep up well, although the disease be attended with a quick pulse and high temperature, together with progressing pulmonary mischief, a decided benefit is to be expected to result from one or more winter seasons spent on the Mediterranean coast, the hilly country, or high ground, near the sea being selected for the first period of the residence in the South.

2. The condition of the lungs of the patient, as determined by the physical signs of the chest, should be taken into consideration.

*a.* Patients with consolidation at one apex, although unattended with apparent ill-health, do well to winter in the South as a means of precaution; but such persons should be very careful to regulate strictly their mode of living abroad.

*b.* Patients with a hæmorrhagic tendency, and exhibiting little more than harsh respiratory murmur and debility, usually progress favourably on the hills near the Mediterranean coast. They should be careful not to take up their residence near the sea or at the sea-level, and to leave the South early in the spring, before the warm weather sets in.

*c.* Patients, with softening and cavities, sometimes derive much benefit from wintering in the South. The state of their vital powers should be considered as a guide towards a decision being taken with respect to autumnal movements.

3. Patients should make up their minds beforehand, in accordance with medical advice, as to whether their case is likely to do best on the hills and high ground, or near the Mediterranean sea-side; as, when they have selected their residence and settled down for the winter, they find it often very difficult and inconvenient to make a fresh move.

# THORACIC ANEURISM: LARYNGEAL SYMPTOMS: GREAT RELIEF FROM THE HYPODERMIC INJECTION OF MORPHIA.

By W. E. PARKES, M.D., etc., Birmingham.

MRS. A. B., aged 50, married, with no family, had good health until the last five years, when she became subject to severe attacks of neuralgia, affecting the back, arms, and legs. In the summer of 1872, she commenced to suffer from a cough, which gradually became worse; and, on April 14th, 1873, she had a violent attack of dyspnœa, which lasted about fifteen minutes. The face became purple, and the breathing stridulous. These attacks occurred since at irregular intervals; sometimes there were two in one day, and at other times there were ten or fourteen days between each. After each attack, the cough was very troublesome, and from one-half to three-fourths of a pint of frothy mucus was expectorated.

In May 1873, on inspection, the chest was seen to be broad and well formed. There were slight flattening of the infraclavicular region of the left side, and a slight fulness of the superior sternal region. On close inspection, pulsation about the left clavicular region was observed. There were no enlarged veins. The pupil of the left eye was usually dilated, but this dilatation was variable. A very distinct pulsation was felt on pressing the finger over the sternal notch towards the aorta, and also when the fingers were placed on the left clavicle, near its sternal end. Firm pressure about this part caused pain. She also complained of pain down the left arm, and at times she had a feeling as if a cord were tied around her waist. She had dyspnœa on exertion. There were no boring pains about the chest or back. She had no actual difficulty in swallowing; but she was always conscious of the passage of food down the œsophagus. She could lie on either side; but the breathing was most comfortable when lying on the back. There was no alteration of voice. The radial pulses were equal to the touch and the sphygmograph. On percussion, there was dulness over the manubrium sterni and the left clavicular region as low down as the lower border of the second rib; the other parts of the chest were normal. On auscultation, when the cough was absent, the sounds of the heart and lung were heard to be normal; but, when the cough and dyspnœa were present, bronchial *râles* were heard at all parts of the chest, and the expiratory sound was prolonged. No murmur was heard over the aneurism. She was ordered twelve grains of iodide of potassium and six grains of bromide of potassium three times a day.

On August 4th, 1873, the aneurism had steadily increased in size, the pulsations being much more marked. The attacks of dyspnœa and coughing occurred more frequently, large quantities of frothy mucus being daily expectorated. The treatment consisted of rest by remaining in one room, and the hypodermic injection of one-sixth of a grain of acetate of morphia each night. About ten minutes after the injection of the morphia, the cough and mucous *râles* entirely disappeared, the patient being able to move about and converse freely without the occurrence of the slightest dyspnœa. The action of the morphia lasted from eighteen to twenty hours, when the cough and dyspnœa gradually returned, to be again controlled by the morphia. Under this treatment, the patient steadily improved; the aneurism became smaller, the attacks of dyspnœa less frequent, and the neuralgia of the back, arms, and other parts, considerably relieved.

On January 17th, 1874, the improvement still continued. The pulsation in the clavicular region had disappeared; at the sternal notch, it was still felt, but much diminished in force. The quantity of morphia given each night was now a quarter of a grain.

On April 17th, the controlling action of the morphia lasted only thirteen hours. In order to keep down the cough, it had to be given night and morning.

July 6th. The condition of the patient was much about the same.

September 28th. The patient died suddenly this morning.

*Post mortem* examination, thirty hours after death. On opening the chest, the pericardium was seen to be greatly distended with fluid, and, when opened, was found to contain twelve ounces of bloody serum and clots. On removing these, the heart was found to be rather smaller in size, and more friable than usual; its cavities were empty, and its valves normal. The aneurism involved the whole length of the lower part of the transverse portion of the arch of the aorta. Its length was four inches and a half, and its circumference seven inches and a half. The innominate, left common carotid, and left subclavian arteries were normal in size and position. The sac of the aneurism was lined with a layer of laminated fibrine three-fourths of an inch thick at its lowest part, which gradually became thinner as it extended upwards, until it entirely disappeared at that part where the three great vessels are given off. Large patches of atheromatous degeneration were found in the aorta. The lungs were emphysematous at their edges, in other respects healthy; the bronchial tubes were slightly reddened in patches. The trachea was healthy, with the exception of a reddened patch corresponding to the part pressed upon by the aneurism. There was no erosion of the ribs or of the vertebræ.

## CLINICAL MEMORANDA.

### CROUP AND DIPHTHERIA.

I have perused with interest and attention the correspondence which has for some time been carried on in the pages of our JOURNAL, on the *identical* and *differential* characters of those two most important diseases, croup and diphtheria. I cannot find any practical difference between the principles of differential diagnosis, in which as a student I was instructed a quarter of a century since, and those now enumerated and maintained by some of the highest authorities who have communicated their views on this subject. There are some few who appear to class croup and diphtheria as almost convertible terms. I have had a large practical experience of croup in its different characters and stages, and also of diphtheria; and I firmly believe that if anything is certain in medical science, it is that there is a practical and pathological difference between these two diseases. I also believe that a confusion of these terms would inevitably lead to a lamentable and fatal confusion in therapeutical treatment. I am rather surprised to notice the omission of the names of Stokes and Porter of Dublin from the list of authorities to whom reference has been made, and yet, in Dr. Stokes's work on *Diseases of the Chest*, published many years ago, will be found a graphic comparative differential diagnosis between "primary and secondary croup"—the latter being synonymous with diphtheria. In making these remarks, I refer to inflammatory or acute croup, or the "cynanche trachealis" of children", say under twelve, from which false, spurious, or spasmodic croup is easily distinguished, both by the general symptoms, and by the causes which provoke the attack.

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### CASE OF PLEURISY WITH EFFUSION TREATED BY PARACENTESIS: VERY RAPID RECOVERY.

From my recollection of the tedious course of bad cases of pleurisy with effusion in England, whether treated by paracentesis or not, I think the following notes may not be uninteresting to some of my brethren at home. On March 13th, 1875, a Kaffir applied to me for advice: he was evidently suffering from a severe attack of pleurisy with effusion; there was dulness on the right side of the chest, both back and front, as high as the third rib; the breathing, which was tubular at the apex, was almost inaudible at the base. The heart's action was very irregular. The left lung was healthy. The patient had of course no idea of his age, and could give but little account of his illness; the attack seemed to have come on rapidly but insidiously, and with little febrile disturbance. As he could get no lodging, I was obliged to treat him for a week in a small ill-sheltered waggon. During this time the fluid increased considerably. On the 22nd, there was absolute dulness over the whole of the right side, except at the extreme apex; the intercostal spaces were bulged, the liver was depressed. The man's pulse was very irregular, weak, and fluttering, and there was distinct lividity of face; in fact, he appeared to be sinking. I determined, therefore, to perform paracentesis at once as a last chance, and, having obtained an amateur assistant (there being no other medical man within thirty miles), I drew off with one of Meyer and Meltzer's small aspirators five pints of turbid fluid. After the operation, I had the satisfaction of hearing the air freely entering the previously compressed lung, and of finding that that side of the chest was quite resonant except at the extreme base. Next day, the patient was breathing quietly, and seemed quite comfortable; friction could be heard over the base below the seat of puncture. By the 27th this had disappeared, and, on the 31st, that is, nine days after the tapping, he left the village quite convalescent. The whole of the lung was then clear on percussion, and the respiration normal.

I may add, now I am writing, that there are plenty of good openings in this colony for men who can withstand the temptation of drink. Here, in the Colesberg district, 4,800 feet above the sea, we have a dry bracing climate admirably suited for most phthisical subjects, and plenty of game, springboks, etc., to be had for the shooting.

E. KNOX DAVIS, M.R.C.S., etc., Hanover, Cape of Good Hope.

## OBSTETRIC MEMORANDA.

### CASE OF EXTRAUTERINE FŒTATION.*

About 5 A.M. on September 9th last, I was sent for to see M. A. F., aged 22, who was said to be dying. I knew the girl, and had indeed seen her at my surgery on the previous afternoon, when she came for her father's medicine. She then appeared to be in robust health. When I arrived at the house, I found her dead. She lived with her father, who is a widower, and attended to his household. He gave me the following account of the circumstances immediately preceding her death. She had gone to a dancing-party on the previous night, and, after dancing a short time, complained to her partner that she was in pain. He procured her a small quantity of brandy, which relieved her, and she resumed the dance. She was, however, obliged to desist, and sought her home at about 11, or near midnight. She then suffered from severe pain in the abdomen. Her father, who alone was present during the night, told me that the symptoms were violent retching and vomiting at intervals, with severe abdominal pain. About 4 A.M., she expressed a desire to have her bowels relieved, and rose for that purpose. After sitting a short time, she fainted, and being removed to bed, died shortly afterwards. I was told by a neighbour, that she had not been regular for three months, and had been taking medicines with the object of re-establishing the catemenial functions. The case was so peculiar and suspicious, that I thought it advisable that an inquest should be held. This was done; and I made a *post mortem* examination on the evening of the same day, assisted by Dr. Huntley of Jarrow.

As the possibility of poisoning was not overlooked, care was taken to have suitable vessels to contain the necessary viscera. There were no external features deserving of remark. To all outward appearance, the body was that of a well-nourished healthy girl. The os uteri indicated that the uterus was unimpregnated. The abdomen was considerably distended, and, at the lower part, emitted a dull sound on percussion. We examined the contents of the cavities of the head and chest, and found all the organs in a perfectly sound and healthy state.

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* Read before the Northern Branch.

On making an incision into the abdomen, however, we were somewhat surprised to find the cavity of the peritoneum filled with a large quantity of clotted blood, which directed our suspicions to the true nature of the case. During the removal of this blood, a fœtus was discovered floating in it, and a further exploration revealed the Fallopian tube dilated and ruptured, with the placenta protruding through the rent. The case itself is not a very unusual one; indeed, it is perhaps the most common variety of extrauterine fœtation. But its surroundings, and the fact of its occurring in an unmarried woman who had had no children, invest it with an interest which it seemed to me might be of service from its medico-legal bearing, as an aid to diagnosis in any similar contingency.

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## THERAPEUTIC MEMORANDA.

### TREATMENT OF CHOREA BY ARSENIC.

PERCEIVING a renewed attention bestowed on the treatment of chorea by means of arsenical preparations, I would add a few words to a subject which is only slightly referred to in my recent work on *Psoriasis*. How is it to be explained that this remedy, which has been pronounced to be infallible, or nearly so, by very competent physicians, should now hold scarce a second place? This I attribute to the faltering and confused recommendations found in medical works, or rather, in educational works on medicine, which results in a mixed treatment being adopted for chorea—a sort of compromise between opposite extremes. We are not even yet emancipated from the exaggerations of Hamilton as to the efficacy of purgatives in the treatment of chorea, as found in his work *On Purgatives*, or from the effect of the still more extraordinary statements of Parr in the beginning of the century, as seen in his *Medical Dictionary*. At the very least, the modern treatment is begun by purges, which are generally so thorough as to add both to the intensity of the disorder and to the difficulty of its cure; and, besides this, the course of arsenic will be more than once interrupted to give another purge to the patient, which only serves to aggravate the complaint in its general features. True, we consider it one of debility; but, in the works referred to, we are not warned against increasing that debility, even if the chorea have occurred after wasting fevers, such as I have sometimes seen it accompanied by eczema. In a letter which I have before me from Mr. Hammond of Whetstone, who had great reputation thirty or forty years since for the cure of chorea by arsenic, he is very explicit on this point. "The health", he says, "has need to be well supported. A full diet of meat and two glasses of port wine should be given daily; the latter with water, if the subject be feeble or excitable. An egg should be taken for breakfast, and all trash in diet avoided; that is, all that adds to the labour of digestion without contributing to support. The only purgative ever employed should be rhubarb or the compound decoction of aloes; but only to regulate the bowels, never to purge. The health should be sustained by air and exercise, and diet only modified by the absence or presence of plethora. With menstrual irregularity, riding on horseback will be useful, and air as much as possible, but not to the point of fatigue." Again, he says:—"The mineral solution of arsenic is the strongest tonic known; it often subdues ague when quinine has failed. My reputation in the cure of chorea rests wholly on the use of this preparation. I give it in that dose (nine drops three times a day), beginning with four and gradually, in ten days, getting to nine. I have never known the remedy to fail; at least be assured that few cases of chorea will resist this treatment. If it disagree or headache be felt, lower the dose one drop."

These are the *ipsissima verba magistri* never published before. They have lain by neglected for many years, and their resuscitation at the present moment appears to me opportune. The preparation is that adopted into the *London Pharmacopœia* as the liquor arsenici chloridi. In the *British Pharmacopœia*, there is a modification of its strength. It is no other than De Valangin's mineral solvent. The directions given are for the treatment of young people; but the difference of the *Pharmacopœia* must be allowed for.

I consider the comments of Dr. Eustace Smith and Dr. Spender, in recent numbers of the JOURNAL, to be valuable accessions to science, and I should not fear to adopt that treatment, using the precaution to see my patient every day. But I deem it safer to begin with the smaller dose and rapidly to increase it, so as to be on my guard against idiosyncrasy. There is much in the behaviour of arsenic that leads me to think that its operation as a therapeutic agent is directly or essentially on the nervous system. I have found it more than usually efficacious in cases of skin-disease which are complicated with nervous phenomena. For instance, I have recently had a case of extremely localised erythema, affecting part of the hand on its dorsal surface, and always recurring on the same spot. Whenever the patient has come under my treatment, the skin-affection has been controlled by arsenic in quite a remarkable manner. She is, besides, very much the subject of epilepsy. In scarce any other case of eczema have I met with such immediate success, and the patient is correspondingly grateful to one she calls her thirteenth doctor.

GEORGE GASKOIN,
Surgeon to the British Hospital for Skin-Diseases.

## SURGICAL MEMORANDA.

### FOREIGN BODY IN MALE BLADDER: EXTRACTION BY ALLARTON'S OPERATION: QUICK RECOVERY.

THE following case is, I think, worthy of record, illustrating the points of advantage claimed by Mr. Allarton for the median operation; the patient being young, in good health, with a moderate depth of perinæum. D. B., aged 22, son of a baker, consulted me on March 20th with the following history. Four days previously, whilst under the influence of drink, he pushed a piece of the handle of an ivory crochet-needle into the urethra, and somehow it slipped out of sight into the bladder; since which, he had suffered from constant micturition and violent vesical tenesmus, accompanied with blood, and followed by severe pain in the bladder and glans penis. He was greatly depressed at the circumstances of the accident, and had a worn and anxious expression; was very nervous, and was unable to sleep from constant vesical irritation. In passing a sound, it at once struck a hard body, and a little blood followed the withdrawal of the instrument. There was no stricture. He was ordered to keep in the recumbent posture, take freely of diluent drinks, and three times a day a mucilaginous mixture, with camphor and belladonna. This had the effect of quieting the excessive vesical irritation. On the 23rd, I tried extraction with a lithotrite, but failed. He was told the only means to be adopted was the operation for lithotomy, to which he readily consented. He was kept under the influence of the belladonna mixture for a week, which completely arrested all vesical irritation. On the 30th, assisted by Mr. Marsack, Dr. Johnson, and Mr. Manser, who administered chloroform, I proceeded to operate, the patient being tied in the usual lithotomy position. No. 12 staff with a central groove was introduced into the bladder. The index finger of the left hand having been passed into the rectum and pressed firmly against the groove of the staff at the apex of the prostate, a long thin sharp-pointed knife was pushed steadily in, half an inch in front of the anus to the point of the finger at the apex of the prostate; the membranous portion of the urethra was divided half an inch, cutting upwards towards the pubes, and enlarging the external wound to an inch and a half. On withdrawing the knife, a long blunt-pointed probe was passed along the grooved staff into the bladder. The staff was withdrawn, and the index finger of the left hand, well greased, was wormed gently, guided by the probe, through the prostatic urethra into the bladder. The handle of the needle was found lying across the bladder, which was empty, tightly grasped, giving some considerable difficulty in seizing it in the proper direction and retracting; the bladder making *violent expulsive efforts* the whole time in spite of the anæsthetic. The foreign body, thickly coated with lithates, was 2⅞ inches in length and ⅜ of an inch in diameter. March 31st. He slept badly, but was passing all urine by the urethra, except a few drops; he was able to hold it an hour. On the second day, he could hold his urine three hours, all passing by the urethra. From this day, the wound healed rapidly; all progressed without a drawback, and, on the thirteenth day I took my leave, and the next he was walking about the streets well.

REMARKS.—Mr. Allarton does not give anæsthetics, depending, as he says, on the voluntary efforts of the patient to assist to expel the calculus; but, in this case, voluntary efforts were violently excited in passing either finger or forceps through the vesical sphincter, which, had it been a moderate sized calculus, would have expelled it into the outer wound, but, in this case, proved a difficulty rather than an aid. The operation in young subjects as the above case, with moderate sized calculi, is safe, simple, and expeditious, affording voluntary control of the bladder afterwards; and in this, contrasting favourably with the subsequent progress of a case of lateral operation, into which it could be partly and readily converted, should the necessity for a larger opening into the prostate be required.

J. BISSHOPP, L.R.C.P. and M.R.C.S., Tunbridge Wells.

## BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1875.

SUBSCRIPTIONS to the Association for 1875 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

# BRITISH MEDICAL JOURNAL.

### SATURDAY, JUNE 5TH, 1875.

## THE CONTAGIOUS DISEASES ACTS.

THE report of the Commissioner of Police on the Contagious Diseases Acts for 1874 is a very interesting official document.* It proves indisputably that these Acts, of which the main object is to restrain the spread of disease, are effectual instruments not merely for improving public decency, but for repressing vice and immorality among the reckless and ignorant, by removing temptation, and by helping those who have fallen to regain steady habits and a respectable position.

It is sad that fervour in religion and dread of encroaching on the personal liberty of others should kindle misconceptions and prejudices, which at present prevent our obtaining a properly regulated machinery in all large towns for repressing vice. That this can be done without interfering unduly with personal liberty, and greatly to the benefit of those most affected by such regulations, the operation of the Contagious Diseases Acts fully demonstrates. During the past year, the police have fully enforced the Acts "without a single instance or complaint of excess of duty; on the contrary, the officials have frequently been assisted by the most influential inhabitants of the towns under the Acts in carrying them out". Indeed, "residents within the protected districts have declared they would gladly pay a special rate for the maintenance of the Acts, so much do they contribute to the peace and quietness of the town".

The results of voluntary efforts for the rescue of the fallen are insignificant in comparison with those of the Acts. Voluntary societies attack the evil in part only. The Acts check the spread of vice in many ways. "Wherever a chance exists" (says the sixth paragraph of the report) "of reclaiming a woman, every effort is made before she is brought under the operation of the Acts; and, after she has signed the voluntary submission, opportunity is still given her of returning to her friends." This statement is amply substantiated by the numbers of young women rescued from vice by the police. During the year, two hundred and fifty-four women whom the police found in bad company and in improper places were restored before they had actually fallen; one hundred and nineteen of them being girls under eighteen years of age. Many examples are related in the report of the surprising ways in which, through imprudence or ignorance, young women are led into wrong, who, but for the police employed in carrying out the Acts, would become habitual prostitutes.

In addition to the 254 women rescued before they had actually commenced an immoral career, 206 relinquished it on being cautioned that persistence would entail registration and periodical examinations; making in all 460 women saved from recruiting the prostitute population of the districts in a single year. In consequence of thus cutting off the supply of young women, the ages of those who lead an abandoned life is greatly advancing. In 1866, at the four stations then placed under the Acts, there were 2,613 women, of whom 55 per cent. were less than twenty-one years old (135 being less than sixteen). In 1874, though seventeen stations were under the Acts, there were only 2,072 women, of whom 23 per cent. were less than twenty-one years old, and only six less than sixteen years of age. This amounts to almost total repression of juvenile prostitution in our large garrison and dockyard towns, where before the Acts came into force it was shockingly prevalent. The total number of abandoned women has been reduced at most of the stations by one half, at some by much more than half. If the numbers of women discovered by the police at each station when the Acts were first set in operation therein are added together, the total amounts to 4,286, or more than double the number at the stations collectively in 1874, viz., 2,072.

The Acts attack the evil in other ways. Two keepers of houses of ill-fame were punished for allowing diseased women to frequent their houses. Three others, who harboured young girls, shut up their houses and left the district, on being cautioned by the police. Thirty pensioners of the army and navy were detected in keeping disreputable houses; twenty-eight gave up their occupations on threat of exposure, and two who neglected the caution were deprived of their pensions. In such various ways an evil that cannot be entirely uprooted may be pruned down to a comparatively small growth. Seek the young before they have hardened in vice; hold out continually to all a means of rescue and reformation; and attack unceasingly all who trade in vice. The public- and beer-houses, which add to their gains by encouraging vicious persons to resort to them, have been greatly diminished. In 1870, the last year in which new stations were put under the Acts, there were 5,405 houses licensed to sell intoxicating drink; of these, 192 were of ill-fame. In 1874, there were 5,126 houses for selling intoxicating drink; of which 56 were of ill-fame. Besides the above licensed houses, there were in 1870, 688 houses of bad repute; in 1874, there were 545. Thus houses of ill-fame have been reduced from 880 in 1870, to 601 in 1874. If the whole period of the operation of the Acts be taken, their good sanitary influence, by removing so many sources of temptation to drunkenness and vice, is still more evident. In the ten years, 1865-74, notwithstanding the increase of population, the number of public houses has increased by only 21; the number of beerhouses has diminished by 368; and 678 houses of ill-fame have been closed during the ten years. Doubtless some part of the check to the growth of public-houses is due to the Act of 1870, giving magistrates more control over them; but as the decrease is clearly shown in the tables to have made great progress before 1870, the Act of that year has not been the sole cause in this excellent result. It is probable that legislation specially directed to the suppression of vicious resorts might still more effectually lessen the number of houses of ill-fame in the district.

The amount of contagious venereal disease in the subjected districts is shown by the tables to be greatly lessened; but without them it is obvious that, if the number of women has diminished by one-half (and that half comprising the young and least careful of their health), the foci or sources of disease must be diminished by one-half. Then, with regard to the condition of the remaining half.—In 1869, periodical examinations were carried out at some of the larger stations, and since 1870 have been regularly enforced at all. The percentage of cases of disease among the women already on the register was 16 for the year 1870; it has since then steadily declined to 7 in 1874. This contrasts well with the percentage of disease among the new comers, which, since regular examinations have been instituted, has ranged between 33 and 38 per cent. That is, of every three abandoned women who enter the district, one is sure to be diseased. These statistics prove both the advantage and need of periodical examination; a provision of the Acts which has excited much opposition as an unwarrantable hardship on the registered women. It is clear that without it the importation of disease would have been so rapid as to neutralise much of the benefit the women obtain from the Acts; hospital treatment when sick, though good in itself is obviously of far less value to them than the preservation of their health. The difference between periodical examination of all who will, in spite of warning, constantly expose themselves to contagion, and the seclusion and cure of those only who apply for treatment, is almost tantamount to the difference be-

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tween prevention and cure of disease; the latter does nothing to lessen its prevalence, the former makes provision for cure unnecessary.

The report ends by expressing a regret that no clause in the Acts renders persons who wilfully communicate disease liable to punishment. Even in the case of men such a provision would be difficult to work, and, in that of women, almost impossible. Perhaps, nevertheless, hereafter greater experience may point to a means for accomplishing this desirable end.

## VIVISECTION AND ANÆSTHETICS.

DURING the course of the controversy regarding vivisection, a number of its most sincere opponents, whose hostility to it was excited by the real kindliness of their hearts, have become convinced that the pain inflicted on animals in physiological laboratories has been grossly exaggerated, and that physiologists, instead of being inhuman monsters delighting in the torments of helpless creatures, are really men like themselves, disliking to inflict unnecessary pain, and consequently using anæsthetics in many of their experiments. Of late, this conviction has gained ground rapidly, because the facts of the case have been more plainly stated by physiologists, and unprejudiced observers have thus been able to form a correct judgment, instead of being misled by the one-sided statements of certain antivivisectionists. The evidences of this feeling, both in the press and in the Bills before Parliament, have elicited from Dr. Hoggan a letter to the *Spectator* of last week, in which he attempts to show that anæsthetics, such as chloroform, are not, and cannot easily be, administered to the lower animals, in consequence of the very unsatisfactory state of our knowledge of the line which separates insensibility from death, especially in some of those classes of animals that are most generally employed as the subjects of physiological experimentation. "Many of these," he says, "die apparently before they can become insensible through chloroform; some of them, indeed, as soon as it has been administered." Had Dr. Hoggan said "my knowledge", instead of "our knowledge", he would have been perfectly correct; for the results of his attempts to administer anæsthetics to animals for purposes of experiment were, as he himself shows, so disastrous as to leave no doubt regarding the unsatisfactory state of his knowledge upon the minds of his readers. But it is hardly fair, by the use of the word "our", to include the profession generally in the same category as himself; for there are surely few members of it who do not know that failure of respiration and failure of the heart indicate the line which separates insensibility from death in dogs, cats, and rabbits, as well as in man. Certain it is that many physiologists, including even that much maligned man Professor Schiff, are acquainted with the fact, and turn it to practical account. The simple precautions not to give the chloroform-vapour in too concentrated a state, and not to push it so far as to stop the respiration or arrest the heart, suffice to prevent accidents; and anæsthesia can be induced as perfectly and almost as readily as in man, although neglect of these precautions is very apt, as in Dr. Hoggan's experience, to be followed by fatal consequences. Nor is there any difficulty in keeping up the anæsthesia for an almost unlimited time, as Dr. Hoggan asserts. Instead of the effect of the anæsthesia passing off in a minute or two, and the animal having to bear its torture as best it may during the rest of an operation lasting perhaps for hours, unconsciousness may be and is kept up by the administration of a small quantity of the anæsthetic from time to time. A special assistant, whose undivided attention must be concentrated upon this object, is not at all necessary in many operations. A few drops of chloroform poured on a piece of lint thrown loosely over the animal's nose is all that is required. In prolonged experiments, a dose of opium, morphia, or chloral is often used, especially in Germany, instead of chloroform or ether; the anæsthesia produced by them being quite as perfect, and no attention being required to keep it up. It is not improbable that these may soon be discarded in favour of croton-chloral, as this substance is said by its discoverer, Professor Liebreich, to whose experiments we already owe the introduction of that valuable hypnotic chloral, to destoy all sensation, while it has comparatively little action on the spinal cord, and almost none on the circulation. But, whatever the agent employed may be, whether opium or morphia, as in Germany, ether, as in America, or chloroform, as in this country, complete anæsthesia is usually induced by physiologists in the animals on which they experiment, as any one may see by simply taking the trouble to read the published records of their experiments. Notwithstanding this, Dr. Hoggan makes the startling assertion that the induction of "a state of complete and conscientious anæsthesia is seldom even attempted, the animal getting at most a slight whiff of chloroform by way of satisfying the conscience of the operator, or of enabling him to make statements of a humane character."

One would naturally suppose that, before Dr. Hoggan ventured thus to impugn the character of men engaged in physiological research, and accuse them either of self-deception or deliberate falsehood, he would have taken the utmost care to verify his statements. But it is not so. We are willing to believe in his honesty, and would be loth to suppose him guilty of the deception of which he himself accuses physiologists; but he certainly displays in his letter a most reprehensible ignorance of what really is done in physiological laboratories both in this country and America. Let us contrast with his statement that made by Dr. Dalton, Professor of Physiology in New York, in his little work on *Experimentation on Animals*.

> "The frequency and amount of pain actually inflicted in the course of physiological experiments have often been the subject of needless exaggeration. Those who are familiar with such investigations know that, in point of fact, the exhibition of pain in an experimental laboratory is an exceptional occurrence. As a rule, all the cutting operations are performed under the influence of ether, and the animal is as completely unconscious of what is going on as the human patient while suffering an amputation. A visitor might frequent such a laboratory for a long time without hearing a cry or seeing a struggle, excepting such as are directly caused by the ether-inhalation. This is because the infliction of pain is generally no part of the experimenter's object, and on every account it is preferable for him to avoid it."

Such is the American professor's description of a laboratory on the other side of the Atlantic. With the substitution of chloroform for ether, every word of it may with justice be applied to the physiological laboratories of Great Britain. We are at a loss to understand how Dr. Hoggan can have made such statements as those contained in his letter to the *Spectator*, and can only acquit him of wilful misrepresentation by supposing him to be profoundly ignorant in respect to a subject with which we had thought it the duty of every qualified medical practitioner to make himself acquainted, and on which he has spontaneously assumed the grave responsibility of making himself the accuser of his profession in a matter peculiarly open to misrepresentation, and in which such misrepresentation is a cruel wrong.

## THE COUNTY CORONERS' BILL.

THE County Coroners' Bill, to alter and amend the laws relating to county coroners, has just been printed, and bears the names of Mr. Henry Cole and Mr. Edward Jenkins.

The Bill is short, but it will, if it should become law, make great alterations in the method of the election of coroners by taking it out of the hands of freeholders and placing it in the hands of the magistrates. It proposes that, when a vacancy in the office of coroner occurs, the Lord Chancellor shall issue his precept to the Clerk of the Peace for the county, who shall issue notice to the various candidates, and that the justices of the peace shall, within twenty-one days at the most, proceed to the election of the coroner for the district. In some respects this plan is an improvement on the present plan of election, which is both costly and cumbersome to the candidate; so much so, in fact, that a poor man would hardly venture to incur the necessary cost of candidature.

There is, however, a grave objection to the method proposed of placing the election in the hands of the magistracy, inasmuch as their bias would lean perhaps too much to the legal element, and the just and time-honoured claims of the medical profession to the office would be too liable to be overlooked.

A middle course, and in fact the only fair method would have been, to still retain the ballot, but place the election in the hands of the registered freeholders of the county, who certainly have a right to a voice in the election of a county officer, but whose rights have been entirely ignored by this Bill in a matter which concerns their interest deeply. This plan would at once simplify the mode of elections by doing away with the complication of grave-owners and certain fancied rights which are vested in the clergy, and would ensure the *bona fides* of every vote given.

The coroners themselves will have no reason to complain of the Bill, which provides that, when from age or infirmity they shall have become unable to discharge the duties of their office, the magistrates shall have power to grant superannuation allowances in accordance with the rate usually allowed to other branches of the civil service. This is a graceful recognition of a moral right, which has hitherto been totally ignored. They will, probably, not raise any opposition to the Bill. Subject to the alteration we have suggested in the mode of election, which we would gladly see made, the measure is apparently a good one. We believe, however, that the Government are not inclined to take further action in the matter.

DR. ECHEVERRIA, a Cuban physician, who is well known in connection with the New York Lunatic Asylum, will shortly publish in this country a new work on the medical and legal aspects of epilepsy.

THE Metropolitan Asylums Board have just purchased of Mr. T. J. Morton, through his surveyor, Mr. William Eve, nearly one hundred acres of land at Darenth, near Dartford, Kent, on which to erect a home for imbecile children.

MR. HUTTON's comment in the *Spectator* on the action of the Government in appointing a small Royal Commission on Vivisection is the very singular one that, unless the Commission "has compulsory powers to obtain evidence and receives its evidence on oath, it will be a complete failure". The force of intolerant self-righteousness will, it seems, lead well-meaning persons to singular extremes of unfairness and injustice. Mr. Hutton here imputes to biologists not only the error of having arrived at convictions on the subject of experiments on animals differing in some respects widely from their acts—which certainly is a well-founded statement—but also the consciousness of cruelty, the sense of the necessity of hiding their convictions, and the intention of denying their opinions and falsifying their acts, which is an insinuation imputing peculiar baseness and insincerity to a class of men who are nothing if not earnest, outspoken, and crystal clear in word and act.

THE constitution of the Royal Commission on Experimentation on Animals is not yet announced; it will, we believe, be a small commission under the Presidency of Lord Cardwell.

THE directors of the Great Western Railway have forwarded to the Radcliffe Infirmary at Oxford, a letter of thanks for the attention shown to the sufferers by the Shipton accident, together with a cheque for £250, as a contribution to the funds of the infirmary, and a cheque for £150 for distribution among the permanent staff of the institution.

LIEUTENANT PHILIP C. WALKER of the 10th Brigade, Royal Artillery, who was stabbed on Friday last at Milford by Surgeon-Major Alder, has died. Mr. Alder was placed under arrest after committing the act, and was medically examined. It was believed from the report to the Major-General commanding the Western District that it would be shown that he was suffering from an affection of the brain, induced, presumably, by the climate of the Gold Coast, as he took part in the Ashantee Expedition. Under those circumstances no court-martial would have been held, but in view of the fatal termination of the affray Surgeon-Major Alder will be forthwith handed over to the civil authorities. He also served with the 62nd Regiment during the Crimean War.

AT Keighley, where the Board of Guardians have refused to carry out the Vaccination Laws, the epidemic of small-pox is still spreading. Seventy-three cases have been reported during the present month, nineteen of them being fatal.

THE subjects of the Gresham Lectures on Medicine for the Trinity term, delivered in Gresham College by Dr. E. Symes Thompson, are as follows: Lecture 1, Friday, June 4th—On Respiration: Lecture 2, Saturday, June 5th—On the Lungs: Lecture 3, Monday, June 7th—On Cough. The lectures are illustrated with diagrams, tables, and chemical experiments, are free to the public, and commence each evening at seven o'clock. Lectures will be also delivered by the Gresham Professor of Medicine, in Michaelmas term, November 13th, 15th, and 16th.

A DEPUTATION from the Irish College of Surgeons waited on Mr. Hardy on Thursday afternoon, to represent to him the unredressed grievances of the Army Medical Officers. It included Mr. Rawdon Macnamara, Mr. Joliffe Tufnell, and Mr. Hamilton. We have not heard the result, but we have good authority for stating that army medical officers may expect concessions which will satisfy some of their legitimate claims. Of the list of detailed suggestions, laid before Mr. Hardy by the Parliamentary Committee of the British Medical Association, it is probable that the suggestions of a fixed period of promotion will be accepted, and also that of an improved retirement at sixty years. The forage allowance of which the removal is admitted on all hands to be a distinct breach of faith, presents, however, we believe, considerable difficulties to the mind of the authorities. We cannot see that it is a matter of which the equity is any way dubious. Some favourable amendments of mess and band allowances may, we believe, also be asked for. Unfortunately, however, Mr. Hardy, having conscientiously read a good many pamphlets which do not all agree in their statements of the wants of medical officers, is a little puzzled, and, at any rate, he will find in their pamphlets some authority for a great many unpalatable changes.

THIS is the season of hospital dinners and prize distributions at medical schools. Among the more notable recent distributions of prizes are those of the flourishing and efficient University College, where Dr. Storrar gave an interesting address; and at King's College, where Dr. Lyon Playfair gave on Thursday an address, marked by his usual vigour, thoughtfulness and ability, and more than usually spirited and *àpropos*. It will form an useful theme for future comment, and is an excellent protest against the ignorant distrust and jealousy of exact knowledge, called science, which our half educated statesmen display, and in which they receive the sympathy of uneducated legislators of the day. We print Dr. Playfair's address in another column.

AT the first distribution of prizes at the London School of Medicine for Women, it was stated that twenty-four female students had prosecuted their studies during the winter session. The courses of Anatomy and Physiology were given by Mr. Rivington (London Hospital), Mr. Schäfer (University College), Mr. Reeves, and Mr. Mears; and that of Chemistry, by Mr. Heaton (Charing Cross Hospital). The results of the class-examinations had been highly satisfactory; the general average of the papers being fully equal to that of any metropolitan medical school. Lord Shaftesbury presided; and Lord Aberdare, Mr. Critchett, the Right Hon. J. Stansfeld, Miss Jex Blake, and Mrs. Garrett-Anderson, M.D., were the principal speakers. Six of the students of this school are, it is stated, pursuing their studies with a view to utilising their medical knowledge in missionary work.

THE subject of medical legislation was of course referred to; and from what fell from Mr. Stansfeld it appears that his opposition to the College of Surgeons Bill now before the house is based, not, as has been stated, upon his desire to see female medical practitioners, when duly qualified, admitted to the *Register* on the same terms as those already on the *Register* and in practice, but upon the wider ground that the conjoint scheme of the English bodies is imperfect and valueless so long as the Irish and Scotch bodies hold aloof and give each separate qualifications after their own individual pattern; that the English scheme, taken alone, does little to procure an uniform minimum qualification for practice in the United Kingdom, and that it is the duty of the Government to oppose all such separate piecemeal legislation, and to pass a general Medical Reform Bill, on the pattern of that which has already received the assent of a past government and of the General Medical Council.

AT the annual meeting of Queen Charlotte's Lying-in Hospital, Lord Portman, President, in the Chair, it was decided to introduce a system of disinfecting every article used by the patients by means of heat. The method invented by Dr. Ransom, F.R.S., of Nottingham, will be the plan most likely adopted; the principle of its action was fully explained in a paper read by that gentleman at one of the annual meetings of the British Medical Association. The extreme simplicity and safety with which it can be applied render it especially well adapted for a lying-in hospital, where the skilled services of an engineer could not be well employed. To secure a still more perfect disinfection, a building is to be erected on the premises, where all the washing is to be done. Every article of linen will be washed by steam, so as to subject everything to a temperature of boiling point; besides which, disinfectants will be used. We congratulate the medical officers upon having a committee so ready to adopt all the means that modern science has discovered for the prevention of disease. This hospital has lately introduced a resident house-surgeon, and made several modifications in its laws, one of which opens the electorate to ladies: that it was duly appreciated was evidenced by the presence at the meeting of the Duchess of Westminster and other titled ladies, who afterwards went round the hospital. We do not think that, in London, lying-in hospitals have had a fair chance hitherto of showing what can be effected by the combination of medical skill with the most efficient sanitary surroundings.

WE are glad to see that Dr. Gream, Physician-Accoucheur to the Princess of Wales, etc. (who has now retired from active practice), has been placed upon the Commission of the Peace for the County of Hants. We are always glad to find the services of experienced medical men, withdrawn from the active duties of the profession, utilised for the public service. It is often of great public advantage to have the presence of medical men on the Bench. Now that the new doctrine of manslaughter by contagion is likely to give a good deal of work to the Bench and of anxiety to doctors and midwives, a little technical knowledge in the courts of first instance will be especially useful. Their presence may act as a wholesome check upon those members of the profession who display at times unnecessary zeal as witnesses at magisterial medico-legal investigations against their professional brethren, and who take those opportunities of airing their theories and laying down their dubious medical propositions before a necessarily ignorant, and many times biased, audience.

PROFESSOR TURNER of Edinburgh, finding that he can scarcely do justice to the subject selected by him, the Comparative Anatomy of the Placenta, for his three lectures on the 14th, 15th, and 16th instant, at the Royal College of Surgeons of England, has applied to be put in nomination for the office of Lecturer on Anatomy and Physiology for the ensuing year, 1876.

### SURGEON-GENERAL, BENGAL ARMY.

THIS important appointment has, the *United Service Gazette* states, been conferred on Surgeon-General John Fullarton Beatson, *vice* Sir J. C. Brown, K.C.B., retired. Dr. Beatson, being now on leave at home, proceeds to India by an early steamer to assume the administrative duties of his office. We believe Dr. Beatson is a brother of the late head of the Indian Medical Service, Surgeon-General George Stewart Beatson, C.B., honorary physician to Her Majesty, who died at Simla last year while holding office as Surgeon-General of the British Forces. The above three officers have seen much active foreign service.

### THE LATE MR. S. W. MOORE.

WE much regret to learn that, through the long continued illness and untimely death at the age of twenty-seven, of Mr. Samuel William Moore, Demonstrator of Physiological Chemistry in St. George's Hospital, a young widow and two infant children are left entirely unprovided for and almost wholly destitute. In the BRITISH MEDICAL JOURNAL of last week, we referred to the scientific labours of this talented young worker in the somewhat neglected borderland between physiology and chemistry; we now understand that the friends of the deceased contemplate making an appeal to the liberality of the profession, of which he was so promising a member, for the purpose of raising a fund for the benefit of his family, and have great pleasure in cordially recommending the case to the benevolence of our readers. The following gentlemen have kindly consented to form a committee for this purpose: Dr. Barclay, St. George's Hospital; Dr. Bott, 20, Kennington Park Road; J. Croft, Esq., St. Thomas's Hospital; Dr. W. M. Ord, , St. Thomas's Hospital; G. D. Pollock, Esq., St. George's Hospital; Dr. Wadham, Dean of the Medical School, St. George's Hospital, W., *Hon. Treasurer;* Dr. C. R. A. Wright, Chemical Laboratory, St. Mary's Hospital, W. Subscriptions in aid of this object will be gladly received by Dr. Wadham at the above address.

### ACCIDENT TO DR. HENDERSON, AUCHINBLAE.

ON Sunday Evening, Dr. Henderson, Auchinblae, while riding from Auchinblae to Fordoun station, was thrown to the ground through his horse stumbling, and sustained injuries to his neck and spine of so serious a nature that but faint hopes are entertained of his recovery. Dr. Henderson is well known and much esteemed in the district, where he has practised for the last fifty years.

### MORTALITY OF LONDON.

ACCORDING to the return of the Registrar-General, 2,453 births and 1,294 deaths were registered in London last week, the former having been 572 above, and the latter 63 below, the average. The annual death-rate from all causes, which in the eight preceding weeks had steadily declined from 28 to 20 per 1,000, further fell to 19.6. The last five weeks of the June quarter are usually the healthiest period of the year in English towns. After distributing the deaths in institutions, in proportion to population, the rate last week was 18 per 1,000 in the west, 18 in the north, 18 in the central, 24 in the east, and 20 in the south groups of districts. The high rate in east London was partly due to the fatal prevalence of zymotic disease. The 1,294 deaths included 2 from small-pox, 32 from measles, 42 from scarlet fever, 7 from diphtheria, 75 from whooping-cough, 20 from different forms of fever, and 23 from diarrhœa; thus to the seven principal diseases of the zymotic class 201 deaths were referred, against 220 and 201 in the two preceding weeks.

### THE ROYAL INFIRMARY, MANCHESTER, AND THE PROVIDENT DISPENSARIES.

THOSE philanthropic gentlemen, who, three years ago, set on foot the scheme of provident dispensaries for Manchester and Salford—a scheme which has already been partially carried out—are receiving gratifying proofs that their action was in harmony with the current of public opinion, and that their labours are appreciated by their fellow townsmen. In a circular dated May 10th, the weekly Board of the Royal Infirmary comment upon the progress which the movement has made, and then draw the attention of the trustees and subscribers to some points with which the existing medical charities are more particularly concerned. The opinions of the Weekly Board are so much in harmony with those which we have often expressed, that we have peculiar satisfaction in quoting one or two passages from the circular.

"The guarantee fund (of the Provident Dispensary Association) now amounts to over £1,000 a year, and the Board are gratified to be able to state that three dispensaries are in full work, and the arrangements are completed for three others shortly to be opened. The success which they have met with has been most encouraging, many of the members being such as would ordinarily have applied at a free hospital, and, in one instance, a large proportion were actually in attendance at a medical charity. This success has been attained without bringing into operation any pressure on the part of the medical charities.

"The Board now feel that the time has arrived when the duties of the trustees and subscribers to the charity and their own application of the existing rules should be thoroughly and completely carried out, by a careful investigation of the circumstances of the patients applying for relief. The provident dispensaries enable them to do this without any hardship whatever, and the Council of the Association undertake all the expense and trouble of examining and reporting to the various institutions. The Board earnestly invite the assistance of the trustees and subscribers in promoting so desirable an object. Every precaution will be taken to prevent any rapid or severe application of the rules, and the Board would suggest to the trustees and subscribers the careful consideration of the recommendation-forms, which are the same as have been in use for a long period, and which, if the directions contained therein are acted upon, will materially lighten the labours of the investigating officers, and render unnecessary any rejection of applicants.

"In conclusion, the Board would suggest to the trustees the serious consideration of the recommendation-system as applied to the out and home patients. With an efficient investigating machinery, much time might be saved and suffering avoided by a direct application to the charities. There would be the assurance that all cases of emergency would be properly dealt with, and other suitable cases receive appropriate treatment, while the trustees and subscribers would be saved the trouble and inconvenience of personal applications, and making investigations which have at no time produced satisfactory results. At the annual meeting, it is proposed to discuss the propriety of abolishing this system, so far as it applies to the out and home patients, when the trustees will have an opportunity of expressing their opinions upon the question."

### OBSTETRICAL SOCIETY OF LONDON.

THE discussion on Puerperal Fever was resumed on Wednesday evening last. The number of Fellows present was as numerous as on former occasions, and the several speakers were listened to with marked attention. Dr. Arthur Farre, in opening the discussion, thought it was hardly intended to elicit any new opinions, but rather to compare our observations, and take stock of our knowledge, inciting each other to further observations. It was well to recall to mind what our predecessors had done for us in elucidating this subject. Dr. Kirkland had remarked that when we spoke of fever we were not speaking of a disease, but of a sign or set of signs of mischief going on within; and there were many who would agree with him now in this view. Lord Bacon had remarked that we neglected things and worshipped specious names. This was possibly the case here. Kirkland objected to the term puerperal fever; and even now, in the nomenclature of disease, puerperal fever was not placed among the fevers, but far away among the general diseases. In replying categorically to Mr. Spencer Wells's questions, as regarded the first, whether there was any form of continued fever communicated by contagion or infection, etc., he was not aware that there was any form of contagious infecting fever caused by a specific virus or definite contagion. He was unwilling to give an assent to the second question, May all forms of puerperal fever be referred to attacks of some infective continued fever, etc.? as he would be entirely shut out from giving a satisfactory reply to the third question, whether there is such a disease as puerperal fever. Disease was not the same as applied to the parturient and the non-parturient woman; the poison entered the system differently. Two processes were going on in the lying-in woman not found in others. The milk-process was one disturbing force, and the involution-process in the uterus a much more important one. The accumulation of effete matters in the system aggravated the tendency to disease, if it did not create a new kind of sepsis. As regarded his own views on the subject, he thought puerperal fever should have been puerperal fevers in the definition before referred to. There were three natural classes, derived from clinical experience, not from *post mortem* results. These were: 1. Those simple fevers which might be termed irritative fevers, as mammary or milk fever, simple febrile consequences of traumatic origin from slight injuries, mild pyrexial states of fugitive or transient nature; 2. Those forms not of specific origin, where the poison or the sepsis did not undergo a distinct species of incubation, evolution, or development, and which followed no definite order; and 3. The eruptive fevers, where the poison followed a regular course, there being a period of incubation. These might occur to the lying-in woman as well as to others. These last were not included under the term puerperal fever; only the two former classes. He had long employed the term *post partum* in place of puerperal, as it implied no theory of disease. Dr. Savage, Dr. Wynn Williams, Dr. Playfair, and Dr. Tilt, also joined in the debate, a full report of which will appear in our columns next week. The discussion was again adjourned.

### AWARDS TO THE ARMY HOSPITAL CORPS.

THE detachment Army Hospital Corps at Woolwich paraded at two o'clock P.M., the 21st ult., in review order, to witness the presentation of medals to the following non-commissioned officers and men, by Deputy Surgeon-General H. G. Gordon, M.D., principal medical officer at the station, for services rendered on the Gold Coast: Colour-Sergeant Hinde, Lance-Sergeant Edmonds, Lance-Sergeant Cook, Corporal Warmer, Corporal Davidson, and Private Huring. In a few words Dr. Gordon expressed himself to the recipients, that he was highly pleased to have learned from the various medical officers who served on the Coast, that the conduct of the Army Hospital Corps was exemplary, and that they cheerfully and readily performed their duties. On the name of each non-commissioned officer and man being called, he stepped to the front, when Dr. Gordon handed him the medal and expressed himself thus: "He was much pleased in presenting him with a medal, and may he long live to wear it."

### LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

THE third annual general meeting of the above Society was held May 21st, in the Board Room of the General Infirmary at Leeds. Dr. Heaton, the President, was in the chair, and there was a tolerably numerous attendance of members. The following report was read and adopted. "The committee, in presenting this the third annual report to the members of the Leeds and West Riding Medico-Chirurgical Society, are again able to congratulate them on its prosperous condition. The number of members, which is at present a hundred and fifty-four, continues almost stationary; fifteen gentlemen have been elected during the last year to take the place of those who, for various reasons, have had their names removed. With a view to increasing their efficiency, the committee have proposed, after careful consideration, certain alterations in the existing rules, which will be submitted for approval. The committee are able to announce that, after many meetings and much anxious discussion they have decided to expend the surplus funds at their disposal in the formation of a library. With this object they have made an arrangement with the Council of the Leeds School of Medicine, who, in consideration of a rent of £15 *per annum*, will allow members the use of the books which they at present possess, numbering some two thousand volumes, and will provide a sub-librarian and suitable accommodation for those books which shall hereafter be purchased by the Society. These books are to be kept separate from those belonging to the Council of the Medical School, and will continue the property of the Society. It is hoped that this arrangement will give satisfaction to the members, and that the possession of a good library will induce many members of the profession to join the Society." The financial statement of the past year was also read, and showed the funds of the Society to be in a satisfactory condition. The following were elected office-bearers for the year 1875-6. *President:* Mr. C. G. Wheelhouse (Leeds); *Vice-Presidents:* Dr. Myrtle (Harrogate) and Mr. Scatter-

good (Leeds); *Treasurer:* Dr. Heaton (Leeds); *Hon. Secretaries:* Mr. A. F. McGill (Leeds) and Dr. E. West Symes (Skipton); *Librarian:* Mr. Horsfall (Leeds); *Committee:* Dr. Clifford Allbutt (Leeds), Mr. E. Atkinson (Leeds), Dr. Bell (Bradford), Mr. Carter (Potternewton), Dr. Eddison (Leeds), Dr. Ginders (Normanton), Dr. Holdsworth (Wakefield), Mr. Jessop (Leeds), Mr. Jubb (Halifax), Mr. Nunneley (Leeds), Mr. W. N. Price (Leeds), and Mr. S. Charles Smith (Halifax). The meeting closed with a vote of thanks to the retiring president, Dr. Heaton.

### THE MEDICAL STAFF OF THE ARCTIC EXPEDITION.

THE following list of the gentlemen appointed to the Arctic Expedition, with their respective services, has been taken from our contemporary the *Broad Arrow.*

"Fleet-Surgeon Thomas Colan, M.D., was appointed assistant-surgeon of the *Royal George*, 102, Captain H. J. Codrington, C.B., in December 1853, and served in the *Baltic* until the close of the Russian war. In January 1857, he was appointed to the *Scorpion*, 6, surveying-vessel, but, in the following April, was transferred to the *Hastings*, 60, Coastguard-ship at Liverpool, and remained until appointed, in September 1859, to the *Beagle*, 4, fitting at Portsmouth for China, on which station he remained until November 1862. He was surgeon in the *Research*, 4, from March 1864 until March 1867, when he joined the *Malabar*, troopship, and remained until the spring of 1870. In October 1870, he joined the *Thalia*, 6, Captain John E. Commerell, C.B., V.C., and in her proceeded to the Cape of Good Hope, where he was turned over, with officers and crew, to recommission the *Rattlesnake* in February 1871, and served as her second-class staff-surgeon until paid off in 1874. He was staff-surgeon in the *Unicorn*, 10, at Dundee, from September 1874 until appointed to the *Duke of Wellington* for Arctic service. Dr. Colan, who has been awarded Sir Gilbert Blane's medal, is the writer of some valuable medical papers.

"Staff-Surgeon Belgrave Ninnis, M.D., was appointed, on August 23rd, 1861, to the *Pantaloon*, 11, Commander William R. Hobson, fitting at Devonport for the Cape of Good Hope and East India Station, where he remained until the summer of 1862. From October 22nd, 1862, until December 16th, 1863, he served in the *Victory*, flagship at Portsmouth, when he was appointed to the *Curacoa*, 23, Commodore Sir William S. Wiseman, Bart., on the Australian Station; and, on his return to England in January 1867, was appointed on the 26th of that month to the Royal Hospital at Greenwich, where he remained until June 1st, 1869. On the date last mentioned, he was appointed to the *Caledonia*, 24, in the Mediterranean, from which ship, on May 2nd, 1872, he was transferred to the *Lord Warden*, 18, and remained until January 20th, 1874. He was surgeon at the Royal Hospital at Plymouth from April 4th, 1874, until the 21st of the following October, and, on January 29th, 1875, was appointed to the *Duke of Wellington* for Arctic service.

"Surgeon Edward L. Moss, M.D., was appointed, March 8th, 1864, assistant-surgeon to the *Bulldog*, 6, Captain Charles Wake, fitting at Portsmouth for the North America and West India Station, in which ship he remained until it was destroyed at Cape Hatien, at the close of 1865. From February 2nd, 1866, until 1870, he served in the *Simoon*, troopship, Captain T. B. Lethbridge, and, from June 4th of the year last named, was attached to the *Achilles*, 26, Coastguard-ship, for service at sick quarters at Portland until February 3rd, 1872. He was borne successively on the books of the *Zealous*, 20, and *Repulse*, 12, in the Pacific, for service at Esquimault Hospital, from February 17th, 1872, until appointed, March 6th, 1875, to the *Duke of Wellington* for Arctic service.

"Surgeon Richard W. Coppinger, M.D., served at Haslar Hospital from November 12th, 1870, until March 23rd, 1871, when he was appointed to the *Himalaya*, troopship, from which ship, on June 27th, 1871, he removed into the *Topaze*, 28, fitting at Devonport for service with the Detached Squadron. He continued in the *Topaze* until transferred, August 22nd, 1874, to the *Cambridge*, gunnery-ship, at Devonport, from which ship, on March 12th, 1875, he was appointed to the *Duke of Wellington* for Arctic service."

### EXTRAORDINARY CASE OF FOREIGN BODY IN THE LARYNX.

THERE are numerous instances on record of foreign bodies, such as coins, rings, fruit-stones, etc., becoming impacted in the larynx without causing any very urgent symptoms; but the following case, related by Dr. Leopold Schrötter, in his lately published *Report of the Clinic for Laryngoscopy at the Vienna University* (1875), is most extraordinary. t seems almost incredible that during sleep, when respiration is quiet and the glottis is not open to its fullest extent, a sober man could unconsciously get into his larynx a foreign body exceeding, in all its diameters, the dimensions of a glottis opened as widely as possible. A very intelligent man noticed at breakfast that his false teeth (four upper incisors attached to a gold plate) were missing. When he began to search for them, he felt, for the first time, some obstruction in the throat and some difficulty in breathing, and then concluded that he must have swallowed the teeth during the night. He had taken on the previous evening only a light meal, without much alcohol. Dr. Schrötter saw the patient the same day; he then spoke without difficulty, but complained of pain in the lower part of the throat. Laryngoscopic manipulation was difficult, and a superficial examination showed nothing abnormal. The foreign body was therefore supposed to be in the œsophagus; and, on passing a probang, resistance was experienced in the upper third, but nothing could be brought up. This failure, and the increasing dyspnœa of the patient, led Dr. Schrötter to make a very careful examination of the larynx; and, after several trials, a foreign body was seen under the vocal cords, and soon the plate and two teeth were made out with certainty. Dr. Czerny (then Billroth's assistant, now professor at Freiburg) was then called in, to assist in laryngotomy. On examination, he also could find nothing abnormal in the larynx, but met with the same resistance in the œsophagus; his attempts at extraction were, however, as unsuccessful as Dr. Schrötter's had been. The latter now urged immediate laryngotomy, but Czerny thought that, as Schrötter saw the foreign body so clearly, he might first attempt its removal through the mouth by the aid of the laryngoscope—an operation which he had successfully performed in other cases. Although not expecting much from such an attempt, less on account of the anatomical difficulties than because the foreign body was turned with a smooth surface upwards and offered little hold for the forceps, Dr. Schrötter consented to make the trial; and, as he had other business, and the patient was somewhat easier, he appointed 5 P.M. for the operation. However, when he returned at that hour, he found that the dyspnœa had increased so rapidly during his absence, that Dr. Czerny had been hastily summoned about three o'clock, and had been obliged to perform laryngotomy at once, the patient's breathing being suspended during the operation. On dividing the crico-thyroid membrane, the point of the bistoury struck the artificial teeth; an attempt was made to remove the foreign body through the wound by means of forceps, but, not succeeding in this, Dr. Czerny forced it up through the glottis, and removed it through the mouth. The patient wore a tube for thirteen days, but made a good recovery. When he was quite well, Dr. Schrötter again passed a probang, in order to ascertain, if possible, what had deceived both himself and Czerny in regard to the condition of the œsophagus. He met with the same obstruction, and concluded that, as the patient was of a decidedly rachitic build, it was probably due to a prominent vertebra.

### VITAL STATISTICS OF CHILI.

FROM recently published official returns, it is evident that vital statistics are not neglected in the Republic of Chili. This State of South America stretches coastwise from Bolivia to Cape Horn, an extreme length of about 2,300 miles, whereas the average breadth does not exceed 120 miles. The area of the country has been stated at 139,335 square miles, or little more than twice the area of England and Wales; considering, however, the length and breadth of the country, it seems probable that this area is understated. The population of the Republic at the last decennial census in 1870 was returned as 1,192,428, which it is estimated had increased to 2,003,346 in 1872, the latest year for which the birth and death statistics have come to hand. The births recorded in 1872 were 86,878, equal to a rate of 43.4 per 1,000, exceeding by 6.9 per 1,000 the rate in England and Wales for the same year. The proportion of illegitimate births was so high as 26 per cent., against but 5.4 per cent. in England; this large proportion of illegitimate births is said to correspond with that in previous years, and is not explained by a very low marriage-rate which was equal to 15.8

per 1,000, and little more than 1 per 1,000 lower than the average English marriage-rate in the ten years 1865-74. The deaths in Chili in 1872 were 57,668, showing an increase of 8,216 upon those in 1871. The death-rate in 1872 was equal to 28.8 per 1,000, and 7.5 in excess of the English rate during the same year. This excessive mortality was due to a very severe epidemic of small-pox, which was most fatal in the provinces of Santiago, Valparaiso, Aconcagua, and Coquimbo. Infant mortality appears to have been remarkably high, as 33,827, or nearly 59 per cent. of the deaths, were of children under seven years of age; the small-pox epidemic may have been the principal cause of this undue proportion of the deaths of young children. The prevalence of small-pox led to a large increase in the number of vaccinations, which amounted to no fewer than 478,864, or more than a fifth of the entire population. Chili contains 37 hospitals, in which 44,177 patients were received in 1872, the percentage of cures being 86 among males and 80 among females; in addition to these there were, in 1872, no fewer than 33 lazarets, or hospitals for infectious diseases, which were principally used for small-pox patients, and in which 6,324 deaths occurred during the year. One of the most notable features in the facts relative to the causes of death is the fatality of phthisis, which is said to have caused 24 per cent. of the deaths among males, and 35 per cent. among females; in England and Wales, the proportions of deaths from phthisis in 1872 were 10.5 per cent. among males, and 11.2 among females. As in previous years, the rate of mortality in Chili was far lower in the Southern and more temperate provinces, than in the Northern part of the Republic. The mortality is usually greatest in the summer months of November, December, and January; whereas in 1872, the largest number of deaths occurred in July, August, September, and October, when small-pox was most fatal. The vital statistics of Chili reflect great credit upon the administration of the Republic, and in completeness bear most favourable comparison with those published by the authorities in many parts of the British empire. The facts relating to the births, deaths, and marriages in Chili, must be collected with considerable difficulty, owing to the extreme distance over which the Republic extends, and the sparseness of the population in many parts; and yet they are infinitely more complete than the similar facts published for many of the provinces of British India.

## IRELAND.

In last weeks return of deaths for Dublin, one death from small-pox was registered, which makes the second fatal case during the past three months, the other having been registered during the week ending April 24th.

The annual athletic sports of the University of Dublin will take place in the College Park, on Tuesday and Wednesday, June 8th and 9th.

### THE LATE EXPLOSION AND DEATH AT SANDYMOUNT, DUBLIN.

By a motion in the Irish Court of Queen's Bench, it appears that the Irish Apothecaries' Company have agreed to pay the sum of £1,500 as compensation to Mrs. Marsden and her family for the death of Mr. Marsden by the neglect of the Company's servant in selling Mr. Marsden sulphuret of antimony instead of oxide of manganese, by which neglect the explosion was caused. This is a wholesome lesson to apothecaries and pharmaceutical chemists.

### ROYAL COLLEGE OF SURGEONS IN IRELAND: ANNUAL ELECTIONS.

The following are the candidates for office at the Irish College of Surgeons for 1875-76. *President:* Edward Hamilton. *Vice-President:* John Hamilton. *Secretary:* William Colles. The following outgoing members of Council seek re-election—Messrs. W. Colles, F. Kirkpatrick, R. G. H. Butcher, A. H. McClintock, G. H. Porter, B. G. McDowel, A. J. Walsh, T. J. Tufnell, E. Ledwich, R. Macnamara, J. Morgan, G. H. Kidd, J. K. Barton, P. C. Smyly, J. Denham, W. Stokes, junior, and S. Chaplin. The following are new candidates—E. D. Mapother, A. H. Jacob, E. H. Bennett, A. H. Corley, M. J. Kilgariff, B. Francis McDowell, T. Stoker, W. T. Wheeler, M. A. Ward, E. Fitzmaurice.

## ASSOCIATION INTELLIGENCE.

### MIDLAND BRANCH.

The general annual meeting of this Branch will be held at the Derby Infirmary on the 17th June, at 2 o'clock P.M.; President, T. Sympson, Esq., F.R.C.S.; President-elect, A. H. Dolman, Esq., M.R.C.S., etc.

Dinner at five o'clock punctually, at St. James's Hotel; fifteen shillings inclusive.

Papers are already promised by the following gentlemen, viz.: The President; W. M. Knipe, Esq.; John Barclay, M.D.; C. H. Marriott, M.D.; F. H. Hodges, Esq.; C. Bell Taylor, M.D.; F. W. Wright, Esq.

Members intending to read papers (which must not exceed fifteen minutes) are requested to communicate with the Honorary Secretary.

The President-elect begs to invite all members to a light refreshment at the Infirmary previous to the meeting.

F. W. Wright, *Honorary Secretary, pro tem.*

Derby, May 1875.

### SOUTH EASTERN BRANCH: WEST SUSSEX DISTRICT.

The next meeting will be held at the King's Head Hotel, Horsham, on Thursday, June 10th (instead of the 8th, as previously announced), at 4 P.M. precisely. The Chair will be taken by Thomas B. Greenwood, Esq., of Two-Mile-Ash.

The dinner will be served at 5.45 P.M. precisely. Charge, 6s., exclusive of wine.

Communications are expected from Dr. Withers Moore; Mr. A. H. Collet; and Mr. W. J. Harris; which will be announced in the circular convening the meeting.

Wm. J. Harris, *Honorary Secretary.*

13, Marine Parade, Worthing, May 31st, 1875.

### YORKSHIRE BRANCH.

The annual meeting of this Branch will be held at the Medical School, Leeds, on Wednesday, June 9th, at 2.30 P.M.

After the meeting, the members will dine at the Great Northern Hotel. Tickets, 6s. 6d. each.

Gentlemen intending to bring forward communications, or join the dinner, are requested to communicate with the Secretary.

W. Procter, M.D., *Local Secretary.*

24, Petergate, York, May 18th, 1875.

### NORTH WALES BRANCH.

The twenty-sixth annual meeting of the North Wales Branch will be held at Rhyl, on Tuesday, June 15th, at 1 P.M.; under the presidency of D. Kent Jones, Esq., of Vochriew.

The dinner will take place at 3.30 P.M. Tickets, 7s. 6d., exclusive of wine.

T. Eyton Jones, M.D., *Honorary Secretary.*

The Priory, Wrexham, May 22nd, 1875.

### SOUTH-WESTERN BRANCH.

The annual meeting of this Branch will be held by direction of the President-elect, Paul W. Swain, Esq., F.R.C.S., on Thursday, June 17th, at 1 P.M., at the Royal Albert Hospital, Devonport.

Previously to the meeting, arrangements will be made for any members who desire it to visit the Dockyard; and, after the meeting, a marine excursion in a steam-launch is proposed.

A paper is promised on the Ethics of Consulting Practice, by W. P. Swain, Esq., F.R.C.S.; and the Secretary will be glad to receive the names of members proposing to read short papers.

The dinner will be held at the Royal Hotel, Devonport, at 5.15 P.M. Tickets, exclusive of wine, 7s. 6d.

Return tickets—first and second class—at single fares, available from 16th to 18th of June, will be granted on production of dinner-tickets, by the London and South-Western, North Devon, South Devon and Cornwall Railway Companies.

John Woodman, F.R.C.S., *Honorary Secretary.*

2, Chichester Place, Exeter, May 25th, 1875.

## METROPOLITAN COUNTIES BRANCH.

THE twenty-third annual meeting of this Branch will be held at the Alexandra Palace on Monday, June 28th; *President*, T. B. CURLING, Esq., F.R.S.; *President-elect*, ROBERT BARNES, M.D.

After the meeting, the members will dine together. Tickets, 15s. each, exclusive of wine.

Further particulars in next week's JOURNAL, and in the circulars.

ALEXANDER HENRY, M.D.
ROBERT FARQUHARSON, M.D. } *Hon. Secs.*

London, June 3rd, 1875.

## BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE annual meeting of this Branch will be held at the Midland Hotel, New Street, Birmingham, on Tuesday, June 29th, at 3 P.M.; when an address will be delivered by the President, W. F. WADE, Esq., M.B., F.R.C.P.

The annual dinner will also be held at the Midland Hotel, at 5 P.M. precisely. Dinner tickets, exclusive of wine, 7s. 6d.

BALTHAZAR FOSTER, M.D.
JAMES SAWYER, M.D. } *Honorary Secretaries.*

Birmingham, May 29th, 1875.

## LANCASHIRE AND CHESHIRE BRANCH.

THE annual meeting of this Branch will be held in the Town Hall, Chester, on Wednesday, June 30th, at 1 P.M.—JOHN SKAIFE, Esq., President; Dr. DAVIES-COLLEY, President-elect.

The dinner at the Grosvenor Hotel at 5 P.M. Tickets, 7s. 6d., exclusive of wine.

*Communications.*—1. Lymphoma or Lymphadenoma in a Child. By Dr. Oxley.

2. Supracondyloid Amputation of Thigh. By Dr. C. E. Lyster.

Notice of papers (which must not exceed fifteen minutes) should be forwarded at once to the undersigned. None received after June 12th can appear in the circular.

A. B. STEELE, *Honorary Secretary.*

54, Rodney Street, Liverpool, May 28th, 1875.

## CAMBRIDGESHIRE AND HUNTINGDONSHIRE, EAST ANGLIAN, AND SOUTH MIDLAND BRANCHES.

THE combined annual meeting of the above Branches will be held in the Anatomical Museum, Cambridge, on Friday, July 2nd, at 2.30 P.M.; G. M. HUMPHRY, M.D., F.R.S., President.

The dinner will take place in the Hall of St. Peter's College, at 6.30 P.M. Tickets, 17s. 6d. each.

Members intending to read papers, or to be present at the dinner, are requested to intimate their intention, at their earliest convenience, to one of the Honorary Secretaries.

J. B. BRADBURY, M.D., Cambridge.
B. CHEVALLIER, M.D., Ipswich.
J. B. PITT, M.D., Norwich.
J. M. BRYAN, M.D., Northampton. } *Honorary Secretaries.*

Cambridge, May 1875.

## NORTH OF ENGLAND BRANCH.

THE annual meeting of this Branch will be held in the Town Hall, Darlington, on Thursday, July 8th, at 3 P.M. President, 1874-75, ANDREW LEGAT, M.D.; President-elect, 1875-76, S. E. PIPER, Esq., F.R.C.S.

The annual dinner will take place at the King's Head Hotel, Darlington, at 4.45 P.M. precisely.

G. H. PHILIPSON, M.D., *Honorary Secretary.*

Newcastle-upon-Tyne, May 29th, 1875.

## SOUTH EASTERN BRANCH: WEST KENT DISTRICT.

THE last meeting of the eighteenth session, 1874-75, was held at Dartford on May 21st, FREDERIC B. JESSETT, Esq., in the Chair.

The Honorary Secretary was unavoidably absent, and was represented by A. W. Nankivell, Esq.

The *Honorary Secretary* was re-elected.

*Next Place of Meeting.*—It was decided to hold the next meeting at Rochester in September; and R. R. Brown, Esq., was chosen to preside.

*New Members.*—The following candidates were elected to the Association and to the Branch. 1. John Langton, Esq., Strood next Rochester; 2. James Chilcot, Esq., of Dartford.

*Papers.*—The CHAIRMAN read a paper on Osteitis and Periostitis, and exhibited specimens of a Scirrhus lately removed (breast), and of Intussusception of the Bowel in a Child.

Only eight members were present, of whom seven dined at the Bull Hotel.

## GLOUCESTERSHIRE BRANCH: SPRING MEETING.

THE spring meeting was held on Tuesday, May 18th, at Cheltenham.

After the election of new members and the transaction of the ordinary business of the Branch, two very interesting papers were read, and gave rise to a very animated discussion: the one by the President, Dr. Paine of Stroud, on Pyæmia in Children; the other, by Dr. Wilson of Cheltenham, on Vaccination Questions and Calf Vaccine.

The members afterwards dined together at the Plough Hotel.

## PARLIAMENTARY BILLS COMMITTEE.

A MEETING of the Parliamentary Bills Committee was held at the office, 36, Great Queen Street, on Wednesday, February 17th; present, Mr. Ernest Hart, in the Chair; Mr. Kay-Shuttleworth, M.P.; Dr. Aveling, Dr. Cormac, Dr. Hardwicke, Mr. Rogers Harrison, Dr. Heury, Mr. Rivington, Mr. Rogers, Mr. Heckstall Smith, Dr. Stewart, Dr. Sutton, Mr. Tilley, Dr. Tripe.

The Artisans' Dwellings Bill was considered clause by clause. Mr. Kay-Shuttleworth pointed out the want of agreement between clause 3 and the preamble.

Resolved—That, in the opinion of this Committee, clause 9 be altered to give the Metropolitan Board of Works power to appoint a permanent medical officer of health.

Resolved—The Committee are of opinion that, in clause 3, should be introduced amendments having for their objects—

1. Such enlargement of the causes of condemnation of unhealthy areas as shall entirely correspond with the preamble;

2. To provide powers for taking such additional lands adjoining to unhealthy areas as may be necessary for an improvement scheme;

3. To provide that, in any case in which a local authority fail or refuse to frame a scheme on the report of a medical officer, they shall forward the report of the medical officer to the confirming authority, with the reasons for not taking action.

That the medical officer shall be entitled to have the assistance of a surveyor of the local authority when he requires it.

A meeting of the Parliamentary Bills Committee was held at the office of the Association on May 14th, 1875; present, Mr. Ernest Hart, in the Chair; Dr. Bond (Gloucester); Dr. Desmond (Liverpool); Dr. Holman (Reigate); Mr. Rogers-Harrison; Mr. Heckstall Smith; Dr. Meymott Tidy; and Dr. Tripe.

The minutes of the last meeting were read and found correct.

The Committee met specially to consider the Public Health Bill, 1875; Dr. Lyon Playfair's Bill on Experiments on Animals; Lord Henniker's Bill on Vivisection; the Artisans' Dwelling Bill (amended), etc.

The Chairman reported that he had received letters from Mr. Geo. Dixon, M.P.; Mr. J. W. Dean, Dr. T. Eyton Jones, Dr. Alexander Ogston, Dr. R. C. Shettle, Dr. C. Harrison, and Dr. Andrew Davies, on the subject of the Public Health Bill.

The Public Health Bill was then considered, together with the amendments suggested by the standing Committee of the Conference of Medical Officers of Health to combined districts, and those suggested by the Metropolitan Medical Officers of Health.

1. Resolved—That this Committee do adopt the amendments proposed by the standing Committee of the Medical Officers of Health of combined districts, and take the usual means for circulating copies of the same, bringing them under the notice of members of the House of Commons.

2. Resolved—That a sufficient number of copies of the amendments be printed and circulated amongst the Branch Secretaries.

3. Resolved—That this Committee co-operate with the Metropolitan Medical Officers of Health in any deputation to Mr. Sclater-Booth on the amendments of the Public Health Bill, 1875.

4. Resolved—That the Chairman be requested to prepare a petition according to the suggestions made by him against both Bills now before Parliament on the subject of vivisection, and that it be printed and circulated.

A copy of the Artisans' Dwelling Bill as amended was laid on the table, and the Chairman reported that almost all of the recommendations made by this Committee had been adopted during the passage of the Bill through Committee of the House of Commons.

The Chairman also reported, that he had received warm letters of thanks from several medical officers for the steps taken by this Committee to obtain the concessions contained in the recent Government Warrant.

# CORRESPONDENCE.

## PRACTITIONERS AND PUERPERAL PYÆMIA.

SIR,—With reference to Mr. Cullingworth's letter in your JOURNAL of this day's date, I wish to say that I see no reason to change anything that I have written in my Norwich address, or my recent letter to the London Obstetrical Society. I am quite otherwise than astonished, or even sorry, that a certain passage in my Norwich address caused pain to Mr. Cullingworth. It caused me pain to write it, for it was true; and it must cause pain to every reader who is not hard of heart. It is not at present necessary to enforce and illustrate the passage referred to by example.

Of the self-sacrificing behaviour of the medical profession, I am deeply conscious and proud. At the same time, I must reiterate what I have already said: that, on the principles which Mr. Cullingworth espouses, practice is impossible; and any physician may be charged with homicide almost any or every week of his life. Dangerous contagious diseases are common in Manchester; and I have never heard that practitioners there act otherwise than practitioners do elsewhere; that is, they go on with their work. Puerperal pyæmia is, at least in some of its forms, a contagious disease; and if Mr. Cullingworth and Dr. Thorburn act according to their principles in conducting obstetric practices not microscopic in extent (omitting consideration of hospital and consultation practice), they achieve impossibilities.

It is not very uncommon for brethren to give up business for a short time, when appalled by fear of a series of bad puerperal cases. But that is a very different thing from carrying out in practice the principles for neglecting which Mrs. Marsden is now unjustly made to suffer. No one has ever carried out such principles in the conduct of his practice. All are equally guilty with poor Mrs. Marsden; and many eminent licensed practitioners have had, and have now, as bad results.

Your obedient Servant, J. MATTHEWS DUNCAN.

Edinburgh, May 29th, 1875.

## PUERPERAL FEVER.

SIR,—Whilst in part agreeing with Dr. Boulton's strictures upon the speeches hitherto made at the Obstetrical Society, I cannot quite bring my mind to regard the matter in the ready, off-hand way this gentleman does. He states that, in order to obtain some definite opinion, he gives the result of his own experience; which, however, only deals with sporadic cases. In every instance he found they all presented the following sequence: 1. Inflamed or torn uterine sinuses or veins, followed by clot, pyæmia, and secondary congestion (phlebitis); 2. Lymphangitis, either septic, producing septicæmia, or subserous, followed by peritonitis; 3. A combination of the two. Not to be hypercritical, it would be exceedingly interesting, to those who are investigating the subject, to know what all this means. Is this experience the result of careful *post mortem* examinations aided by the microscope, or merely the product of bed-side observation? If the former, it would be very useful and a gain to our pathological knowledge on this subject if Dr. Boulton would kindly publish an account of the examinations; if the latter, it would be not less beneficial to know the exact clinical symptoms indicating these varieties. To those who have had some opportunities of witnessing *post mortem* examinations of puerperal fever cases, as well as of attending child-bed fever in its sporadic and epidemic form, these conclusions, not to be unjust, appear to savour more of the library than of the *post mortem* room.

Dr. Boulton says he is *convinced* that epidemic puerperal fever is the result of inflammation of some parts *employed in parturition.* Such being the case, it would be useless, perhaps, to show him how untenable this belief is. We only ask him to reflect a little more upon the subject, and to carefully run over his notes of the necropsies of puerperal fever patients that he has seen; and we feel convinced such a review will induce him to alter his present conviction.

Then again, a definite answer is required to the question, whether the inflammation or the fever is the first step. Dr. Boulton pins his faith upon inflammation being the first step in the autogenic form. If so, how comes it that a high temperature, rapid pulse, intense headache, and flushed face can be removed as if by magic by the injection of a disinfectant lotion into the uterus? Does an antiseptic lotion act so on an external inflamed spot? If not, can the inflammation be the factor here? Dr. Boulton maintains that the autogenic form of puerperal fever is dependent upon decomposition of a retained clot or placenta (*sic*), or phlebitis, or lymphangitis causing *primary inflammation.* When discussing the etiology of the epidemic variety, Dr. Boulton states that he considers the "probable several factors in operation to be: the peculiar state of blood of the puerperal state *plus* all that poverty, dirt, scarcity, overcrowding, ill-ventilating and general want of sanitary arrangements can produce, a condition as prolific of fever and erysipelas after operation, as of puerperal fever after confinement." Hence he goes on to state, "It is common amongst the poor and in hospitals where several parturient women are collected, and in cold damp weather when vitality is low." These two sentences can hardly be praised for their perspicuity. If they be meant to imply that lying-in hospitals are defective in means, cleanliness, food, space, ventilation, and proper sanitary arrangements, and that the poor are more prone to the disease than the rich and well-to-do classes, we fear he has culled his facts from his imagination. Perhaps Dr. Boulton is not aware that, as far as investigation has gone, it tends to show that those who are surrounded with every comfort that money can purchase fall victims to this disease in a larger proportion than do the poor; and also that neither in this country nor on the continent are lying-in charities the abodes of squalor and ill-management which he fancies them to be. Those gentlemen who have charge of them are not so utterly deficient of sanitary acquirements as he would leave the public to believe. The charge against lying-in institutions is reiterated later on in the letter, so there can be no doubt as to the meaning, or I would not have taken notice of it, as the first two sentences might have meant anything or nothing.

As to fevers "breeding true": how comes it that emanations of typhus fever under certain conditions cause pyæmia? Again, if the hands alone be the means of inoculation, why should the nurses apply the catheter. Do their hands never come into contact with abraded or torn surfaces when attending to their patients? Who is the most likely to use the most suitable mode of disinfection, the half ignorant nurse or the highly educated scientific medical man? In conclusion, I ask, can haphazard, undigested ideas forward our knowledge of this most important subject? Would not one case, with all its surroundings carefully investigated and recorded, assist more?—I am, etc.,

IGNORAMUS.

## THE CASE OF ARTHUR O'CONNOR.

SIR,—If I left unnoticed the letter of Dr. Edgar Sheppard published last week, my silence might be open to misconstruction; and, as Arthur O'Connor may possibly be the subject of further examination, it may be well that the medical aspects of his case should be thoroughly discussed.

At the trial of O'Connor for treason-felony in 1872, I stated that I considered him to be a weak-minded boy, very hypochondriacal, and subject to sudden attacks of recurrent mania, during which he was dangerous; that his assault upon Her Majesty was during one of these paroxysms; and that, although perhaps then better, and sorry for what he had done, he was at any moment liable to a recurrence of his more dangerous symptoms. Dr. Maudsley agreed with me that the prisoner was of unsound mind and dangerous, when we saw him together at Newgate. Dr. Sabben saw him, and took the same view. The subsequent history of Arthur O'Connor, and his present condition, seem to have entirely confirmed the correctness of our opinion.

Under an order from the Secretary of State, Dr. Tweedie and I examined Arthur O'Connor on the evening of his re-arrest. We found him excited and insane. The next day he was sent to Hanwell. There were obvious considerations that rendered it desirable that the matter should take the ordinary course, and not receive undue notice. Therefore neither of us reported the case; nor are we in the least aware how its details reached the columns of the BRITISH MEDICAL JOURNAL, and thence the general press. The case being published, I was justified in commenting upon it, especially in reference to the conduct of the then Attorney-General. I hope I did this in not unbecoming language. In my remarks, I did not "call in question" any one else, and Dr. Sheppard is not entitled to say that "Dr. Tuke naturally enough takes advantage of O'Connor's present insanity to justify himself and call in question what *others* said and did in this case three years ago".

Dr. Sheppard undertakes, then, not his own defence, but that of

Lord Coleridge; and the first excuse that he makes for the then Attorney-General is, that he acted upon "instructions". Now, this statement shows that Dr. Sheppard has entirely mistaken the object and purport, and has missed the one point in, my remarks. I contend that no instructions can justify counsel in treating medical witnesses, as they frequently do, with discourtesy and derision. Dr. Sheppard admits that my cross-examination by the Attorney-General was "caustic", but thinks it was "legitimate". It seems to me that it is not "legitimate" that the "head of the English bar" should set so bad example to the learned profession he leads, as to be "caustic" with a medical witness of repute, unless he have ample reasons. In this case, there were none.

Dr. Sheppard's next point is more specious. He says: "Dr. Tuke broke down so miserably in what he calls scientific testimony, and the counsel for the Crown took such skilful advantage of the circumstance", that the case was stopped. Now, admitting this to be true, cannot Dr. Sheppard see that it does not excuse the want of courtesy on the part of the Crown prosecutor? Moreover, it is a strange accusation for an apologist to make. The counsel for the Crown in treason-felony should strive only to elucidate the truth. To take "skilful advantage" of my ignorance or incompetence was to press hardly upon the prisoner; and it was surely absurd for the servant of Her Majesty, to labour strenuously to prove, that it was *not* an insane act in a hitherto inoffensive lad to meditate Her Majesty's death, and actually to hold a weapon within six inches of her forehead.

But, in truth, my medical evidence, in spite of Dr. Sheppard's instructions, was and is quite unshaken. Dr. Sheppard was present at the trial. His opinion of my evidence is no doubt honest; but the report of the case does not confirm it. It was remarked in many of the journals, as a matter of reproach, how nearly successful my "unfortunate" evidence had been; and the evidence of the *Saturday Review*, certainly no friendly witness for me, may perhaps settle the question. In its notice of the trial, it says: "If O'Connor had been on his trial for high treason, and liable, on conviction, to be hanged, it is by no means certain that Dr. Tuke might not have induced the jury to find the prisoner insane." Either Dr. Sheppard or the *Saturday Review* is much mistaken.

One quotation more from the same journal will show the true motive that led the jury to stop the case, and some of the public to think that I had tried to injure the poor boy I came to serve. The prosecution, by a series of ingenious questions, induced the belief that there was no alternative between Broadmoor for life and a verdict of guilty; this even deceived the journals, which did not know, or forgot, that the sentence would be imprisonment during her Majesty's pleasure, not for life, as the Attorney-General over and over again suggested. It may be forgiven me that, at the close of a long and acrimonious cross-examination, I failed myself to expose this fallacy, but that its effect was as I have said, is easily demonstrated. The *Saturday Review*, after summing up my evidence, says, "We have thus all the features that usually present themselves in cases where the attempt is made to obtain a verdict of insanity. But there is this important difference, that the consequence of acquittal on this ground would have been, in O'Connor's case, more serious than a conviction."

Passing from Dr. Sheppard's somewhat lame defence of the Attorney-General, I come to his own views of O'Connor's case. These seem very vague; he admits that there is "no doubt of the 'young fellow's' present insanity", he ignores the scientific evidence as to recurrent mania, and lays down the following proposition; "the real point is not whether O'Connor is now insane, but whether he was insane at the time of his trial in 1872". This restriction of his opinion to the time of O'Connor's trial is repeated three or four times in his letter.

As to O'Connor's present insanity, the facts that, after patiently hearing all O'Connor had to say, and giving nearly three hours to the examination of his case, Sir Thomas Henry sent him to Hanwell, where he has been certified as "imbecile"; and that O'Connor's own father, who wished him to be sent to Broadmoor in 1872, quite approved and supported Sir Thomas Henry's decision, render Dr. Sheppard's admission of O'Connor's present insanity very superfluous. In the face of my positive testimony from his insane words, deeds, and writings, that O'Connor was insane before, at the time, and after he assaulted the Queen, Dr. Sheppard's negative testimony that he could find no symptom of insanity at "the time of the trial", seems trifling with a serious subject. If Dr. Sheppard write again, let him address himself to the main points of medical and public interest in this painful case. These are, first, the future of the boy, will he recover, or is it now too late? secondly, was he insane or not when he assaulted the Queen? and, lastly, whether the advisers of the Crown did not at his trial, contrary to very strong medical evidence, take a course ostensibly humane, but in reality ruinous to the boy, and fraught with very great danger to her Majesty?—I am, sir, your obedient servant,

37, Albemarle Street, W. HARRINGTON TUKE.

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SIR,—Professor Sheppard is happy in being invariably in harmony with public opinion. Three years ago, when Arthur O'Connor was condemned as a criminal, he maintained him to be of sound mind. To-day, when "the young fellow" is shut up in a lunatic asylum, he pronounces him insane. And there is no inconsistency in this change of front. Three years ago, Dr. Sheppard, in the *Lancet*, carefully "hedged" this position against all contingencies. To-day, a contingency has arisen, and he hopes to reap the reward of his prudence.

And yet his letter in your columns will give more pain than gratification to his friends. It reveals that what had been regarded as an instance of legal ignorance and bad taste, was really the result of medical prompting; and that the causticity of the Attorney-General in cross-examining Dr. Tuke had its fountain at Colney Hatch.

But, after all, the real point is, Was O'Connor insane at the time of his trial in 1872? Was he responsible for the crime with which he was then charged? I am afraid no elegance of diction nor speciousness of reasoning will now justify the answers which Dr. Sheppard then returned to these important questions. The very act for which O'Connor was tried and punished in 1872 he was preparing to repeat when taken into custody a few weeks since. If that act be now found to be bound up with his insanity, there is surely strong ground for believing that it was similarly bound up on the former occasion. If it be a manifestation of madness now, surely it was equally a manifestation of madness then. The plain common-sense conclusion is, either that O'Connor was insane in 1872, and ought to have been sent to an asylum, or that he is sane now, and ought to be punished.

Then, if O'Connor were not insane in 1872, why was not the penalty awarded to him fully carried out? Why did he escape the birching which must have been so beneficial to him, had he been only "the young fool" which Dr. Sheppard represented him to be; and how came the Crown, advised by Dr. Sheppard, to shorten the term of his imprisonment? It is clear that the prison officials speedily discovered that O'Connor was not *compos mentis*, nor Dr. Sheppard infallible. Since his conviction, O'Connor has had the gentlest of "handling", to use Dr. Sheppard's choice term; and there is no pretext for saying that his insanity is a thing of recent growth. Immediately on his liberation, he was sent to Australia; and as soon as he reached that colony, he began to write letters which contain unmistakable proofs of mental aberration.

I think the verdict of the medical profession will be that Dr. Tuke is fairly entitled to his triumph, and Dr. Sheppard to credit for whatever sagacity he displayed in the case.—I am, Sir, your obedient servant, J. CRICHTON BROWNE, M.D.Edin.

West Riding Asylum, Wakefield, May 29th, 1875.

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SIR,—Dr. Sheppard has written a characteristic letter to your widely circulating JOURNAL, and has not had the discretion to remain in that obscurity which I should have thought would have been grateful to him after the recent events which have come to light in relation to the career of the boy O'Connor; and, as Dr. Sheppard mentions my name and impugns the correctness of the evidence I gave upon the occasion of the boy's trial in 1872, it becomes necessary for me to offer some explanation of facts which do not seem to be within Dr. Sheppard's knowledge, and of which the public are ignorant.

It would be an indication of bad taste upon my part to do more than allude to the bad taste shown by Dr. Sheppard in his letter. To me, it seems that his allusions to a man of Dr. Tuke's eminence might have been characterised by more courtesy than Dr. Sheppard has thought fit to show. Such phrases as "I do not pretend to say that Dr. Tuke is not infallible", and "Dr. Tuke broke down so miserably", are scarcely seemly; and, even when taken in connection with the rest of Dr. Sheppard's letter, they must, I think, be considered as wholly unjustifiable.

Dr. Sheppard had his triumph on the occasion of the trial, when the boy O'Connor, who was pronounced sane by Dr. Sheppard, was convicted. It is somewhat unfair to grudge Dr. Tuke his triumph now, when the circumstance that the then prisoner is now admittedly insane is held by us to be the strongest proof that he was insane in 1872.

But I note one circumstance in connection with Dr. Sheppard's letter which is worthy of consideration. He mildly chaffs Dr. Tuke for forgiving Sir John Duke (now Lord) Coleridge, but with some assurance he pronounces upon the legitimacy of the then Attorney-General's cross-examination of Dr. Tuke, and also speaks favourably of the way in which he conducted his case. This makes me think that it may be said of Dr. Sheppard as it was said of another great man, recently deceased, that "science was his forte, omniscience his foible".

I agree with Dr. Sheppard in thinking that the real point which has to be determined is not whether the boy O'Connor is insane now (that is admitted), but whether he was insane at the time of the trial in 1872; but I do think that the fact that he is insane now is a very material circumstance in arriving at a conclusion as to who was right upon that occasion.

But, further, the evidence upon which he is held to be insane now is precisely similar to that upon which he was held to be sane then. O'Connor has shown no new symptoms of insanity. He has again placed himself in a position in which he might converse with, frighten, or injure the Queen; but, so far as I know, he has done nothing more to prove the abnormal condition of his mental state now than he had when he was tried at the Central Criminal Court. The diagnostic acumen which can discover indications of insanity in the recent conduct of this boy and could not discover insanity when instructed to examine him "by the Treasury" is, to say the least of it, somewhat curious. The reasoning faculty which can from two sets of similar facts arrive at two dissimilar conclusions certainly deserves the name of "expert".

Dr. Sheppard supports his argument as to the correctness of the views he entertained in 1872 by saying that the "scientific evidence" "signally failed to convince a jury that the plea of insanity was justifiable". Now, in reference to this statement, some explanation is necessary. Sir John Coleridge, upon the occasion of the trial, with the ability for which many have given him credit, but which will no longer be doubted now that Dr. Sheppard has admitted it, placed this alternative before the jury. I do not remember his words, but I am certain of his meaning. He said that, if the jury believed the medical evidence and found O'Connor insane, the poor boy would be incarcerated for life in an asylum; while, if they found him sane and responsible for the act he had committed, he would get some much less severe punishment. He made it appear that the prosecution was on the side of mercy, and that the prisoner might well pray to be "saved from his friends". He left the jury to find a verdict of sanity as being kinder to the prisoner than an acquittal on the ground of insanity would be. It was upon that basis alone that the medical testimony was disregarded, and it was owing to that circumstance that a verdict of guilty was returned, that a sentence of a year's imprisonment was pronounced, and that the boy was again allowed to go at large and again imperil the life of our Queen. Dr. Sheppard is to be congratulated on his success.

This may have appeared a proper line of prosecution to the then Attorney-General; but, to the medical, and I should say the judicial, mind, it seems most unfair; and Dr. Tuke's advice to the English bar seems called for. The jury have nothing to do with the punishment which is to be awarded. The question which is put to them is, "Do you find the prisoner guilty or not guilty?" and with the answer to that question the sentence which may be passed by the Court on their returning a verdict of guilty has nothing whatever to do. I cannot but think that the recent conduct of O'Connor has been a commentary not only on the "medical instructions" which were given to the Attorney-General, but upon his conduct of his case. The mercy which he induced the jury to show has jeopardised the life of the Queen. The science which we would have had them believe might have been the means of making this insane youth a good and useful member of society.

With reference to what Dr. Sheppard says as to the non-appearance of Dr. Maudsley in the witness-box, a word or two must be said. Perhaps they might have come more gracefully from Dr. Maudsley himself; but, as he remains silent, some one must speak. I never had the advantage of any conversation with Dr. Maudsley as to the mental condition of the boy O'Connor, and I certainly should be surprised if Dr. Sheppard's memory of the conversation he says he had with him were correct; for I had the privilege of reading a copy of a very able report or deposition of Dr. Maudsley, which placed in a very strong light the mental alienation of the accused; and to this day I do not know why Dr. Maudsley did not go into the witness-box to give the evidence publicly which he had supplied to the solicitors who conducted the defence. I may say that, notwithstanding the emphasis Dr. Sheppard places on the "I" in his sentences, some credit must be given to those who differed from Dr. Sheppard in opinion as to this insane boy. I examined him with great care in the presence of Mr. Henry Smith and Mr. Gibson, and, from physical and mental symptoms, I came to the conclusion that he was insane. Dr. Sheppard admits eccentricity, admits unfavourable hereditary proclivities, weak bodily frame, and he admits that he is now insane: is not the inference stronger than any reasoning of Dr. Sheppard that he was insane at the time he examined him in 1872, and that Dr. Sheppard did not discover it?

I do not wish to accumulate evidence, but it would be easy, from repetition of the conversation I had with O'Connor upon that occasion, to prove that he entertained similar delusions then to those which he entertains now, and that he was labouring under the same disease which has now rendered his confinement in Hanwell a necessity.

I am, sir, your obedient servant, J. T. SABBEN, M.D.

Northumberland House, Stoke Newington, N.

## THE CONTAGIOUS DISEASES ACTS.

SIR,—Inspector-General Lawson's speech at the Royal Medical and Chirurgical Society, in reply to my general statements as to the sanitary results of the Contagious Diseases Asts, was so important, that I have delayed answering it until I was able to re-examine the Army Returns with the care necessary for replying to his criticisms. This I have at length done, and now forward my reply, His speech is reported in the JOURNAL of April 17th, and I will answer his objections as they were there reported. At the commencement of my own speech, I handed copies of the accompanying "Comparison of the Amount of Disease before and since the Acts" to the President and members of the Society; and, as no answer was made to the statistics relating to the navy, and none has been made in the medical journals, we are forced to conclude that they cannot be disputed; and that, as regards the navy, the worse than failure of these Acts stands confessed. The increase of disease and of deaths among the registered prostitutes since the Acts was also unchallenged, and this also must be accepted as proved and admitted; and no attempt was made to disprove the increase of gonorrhœa in the army, which is frankly admitted in the Army Returns year after year. Mr. Lawson's speech was addressed, so far as I am concerned, to the statements respecting secondary syphilis in the following "comparison", and to the chart of curves illustrating primary venereal sores in the army from 1860 to 1872, of which I distributed copies to the meeting, and of which I forward a copy with this letter.

*Comparison of the Amount of Disease before and since the Act.*

HOME ARMY.

| BEFORE THE ACTS. | SINCE THE ACTS. |
|---|---|
| *Primary Syphilis* in the Home Army *fell* from 119.17 per 1000 in 1861 to 78.53 per 1000 in 1866; above one-third, or an average of 6.77 per 1000 yearly. | It *rose* 8 per 1000 in 1867, but has fallen upon the whole from 78.53 per 1000 in 1866 to 68.94 per 1000 in 1872; *i. e.*, not quite one-eighth, or 1.37 per 1000 yearly, instead of 6.77. |
| *Secondary Syphilis fell* from 32.68 per 1000 in 1861 to 24.73 per 1000 in 1866, or one-fourth. | It *rose* 2.87 in 1867, or one-ninth, and is now (1872) only 0.47 lower than it was in 1866; and the *average* of the six years since the Act is *one-sixteenth* higher than before it was passed. |
| *Secondary Syphilis* was 1 case in every 3.32 of venereal sores, on the average of eight years before the Act. | It has risen to 1 case in every 2.90, on the average of six years since the Act. |
| *Gonorrhœa fell* from 111.66 per 1000 in 1861 to 98.43 per 1000 in 1866, or one-eighth. | It *rose* 14.2 per 1000 in 1867, or above one-seventh. It is now 0.31 per 1000 *higher* than in 1866, and *is higher in the protected than the unprotected stations.* |
| The constantly sick from the *Syphilitic Group* (*i. e.*, primary, secondary, and bubo) *fell* from 15.95 per 1000 in 1861 to 10.76 per 1000 in 1866; *i. e.*, one-third, or 1.04 per 1000 yearly. | The mode of keeping the army returns has been changed, and an exact comparison cannot be made; but the *constantly sick* from *Primary Syphilis even in the protected stations* has only fallen from 5.09 per 1000 in 1868 to 4.56 per 1000 in 1872; or only 0.13 per 1000 yearly, just one-eighth of the annual fall throughout *the whole unprotected* army before the Act. |
| The *Gonorrhœal Group* (*i. e.*, gonorrhœa, swelled testicle, and stricture), *fell* from 7.5 per 1000 in 1861 to 5.43 per 1000 in 1866, or above one-fourth in six years. | There are no means of ascertaining the ratio of constantly sick since the Act, owing to the changed method of keeping the army returns; but, as gonorrhœa has increased, it is not to be supposed that the constantly sick from it have diminished. |

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| The invalided from *Secondary Syphilis* were 7.19 per 10,000 in 1866. | They were 7.81 per 10,000 in 1872, or increased one-twelfth. |
| From *Primary Syphilis* and *Gonorrhœa*, the number is so few as to be of no value in the question; often not one case in a year. | |

NAVY—HOME STATION.

| BEFORE THE ACTS. | SINCE THE ACTS. |
|---|---|
| *Primary Syphilis* was 53.4 per 1000 in 1866. Its previous proportion is not given in the Navy Report. | It was 39.5 per 1000 in 1873, or a *fall* of one-fourth in seven years, which is a smaller fall than in any other navy station where there has been a fall, and there are many. In the Mediterranean station, which is also protected, it has *nearly doubled* since the Act. |
| *Secondary Syphilis* was 15.7 per 1000 in 1866. Amount not previously given. | It was 15.3 per 1000 in 1873: a *fall* of one-thirty-ninth in seven years. |
| *Gonorrhœa fell* from 34.8 per 1000 in 1862 to 20.4 per 1000 in 1866, or two-fifths in five years. | It has *risen* from 20.4 in 1866 to 51.1 per 1000 in 1873, or *much more than doubled.* It has also *doubled* in the *protected Mediterranean* station. |
| The constantly sick from *Primary Syphilis* were 6.3 per 1000 in 1866. | *Fell* to 4.1 per 1000 (or one-third) in 1873. |
| From *Secondary Syphilis,* were 1.4 per 1000 in 1866. | *Rose* to 1.7 per 1000 (or one-fifth) in 1873. |
| From *Gonorrhœa,* were 0.9 per 1000 in 1866. | Rose to 3.3 (or above threefold) in 1873. |
| The invalided from *Secondary Syphilis* were 1 per 1000 in 1866. | *Rose* to 1.4 (or above a third) in 1873. |
| From *Primary Syphilis,* no cases in 1866. | Have averaged 5 cases *per annum* since 1866. |
| From *Gonorrhœa,* no cases until 1871. | 9 cases in 1872, and 6 cases in 1873. |

Inspector-General Lawson urges the following objections.

1. "In stating that the average annual fall in primary venereal sores in the stations under the Acts had been much greater before the Acts than since, and in his statistics generally, Dr. Nevins had compared single years—1866 and 1872. He had compared a minimum with a maximum year."

In the diagram of the curves of disease in the subjected stations, it is immediately evident to the eye that, with the exception of Maidstone (an extremely small and unimportant station), Winchester, and Canterbury (also small stations), and Colchester (also a comparatively small one), the fall in disease has been remarkably regular from 1860 to 1872; for, although there have been fluctuations, they have been small in amount, and have scarcely interfered with the regularity of the fall; and in Devonport, Portsmouth, Woolwich, Aldershot, Cork, and Shorncliffe, containing, on the average above thirty thousand men, the annual rate of fall before the Act was above twice as great (66 to 31) as it was after the Act; while in Chatham, the Curragh, and Dover, containing, on an average, little more than a third of this number, the rate of fall was slightly larger (26 to 21) after than before the Act. That is to say, in six large stations, primary venereal sores fell above twice as fast before the Act, while in three smaller ones they fell one-fourth faster after the Act. Windsor has no history for comparison before the Act, and must be left out. Mr. Lawson and Dr. Balfour have both commented upon the fact that small stations fluctuate greatly, and are, therefore, of comparatively little weight; and this is remarkably shown in the three small stations of Canterbury, Winchester, and Maidstone (averaging about eight hundred men each), in which the fluctuations have been so great as to render averages of little or no value either to advocates or opponents. And this leaves Colchester to complete the list of protected stations. This town contains about two thousand troops, and its fluctuations have been extraordinary. For eight years previous to the Act, disease was uniformly below its standard in 1860—generally much below it; but it was 2.0 higher when the Act was introduced than in 1860. It had begun to fall again before the Act was introduced; and this fall continued with almost unexampled rapidity for three years, though it is now rising gain. The total result of the whole fourteen stations is, that the average fall in primary venereal sores was so much greater before the Act than after it, that the loss in improvement since the Act has been ery large. This was the substance of the statement respecting primary venereal sores, to which Mr. Lawson made the objection that it was fallacious to compare single years—1866 with 1872. Now, in looking at the diagrams of the curves of disease in the stations under the Act, it appears to me to be most evident that the fall has been so far uniform that it is a perfectly fair and by far the most truth-yielding method that can be adopted, to compare the amount of disease in 1860 (the first year when the Army Returns were published in a manner satisfactory to their authors) with, not 1866 as an arbitrarily selected year, but with the amount of disease in the year, whatever that might be, in which the Act was put in force in each particular station; and, again, to compare the amount at that date with the latest year that has been officially published. This is what I have done throughout; and, in order to test the fairness of the process, I have compared other years together in every station; viz., 1865 with 1871, and again 1864 with 1870; and I have adopted other test-methods of comparison, which are described in detail in the new edition of my "statement" now in the press. In every case, the result comes out against the Acts in as unfavourable a proportion as that stated above. I am well assured that no different method of comparison will give equally truthful results.

2. But it is said by Mr. Lawson that I have compared a minimum with a maximum year; viz., 1866 with 1872. This objection is correct in but few instances. The year 1866 was taken sometimes because the Act was passed in that year, and put an end to changes in disease independent of legislation, and sometimes because the Act was put in force in the year. I have used it on this latter ground for four stations only; viz., Devonport, Portsmouth, Chatham, and Woolwich. 1867 was used for Aldershot; 1868 for Cork and Shorncliffe; 1869 for Curragh and Colchester; and 1870 for Dover, Maidstone, Winchester, and Canterbury; because they were the years in which the Acts were put in force in those places. And, while 1872 was used in the discussion in the Royal Medical and Chirurgical Society because it was the latest published year, 1871 was used throughout in the first edition of my "statement", when it was presented to Mr. Cross, because the Army Report for 1872 was not then issued. As a matter of fact, also, 1866 is a minimum year in only seven out of the twenty-eight stations under discussion, the minimum having varied in the other stations from 1864 to 1870. So also 1872 is a maximum year in only a portion of the stations; for it is below 1871 in Portsmouth, Chatham, Aldershot, the Isle of Wight, Edinburgh, Sheffield, and Athlone; and the comparison between 1865 and 1871, and between 1864 and 1870, mentioned above, is a further conclusive answer to this objection.

3. Dr. Nevins "had not shown that any reduction would have taken place if the Acts had not been in force." The reduction which every advocate of the Acts is obliged to acknowledge as having taken place throughout the army previous to 1866, before the Acts were passed, is itself an answer to this objection. But, as Mr. Lawson adds, "no conclusion could be come to as to the course of venereal disease, unless it were studied when not interfered with by the Acts". I may reply that there was no interference by the Acts before they were put in force, and that the fall in disease continued until 1867 in Aldershot, 1868 in Cork, and 1870 in Dover and Maidstone; *i.e.*, up to the time in which the Acts were introduced into these stations. In the stations which have never been under the Acts at all, the fall in primary venereal sores has been large and continuous; for the average of disease in each of these unsubjected stations from 1860 to 1872, inclusive, has been lower than in 1860 by one-seventh in Limerick and Athlone, one-sixth in the Isle of Wight, one-fifth in Warley and Dublin, one-fourth in Preston, one-third in Pembroke Dock, Edinburgh, Hounslow, and Sheffield, two-fifths in Fermoy, and three-sevenths in Belfast. The one exception to a reduction in every station is Manchester, in which there has been a rise of one-twelfth. And, lest it should be said that the reduction has not been continuous, but stopped with the so-called minimum year of 1866, I may add that, dividing the thirteen years into two periods, the average of disease was lower in the second six years than in the first in Warley, Pembroke Dock, Edinburgh, Limerick, Belfast, Hounslow, Athlone, Manchester, and Dublin (nine stations, including Dublin), while it was higher in only the Isle of Wight, Preston, and Sheffield (three small stations without a single large force among them).

London is not mentioned amongst these unsubjected stations, because it is impossible to compare its circumstances with those of any other place in the kingdom, and because the rates of disease have differed so widely and consistently between different bodies of men stationed there at the same time and exposed to the same absence of protection by Contagious Diseases Acts (viz., the Household Cavalry and the Foot Guards) as to show that it is not the presence or absence of these Acts, but the character of the men, that has caused venereal sores to be habitually about three times as numerous in one body as the other, and that has made the Household Cavalry uniformly the most free from disease (though stationed in London) of any body of soldiers in the United Kingdom.

4. "Dr. Nevins said that secondary syphilis had become more frequent; but he" (Mr. Lawson) "drew a different conclusion from the returns. There had been a change of nomenclature, which Dr. Nevins had perhaps overlooked. Before 1869, secondary syphilis was returned under three heads: secondary syphilis, syphilitic iritis, and syphilitic cachexia. In five years before the Acts, the ratio of secondary disease was 34 per 1000, while in five years since the passing of the Act the annual rate was 25 per 1000"—a considerable reduction surely.

I have carefully re-examined the Army Returns, and the change of nomenclature to which Mr. Lawson refers does not affect the fall of one-fourth between 1861 and 1866, and barely affects the subsequent rise (only reducing it from one-twelfth to one-sixteenth). Secondary syphilis was undoubtedly much higher on the average of five years before the Acts than during the five years succeeding it, as stated by Mr. Lawson; but it had fallen from various causes (though not from the Acts, which had not been passed) from 32.68 per 1000 in 1861 to 24.73 per 1866, having been higher in intermediate years; and, since that date, *i.e.*, since the passing of the Acts, the fall has practically ceased, the average of the whole six years since the Acts having been 26.3 per 1000, which is higher by one-sixteenth than it was before the Acts were passed, and the latest published ratio (1872) being 24.26 per 1000, only 0.47 per 1000 lower than in 1866, after six years' operation of these Acts, for which such credit is claimed by their advocates for the reduction of those most serious forms of disease which affect innocent wives and helpless children, and descend, we are told, from generation to generation.

5. "In considering the question of the number of men under treatment, Dr. Nevins had again compared 1866 with a subsequent year, without noticing the intermediate period."

Mr. Lawson refers to my statement in the "comparison", that the number of men daily in hospital for primary venereal sores had only fallen from 5.09 per 1000 in 1868 (not 1866) to 4.56 per 1000 in 1872, or less than half a man per 1000 in five years; and he implies that the intermediate years would affect the result. He does not, however, call in question the accuracy of my statement, and I now add the intermediate years, in accordance with his suggestion: 1868, 5.09; 1869, 4.89; 1870, 4.46; 1871, 3.89; 1872, 4.56.

The remainder of Mr. Lawson's speech does not refer to statements made by myself, but states that a considerable proportion of disease treated in the subjected stations is contracted elsewhere. Upon this point, I must refer to the evidence collected from the Navy Reports for 1872, and published in my "statement" (paragraph 79), to the evidence from the navy for 1873, published in the *Medical Enquirer* of April 15th, 1875; to that given before the Venereal Commission, *Q.* 338, 5643, 5645, and before the Royal Commission, *Q.* 104, 424 (Waterford), and 474, 475 (answer), and to the comments upon the subject in the Army and Navy Reports: all to the effect that the men either do not know or will not tell the truth as to when they contracted disease. They will practise any evasion to escape from the odious position of betraying the woman with whom they have been partaking in sin. The total result of this renewed inquiry, after Mr. Lawson's criticism and the controversy in the BRITISH MEDICAL JOURNAL, is, therefore, that the navy is undefended from the proofs of worse than sanitary failure of these Acts, the increase of disease and deaths amongst registered prostitutes is unchallenged, the increase of gonorrhœa in the protected stations in the army is unchallenged; the fail in secondary syphilis previous to 1866, and its increase since that date, have been in some sense challenged, but remain established. The great fall in primary venereal sores previously to the introduction of the Acts in the various stations, and the serious check to the fall since the Acts were put in force in the large majority of stations, are established. The large fall in primary venereal sores in the stations which have never been under the Acts at all, commencing in 1860 and continued to the present time, is established. The asserted success of these Acts as sanitary measures either in the army or navy remains unproved from official data, while the proofs of their failure in every form of venereal disease remain unrefuted, and in most cases unchallenged from official data.

The inquiry into the amount of primary venereal sores in each of the subjected stations before and since the Acts is now completed, by the aid of the statistics furnished by the War Office; and, in accordance with my engagement to send you the results, whether favourable or unfavourable to my own views, I will forward them to you immediately after their presentation to the Government, which I hope will be next week. I shall then have concluded the task of inquiring into the sanitary results of these Acts in the army and navy, as shown by the officially published documents, and of communicating the results to the profession, under a deep sense of the responsibility involved in the inquiry: an undertaking that has entailed an amount of labour and anxiety, and has brought to light accumulated proofs of sanitary failure in this legislation, of which I had little anticipation at the beginning, when I first complied with the request of friends to prepare a statement on the subject for presentation to the Home Secretary.

I am, sir, yours faithfully, J. BIRKBECK NEVINS, M.D.Lond.

Liverpool, May 24th, 1875.

## ETHER AND CHLOROFORM.

SIR,—I do not consider it necessary to reply to Dr. Fifield's remarks in the JOURNAL of this day: first, because he has given me little or nothing worth replying to, except the opinions of a number of French surgeons, who are, if anything, more frightened and prejudiced, and certainly no better informed on the practice of chloroformisation than our transatlantic brethren; and, secondly, he has given me no facts of his own observing to prove the superiority of ether over chloroform as a general anæsthetic; in consequence, I shall limit myself to offering a remark or two on what he has written.

Dr. Fifield has made the best of my statement, that, out of hundreds whom I have witnessed administer chloroform, there are not six from whom I would take it. This militates nothing against chloroform, but simply against the practical skill of the administrators, which arises largely from the want of unanimity of opinion as to the best mode of administering it, and of resuscitating those in whom it may produce dangerous effects. I have taken chloroform repeatedly from Dr. Rawdon of this town, and I should do so again and again.

If Dr. Fifield were desirous of proving to us how great an authority he is, and how much practical experience he has had of the anæsthetic properties of chloroform, to render himself an unbiassed and unprejudiced judge in the matter, he would never have quoted the opinions of French surgeons by the dozen on the subject; a school of surgeons who are panic-stricken, and, like his own countrymen, frightened at the very name of the drug. Quoting Dr. Fifield's own words: "In 1870, when in Paris, I saw patients on hospital operating tables, one half or one quarter anæsthetised, undoubtedly from the instinctive" (panic-stricken) "conviction of the deadly nature of chloroform. The amphitheatres occasionally *resounded with their yells.*" (The italics are my own.) Observe the ruling prejudice in Dr. Fifield's mind in the words "instinctive" and "deadly". Really, if this, the Parisian school of medicine, is the model or ideal school of our American cousins, which it undoubtedly is, need we wonder at the extraordinary conclusions of Dr. Fifield? Need we wonder at his furnishing the British school of thought and practice with hints on anæsthesia by means of our own discovery—chloroform—from a school which, however great its other acquirements, knows nothing whatever about the subject, and certainly nothing to warrant its being quoted as an authority. Only fancy as a proof of its authority: in 1870, after twenty-three years' experience of chloroform, the Parisian amphitheatres occasionally resounded with the yells of those operated on under chloroform. A splendid school is this same Paris to learn the practice of anæsthesia by means of chloroform! Dr. Fifield may there find plenty of rich food on which to feed his prejudices; I should only receive an emetic, none the less efficient because served up in French sauce. It is quite refreshing to read of the plans invented by the French in order to get the better of their own fears. Narcotising the patient with chloral is ingenious, but I cannot see how it in any way obviates or even modifies the dangers of chloroform or any anæsthetic: and I quite agree with M. Demarquay that chloroform or ether alone are sufficiently to be dreaded without the additional risk of chloral or any other drug. The simple fact of the matter is, that the French and Americans have succeeded well in frightening their patients into fits about imaginary dangers of chloroform; and then they complain, when they come to administer it, of the refractoriness, and fearfulness, and prejudices, of their patients. As a *dernier ressort*, they are driven to narcotise the fears and prejudices which they themselves have been the instruments of initiating. "As ye sow, even so shall ye reap." "They that sow the wind, shall reap the whirlwind." It is to be hoped that British surgeons will be a long time before they follow such would-be leaders of the fashion in anæsthetic surgery, or even listen to their advice.

Dr. Fifield, I repeat, has made the most of my remark about the little faith I have in administrators of chloroform; but I hold that one great cause of the accidents by chloroform lies in the incompetency of the administrators. No man has a right to give to another that which he would not take, or have given to him, under similar circumstances; and, if a man have any doubts of his skill in the manipulation of chloroform or in the agent he is using, he ought undoubtedly to hand it over to another who has the requisite skill and confidence. No man has a right to condemn chloroform simply because he does not know how to apply it, or has not seen it used in skilful hands; or who will not use it, on the principle of the simpleton of Hierocles, who would not touch water until he had learned to swim. Dr. Fifield has alluded to the necessity for air-bags and other special mechanical apparatus, which are all of them conceits of the inventors. The means employed cannot be too simple. What we really want is the means of instruction in anæsthesia by men in no way pledged to any discovery or special anæsthetic; and who ought to give practical superintendence and instruction to our students of medicine and surgery in hospital practice, turn and turn about, during operations. Another desideratum is, that some universal system should be adopted, which has received the approval of a committee selected from the ruling powers of the three metropolitan universities of London, Edinburgh, and Dublin, with such additions of men as are known to have a thorough practical acquaintance with the anæsthetic properties of ether, chloroform, and bichloride of methylene in particular. All new anæsthetics would require to have the sanction of this body, or ought to pass muster before it, before being made public property. It is nonsense to talk of any anæsthetic, ether not excepted, being free from danger; the sensorium cannot be paralysed without more or less of danger, and that, too, with a very small quantity of any anæsthetic. I for one, however, decidedly object to any man, with any pretensions to being unprejudiced, belonging to any nation under the sun, and more especially hailing from the very hotbed of antichloroformism, with every breath which he exhales, denouncing chloroform (the greatest boon that mankind ever received) as in its very nature "deadly", and associating every idea he has of it with "death" and "unsightly corpses", and the like dramatic, pseudo-sentimental, extravagant, stage-effect, and one-sided language; for it is no argument, but vulgar declamation, and is altogether unworthy of any man; and, although Dr. Fifield may speak well of our brains and of our hearts, it must not be forgotten that there is such a thing as "bunkum" in America, and that it is cheap, and generally sold wholesale.

Dr. Fifield has given us a string of notables of the French school, and has shown us how familiar he is with their names; but that is not what we want—the names and opinions we take for what they are worth. We want facts; and the only facts he has furnished us with go most certainly to prove that he is at present in the wrong school to improve his knowledge of chloroformisation—an art the veriest rudiments of which he has still to learn, and which he is not likely to learn, so long as he searches for the facts which serve only to confirm him the more in transatlantic prejudices, which have long been indigenous to the soil.—I remain, Sir, yours truly, THOMAS SKINNER, M.D.

Liverpool, May 29th, 1875.

## HOSPITAL ABUSES.

SIR,—The subject of hospital-abuse is in a fair way of receiving the attention of the Association, and, I trust, of obtaining, through its influence, a much larger amount of public interest than it has hitherto had. But I am anxious to call attention to the fact that a large proportion of those who write on hospital-abuse seem to ignore that form of the abuse which concerns the in-patients of our hospitals, and treat only of out-patients. Now I maintain, from an experience of thirty years, that thousands of people enter our hospitals as in-patients who are quite as ineligible as those who frequent the out-patient departments; and in so doing, they not only deprive proper recipients of those peculiar advantages which hospitals are adapted to confer on the really poor, but they also waste, in a much higher degree, the pecuniary means subscribed by the public.

If it were necessary, I could adduce most flagrant instances of this abuse; but I feel sure that the experience of hospital physicians and urgeons bears abundant testimony to it. I therefore ask that, when his matter is discussed, means should be suggested to exclude these mpostors from the wards of hospitals, even more than the intruders of he out-patients' room. The meanness so characteristic of this age nds but little difficulty in obtaining the gratuitous assistance of our rofession in every imaginable way; and is always ready with a specious nswer when it is detected. How often one is met by the reply of those who, filching us at hospitals, are content to cover their deception by aying that they "come there only for the best advice", and "have no lea of doing wrong". No amount of argument will convince these ophists that hospitals are not founded and endowed for them; they epart, as injured innocents, to less mercenary doctors.

Then, as it is so easy to impose on public charity, as well as on us, hat precautions are taken by the lay-authorities of hospitals to check his abuse? I maintain that, as a rule, no effective means are adopted. Were this done, there would be far more available help for the needy. he funds of hospitals, and the services of our profession, would then be more commensurate with the claims on both. Were the same zeal used in expending with care and discretion the amazing sums devoted to the sustentation of hospitals as in obtaining the money, I have no hesitation in stating my belief that there would be no necessity for that clamorous begging that daily meets one's gaze in every newspaper. There is a growing suspicion that hospitals are extravagantly managed, and a corresponding disinclination to contribute the means of maintaining them. In every direction we hear of abuse. What can thinking people say to the preposterous numbers the hospitals profess to relieve? Yet the competition is so great that these absurd pretentions are considered necessary to enable the managers to obtain the required support, and falsification becomes a necessity; patients must be registered afresh as new cases every few weeks to swell the numbers.

It may well be said, How can such masses be attended by so few doctors? Thus arises a dilemma: either the numbers are incorrect, or the attention inadequate. Which is the less damaging admission?

The profession may well complain that in London and other large towns all patients are gradually drifting to the hospitals; and the normal business of the doctors will soon be that of giving gratuitous advice.

I am, Sir, yours faithfully, J. C. WORDSWORTH.

London, May 1875.

## MEDICAL QUALIFICATIONS.

SIR,—To any one who has read the discussion in your columns on medical titles, and who brings any kind of reflection to bear on the matter, it must seem somewhat remarkable that, at the present time, there exists for the public, who are yet deeply interested in the question, the greatest difficulty in determining the value of any of the various qualifications in medicine and surgery possessed by the men who offer to perform for them medical services. No fewer than nineteen different bodies are still licensed, and act in the terms of such license, to grant qualifications to practise medicine and surgery, one or both; and, notwithstanding the passing of the Medical Act of 1858, and of various subsequent acts to amend the same, all of which have confirmed the said bodies in their power of licensing to practise, no steps, or, at least, none of any value, have yet been taken to ensure that such licenses shall come up to any given standard, or that the public shall be able easily to judge of the value of that standard. No doubt regulations have been laid down by the various licensing bodies, which have had in the main the effect of raising the standard of a license to practise; but it is fair matter for complaint that as yet no steps have been taken to ensure uniformity of value, or to determine what that value is. This appears to me to depend chiefly on the facts (1) that the licensing bodies have been allowed to make their own regulations, and (2) that the teachers in the different schools are also the examiners of candidates for qualifications to practise. As to the first point, it seems to me to be imperatively the duty of Government—especially since, by the passing of the Medical Acts, they have interfered at all in the matter—to determine the standard of qualification which they will allow to be registered; and as to the second, it is equally incumbent on them, I think, to determine whether that standard is attained. Teachers, in the nature of the case, are not fair judges of their own pupils. They will either be too lenient to the students who have been successful in obtaining class-honours, since it would reflect on themselves to reject them; or they will be too severe to those who have not gone in for class-work, since such behaviour on the part of pupils seems to be a reflection on the mode in which teachers conduct their classes. Not that I would, for a moment, be understood to imply that these temptations have had any appreciable effect on the fate of candidates at graduation or licensing examinations; for I believe, on the contrary, that they have been as fairly conducted as such tests can be. But it does appear that the system which puts such a strain on teachers and pupils both is one which ought not to be continued without a necessity far stronger than has yet manifested itself. And the remedy which ought to be applied would have the overwhelming advantage of ensuring an official and defined standard, where now we have only variable ones. The scheme which I would suggest, therefore, and to which you have already referred in your columns, would be that, first, the power of granting qualifications to practise should be taken from all the present licensing bodies. If it be objected, as probably it will, that this scheme would meet with strenuous opposition from all the present boards, I think an appeal to their good sense would have a great chance of succeeding, since it would be represented that some individual sacrifice would be required from all the interested parties in order that the general good might be furthered. Of course, an united and determined opposition on the part of the licensing bodies would be fatal to the scheme, at least for a long time to come. But even now I believe that opposition would not be unanimous, while it may fairly be left to the future to disarm so much of it as will by and bye lead to its adoption. And in truth there is no justification for alarm, since it is, secondly, not proposed to interfere with the teaching arrangements at the various centres. These would continue just as they are now; the only difference being that the teachers, as a body, would be relieved from the irksome and invidious work of examining their own pupils for the license or degree. Complaints have already, within my own knowledge, been made on this head, it being held by some of the examiners that such work, as it is properly extra to the professional work, ought at least to be paid for. This scheme would, of course, involve so much as that.

Now as to the constitution of the examining board. It ought to be a general body, an official body with a recognised status, and a representative body. We have precedent for the formation of such a board in the constitution of the Medical Council, which consists of seventeen representatives from the licensing bodies, six members appointed by the Crown, and a President elected by the Council. Details might, of course, be left for further consideration, but how would it work if the duties in question were to devolve on these twenty-four gentlemen? There would, of course, require to be special remuneration attached to the duties, which would involve the expenditure of much time and labour. The Medical Council might, in fact, consist of twenty-four Government officials, who should have, subject to the control of Parliament, supreme power in matters pertaining to medicine, and should be the centre of the State department of medicine. As regards graduation or license to practise, they should have power to delegate certain of their numbers, say three or four, to each centre, to the duty of conducting the examinations in the various centres where they are now held, and, so far as possible, at the same times. This would least interfere with the present arrangements, though it might be kept in contemplation to assimilate times of examination as much as possible, so that examinations might be conducted nearly at the same time in all parts of the country; and if the times were thrown into, say two periods of the year, the members of Council would be able to attend to their duties, and yet would not have their whole time occupied in examining. A sketch plan like this need not, of course, be too detailed; but it occurs to me that October and April would be good examination periods, since they fall just before and just after the winter session respectively.

Next, as to the standards of examination themselves. An examination of the regulations of the licensing bodies shows that they resolve themselves into classes corresponding with stringency of examination, both medical and literary. Oxford, Cambridge, and Dublin, for instance, do not grant degrees in medicine without a previous degree in arts; while the London matriculation examination is scarcely, if at all, inferior to a degree in arts. In the case of some other bodies, on the other hand, the preliminary examination is slight enough. Then as regards the professional examinations themselves, they also vary in stringency; some bodies, for instance, allowing candidates to present themselves for examination after a period of study extending over three winters and two summers, while the majority demand at least four years' study before they will admit to examination. It is doubtful whether less than four complete years of study should ever be considered sufficient to entitle a man to present himself for examination for a license; and it becomes a question, therefore, whether it would not be better to abolish this power altogether. In point of fact, under the new scheme, the question would not be an important one, for the reason that the standard of what would then be the official examination would probably be raised so much that no one would try to come up to it with less than four years' study. And, indeed, this might be given as a reason for imposing no restrictions whatever as to the time spent in study; since having the knowledge is the important affair in the case of a candidate for license, and not any question as to how he came by it. The examination ought to be so practical that no merely crammed man could pass it, and yet so scientific that no mere empiricist could get through simply because he had seen a good deal of practice.

Leaving for the present, however, the question of what and how extended a period of study should be demanded of candidates, I should propose, next, to have three standards, or, perhaps two, the second being subdivided into two parts. (*a*) For general practitioners: this would correspond in value with the present usual qualifications in the three kingdoms; that is, M.R.C.S. and L.S.A. in England, L.R.C.P. and S. in Scotland, and L.K.Q.C.P. and S. in Ireland. It would be a double qualification, and its holder, whatever the public chose to term him, might be officially recognised as "Mr." So and So. As to preliminary examination in Arts, this should be a fair and reasonable one implying a reasonable amount of general information. (*b*) For pure physicians (M.D.): a previous degree in Arts, or an equivalent examination, should be necessary. Much stress should be laid on medicine proper in its theoretical, practical, and what is often neglected, its historical bearings. The M.D. should not dispense, nor be in partnership with any one who does. He should, in short, correspond with the present pure physician, who generally is M.D., and M.R.C.P. He should be alone entitled officially to the title of "doctor". (*c*) The pure surgeon might take the C.M. (chirurgiæ magister) just as the physician the M.D. The standard of the C.M. should be as high on the surgical side as that of the M.D. on the medical. A preliminary degree in Arts, or its equivalent, should be necessary. I do not know whether some restriction might not be advisable as to allowing men to go up for the M.D. or C.M. before they have been qualified as practitioners for, say five years. A good deal could be said on both sides; and I, therefore, leave the question for the present. The C.M. should be officially "Surgeon" So and So.

Such, sir, is a sort of draft scheme to which you have been good enough to give some countenance. It appears to me to have a good many advantages over the present anomalous and unsatisfactory systems, particularly, of course, in the respect that it would substitute one recognised and more or less invariable standard for the numerous and variable ones which now obtain. Then it continues to recognise those grades which it is well for the profession to maintain, and which also coincide with the nature of things. I do not suppose it is not open to criticism; but if any of your readers will review it, I shall be only too glad to see what they have to say, and to adopt any suggestions which seem to commend themselves. Almost anything would be better than the present chaotic condition in which medical qualifications are.—I am, etc. M.A., M.D.

# PUBLIC HEALTH
AND
# POOR-LAW MEDICAL SERVICES.

A WELL-MERITED TRIBUTE.—At the last meeting of the Stourbridge Board of Guardians, the Chairman read a letter from Mr. Freer, resigning as a medical officer of the union, which he said he was sure the Board would very much regret, considering that he had discharged his duties courteously and faithfully for the long period of thirty-two years without a single complaint, and concluded by moving the following resolution, which was carried unanimously: "That the Board accept with regret the resignation of Mr. R. L. Freer, Medical Officer of the First Kingswinford District of this union, and desire to record upon the minutes of their proceedings their appreciation of the exemplary and satisfactory manner in which he has discharged his duties, and of his attention to the poor, during a period of upwards of thirty-two years."

## THE SHEFFIELD BOARD OF GUARDIANS AND THEIR MEDICAL OFFICERS.

A MEETING of the medical profession of Sheffield and the neighbourhood was held on Thursday, May 13th, 1875, to take into consideration the attitude which the Sheffield Board of Guardians have assumed towards their medical officers. The chief point at issue is an order from the guardians for the medical officers to a sign a card, to be retained by the patient, at each visit, which is to be a check on the medical relief book. There was a very numerous attendance. Dr. de Bartolomé was in the chair. The following resolutions were unanimously passed.

1. "That, in the opinion of this meeting, the remuneration of the medical officers of parochial districts is insufficient.

2. "That this meeting, whilst it entirely agrees with the view that students of medicine and assistants should not be allowed, previous to their legal qualification, to take responsible charge of the sick poor, respectfully suggests that, by excluding them altogether, a large field of medical instruction is closed; and hope is entertained that the Local Government Board will consider whether they cannot enlarge their orders so as not completely to shut out facilities which have hitherto existed for promoting the education of those younger members of the profession who are at some future time to take charge of the health of the public.

3. "That this meeting hopes that the Sheffield Board of Guardians will reconsider their resolution as to the use of cards to check the attendance of their medical officers, it being thought that such a course would destroy the good feeling and confidence which should exist between medical men and their patients, and would fail to afford any more accurate information than is at present furnished by the medical relief book.

4. "That copies of the resolutions be forwarded to the Local Government Board, the Sheffield Board of Guardians, and the medical papers.
5. "That the thanks of this meeting be given to the Chairman."

## POOR-LAW MEDICAL APPOINTMENTS.

Croly, H., L.K.Q.C.P.I., appointed Medical Officer to the Tinahely Dispensary District of the Shillelagh Union, county Wicklow.

Eaton, J. W., L.R.C.P.Lond., appointed Medical Officer for the Bingham Union Workhouse, *vice* H. Wotton, L.R.C.P.Ed., resigned.

Fox, E. C., M.D., appointed Medical Officer for the Newton Poppleford District of the St. Thomas Union.

Hemming, C., M.D., appointed Medical Officer for the Workhouse of the Second District of the Abingdon Union, *vice* H. M. Parkes, M.R.C.S.Eng., deceased.

*Luce, J. J., M.D., appointed Medical Officer to the Alveston District of the Stratford-on-Avon Union, Warwickshire.

Michell, George, M.R.C,S.Eng., appointed Medical Officer for the Gwennap District of the Redruth Union.

O'Farrell, Henry, L.K.Q.C.P.I., appointed Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Kiltormer Dispensary District of the Ballinasloe Union, county Galway, *vice* C. Sanderson, L.R.C.P.Ed.

Swan, Richard J., M.R.C.S.Eng., appointed Medical Officer to the Gosberton District of the Spalding Union, *vice* H. J. Calthrop, M.R.C.S.Eng., deceased,

# MILITARY AND NAVAL MEDICAL SERVICES.

## THE NAVAL MEDICAL SERVICE.

Sir,—You had a truly pleasant duty to perform when, in commenting on the new Naval Medical Warrant, you announced that the efforts of the British Medical Association for the amelioration of the naval medical service had been crowned with a large measure of success; and the Association, by your mouth, was well entitled to express the proud satisfaction that, in compelling a reluctant and hostile board to concede such an important point as the full admission of junior medical men to the rank and privileges of ward-room officers, the medical profession gave a new proof of its power when largely united, and ably led in the vindication of its rights. To you, sir, and the Association, the most grateful recognition and acknowledgment are due from every member of the service which you have so successfully striven to benefit; and into this apportionment of credit I strongly suspect the naval medical officers as a body will be disinclined to admit the claim of any participator, and least of all of the Admiralty, although that Board is described in a distinguished naval medical officer's letter of February 13th, as "deserving of the thanks of the profession". No, sir, "truth is truth to the end of time". Concessions from the Admiralty have in this instance, as ever, been obtained for the profession by the application of one force alone—that of professional compulsion; and it is altogether too late in the day to talk of thanking their lordships for anything we may get. Why, sir, your correspondent admits almost in his next breath that, "but for the powerful assistance of our professional brethren, we might long have remained unemancipated".

Sir, if, as Shakespeare avers, "a victory is twice itself when the achiever brings home full numbers", ours is not quite complete; for, while justice has been obtained for the men at each end of the ladder, the great intermediate body of medical officers, viz., the staff-surgeons, on whom probably the real brunt of service falls, remains unbenefited by the late warrant. Their complaint is, that while the executive officers arrive at commanders' rank at about from two-and-thirty to four-and-thirty years of age, the surgeon cannot arrive at that dignity much before forty-five; and they are deeply disappointed that, in projecting the new scheme, at least two years were not deducted from the obligatory twenty years of active service, which is still the qualification for the rank of fleet-surgeon. The inadequacy of position which has been removed from the junior is permitted with as much force as ever to weigh down the senior officer. We elderly men can remember the time when surgeons ranked with commanders, when "we bore our blushing honours thick upon us", and we can still recall with indignation the humiliating day when we were ruthlessly stripped of them. Surely the present was a fine opportunity for salving a still green wound; an opportunity, however, which has been unaccountably neglected.

Still, sir, with all I have said, and notwithstanding the great blot in he partial concession only of the twenty years' retirement, as you remark, a long step has been made in the right direction; and I cannot close my letter more appropriately than by quoting the words of your orrespondent above referred to, with whom I am sorry not to be able lways to agree, that "it is to be hoped that naval medical officers will never forget what is due to the British Medical Association during the eventful years 1874-5", for its part in the making of such a stride. —I am, Sir, your obedient servant,

Vultus in Hostem.

# MEDICO-PARLIAMENTARY.

## *HOUSE OF LORDS.—Friday, May 28th.*

*Vivisection.*—The Duke of Richmond, in answer to Lord Henniker, said that Bills were before each House of Parliament on vivisection, and that the Government had proposed to issue a small Royal Commission to inquire into the matter. Under these circumstances, it would be premature for their lordships to attempt to legislate until that Commission had reported in some way or other, and, therefore, he trusted his noble friend would not press on his Bill.—Lord Henniker apprehended that it would be deferential to their lordships if he agreed to postpone the second reading of his Bill for a month.

## *HOUSE OF COMMONS.—Thursday, May 27th.*

*Public Health Bill.*—The Committee on the Public Health Bill was resumed at Clause 199, and the remaining Clauses were, with amendments, approved and added to the Bill, which passed through Committee.

*The Public Health (Scotland) Provisional Order Confirmation* (*No.* 3) *Bill* passed through Committee.

### *Friday, May 28th.*

*Police Mistakes.*—Sir W. Fraser called attention to the evidence taken before Mr. Coroner Bedford, on the 27th of April last, at the inquest held on the body of Charles Farmar, found in the streets, and who, being suspected of drunkenness by the police, died on the same day of typhus fever; and to the evidence taken before Mr. Hardwicke, also on the same day, on the body of a woman, supposed to be Harriet Alice Hardy, found by the police when dying in the street, and charged by them with drunkenness. He thought it a reprehensible system that the difficulty of deciding between cases of illness and drunkenness should be left to the judgment of policemen.—Sir H. Selwin-Ibbetson replied that, in the first case, a constable endeavoured to conduct the man home from the police-station, but, not succeeding, he was taken to the workhouse, where he died. As regarded the unfortunate woman, she smelt strongly of liquor, and admitted that she had been drinking raw rum. She did not die in the cell, as might be inferred, but after being discharged by Sir Thomas Henry the next morning. She also was taken to the workhouse. The coroner's jury returned a verdict of "Died from the effects of drink and want of food". These facts should, in justice to the police, be stated.

# OBITUARY.

## WILLIAM HEY, F.R.C.S., Leeds.

Mr. William Hey died of heart-disease at his residence, Gledhow Wood, Leeds, in the seventy-ninth year of his age. He was born on December 23rd, 1796, in Leeds, and was, as is well known, the descendant of men celebrated in surgery. Like his grandfather and his father, Mr. Hey was for a great number of years on the surgical staff of the Leeds Infirmary, an institution which the first Hey was largely instrumental in founding. On his father dying in 1844, Mr. Hey succeeded to the practice. He had been appointed surgeon to the infirmary in 1830, and he held that position until 1851, when he resigned. His devotion to his professional duties in connection with the institution during the twenty-one years was recognised by a special resolution of the weekly board. His services to the infirmary were further recognised in 1864 by his appointment to the post of consulting-surgeon, and, as a permanent memorial of him, in 1868, his bust was placed in the institution, which also contains the statue of his grandfather. He was associated with Mr. Samuel Smith, Mr. Joseph Prince Garlick, Mr. William Price, and other well known surgeons in the town, in founding the Leeds School of Medicine, in which he was lecturer on surgery from the year 1831 to 1857. On the Provincial Medical and Surgical Association holding its eleventh anniversary in Leeds in 1843, Mr. Hey read the retrospective address in surgery. When the British Medical Association held its thirty-seventh annual meeting in Leeds in July 1869, Mr. Hey was president of the surgery section. Early in life, Mr. Hey evinced an ardent taste for music, and his love of the art led him to be a warm supporter of everything tending towards its cultivation in Leeds. He likewise took up scientific pursuits other than those connected with his profession. His grandfather, in December 1818, then within three months of his death, had presided over a meeting which resulted in the foundation of the Leeds Philosophical and Literary Society, and Mr. Hey was one of the earliest members of that society, and took an interest in its transactions and in the formation of its museum. He became a member of the council in the year 1825, and was re-elected on several occasions. The members appointed him a vice-president in 1835, and he occupied the same position in 1839.

Mr. Hey, in his early manhood, took an interest in politics, and became associated with those who were responsible for the government of his native town. His father was twice Mayor of Leeds in the days of the "Old Corporation". Mr. Hey for some years was a member of the new Town Council, and has been well known as a moderate and consistent Conservative. In 1853, Mr. Hey was made a deputy-lieutenant for the West Riding. In the spring of 1864, he was placed on the commission of the peace for the riding; his name also appeared on the commission for Leeds, but he never qualified for the borough. Throughout his long life, Mr. Hey was attached to the Church of England, and for a great number of years filled many positions of honour and responsibility in connection therewith. Mr. Hey was married in the year 1821 to a daughter of Mr. Thomas Roberts. She died in 1867, but left no family. He was the eldest of four brothers, one only of whom survives him—the Rev. S. Hey, rector of Sawley, in Derbyshire. Throughout his nearly fourscore years, Mr. Hey maintained an unblemished personal character, and he has passed away amidst the regrets of all his townsmen.

# MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, May 27th, 1875.

White, Edward Arthur, Norwich
Wright, William Henry, Skelmersdale, Lancashire

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual monthly examination meeting of the College, held on Tuesday, Wednesday, and Thursday, May 11th, 12th and 13th, the following were the successful candidates for the License to Practise Medicine.

Barker, Joseph Collin
Butler, Arthur
Ryan, William
Thompson, William
Williams, Thomas Edward Henry
Wright, William Henry

For the License to Practise Midwifery.

Barker, Joseph Collin
Doyle, Bernard
Nixon, George Michael
Thompson, William
Williams, Thomas Edward Henry
Wright, William Henry

## MEDICAL VACANCIES.

THE following vacancies are announced:—

ASHBY DE LA ZOUCH UNION—Medical Officer for the Second and Third District. Salary, £20 and £20 per annum.

BINGHAM UNION—Medical Officer for the Workhouse.

BRADFORD INFIRMARY AND DISPENSARY—Physician. Applications to be sent on or before June 12th.

CHELTENHAM GENERAL HOSPITAL AND DISPENSARY—Honorary Medical Officer at the Branch Dispensary. Applications on or before June 5th.

CHERTSEY UNION—Medical Officer forthe Windlesham District. Salary, £50 per annum.

COOTEHILL UNION—Medical Officer for the Drum Dispensary District. Salary, £100 per annum, and £25 as Sanitary Officer, with fees. Applications to be made on or before June 7th.

EVELINA HOSPITAL, Southwark Bridge Road—Registrar and Chloroformist. Salary, £50 per annum.

FROME UNION—Medical Officer and Public Vaccinator for the First District. Salary, £144 per annum, and Midwifery Fees. Applications on or before June 7th.

HONITON UNION—Medical Officer for the Fourth District.

KENT and CANTERBURY HOSPITAL—Assistant House-Surgeon and Dispenser. Salary, £50 per annum, with board, lodging, and washing. Applications on or before the 25th instant.

KILKENNY UNION—Medical Officer for the Tullaroan Dispensary District. Salary, £100 per annum, and £20 as Sanitary Officer, with vaccination fees. Applications on or before June 7th.

KING'S COLLEGE, London—Professorship of Physiology.

KNOCKBAIN AND KILLEARNAN, Parishes of—Medical Officer. Salary for Knockbain, £50 per annum; and for Killearnan, £35. Applications on or before June 15th.

LERWICK and GULBERWICK, Parish of—Medical Officer. Salary, £50 per annum. Applications to Major Cameron, Lerwick.

LIVERPOOL, Township of, Toxteth Park—Resident Assistant Medical Officer. Salary, £100 per annum, with board and lodging. Applications on or before the 16th instant.

LONDON TEMPERANCE HOSPITAL—Visiting Hospital Surgeon. Applications to the Rev. Dawson Burns, Honorary Secretary, 112, Gower Street.

LOUTH UNION—Medical Officer for the Tetney District.

METROPOLITAN FREE HOSPITAL, Devonshire Square—House-Surgeon.

NEWMARKET UNION—Medical Officer for Nos. 1 and 3 Districts. Salary, £85 per annum.

NORWICH DISPENSARY—Resident Medical Officer. Salary, £120 per ann., and residence.

QUEEN'S COLLEGE, Birmingham—Professor of Pathology.—An additional Professor of Physiology.—An additional Demonstrator of Anatomy.—Applications not later than the second Friday in June.

ROYAL FREE HOSPITAL, Gray's Inn Road—Surgeon. Applications on or before June 28th.

ROYAL HOSPITAL FOR CHEST DISEASES, City Road—Physician. Applications on or before June 22nd.

ROYAL PIMLICO DISPENSARY—Surgeon and Dispenser. Applications on or before the 7th instant.

ROYSTON UNION—Medical Officer for the No. 5 District. Applications on or before the 7th instant.

ST. PANCRAS and NORTHERN DISPENSARY—Resident Medical Officer. Salary, £100 per annum, with residence, and an allowance of £20 for the board of a servant. Must be legally qualified. Applications to S. S. Wigg, Esq., 26, Gordon Street, W.C.

ST. THOMAS UNION, Devonshire—Medical Officer for the Parishes of Woodbury and Farringdon, and parts of the Parishes of Aylesbeare and Colaton Raleigh. Salary, £65:12 per annum. Applications on or before the 10th inst.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY—Assistant House-Surgeon. Salary, £65 per annum, with board, lodging, and washing.

TORBAY INFIRMARY—House-Surgeon. Salary, £100 per annum, with board and lodging.

WELLINGBOROUGH UNION—Medical Officer for the Workhouse and the Wellingborough District.

## MEDICAL APPOINTMENTS.

*Names marked with an asterisk are those of Members of the Association.*

CLUTTON, H. H., B.A., M.R.C.S.Eng., appointed House-Surgeon to St. Thomas's Hospital.

GREENSLADE, G., L.R.C.P.Ed., appointed Certifying Factory Surgeon for the District of Rocester, Uttoxeter, *vice* James Cooke, L.K.Q.C.P.I., resigned.

GREVILE, Frank A., L.R.C.P.Ed., appointed a District Surgeon to the Salford and Pendleton Royal Hospital, *vice* J. H. Bonser, M.R.C.S.Eng., deceased.

HEFFERNAN, Wm. K., L.K.Q.C.P.I., appointed House-Surgeon to the Memorial Hospital, Jarrow-on-Tyne.

KELLY, Edward H., M.D., appointed House-Surgeon to the Lanark Hospital, *vice* F. A. Grevile, L.R.C.P.Ed.

POTTER, H. P., M.R.C.S.Eng., appointed House-Surgeon to St. Thomas's Hospital.

ROSSITER, George F., M.R.C.S., appointed House-Physician to St. Thomas's Hospital.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.*

### BIRTH.

MORRIS.—On June 2nd, at 13, Somers Place, Hyde Park Square, the wife of James Morris, M.D.London, Fellow of University College, of a daughter.

### MARRIAGES.

M'ANDREW—EVRE.—On May 12th, at Our Lady's Church, St. John's Wood, by the Rev. B. M'Andrew, Claremorris, assisted by the Rev. J. L. Biemans, St. Edmund's, Millwall, and the Rev. Mr. Delany, St. John's Wood, *James John M'Andrew, M.R.C.S.E., Limehouse, to Teresa Mary, third daughter of John J. Eyre, Esq., J.P., St. John's Wood, London, and Clifden Castle, co. Galway.

PARK—MOORE.—At 15, Blythswood Square, Glasgow, on the 1st instant, by the Rev. James Dodds of St. George's, and by the Rev. Dr. Jamieson of St. Paul's, Robert Park, Surgeon, Stewarton, Ayrshire, Scotland, to Agnes, youngest daughter of the late James Moore, Esq., Clady, county Antrim, Ireland. No cards

SKERRIT—HEELAS.—On June 2nd, at St. Paul's Church, Wokingham, by the Rev. G. T. Brown, M.A., Rector, Edward Markham Skerritt, B.A., B.S., M.D.Lond., of Leicester Villas, Clifton, to Mary Dora, eldest daughter of John Heelas, jun., of Woodlands, Wokingham.

### DEATH.

SPURGIN, Charles, M.R.C.S.Eng., late of Stratford St. Mary, Suffolk, at Ipswich, on May 23rd.

TESTIMONIAL.—Dr. Russell Aldridge of Yeovil has been presented with a handsome silver goblet by the local members of the London and South-Western Railway Friendly Society, to which he has been medical officer for fifteen years. It bears the following inscription:—"Presented to Dr. Aldridge by the members of the London and South-Western Railway Friendly Society, in recognition of his uniform kindness and attention as the medical officer of the Yeovil District."

BEQUESTS.—By the will of the Hon. Anne Cavendish-Bentinck, the following bequests were made among others—the Hospital for Incurables, Putney; the Charing Cross Hospital; the Westminster Hospital; the London Fever Hospital; the Royal Free Hospital, Gray's Inn Road; the Cancer Hospital; St. George's Hospital; the Consumption Hospital, Brompton; St. Mary's Hospital, Paddington; King's College Hospital; Middlesex Hospital; the Sussex County Hospital; and the Samaritan Hospital, £400 Three per Cent. Consols each.—The late Miss Eliza Dawson of Bramhope Manor, Otley, Yorkshire, gave secretly during her lifetime not less than £10,000 to several charitable institutions of Bradford, including the Infirmary, the Fever Hospital, the Eye and Ear Hospital, and the Institution for the Blind.

## OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.
TUESDAY ......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.
WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.
THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.
FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.
SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

## MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

WEDNESDAY.—Epidemiological Society, 8 P.M. Mr. J. Netten Radcliffe, "Reappearance of Plague".

## NOTICES TO CORRESPONDENTS.

Correspondents not answered, are requested to look to the Notices to Correspondents of the following week.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

Authors desiring reprints of their articles published in the Journal, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

We cannot undertake to return Manuscripts not used.

Communications respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the Journal, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

### Duration of Pregnancy.

Sir,—I should feel much obliged if you or your readers will supply me with an account of the longest cases of pregnancy they know of? I have been asked if it be possible to carry the child eleven months.—I remain, yours truly,

9, Vine Place, Sunderland. Thos. F. Hopgood.

### The Causes of Disease of the Heart and Vessels in Soldiers.

Sir,—In the Journal of May 22nd, a letter appears from Surgeon-Major Oliver, "On the Physical Training of Soldiers", in which he attributes the frequent appearance of diseases of the heart and blood-vessels in the army to a variety of causes, excluding those which have by many excellent authorities been deemed the preponderating ones. In support of his views, he cites the comparative freedom from these affections which exists in the navy. I am sorry to say he is mistaken in supposing that such immunity exists. Aneurism is one of the commonest forms of disease met with in our great naval hospitals, and causes a very large proportion of deaths and invaliding in the naval service.

I do not think we have to go far to seek for the real reasons why these affections are more commonly met with in the public services than in civil life. The evidence of Dr. Aitken on this point is most valuable; and with it, I am inclined to think, the experience of most naval surgeons will lead them to agree. He states that out of twenty-six bodies of soldiers that he dissected during four years at Fort Pitt and Netley, in each of which a distinct history of syphilis was present, in seventeen he found the coats of the thoracic aorta impaired by characteristic changes—changes which are uncommon at an early period of life, and which he has every reason to believe were due to syphilis. The changes were obvious from cicatricial-like loss of substance of the inner coats, small local dilatations of the artery, and in several cases aneurismal expansions.

In the Lettsomian Lectures, lately delivered by Dr. Broadbent, "On Syphilis as a cause of Disease of the Nervous System", he quotes from *Guy's Hospital Reports* for 1863. some remarks from the pen of Dr. Wilks, which strongly support the evidence afforded by Dr. Aitken. Dr. Moxon, in his pathological researches, mentions the characters of syphilitic deposits by which they are easily distinguished from any other forms of change, so there can be little difficulty in recognising the *post mortem* appearances, when met with. I do not think, however, that to this disease alone we can ascribe the frequent appearance of aneurism. Rheumatism, which so frequently leads to structural changes in the heart, no doubt leaves its mark on the vessels, resulting in deposits, which eventually leads to dilatation. To these primary causes, as well as the over-indulgence in the use of alcoholic stimulants, I think is chiefly due the comparatively prominent position which aneurism holds in the statistics of both services.

I have the honour to be your obedient servant,

W. J. Eames, L.K.Q.C.P., Staff-Surgeon, R.N.

Notice to Advertisers.—Advertisements for insertion in the British Medical Journal, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. Fowke, not later than *Thursday*, twelve o'clock.

### Unqualified Assistants.

Sir,—In your issue of the 29th instant, J. L., an unqualified assistant, brings forward various reasons why his order should be employed and recognised in medical practice. J. L. attacks a very proper suggestion thrown out by Dr. D. A. O'Sullivan, that any man unqualified practising for a fee or "acknowledgment" should be fined or imprisoned, according to the decision of the judge. J. L. goes on to state that if one man picks a thorn out of another man's foot, he, according to Dr. O'Sullivan's suggestion, should be fined or imprisoned. This is straining the question, as the receiving of a fee for medical services by a quack only violates the law. If a person other than a solicitor draw up a deed, he is justly punished for poaching on the province of the lawyer, even although he receive no fee; if a quack, *alias* an unqualified assistant, poach on the preserves of medical science, why should he not be subjected to the same code? The answer is apparent. The possessor of a diploma guarantees at least a minimum amount of knowledge whereby a man is considered by the highest authorities as fit to practise; an unqualified man possesses no guarantee whatever, and, such being the case, he does not deserve to be recognised or entrusted with the lives of human beings. Some qualified men may be comparatively ignorant, and some unqualified men may know a good deal, but that is not to the point. In a case such as the present we must deal in generalities; and I think it will be found that the majority of qualified men know their profession at least fairly, while the majority of unqualified men are grossly ignorant, otherwise why do they not obtain diplomas? J. L. "feels keenly" that many of the present diplomas are too easily obtained. If this be so, why does not J. L. go in for an "easily obtained" diploma? Is it the old story of the fox and the grapes? J. L. goes on to compare a qualified man just finished, "who has been hurried in and out of an anatomy room", with an unqualified man who has had "years of training" under the eye of a "general practitioner with extensive practice". To compare extremes, as in this case, is a patent logical fallacy, and I therefore pass it by as an argument of no value. J. L.'s fulsome laudation of himself as compared with his qualified predecessors, I only notice to condemn. Unqualified assistants certainly do a great deal to lower and degrade the profession for the following reasons. Many people of the lower classes believe them to be qualified when in reality they are very ignorant; their services can be had cheaply; they do work of a semi-menial character which a qualified man would not do, and they cannot accept Poor-law or other appointments should they even have the chance; they can only improve their condition by becoming principal instead of subordinate quacks.

Mr. Langley states that the demand for unqualified assistants is becoming smaller by degrees, and, it is to be hoped, will become "beautifully less". It is high time that something should be done by the profession to stop the enormous evil of unqualified practitioners, whether as principals or assistants.—I am, etc.,

May 31st, 1875. F. F., a Qualified Assistant.

Mr. Roper (Croydon).—We do not know to what document our correspondent alludes as Dr. Day's Memorandum on Sewer-Gas.

### Typhoid and Well-Water at Worth, Sussex.

Mr. R. W. Buckley (London).—We know of no direct connection between well-water and typhus or scarlet fever. The cases, however, appear, according to the detailed report, to be cases of typhoid fever or filth-fever, which is undoubtedly conveyed largely, probably most usually, by the pollution of drinking-water. The analysis of the drinking-water from the wells at Worth, made by Wanklyn's process at Dr. Hassall's laboratory, showed evident pollution by surface drainage. Under these circumstances, we are not surprised that Mr. Buckley is indignant at the supineness of the local sanitary authority. We are at a loss to understand the statement of the vicar: "Dr. Hassall told me that he had tested the water on two occasions, and had discovered no exceptional impurity." This seems to require explanation. A very serious responsibility rests upon medical men and medical officers of health in such matters, and no testing is of any value which is not rigidly reliable. Half-and-half sanitary work is dangerous in itself, and mischievous in its indirect effects.

Inquirer.—We do not select practitioners for recommendation. Any respectable general practitioner would afford our correspondent the information which he requires.

### Professional Remuneration and the Medical Act.

Sir,—I think this a subject well worthy of discussion in the pages of the British Medical Journal; and I fully agree with Mr. Lowe's remarks, especially his suggestion that the British Medical Association should exercise its influence in obtaining an amelioration of our position. Of all the learned professions, ours is the worst paid; but, in my mind, this is our own fault. There is a want of union in our ranks. The conventional "working man" is far ahead of us in common sense. He has his unions and co-operative societies to watch over and advance his interests. Could not something of a similar nature "occur" to his betters? I feel convinced that, if we were to combine, we should succeed in remedying our anomalous position. To say the least, it would be a great aid to the public if we had a recognised code of fees, and it would certainly be more dignified for the profession. Of course it is a subject possessing some amount of difficulty; but the difficulty is with us, rather than with the public. It lies in our want of union. If we were to attach ourselves together for the common good, we are sufficiently strong in numbers to carry any reasonable measure into effect. The thing only wants beginning; and if the British Medical Association, with its six thousand members, would take the initiative, I believe nearly the whole of the profession would gladly and willingly aid in the work.

What is required is an amendment of the Medical Act—the introduction of a fee clause; and I do not see why this could not be done; the fees of a lawyer are regulated by statute, and why not ours? The means of living have of late become considerably more expensive; and in every grade of profession except ours, the fees are correspondingly increased. I know not why we should be an exception, unless it be due to our apathy. I think it is time we awakened to our interests; for it is certain if we do not regard and assert them, nothing will or can be done to improve our position.—I am, Sir, very respectfully yours, H. F. C. E.

London, May 28th, 1875.

A Provincial Fellow and a Staff-Surgeon in the Army.—On inquiry, we find that, although both elected Fellows of the College, neither of our correspondents has signed the bye-laws. Until this has been done—and they will have an opportunity shortly—they cannot record their votes at the annual election.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

### PROFESSIONAL ETIQUETTE.

DR. A. is in attendance upon Mrs. X.'s child. Mrs. X. being anxious about the child's condition, sends for Dr. A. to see the child in the evening. Dr. A. sends a message to the effect that he is unable to see the child until the following morning. A friend who happened to be with Mrs. X. at the time, then volunteers to fetch his own medical man. To this request, Mrs. X. accedes; but, on reaching the house of Dr. B., the friend is told that Dr. B. cannot then attend, but is furnished with a note to Dr. C., requesting him to attend to the case. Dr. C. accordingly goes, and prescribes for the child for the night. Six weeks afterwards, Mr. X. calls on Dr. C., requesting him to see the same child, and to take the charge of the case, as, Mr. X. adds, "I have been obliged to dispense with Dr. A.'s services, owing to the distance at which he resides." Dr. C. asks Mr. X. if it is not Dr. B. whom he desires to make his family attendant; and on Mr. X. saying, "No, there is no mistake", Dr. C. further remarks that he should much prefer Mr. X. calling in the services of Dr. B., inasmuch as Dr. B. had, on the former occasion, been applied to in the first instance; Mr. X., however, persisting in his request that Dr. C. will take the case, Dr. C. at length complies.

1. Was Dr. C.'s conduct in this matter right or wrong?
2. Had Dr. B. any claim upon the patient?

⁂ Assuming the facts to be correctly stated, we are of opinion that:

1. Dr. C.'s conduct was quite right.
2. Dr. B. had no claim upon the patient.

MR. EDWARD MATHEWS (Redditch).—You had better apply to the Secretary, who will furnish you with the information you require.

### A LOTION FOR ECZEMA.

SIR,—In to-day's JOURNAL I see an inquiry as to the lotion used by the late Mr, Startin in eczema. I have been told that the following was the formula he employed. R. Zinci oxidi, calaminæ, sing. ʒij; acid. hydrocyan. dil., glycerini, sing. fl. ʒij; liq. calcis ad fl. ℥viij. Ft. lotio. At all events, I have used this lotion extensively myself, and have found it of great benefit, especially where there is much itching.—Obediently yours, F. DE HAVILLAND HALL.

6, Bedford Place, May 28th, 1875.

SIR,—In compliance with Dr. Swanton's request, I send a copy of a lotion of Mr. Startin's, extracted from my prescription-book. R. Zinci oxydi ʒi; glycerini puri, aquæ calcis, sing. ℥j. Tere zinci oxydum cum glycerino, et adde aquam calcis. Mr. Startin used to prescribe another lotion, with calamine, oxide of zinc, and some liquids.—Yours, etc., FRANCIS TOULMIN.

Upper Clapton, June 1875.

WE are greatly indebted to Dr. Joseph Rogers (London) for his careful consideration of the subject submitted to him, and his communication thereupon.

### THE PROBABILITY OF A SECOND ATTACK OF MEASLES.

SIR,—In the number of the JOURNAL for May 15th, your correspondent "M.D." inquires, "What degree of probability exists of an individual taking measles a second time?" It is difficult to see how we are to estimate the degree of probability where so much depends, first, upon individual susceptibility, and, secondly, upon adventitious circumstances. It is generally admitted that while, on the one hand, but few are insusceptible to measles, so, on the other, it rarely occurs a second time: yet in a tolerably extensive practice we all of us occasionally meet with such cases, and I beg to offer the following for what they are worth.

Only a few weeks ago I was called upon, in the Isle of Wight, to see Miss M., a native of Jamaica. Her flushed face, reddened eyes, and general catarrhal symptoms, with the eruption of small, though as yet detached, spots covering the face, and already extending to the chest, at once indicated the nature of the affection: but my suggestion was met by the assurance that she had already had measles very badly since leaving Jamaica—that is, since she had arrived at puberty; moreover, that she had not recently been exposed in any way to the contagion of this, nor, indeed, of any contagious disorder. By the following morning, however, the rash had extended all over the body and limbs, while the crescentic patches were very distinct on the chest. There could no longer be the slightest doubt that she had measles for the second time—indeed, she herself recognised it as just what she had had before; and, in short, the disease ran its ordinary course, requiring but little treatment, but quite as severe as is usual in adults.

On closer inquiry, I learnt that in travelling to her destination, just five days previously, there had been in the same railway compartment a lady and her little boy, the latter of whom was just recovering from "an illness". The mother was very careful to prevent his taking cold, so the carriage-windows were kept close shut. The child, who was restless and weak, insisted upon standing at Miss M.'s window, leaning on her for support, so that she had the full benefit of close contact and bottled-up emanations. And if, as we may, I think, safely assume, the child was just recovering from measles, it is only another instance of the reckless want of consideration for others with which contagious convalescents are taken about in public conveyances.

It is worthy of note, that Miss M.'s married sister, who was in the same carriage, and who afterwards nursed Miss M. in her illness, just as she had formerly nursed her own two children in measles, even sleeping in the same room with them, never contracted the disease. Here, then, in two sisters we have one presenting a remarkable predisposition, and the other an equally remarkable indisposition, to it.—I am, etc., E. S. SYMES.

WILL any volunteer surgeon who has passed the War Office qualifying examination kindly state in what manuals the necessary knowledge is to be found?—T. J. M. D.

### LOST IN THE SCHILLER.

A CORRESPONDENT writes: "One of perhaps the most valuable lives lost in the *Schiller* was that of Susan Dimock, who, after studying for two years in America, completed her education at the University of Zurich, where she graduated in 1871. On her return to America, she was appointed resident medical officer to the Boston Hospital for Women and Children, and discharged its duties, as well as those of a daily increasing private practice, with great credit. As is common enough in America, she combined the practice of medicine with that of surgery, and, within the last four years, performed a considerable number of most important operations with great success. She was rapidly rising to the first rank in her profession, when she was prematurely lost in the late shipwreck, while on her way to Europe for six months' holiday"

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

DR. McM. (Royal Navy).—The wish to support Surgeon-General Langmore as Chairman of the Fellows' Festival of the Royal College of Surgeons, should be addressed to Mr. William Allingham, F.R.C.S., the Honorary Secretary, 10, Chandos Street, Cavendish Square.

### CABMEN'S SHELTERS.

SIR,—Will you grant me space to further the usefulness of these shelters? It is an omission that neither earth-closets nor urinal is attached to these resting-places. Residents in town have their delicacy offended by a cabmen "watering his nag" on the wheel; and strangers suffer inconvenience by the absence of W.C.s, except at railway stations. It would be a sanitary improvement to append a clean shed for such purposes, a few feet from every shelter, under the surveillance of an attendant. Such accommodation should be available free for cabmen, and on payment of a small sum for the general public. Londoners with mock modesty have too much ignored the existence of our pelvic contents.—I am, your obedient servant, R. DAVY.

33, Welbeck Street, W., June 2nd, 1875.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Lincolnshire Herald; The Crewe and Nantwich Chronicle; The Scotsman; The Glasgow Herald; The Folkestone Express; The Sunderland and Durham County Herald; The San Francisco News Letter and Californian Advertiser; The Western Gazette; The Derbyshire Times; The Shield; The Morpeth Herald; The Worcestershire Chronicle; The Cork Examiner; The Rugby Advertiser; The Crewe Guardian; The Free Lance; The Manchester Guardian; The London Mirror; etc.

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COMMUNICATIONS, LETTERS, ETC., have been received from:—

Mr. Henry Lee, London; Dr. T. Lauder Brunton, London; Mr. T. Annandale, Edinburgh; Dr. G. Johnson, London; Dr. Finlayson, Glasgow; Dr. J. W. Langmore, London; Mr. Wm. K. Heffernan, Jarrow-on-Tyne; Dr. Coats, Glasgow; Dr. C. E. Prior, Bedford; Dr. T. Joyce, Cranbrook; Mr. G. F. Rossiter, London; Mr. John Lane, Accrington; Dr. Bourneville, Paris; Mr. J. Moulding, Liverpool; Mr. S. M. Bradley, Manchester; Mr. A. Bennett, London; Dr. Marcet, London; Dr. J. Birkbeck Nevins, Liverpool; Mr. Wm. Fairlie Clarke, London; Dr. Bradbury, Cambridge; Dr. J. Crichton Browne, Wakefield; Dr. Spong, Faversham; Dr. Thos. Skinner, Liverpool; Dr. B. W. Foster, Birmingham; Dr. J. G. Swayne, Clifton; Dr. Cassells, Glasgow; The Secretary of the Clinical Society; Our Dublin Correspondent; Mr. Eastes, London; The Secretary of the Epidemiological Society; Dr. Edis, London; The Registrar-General of England; The Secretary of Apothecaries' Hall; An Associate; Mr. Robert Lawson, Wakefield; The Registrar-General of Ireland; Dr. J. Rogers, London; Mr. Lowther Kemp, London; Mr. Balmanno Squire, London; Dr. Hughlings Jackson, London; Dr. R. Payne Cotton, London; A Member; Dr. I. Ashe, Londonderry; Dr. J. Anderson, Glasgow; Mr. Woodman, Exeter; Mr. Foote, Kington; Our Edinburgh Correspondent; Dr. S. Lockie, Carlisle; Mr. C. P. Skrimshire, Brynmawr; Mr. John Batt, London; Dr. Bentley, London; Dr. F. de Havilland Hall, Tottenham; Mr. T. Cole, Bath; Dr. Manley, Fareham; Mrs. Lankester, London; Mr. Hume Williams, London; Dr. Harrington Tuke, London; Mr. E. Nock, London: Dr. J. J. Luce, Stratford-on-Avon; Mr. Henry F. C. Eagle, London; The Right Hon. Dr. Lyon Playfair, London; Miss Hinde, Teddington; Mr. Howard Marsh, London; Mr. H. A. Reeves, London; Mr. T. M. Stone, London; Dr. E. Symes Thompson, London; Dr. De Chaumont, Woolston; Messrs. Chapman and Co., London; Mr. Francis Toulmin, Clapton; Dr. D. L. Beckingsale, London; Mr. R. H. B. Nicholson, Hull; Mr. John Liddle, London; Mr. Henry Williams, London; Dr. Angus Mackintosh, Chesterfield; Mr. J. S. Wilson, Greenock; Dr. G. H. Philipson, Newcastle-upon-Tyne; Mr. McGill, Leeds; Dr. Mackey, Birmingham; Dr. Woodman, London; Mr. W. S. Kent, Brighton; Dr. Henry Bennet, London; Dr. Sabben, Stoke Newington; Dr. Donelly, Dublin; Mr. E. D. Stead, London; Mr. W. J. Heddy, London; Mr. J. F. Weatherhead, Kew; Mr. A. P. Gould, London; Mr. T. Partridge, Stroud; Dr. W. Squire, London; Mr. E. Stephens, Ilminster; Dr. A. S. Merrick, Belfast; Mr. D. Hughes, Llangollen; Dr. Frank, Upper Norwood; Dr. O. Richards, Corwen; Dr. J. E. O. Will, Aberdeen; Dr. M. Beverley, Norwich; Mr. G. Dunlop, Southampton; Mr. G. Fawcett, London; Dr. F. W. Pavy, London; Dr. Cousins, Southsea; Mr. J. Jones, Llanfillin; Mr. A. S. Bootle, London; Dr. A. Sheen, Cardiff; Mr. T. Williams, Accrington; Dr. J. Styrap, Shrewsbury; Mr. H. Swinson, Leamington; Mr. J. R. Upton, London; Mr. W. A. Rudd, Hull; Mrs. Law, Dublin; Dr. J. D. Gillespie, Edinburgh; Dr. J. Millar, Glasgow; Mr. H. R. Salmon, London; Mr. C. Firth, Norwich; Mrs. Hudson, Sheffield; Mr. J. P. Field, London; Mr. J. Langston, Strood; Mr. S. Wood, Shrewsbury; Mr. R. Lindsay, Galashiels; Dr. Gore, Dublin; Mr. E. B. Aveling, London; Mr. W. C. S. Collins, Swansea; Dr. J. B. Pitt, Norwich; Dr. Duncan, Dublin; Mr. G. G. Bothwell, Worcester; Mr. E. A. Williams, Bromley; etc.

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## BOOKS, ETC., RECEIVED.

On Diet and Regimen in Sickness and Health. By Horace Dobell, M.D. Sixth Edition. London: H. K. Lewis. 1875.

# ABSTRACT OF LECTURES ON SYPHILIS;

AND

# ON SOME LOCAL DISEASES AFFECTING PRINCIPALLY THE ORGANS OF GENERATION.

*Delivered at the Royal College of Surgeons of England*, 1875.

By HENRY LEE, F.R.C.S.,
Professor of Surgery and Pathology to the College.

## LECTURE II.

*Morbid Processes, Local and Constitutional.—First Manifestations of Syphilis.—Secondary Manifestations.—Inoculation of the Secretion of the first Manifestations in Uncomplicated Cases.—Period of Incubation.—Characterised by the Adhesive Inflammation.—Inoculation of the Secretions of the Secondary Manifestations of Syphilis.—Characterised by the same Morbid Process.—Secondary Manifestations of Syphilis characterised by Different Forms of Adhesive Action in Uncomplicated Cases.—Reinoculation of Syphilis during its Earliest Stage.—During its Later Stages.—Modified results of Reinfection.—Syphilitic Inoculation modified by the Structure of Parts.*

THE results produced in the human body by the syphilitic poison are so various, affect a patient's constitution at such different periods, and are apparently so dissimilar in different cases, that it is necessary to distinguish accurately, if possible, between the essential actions belonging to the disease itself, and the various complications which may arise from lapse of time, from weakness of constitution, from the differences in the manifestations in its earlier and later stages, and especially to ascertain the effects of accidental complications, or of the modifications produced by the recurrence of the disease.

Hunter prefaces his treatise on the venereal disease by the description of four morbid processes or actions, to which he constantly refers in his subsequent remarks. These actions he calls the adhesive inflammation, the suppurative inflammation, ulceration, and mortification. In order to make his description of these processes available for our present purpose, we must consider how these actions are modified by the structures in which they occur.

An animal body, Hunter observes, is composed of a variety of substances; and in respect to the comparative progress of diseases in them, and their comparative powers of restoration, these differ very much from each other. The healthy and morbid processes in growth, decay, and repair, are regulated by the same living principle, in all living beings and in all diseases. In diseases arising from accident, a great difference in the degree of action takes place, according to the nature of the parts implicated; thus bone, tendon, ligament, and cellular membrane, go through their morbid actions more slowly than muscle or skin. This principle is also abundantly illustrated in the different morbid processes produced by venereal diseases. The same kind of action which produces an effusion of lymph upon the iris, may, if it attack the skin, be followed by a variety of modifications in the growth and development of the cutis or its coverings. If the cellular membrane be affected, an indolent tumour may result, which goes comparatively slowly through its stages, and may terminate in mortification, or perish by a still slower process of molecular necrosis. In the bones, the same disease produces an increased development of bone, ulceration, or necrosis. In the lymphatic glands, an enlargement is produced, confined strictly to those glands themselves, and not involving, at least in the first instance, to any degree the surrounding structures. In internal organs, such as the lung and the liver, syphilis may produce deposits, which may be more or less perfectly absorbed, or more or less perfectly transformed into tissue resembling that of the organ in which they occur.

The most important modification of increased action, as far as the present subject is concerned, is that which is observed in mucous membranes. Hunter showed that a mucous membrane under violent irritation would, like a serous membrane, produce lymph; but, generally speaking, inflammation of a mucous membrane terminates either in resolution, in an increased secretion of mucus, or in suppuration. But although the secretion from the surface of a mucous membrane differs in general from that of a serous membrane, yet the membranes themselves may be affected in a similar way. Effusion of new material may take place in their structure, and in the cellular tissue in contact with them. They may become infiltrated, thickened, and permanently altered. In serous membranes, an example of this is often seen in the case of old omental herniæ; and with regard to the mucous membranes, most interesting examples are afforded in the formation of mucous tubercles, and in the more or less permanent thickening of the mucous membrane of the urethra.

When the venereal poison, Hunter observes, is applied to the skin, its effects are generally manifested first in a pimple, which is commonly allowed to scab. The scab is generally pushed off or rubbed off, and one larger than the first forms. Hunter defines this process of scabbing as the first mode of healing a wound or sore, in which inflammation may be greater than where union can be effected, but not nearly so great as where suppuration takes place. With regard to the constitutional forms of the disease, Hunter says: "When the poison has got into the blood, it there irritates to action. There are produced from that irritation many local diseases, as blotches on the skin, or thickening of the periosteum and bones."

These forms of disease he calls compound or constitutional; yet he says they are not strictly so, for every complaint, in consequence of the malady, is truly local, and is produced by the simple application of the poison to the parts. If this be true, as I believe it under given conditions to be, the distinction between what we have been in the habit of calling primary and secondary syphilitic affections in a great measure disappears; and in truth, in uncomplicated cases and in a healthy constitution, where there is no accidental cause of irritation, the local and the constitutional manifestations very much resemble each other, and are, in fact, of the same nature.

Mr. Lee then briefly related three cases which afforded illustrations of adhesive inflammation only. In both the primary and the secondary affections, an attempt was made to heal by scabbing; but in this disease the attempt does not succeed, and successive scabs or scales are formed. These are all modifications of the adhesive inflammation, which would terminate in resolution if its cause were not persistent. What we call the primary disease may go through its stages without any suppuration and without ulceration; and it is a characteristic of both the primary and secondary affections of syphilis, that in uncomplicated cases they leave no scars on the body. They are attended with no loss of substance, and the artificial inoculations from these affections follow the same rule. It is quite true that the syphilitic poison comparatively seldom runs its course without some accidental causes of irritation. This may depend upon some other irritating fluid being applied at the time of inoculation, upon want of power in the patient's system, or upon changes in the original products of the adhesive inflammation. The inflammation in primary syphilis results in a peculiar thickening, very circumscribed, not diffusing itself gradually and imperceptibly into the surrounding parts, but terminating rather abruptly. It retains these characters through all its stages, though they may be obscured by accidental circumstances. The secondary affections also maintain this circumscribed character, but are unattended with the peculiar defined induration, for a reason which will hereafter be more fully considered. This induration, according to the Hunterian doctrine, depends upon the effusion of lymph, the product of adhesive inflammation. If the lymph were produced from a non-specific source, it would be organised and converted into a tissue similar to that of the surrounding part, and ultimately anything that was redundant would be absorbed. But the life of this lymph is touched with the same disease as the blood, or the products of the blood from which it is derived. It is vitiated, and tends soon to pass, except in very vigorous constitutions, into a state of degeneration. This may manifest itself in various ways: by an unhealthy formation of epithelium, producing various kinds of scabs and scales; by unhealthy growth of the hair, nails, or teeth; or by the effusive matter itself undergoing a kind of molecular necrosis, suppuration, or ulceration. These latter processes, although they may occur in all stages of the disease, are most marked when the poison is first received, because then acting on a virgin constitution. Accordingly, the adhesive inflammation first produced, in the majority of cases, passes from the adhesive stage to some other form. The product is no longer fit for the life of the part, and is thrown off. A double action then goes on; one of adhesive inflammation, accompanied by induration, another of the throwing off of diseased cuticle, or suppuration, or death of the newly formed tissue.

These two consequences, the induration and the destruction of the newly formed tissue, as Babington has observed, seem to be distinct and independent actions. Although they generally exist in conjunction, they are sometimes found separate. These two processes may sometimes be witnessed in the same case, at different times, under the influence of treatment. A patient may have a well marked primary induration, and, under the action of mercury, the induration will disappear, and a soft sore only will for a time present itself; but, after an interval, the induration will reappear with its specific characters.

In the previous and in the present lecture, cases were referred to in which the poison of syphilis produced at first the adhesive action only, by means of which the nutrition of parts was more or less perverted, both in the primary and secondary manifestations of the disease. Coinciding with and confirming these practical observations, are the results of direct experiment. In illustration of this, Mr. Lee referred to several cases of inoculation of syphilis recorded by Puche, Rinecker, Bärensprung, Lindwurm, Rollet, Gibert, Wallace, Vidal, and Waller. One of them, reported by Rinicker, is as follows.

On January 9th, 1852, a young physician was inoculated on a small blistered surface with the secretion of a syphilitic eruption of a child. On the 10th, no visible effects had followed the inoculation. On the 20th, there was a papular eruption around the inoculated spot. This soon disappeared. On February 2nd, a fresh action commenced. The surface, which had been blistered, was red, itching, and scaly. Twenty-nine days after the inoculation, this surface was of a deep red copper-colour, the skin was hard and infiltrated, and presented several papular elevations. On February 10th, the whole surface which had been blistered was covered with reddish brown, hard tubercles, covered with scales. In spite of the use of mercurial ointment, these local affections were followed by ulceration of the palate, of the lower lip, and of the left side of the frænum of the tongue; and later, by mucous tubercles on the scrotum.

M. Rollet has collected and tabulated twenty-seven cases, in which syphilitic inoculation was performed on patients who had not previously had the disease. Of these, the inoculated matter was derived from primary chancres in eight cases; and the average period of incubation before the appearance of any distinctive syphilitic symptoms was about twenty-four days. In ten of the cases, the secretion inoculated was derived from mucous tubercles, and the average period of incubation was very nearly the same. From this it appears probable that the disease, whether derived from a primary or from a secondary source, runs the same course in uncomplicated cases. Now, in all the instances hitherto given, the first appearances have been those belonging to the adhesive form of inflammation. This I regard as the typical mode of the origin of the disease, where there is no accidental cause of irritation, and where the system is infected for the first time.

Jenner long ago warned the profession against supposing that every inoculation produced from a vaccine vesicle conveyed the vaccine disease. That which did he has carefully described. It is essentially the product of the adhesive form of inflammation. The lymph produced, which is fit for reinoculation, contains no pus; and, indeed, to the common eye, and even with a microscope of a low power, it appears to contain no corpuscles. Dr. Beale has, indeed, shown that, with a microscope of high power, germinal matter may be detected in the vaccine lymph; and in the processes of scabbing and healing, no doubt, real pus-corpuscles are often formed. But this in no way militates against the fact that the essential character of the action which produces the lymph, that in its turn will reproduce the same disease, is of the adhesive and not of the suppurative nature. How imperfectly these two actions, so clearly defined by Hunter, have been considered by many continental writers, is demonstrated by the indiscriminate use they make of the words vesicle and pustule. In many of their writings, the "vaccine pustule" is as often mentioned as the "vaccine vesicle". The two kinds of action produced by syphilitic inoculation have in the same way been confounded and spoken of as if they were the same, and might produce the same results. The works of many continental and of some English authors are full of the descriptions of the origin and course of the so-called syphilitic pustule, of the number of times it may be reproduced, of its value as a means of diagnosis, and the effects of its repeated reproduction on a patient's constitution. Now this form of inoculation is quite distinct from that which we have hitherto considered as having to do with the production of real syphilis. These specific pustules, as they are called, no more resemble real syphilitic inoculation, than the abnormal pustules which sometimes follow attempts at revaccination resemble, in their pathological effects, the process which protects a patient's constitution against the recurrence of the same disease, or against the infection of small-pox.

The cases hitherto given all occurred in virgin constitutions, or in those who had not previously had syphilis. The actions, both in the primary and in the secondary manifestations, originally commence, if they do not terminate, without suppuration, ulceration, or mortification. The disease commences by an effusion of lymph, which becomes organised, and may remain so. The corresponding inguinal glands are affected with the same kind of action. They enlarge, but never suppurate, as I believe, from this disease alone. The subsequent eruption of the skin is of the same nature; first, congestion of capillaries, with some slight formation of new matter, and then different forms of pimples, smaller or larger, distinct or confluent. These all desquamate, and are often covered by thin scales. In their separate and isolated form, they have received the name of lichen; when larger, of tubercles; when confluent within a defined space, although distinct at first (as they may be generally observed), the eruption assumes the form of psoriasis and lepra.

Upon a recurrence of the disease at a later period, or even at its first appearance, in an unhealthy person, the secondary manifestations, instead of being of the adhesive character, may directly present the distinctive characters of suppuration, ulceration, or mortification. These facts did not escape the acute observation of Carmichael, and he accordingly describes—1. The papular venereal disease; 2. The pustular venereal disease; 3. The phagedænic venereal disease. He attributes these to different kinds of poison, but that they are essentially the same, and depend upon one and the same disease, appears evident from all these varieties sometimes appearing upon the same person, and from the same infection, at different periods. In particular states of the constitution of the patient, there can be no doubt that a primary affection, which would present any of these varieties, would be very likely indeed to be followed by secondary manifestations of the same character.

Both the primary and the secondary manifestations of disease may be most materially modified, either by constitutional or by local causes, or by the tissue in which they appear. The principal constitutional cause which modifies the first appearance of a real syphilitic inoculation is the existence of syphilitic fever. This fever is recurrent, and its consequences will often appear after the lapse of months or years; but its effects are manifested in the most marked manner on its first occurrence. Under the influence of this fever, eruptions in great variety will appear on the skin, without any local irritation being applied; but if, in addition, there be local irritation, a circumscribed spot of inflammation may be determined which the local irritation alone would not have produced. Thus the inoculation of common pus, which, under ordinary circumstances, would have produced no effect, may give rise to a pimple, a tubercle, or a pustule. If the pus so inoculated should contain any irritating matter, then we have the joint effect of the constitutional disease determined to the part, and of the local irritation produced as the immediate effect of the inoculation. The way in which the existence of the syphilitic fever in its various degrees modifies a real syphilitic inoculation, is a point which, I believe, has not hitherto been sufficiently considered.

During the existence of the syphilitic fever, that is to say, as long as the patient is liable to fresh manifestations of disease from his first infection, the inoculation of the secretion from a primary or secondary unirritated syphilitic sore generally produces no result, or a slight superficial irritation which soon subsides, or some abortive form of adhesive inflammation. Inoculations of this sort are analogous to those performed with the vaccine matter on patients who are still under the influence of a previous vaccination. I have over and over again inoculated syphilitic patients with the secretion from an uncomplicated, unirritated, indurated chancre, and always with a negative result. If, however, from any constitutional or other cause, there be much irritation about the parts from which the secretion so inoculated is taken, then a result is produced. But it is very different from those which we have previously considered. If, for instance, an indurated sore be irritated by the application of some savine ointment, then the inoculation succeeds; or, if the sore have been irritated by the application of any other diseased secretions, or if it be much inflamed from any constitutional or local cause, then again a result is produced; but that result differs in its essential characters from the typical syphilitic inoculation. There is no period of incubation. There is no well defined induration produced. There is no enlargement of the corresponding inguinal glands, and there are no fresh constitutional symptoms. The inoculated spot shows at once the character of the suppurative inflammation and not those of the adhesive; any fresh matter that is effused rapidly softens and no longer remains a part of the living body. Unless some phagedænic action take place, there is little or no loss of the natural structure of the part; and when the inoculation heals, the cuticle is on a level and sometimes above that of the surrounding parts. In this respect, there is an essential difference, in my opinion, between this form of inoculation and that from the local suppurating sore. In the same way, secondary syphilitic affections, unless there be some constitutional or accidental cause of irritation, heal without loss of substance, and the cicatrices on the skin leave no permanent depression.

The syphilitic diathesis, like the effects of vaccination, may wear itself out more or less completely, and then a fresh inoculation may take place, which may produce fresh constitutional results.

One form of reinoculation which I have not seen described or referred to by authors, produces a red raised pimple on the mucous membrane, depressed in its centre, and persisting for many weeks.

The appearance presented is not unlike a single projection of the surface of a raspberry.

Another most important modification of the results of the application of syphilitic matter depends upon the structure to which it is applied. Hunter showed that the mucous membrane was capable of the adhesive form of inflammation. Lymph may be secreted on its surface as the result of great or prolonged irritation, or effused into its structure, and into that of the submucous tissue. As a rule, however, irritation of a mucous membrane produces suppuration, and the pus-cells are thrown off from the surface, together with any irritating matter that may be mixed with it. The mucous membrane does not then become permanently thickened, nor does it ulcerate. The newly formed bioplasts carry their life up with them, and cease to be a part of the living being which produced them.

There are three ways, Hunter says, in which chancre may be produced: first, by the poison being inserted into a wound; secondly, by being applied to a non-secreting surface; and, thirdly, by being applied to a common sore. But infection of a patient's system, Hunter held, might be and often was produced by a gonorrhœa, independent of a chancre. He says the matter of a gonorrhœa will produce either a gonorrhœa, a chancre, or the lues venerea. Now there can be no doubt that Hunter in his descriptions has confounded together several different affections of the urethra, and has classed them together under the common name of gonorrhœa. That the very large majority of cases of urethral discharge do not depend either upon syphilis or upon gonorrhœa, may be concluded from the simple consideration of the great variety of causes which will produce such affections. These will be more fully considered hereafter. But if it be conceded that some forms of urethral discharge are really syphilitic, it is no easy matter always to distinguish them from those that are not. Inoculation has been supposed to furnish the means of diagnosis. How far this is the case, will be considered in the next lecture.

## ON OBSTINATE SICKNESS DURING PREGNANCY.

By J. HENRY BENNET, M.D.,
Formerly Obstetric Physician to the Royal Free Hospital.

In the various communications that have recently appeared in the British Medical Journal on obstinate sickness during pregnancy, I have looked in vain for the mention of one very important and very frequent cause of such sickness; viz., chronic inflammation of the body or of the neck of the pregnant uterus. I was the first to draw attention in Anglo-Saxon literature to this frequent cause of obstinate sickness, as far back as the year 1849, in the second edition of my work on *Uterine Inflammation*. I had become acquainted with the fact in the Paris hospitals ten or twelve years before that date, and had during all that period paid much attention to the subject in varied fields of observation. So frequently, indeed, have I found actual uterine disease, often removable by treatment, to be the cause of severe pregnancy sickness, throughout my entire active obstetric career, that I have no hesitation in saying that it may always be suspected when sickness proves unusually severe and intractable. Such being the case, no practitioner is justified in continuing to treat by medicine alone such a case of pregnancy sickness, without making a most minute and careful ocular and digital examination of the uterine organs.

Chronic inflammatory disease of the body of the uterus, or extensive inflammatory disease of the cervix, even when ulcerative, does not necessarily preclude pregnancy. Some women conceive so easily, that no morbid condition of the uterus prevents conception, although the sequelæ of such conception are often lamentable. It is a diseased organ, a piece of machinery out of gear, that has to do nine months' work, to undergo all the wonderful modifications of tissue which accompany pregnancy: is it surprising that the entire process should be one of intense suffering, and that various and numerous morbid manifestations should accompany every stage of the process? Indeed, I published twenty-six years ago, in the work alluded to, my firm conviction, a conviction which subsequent experience has only confirmed, that a considerable proportion of the morbid manifestations of the pregnant and puerperal states may be traced to the unrecognised existence in the pregnant woman of chronic inflammation of the body or of the neck of the uterus. The latter is the most frequent, because lesions of the mucous membrane are always more frequently met with in any part of the body where there is one, than parenchymatous lesions. Ulceration generally accompanies inflammation, and is of a peculiar fungoid-looking character. The granulations are large, and bleed easily on being touched: a characteristic which becomes more and more marked as the pregnancy advances. The diseased state may spread over the enlarged cervix, or be limited to the inner region of its cavity, and be partly or entirely concealed. Thence the necessity of a very careful and accurate examination, not only digital, but ocular. The patient should be out of bed and dressed, and be examined lying in the lithotomy or dorsal position, on a couch or sofa; the pelvis elevated by one or two hard pillows; in a good light, that is, near a low window. The speculum used should be a conical bivalve, such as Coxeter's large one, which sustains the vagina, relaxed by pregnancy, and admits of expanding or opening the lips so as to see into the outlet of the cervical canal. The examination ought to be such that a grain of dust should be seen anywhere on the cervix. I am still constantly examining women who have been previously examined in bed by others in the usual English obstetric position, and have been pronounced free from disease, whereas I find well marked morbid conditions; the difference being, no doubt, the imperfect examination of my predecessors.

Chronic disease of the body of the uterus, generally localised to a limited region, is more difficult to diagnose in the gravid uterus. The diagnosis must rest on the antecedents of the patient, on the presence of dull aching constant pain in some uterine region, and on the sickness. In my own obstetric practice in former days, my patients were principally, in private life, women whom I had previously attended for uterine disease. This previous attendance was the link between us, and I was thus able to follow the sequence of events. I may incidentally mention that I found adhesion of the placenta after confinement very frequent in these cases.

When there is disease of the cervix, the discovery once made, all difficulty and danger usually cease. As soon as, under the influence of local surgical treatment, emollients, astringents, caustics, etc., the simply inflamed or inflamed and ulcerated surfaces assume a healthy hue, the intense sickness ceases; and, when they become healthy, it disappears, or assumes its usual mild form. I am sure that I have saved scores of pregnancies and children's lives by the above treatment. I have often succeeded in women who had had half a dozen abortions previously to my appearance in the field.

In chronic inflammation of the body of the uterus, it is more difficult to arrest the sickness or to prevent abortion. Still I have succeeded with the assistance of the usual antiphlogistic means, hip-baths, emollient injections, and external applications, leeches externally and even internally to the cervix in the early period of pregnancy. I learnt accidentally long ago that leeches might be applied without risk—indeed, with positive advantage in some cases—to the uterine neck in early pregnancy. I overlooked the existence of pregnancy in several instances where it "ought not" to have existed, and only found out the mistake later, after seeing urgent symptoms of uterine irritation subside under the influence of leeching.

It is now more than a quarter of a century since I opened out this wide and important field of observation in the diseases of pregnancy and of the puerperal state, and I have often wondered that so little has been done in it since I did so.

Grosvenor Street, June 1875.

## TREATMENT OF OBSTINATE VOMITING IN PREGNANCY.

By E. COPEMAN, M.D., F.R.C.P.,
Senior Physician to the Norfolk and Norwich Hospital; President of the British Medical Association.

I was much pleased with the remarks made upon my late communication by Dr. Graily Hewitt, whose opinions on matters connected with obstetricy, I feel sure, all will consider worthy of special attention. Since I read his paper in the last number of our Journal, a case has been brought to my recollection which adds some confirmation to his views as to the obstinate sickness occurring in pregnancy being due to displacements or flexions of the uterus; and, although I do not yet believe that such flexions are the *only conditions* of the uterus which give rise to the vomiting, yet I quote a few remarks from my case-book to show how probable it is that they are, at all events, *amongst* the causes of this troublesome and sometimes dangerous complication of pregnancy.

In March 1865, I was called to visit a lady in the country in consultation, on account of severe and most distressing vomiting during early pregnancy. About two years before, this lady consulted me on account of an almost constant loss from the uterus, which had gone on for about a year. She did not look much out of health, and had had several children; but the continued loss made her feel very languid and good for nothing. Some months before, she had consulted Mr.

Spencer Wells, who applied nitrate of silver to the os uteri once with temporary benefit. I gave her mild bitter tonics, and applied nitrate of silver to the os uteri several times. She improved very much in health; and, on the last examination, I thought local treatment no longer necessary. There had been congestion and excoriation of the cervix, and slight ulceration in the canal; but this had all disappeared, and there was less tendency to prolapsus. On one occasion, the day after the caustic had been applied, a cluster of bodies of the size of very small currants came away—probably small polypoid growths, which had given rise to the hæmorrhage. When I visited her in 1865, I found that, in addition to the persistent vomiting, which had brought her into a state of dangerous starvation, she was suffering from pains about the pelvis and back, with forcing downwards, indicating the probability of abortion, and leading me to make a vaginal examination. On doing so, I detected a decided *retroversion* of the uterus, which I rectified, and prescribed oxalate of cerium. I soon afterwards learned that the sickness had ceased, and that she was going on quite well. My opinion at that time was, that *the backache, pelvic and bearing-down pains, were relieved by putting the uterus into a natural position;* and *that the sickness was stopped by the oxalate of cerium;* but, from what Dr. G. Hewitt says, it is very probable that the retroflexion was the cause of all the trouble, and its rectification the cure.

On referring to the *Handbuch der Geburtskunde* (published at Berlin in 1843) of Busch and Moser—a work which well deserves being translated into our own language, especially if it have undergone any recent edition—I find displacements of the uterus mentioned as one of the causes of vomiting in pregnancy: "Die dritte Art des Erbrechens wird durch organische oder mechanische Krankhafte zu Stande erzeugt; z. B. durch eine übermässige Ausdehnung der Gebärmutter, *durch eine anomale Lage derselben*," etc.

I hope ere long to be able to communicate more at length upon this interesting subject.

## ON A CASE OF UNUSUALLY RAPID ACTION OF THE HEART.*

By ROBERT FARQUHARSON, M.D.,
Lecturer on Materia Medica at St. Mary's Hospital, etc.

CASES of unusually rapid action of the heart are still so rare, and their pathology is so obscure, that little apology seems necessary for bringing a small contribution to the subject under the notice of the profession. The instance of this curious condition which I am now about to describe occurred several years ago in military practice; and I am induced to place it on record, because, as we shall presently see, the material necessary for the construction of any reasonable theory is at present wonderfully scanty in proportion to the interest of the many questions involved.

Private J. Fox, aged 28, service eight years, was admitted into the regimental hospital of the Coldstream Guards on January 2nd, 1864. Reference to his medical history-sheet did not show any previous entry; but, two years after enlistment, and consequently prior to the issue of these returns, he was fourteen days under treatment for acute rheumatism, of which no special record has been preserved. During some time past, he had been short-winded on exertion, and had gone upstairs with difficulty; and, twelve months ago, he had a slight attack of palpitation, but no recurrence of this symptom was experienced until Jan. 1st in the forenoon, when he was suddenly and violently attacked on his return from a field-day. His heart beat very heavily all night, and this morning he felt so ill and unfit for duty, that he at once reported himself sick. On admission, it was noted "that he looked pale and anxious; the breathing was much hurried; the pulse was full, bounding, and thrilling, 116; and a loud double *bruit* was heard at the base of the heart and down the sternum; heart's impulse forcible and heaving, and dulness increased". A belladonna plaster was applied to the side, and a mixture, containing nitrate of potash and tincture of veratria, ordered to be taken every four hours.

From this date, he took various remedies at various times; but gradual increase of palpitation led, on February 11th, to his being placed on fifteen minims of tincture of digitalis, with an equal quantity of tincture of iron, thrice a day; and next day the pulse had fallen to 80. Things went on satisfactorily until March 8th, when, during the usual morning visit, my attention was directed to the very alarming symptoms which the patient presented, and which seemed to threaten a rapidly fatal result. He was sitting up in bed, breathing with great effort; his countenance pale and bedewed with clammy sweat; and, on placing my finger on his pulse, I was able, although with difficulty, to count 216 pulsations in the minute. On listening to the heart itself, the cardiac systoles followed one another with so great rapidity, that no *bruit* could be made out; but the first sound was distinctly and clearly audible. Whilst feeling his pulse at 11.45, the heart suddenly stopped for several beats, then gave three or four forcible and irregular pulsations, and, on resuming its action, was found to have fallen to 104. He now expressed himself as feeling much relieved; the countenance lost its ghastly pallor, and he was able to tell me that the palpitation first began at 9 A.M., and that he had suffered in a similar way, but much less severely, several times since admission. Next day, he had another, but much slighter, attack, and, three days later, he was invalided the service.

It will be remembered that, in 1867, Dr. Cotton published in the BRITISH MEDICAL JOURNAL a case of this nature; and, as this was probably the first on record, he may justly lay claim to priority in bringing the subject under the notice of the profession. His patient was a middle-aged man, who was seized on two occasions, at an interval of three years, with dyspnœa and faintness, and a pulse rate of 230, recovery taking place under treatment, one result of which was the expulsion of a tapeworm. The pulse here was regular, but uncountable at the wrist, and no indication of valvular disease could be detected.

Sir T. Watson, in a letter to Dr. Cotton, refers to a case in which the pulse on four occasions ran up to 216, with great anxiety and general distress, passing off suddenly in two or three days. In the fourth attack, the patient died, and a large flabby heart was the only morbid appearance observed. Dr. Bowles of Folkestone records, in the BRITISH MEDICAL JOURNAL of July 20th, 1867, the cases of two ladies, in the first of which the surprising pulse rate of 250 was reached, and in the second over 200. A case of Dr. Broadbent's is reported about the same time, where 168 was the number attained; and, in July 1869, Dr. Cotton sums up the evidence and records another instance where the heart's action exceeded 200 beats.

In a recent number of the *Lancet* (February 6th, 1875), Dr. Brisbane has published a case of mitral disease, where the pulse suddenly mounted up to 185, and continued at that elevation during several days; and Dr. Willett has mentioned to me an unpublished case, which first came under his notice five years ago, where a middle-aged woman was seized with most extremely rapid and irregular action of the heart after a sudden shock. Dr. Richardson, who saw her at this time, tells me that there was great dyspnœa and distress, and that the pulse ranged from 180 to 200, being hardly countable; and, in a letter received from Dr. Willett, describing the present condition of this patient, he says the pulse is uncountable and irregular, as well as intermitting. It stops suddenly and at irregular intervals, a bad attack lasting some days; but there is no indication of valvular disease.

This, then, is a tolerably accurate list of the cases of abnormally rapid cardiac action recorded in recent literature; and, on studying them attentively, with the view of discovering any marked differences or points of similarity between them, I find they may be, in the first place, divided into two classes: 1. Those in which valvular disease existed; and 2. Those in which the palpitation might fairly be assumed to be only functional in character. To the first belong Dr. Brisbane's case and my own, where mitral and aortic disease were respectively diagnosed; but, in the other six, no common explanation throws any light on the symptoms, two of the eight patients being the subjects of albuminuria, three being rheumatic and dyspeptic, two the subjects of dilated and gradually weakened hearts, and one having been proved by the results of treatment to have acted the part of host to a large tapeworm.

Another element of distinction is found in this: that, in a certain number of cases, the heart resumed its normal functions suddenly, whilst in others the unusually rapid action became gradually diminished. Accident enabled me to advance perhaps a step beyond other observers, by affording me the opportunity of feeling the pulse at the precise moment when the change took place; for it will be remembered that, whilst my finger was actually on my patient's wrist, the number of pulsations suddenly fell from 210 to 104, the heart recovering itself after a somewhat lengthened pause and several irregular contractions.

Having now summed up the principal facts connected with our subject, we find ourselves in a position to go a step further, and inquire in how far physiology can assist us in unravelling the difficulties which naturally arise; and let us first consider the explanations which have been brought forward by those who have previously written on the subject. Dr. Cotton is inclined to believe that in such cases the heart is led to contract too rapidly, on account of a condition of over-sensitiveness, such as we find in various nervous affections or in simple nervous palpitation; or, on the other hand, the blood may be irritating in quality, as in gout and acid dyspepsia, and thus tend to induce more hurried and irregular contraction of the cardiac cavities.

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* Read before the Medical Society of London.

Dr. Handfield Jones, who has considered this question in his interesting work on *Functional Nervous Disorders*, carries the explanation somewhat further by ascribing the phenomena to neurotic influence. He writes: "The associated symptoms point very decidedly to an implication of the vagi in the disorder; in five, the breathing was notably affected, and in two the stomach was deranged. My notion is, that the pathema is a paralytic neurosis of the vagi, or of their cardiac branches, essentially similar to a common neuralgia, *e.g.*, sciatica."

Now, we know that division of the pneumogastrics, by removing their inhibitory or restraining influence, permits the sympathetic ganglia to run riot, and that enormously increased rapidity of the heart's action is the result; and Dr. Jones thus places the very reasonable theory before us that, from the influence of some weakening or paralysing cause on the vagi or their centre in the cerebrum, the rein is partially removed, and the unrestrained vaso-motor ganglia, if we may use such an unscientific expression, take the bit between their teeth and bolt. And the analogy of physiological therapeutics also holds good here; for experiment has shown that the injection of atropine directly into an animal's veins causes an excessive rise in the number of cardiac pulsations, from its paralysing power over the inhibitory branches of the pneumogastric distributed within the heart-muscle. Digitalis, on the other hand, produces a precisely opposite effect, for it causes a much lowered rate of pulse, even after section of the vagi, by acting on their cardiac nerves and the minute ganglia with which they are connected. Various other influences brought to bear on the inervation of the heart also induce increased rapidity of pulse; thus tubercular meningitis, in its later stages, when effusion at the base of the brain may be supposed to act on the centre whence the vagi spring, is characterised by an exceedingly quick pulse, and in children's disease generally we find an excessive excitability of the action of the heart. Thus, in pneumonia and in other of the inflammatory affections of early life, I have not unfrequently counted the pulse up to 200, even in cases which were not otherwise characterised by severe symptoms, but in which the mobility of constitution common to this period of life tends to the expenditure of nerve-force in various directions to the weakening and exhaustion of the great nerve-centres. We are also all familiar with the remarkable elevation of pulse following rapid exercise in ill-prepared persons: a brisk run, a stiff pull up a hill, will often run the cardiac pulsations up to what might well be considered a dangerous degree, and I have thus seen in my own case, during a severe ascent in Switzerland, undertaken under unfavourable conditions, the pulse beat at the rate of nearly 200.

In addition to these arguments in favour of the view that exhaustion of a certain nerve-force may cause well marked symptoms by enabling a distinct but usually subordinate function to come into play, we may appeal to the results of treatment. The successful issue of most of the cases I have mentioned was in all probability due to the administration of tonic and supporting drugs, among which digitalis always held a high place. We all know the property which this valuable medicine has in regulating and supporting cardiac contraction by its primary action on the inhibitory centres, as well as its secondary effect on the muscular structures of the heart itself. But, in this connection, my case affords a notable contrast to the others; for it was whilst the patient had been under the full influence of digitalis for twenty-five days that the violent palpitation came on. The remedy was here prescribed under the old-fashioned idea of reducing the labouring action of an enlarged and hypertrophied heart, and before modern research had shown that its use in such a case was not only unnecessary, but possibly injurious. The first result of its employment was to reduce the frequency of the pulse, and its second I fully believe to have been paralysis of the terminal cardiac filaments of the vagi, from that exhaustion which usually follows undue stimulation, and hence the remarkably rapid rate to which the sympathetic urged on the muscular contractions; and this is quite borne out by what is observed on experiment; for Nothnagel lays down the primary action of digitalis to be that of retarding the pulse, whilst larger or longer continued doses inevitably bring about a secondary stage of excitement and great rapidity. In Fox, therefore, it is probable that some temporary disorder of the secretions may have interfered with the due elimination of the drug, and so permitted that saturation of the system which is generally spoken of as indicating a so-called correlative effect. But it may be reasonably asked, Could not an exciting or stimulating influence directed towards the sympathetic nerve-supply of the heart explain more directly the phenomena of rapid pulse? This may be so, and Dr. Richardson was inclined to adopt such a view in Dr. Willett's case, where he believed the sudden emotional shock to have been the factor in enabling the accelerating action temporarily to overcome the controlling power of the vagi. The only other point specially deserving of notice in my case was the observation that, during the rapid action of the heart, no trace of morbid *bruits* could be detected; and this was, no doubt, due to the feeble contraction of the cardiac muscular tissue not emptying the ventricle sufficiently fully or forcibly to bring about the physical conditions necessary for the production of murmur. And it was interesting, at the same time, to hear the clearness and distinctness of the first sound when unmasked by systolic *bruit*.

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## ORBITAL ANEURISMS.

By WALTER RIVINGTON, F.R.C.S.Eng.,
Surgeon to the London Hospital.

THE value of Mr. Lansdown's extremely interesting case of "varicose aneurism of the left orbit cured by ligature of the diseased vessels" would be much increased if he would supply some additional information about the symptoms. The degree of exophthalmos; the nature of the *bruit*, whether continuous or intermittent; the presence or absence of thrill in the pulsating swelling; the presence or absence of noises in the head, and, if there were any, the date at which they were first heard by the patient; whether the *bruit* could be heard or not over the head, and, if so, whether it has now been completely removed; the presence or absence of chemosis, and of a fold of conjunctiva covering an everted lower eyelid; the presence or absence of paralysis of any or all of the orbital nerves; and the effects of pressure on the carotids—are all points of importance. Assuming for a moment that the exophthalmos was slight, that thrill was absent, that noises in the head were not heard at any time by the patient, that the *bruit* was only audible over the orbit, that there was no chemosis or conjunctival pad, and that paralysis of the orbital nerves was absent, the case would be one of much less severity than my own, in which all these symptoms were present, and in which it can scarcely be questioned that a communication existed between the carotid artery and the cavernous sinus, preceded and produced as it was by a very severe fracture of the skull, extending from the vertex along the right side and base of the skull. It would be of great advantage to determine whether such a lesion could or could not have been present in Mr. Lansdown's case. A fragment of the exploded soda-water bottle struck the patient at the inner part of the upper eyelid. Could it have penetrated so deeply as to wound the carotid in the cavernous sinus, as has happened in similar cases with other offensive objects? It is apparently beyond doubt, that the large vein which came off from the "aneurismal sac" was the dilated ophthalmic vein or one of its branches. Was not, then, the "aneurismal sac" a pouch of the vein, rather than a structure such as the description would denote; and the "feeding vessel" a vein, rather than an artery? If the affection was a varicose aneurism formed between the nasal artery and vein, it is difficult to understand, as Mr. Bader and Mr. Higgins found it difficult to understand, the congestion and dilatation of the retinal as well as of the superficial veins, and the projection of the eyeball.

The importance of establishing the diagnosis lies in the direction of the treatment adopted and recommended by Mr. Lansdown. If we grant the correctness of the diagnosis formed of a varicose aneurism between the nasal artery and vein, the treatment adopted remains both correct and successful; but it loses all, or nearly all, bearing upon the treatment of pulsatile swellings due to morbid conditions of blood-vessels behind the orbit. If we question the correctness of the diagnosis, and can render it not only probable, but almost certain, that there was either a small hole—possibly a very small hole—in the carotid, or a communication deeply within the orbit between the *ophthalmic* artery and vein, then the treatment pursued becomes of the highest interest. In point of fact, whichever view is taken, the treatment is unique. There is only one other similar case, so far as I know, in which the ligature of vessels within the orbit was attempted; but it was attempted without success. M. Passavant of Frankfort-on-the-Maine met with a case which resulted from a punctured wound of the orbit, caused by the forcible projection of a knitting-needle by the enraged sister of his patient: "Notumque furens quid fœmina possit." There were all the symptoms of an aneurismal tumour, and M. Passavant diagnosed an "aneurism of the lacrymal artery". An attempt was made to reach the supposed aneurism by resection of a part of the external wall of the orbit. No aneurism of the lacrymal artery was found; but at the apex of the orbit the finger encountered deeply, and on the inner side of the optic nerve, the pulsations of an aneurismal pouch. Attempts made to tie the pulsating sac were fruitless, and the operation was abandoned. The patient ultimately remained in the same state as before.

In this case, both the symptoms and the failure of the treatment are clearly explicable on the supposition of an arterio-venous communication in the cavernous sinus, and a resulting aneurismal varix of the ophthalmic vein. Might not Mr. Lansdown have ligatured the ophthalmic vein, and the cure have been effected by the coagulation of the blood in the deeper part of the vessel and the cavernous sinus? If so, there would certainly be an encouragement to the adoption of a like method in other cases. This mode of treatment had, indeed, occurred to me; but I was deterred from undertaking it by the reflection that it might be difficult to pass a ligature round the vein deeply enough to be of any service, and, if the vein happened to be wounded, the hæmorrhage might necessitate ligature of the carotid. Excision of the eyeball was proposed to me by the patient himself; but apart from the objection to remove an organ so important, as long as any reasonable prospect remained that vision might be regained, the operation was exposed to one of two disadvantages. Either it might fail to cure the condition causing the aneurismal varix of the ophthalmic vein, or it might be complicated with a wound of the vein and hæmorrhage of an embarrassing or even dangerous character, for which ligature of the carotid might be required. In reference to this last measure, I agree with Mr. Lansdown that it should not be undertaken indiscriminately. For a case of varicose aneurism of a small artery and vein like the nasal, it would certainly be out of place; and if we can find a less hazardous procedure applicable to other descriptions of morbid conditions of blood-vessels occasioning similar symptoms, by all means let it be adopted. As the account at present stands, ligature of the carotid for "intraorbital aneurism" has certainly been attended with marked success. Six deaths have occurred out of forty-seven cases of ligature, and only four deaths fairly attributable to the operation, two of the four being due to the advanced age of the patients. Is this experience delusive, or may future observers of orbital aneurisms be guided by it in the treatment of a class of affections whose pathological obscurity has not yet been wholly removed? At all events, it is of the greatest moment that we should be able to distinguish, if possible, between aneurismal conditions of the small vessels within the orbit and aneurismal conditions of the large vessels behind it; and it is in the hope of eliciting from Mr. Lansdown some features of differential value, that I have ventured to put the queries contained in the preceding remarks.

# CLINICAL MEMORANDA.

## THE TREATMENT OF CHLOROFORM POISONING.

Dr. Hardie's recently reported case has gone a long way towards destroying the proud *prestige* of ether, and towards showing that its superiority over other anæsthetics is purely ethereal. We have still to search for a safe anæsthetic, but, in the meantime, human beings will continue to imbibe the more or less lethiferous vapours now in vogue, and it therefore becomes important that a concerted plan of action should be agreed upon when danger arises. As matters stand now, one man trusts to galvanism either of the heart or of the phrenic nerves, another puts his faith in artificial respiration, a third is content with flicking the skin with a wet towel in the hope of returning the expiring vital spark, another throws all his energies into opening the windows and pouring brandy down the victim's throat. Now, under the plan of inversion, introduced by Nélaton, recoveries have been effected after a much longer period of apparent death than under any of these; and it certainly is only right to give this method a fuller trial, and to resort to it on the first threatening of danger, and not after a number of other things have all been tried in turn and in vain, and when it would be as rational to attempt to resuscitate an Egyptian mummy.

Though the following case presents no novel feature, and, indeed, is altogether less striking than the cases reported by Dr. Campbell, Dr. Marion Sims, and Sir John Rose Cormack, still I think it worth recording, because it serves as well as another to redraw attention to this important subject, and because it may stimulate those who have opportunities experimentally to determine, first, the condition of the brain in cases of chloroform-poisoning; and, second, the comparative value of artificial respiration in the horizontal and the inverted position. A boy, about eleven years of age, who had previously taken chloroform without any bad symptom, was narcotised in one of the surgical out-patient rooms of the Manchester Infirmary for the purpose of having a large nævus ligatured. Before completing the operation, my attention was drawn to the patient, when I noticed that respiration had ceased; his teeth were closed, there was frothy mucus at the angles of the mouth, the lips were blue, the pulse could not be felt at the wrist, nor, on placing the ear to his chest, could any action of the heart be detected. Several students were present, and, at my request, one of them held the boy up by his heels, while I commenced to employ artificial respiration on Silvester's plan, his tongue being meanwhile drawn forward by a pair of forceps. No note was taken then of the time that elapsed before a natural respiration was made; and, therefore, no perfectly accurate record can now be given. We are, indeed, little able to calculate the flight of time under such circumstances with precision; and, conscious of the tendency we have under excitement to exaggerate its duration, I did not myself give any estimate; but, on referring to those students who were mere onlookers, I found that none of them gauged the time at less than six minutes before the first feeble respiration showed there was still life in the lad. Little by little, the respirations increased in strength, he vomited, and, in a few minutes more, was all right again. It is, of course, easy enough to sling up a slip of a lad in this way, but, if we decide to Nélatonise all our patients who show dangerous symptoms, it may chance that some "Manningtree ox" of a man may tax our capacity; would it not, therefore, be desirable, to furnish every operating theatre with a hoist by which the weightiest patients might be at once elevated to the necessary altitude, and kept there till the danger has passed away?*—S. Messenger Bradley, Manchester.

## THE ORIGIN OF TYPHOID FEVER.

In recent numbers of the Journal, attention having been drawn to this subject by Mr. Whitgreave, and more recently by Dr. Hinchliffe, I turned over my cases, and find two which, bearing on the matter, I would place on record. Mrs. B. stated to me that the only manner in which she could account for her having contracted the fever was, that on one hot day, while walking in the Belgrave Road after shopping, as the dustmen were emptying the dustbin, and were in the act of turning the basket over into the cart, she happened to pass by; a whiff of foul air from some decomposing offal seemed to strike her, and the horrid smell never left her nose, nor its taste her mouth, till her convalescence from the fever. The offal, she says, was either a dead rat or cat.

The next patient was a lady, who, finding a most unpleasant smell about the front of her house, for which no one could account, searched everywhere till she came to the dustbin, on opening the door of which, the foul emanations from a decomposing rabbit met her, and were so offensive, that she vomited, immediately sickened, and was for a long time laid low with typhoid, and a tardy convalescence. I am at present attending in a house where an elder member is suffering with typhoid, the younger persons being all attacked with scarlatina; but, whether both these fevers have been generated from the same poison—different structures, and parts of the body being affected by the poison, as it may tend to have an affinity for the intestines, etc., a condition of determination which obtains in typhoid; or, for the throat, skin, etc., which produces scarlatina—I am not in a position yet to decide, although, I believe, such may be the case.

G. de Gorrequer Griffith, L.R.C.P.Lond.
Senior Physician to the Hospital for Women and Children,
Vincent Square.

# SURGICAL MEMORANDA.

## ON A SLIGHT MODIFICATION IN THE OPERATION FOR CLOSING FISSURES OF THE SOFT PALATE.

Those who are in the habit of operating upon these cases, are aware how important is the passing of the first suture, and that its disposition with regard to the edges of the cleft and to the limit of the extent of the fissures, are of the first moment to the subsequent steps. Now it very frequently happens that the processes of freshening the edges of the cleft, and of dividing the muscles, in the hands of inexperienced operators, render the subsequent passing of these sutures a matter of considerable difficulty, even although the patient be chloroformed, and the parts distended by means of the gag.

I have found that the primary introduction of a silver wire suture in the following manner is a great auxiliary to success in the more important steps of the operation, before the edges be freshened, and the myotomy performed. A needle armed with stoutish silver-wire should be introduced at a point rather less than midway between the apex of the cleft and the free uvular margin of the velum, taking care that it transfixes the tissues at some distance from the edges of the fissure, and that the point of its introduction on the opposite side exactly corresponds with it. The ends of this wire are now to be brought out of the mouth, but the loop left loose behind the velum. Next comes the division of the muscles, and then the paring of the edges of the cleft. The object then, of passing the wire suture thus early, is, that though *in situ*, it runs no chance of being divided by the knife during this portion of the operation, whilst, by giving it a good hold of the palatal tissues I have alluded to, as soon as the V is removed, it can be immediately tightened, thus approximating the edges at once, and giving the patient a little breathing time (if without chloroform); and, moreover, enabling the surgeon to clear the mouth entirely of clot, and to exactly adjust his remaining sutures without undue hurry and with greater nicety.—EDWARD BELLAMY, F.R.C.S.

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* One other suggestion seems worth making to those who have opportunities of experimenting *in corpore vili.* It has recently been shown that chloral hydrate, in its decomposition in the system, produces carbonic oxide, which is presumably the cause of death in fatal cases. May not chloroform, in some measure, produce anæsthesia by the evolution of the same product? and, if so, would not the rational remedy be to have a bag of oxygen gas at hand, and to employ this agent, instead of atmospheric air, when resorting to artificial respiration?

# REPORTS
OF
# MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

## LONDON HOSPITAL.

### CLINICAL MEMORANDA OF A SERIES OF INTERESTING CASES OF NERVE-DISORDER NOW IN HOSPITAL.

(Under the care of Dr. HUGHLINGS JACKSON.)

*Case of Hemikenesis: Case of Optic Neuritis: Diagnosis of Cerebral Disease in Two Cases, with Confirmatory Post Mortem Examination: Relation of Convulsion to Loss of Consciousness: Cerebral Disease produces characteristically other than Nervous Symptoms: Cause of Staggering in Paralysis of the Third Nerve: Menière's Disease: Optic Atrophy with Locomotor Ataxy: Bilateral Muscular Atrophy.*

WE had the opportunity recently, during a visit to the London Hospital, of observing a considerable number of cases of nervous disorder, which were brought under our notice by Dr. Hughlings Jackson. The majority were cases under his own care; others were cases which had been placed partially under his care or observation by colleagues who were aware of his special interest in cases of the kind. The visit was one of very great interest, and it speaks volumes for the clinical value of this great hospital that so many cases of importance and interest in one department of medicine should be found at one time in the wards. It must be added that the originality and studious thoughtfulness of the physician enabled him to throw new light upon and to develope valuable suggestions from the observation of cases of a kind which are often passed over as of little interest. We can speak of the cases only very briefly and from memoranda of the points which were particularly brought into prominence at the moment of our visit, and in the hurried clinical review of the cases made in passing through the wards on our visit. We shall take the cases nearly in the order in which we saw them.

The first was a man who had a peculiar unrhythmical and almost ceaseless twisting about of his right arm of some months' duration: a sort of localised "muscular insanity". The movements were not choreal; they were not punctuated, but glided into one another; the simple expression "twisting about" describes them best. The right leg was but slightly affected. Dr. Hughlings Jackson uses the term hemikenesis for overmovements of one side of the body, as, for example, hemichorea, hemispasm, etc. He believes there is a discharging lesion of the cerebral hemisphere in these cases; but why in one the nervous discharge is in an almost continuous stream, in others in a punctuated sequence, and in others abrupt and occasional, he does not pretend to know. Very many kinds of treatment have been tried for this poor fellow, but the only thing which was followed by benefit was the subcutaneous injection of woorara. There could be no doubt of the benefit which followed this injection; for a time, too, the man's general health was better. Recently, the injection has been discontinued, because he has severe headache after it. It is noteworthy that, since its use, the sensation of the left arm has greatly diminished; it was slightly but decidedly less than that of the left arm before the injections were used, but now it is very much less. This clinically observed fact is important in reference to the erroneous conclusions of some that woorara, while paralysing motion, increases sensation. The evidence afforded by this patient to the contrary is strongly marked.

Several cases of optic neuritis with supposed intracranial tumour were shown to us. Dr. Hughlings Jackson insisted that extreme neuritis very often existed with good sight. The ophthalmoscope ought to be used whenever a patient had severe headache. He said that he believed that, were the ophthalmoscope used by routine, there would be less blindness. He thinks it probable that there is always a preamaurotic stage of neuritis, and that, were large doses of the iodide of potassium given at that stage, the neuritis would often retrocede. As he invariably gives iodide of potassium in optic neuritis, he cannot make a confident statement. He showed us a patient whose neuritis had disappeared under iodide of potassium. He thought that optic neuritis is, although not certain, the best evidence of gross or coarse disease within the cranium. It was, however, of no value in localisation.

In one case, from the fact of convulsion of the right side, Dr. Hughlings Jackson said there would be disease of the left cerebral hemisphere (a discharging lesion); next, from the fact that there was optic neuritis, the discharging lesion would be the result of irritation by coarse disease; and, in the case spoken of, that this coarse disease was probably an abscess, as there was disease of the bone in the orbit. He insists on this diagnosis of stages. This diagnosis was in essentials recapitulated with regard to a patient of Dr. Hughlings Jackson whose body was to be examined *post mortem* by Dr. Sutton that afternoon. The lad had had convulsions (some with and some without loss of consciousness), beginning in the left hand; he had double optic neuritis and intense headache (Dr. Hughlings Jackson believed that the lad died of pain). So far, there was clear warrant for the diagnosis of a discharging lesion of the surface of the right cerebral hemisphere, and that that discharging lesion was the result of coarse disease. As to the particular nature of the coarse disease, there was a doubt. Dr. Hughlings Jackson thought that, as there was organic ear-disease, there would be a scrofulous tumour. He has several times seen scrofulous tumour at autopsies of patients who had died with organic ear-disease, instead, so to speak, of cerebral abscess. In this lad there was found *post mortem* local roughening of the bone, subjacent adherence of membrane, and little tumours going from it into the convolutions. The area involved was over about half a square inch behind the lower third of the fissure of Rolando on the right side. There was considerable local softening, and also great œdema beyond the parts actually softened. Dr. Sutton agreed with Dr. Hughlings Jackson in thinking it most probable that the local coarse disease was syphilitic. If so, it is the only autopsy on a case of congenital syphilitic disease of the nervous system Dr. Hughlings Jackson has seen which has revealed any coarse alteration. Such cases are valuable as bearing on Hitzig and Ferrier's experiments; but unfortunately the disease in this case was too extensive for any precise localisation.

We saw several other patients who were subjects of that kind of convulsions which the lad had whose case we have just mentioned. These are the cases which are illustrated by the experiments of Hitzig and Ferrier. Dr. Hughlings Jackson's plan is to ask the patient to describe his fits himself; this he can do in great part, as in the convulsions spoken of (commonly called epileptiform convulsions), a good deal occurs before the patient loses consciousness. One patient gave a very vivid account of what Dr. Hughlings Jackson calls the "march of the spasm". This patient's fit begins in his left index-finger and thumb; it then passes up the arm, and affects the face, and next passes down the leg. It is the rule that fits which begin in the hand should begin in the index-finger and thumb; when they begin in the foot, they usually begin in the great toe.

Speaking of these cases, and with reference to their difference from such cases as are commonly called epilepsy *par excellence*, Dr. Hughlings Jackson said that he thought the abrupt division into cases with and cases without loss of consciousness was not even justifiable on grounds of convenience. The absolute separation was, he thought, a "survival" from a metaphysical stage of thought when consciousness was thought to be an entity. The real distinction even empirically broke down in practice. The distinction was, he insisted, into cases where consciousness was lost first of all, very early or late in the paroxysm. If the discharging lesions were in the very highest nervous processes, there would be loss of consciousness first of all; if the discharging lesions were seated in a subordinate series of nervous processes, consciousness was lost late or not at all. Wherever the discharging lesions were seated, consciousness would be lost if the discharge were strong enough.

With regard to several cases of graver cerebral disease, Dr. Hughlings Jackson insisted strongly on the fact that active mental symptoms (delirium) were not of much value in the diagnosis of primary cerebral disease, such as tumour or meningitis. Such symptoms, he said, occurred most often in non-nervous cases, pneumonia, erysipelas, etc.

They may be called very general mental symptoms, for they occur under the most varied circumstances; prolonged fasting will produce them. Cerebral disease itself is but one of many conditions under which they arise. Then, on the other hand, the valuable symptoms of primary intracranial disease were, so to speak, non-nervous symptoms; vomiting, slow and irregular pulse, constipation, retracted belly, and, in acute cases, emaciations. He said it was a grave fault to take a nervous view of nervous diseases.

We saw a patient who had paralysis of the third nerve. Dr. Hughlings Jackson showed by this case that double vision was not the cause of the giddiness in patients who have ocular palsies. Covering the good eye and raising the lid on the side paralysed, the patient was told to walk. He tried, but reeled on to a bed directly. The irregularity of gait results from the erroneous estimation of the position of objects by the faultily moving eyeball, or rather, by the nervous centre for the movements of it.

We saw also a patient who had had attacks of Menière's disease. For a long time after a paroxysm, when his eyes were closed, he reeled in his gait. Dr. Hughlings Jackson is a firm believer in the association of ear-disease and vertigo, reeling, and vomiting. Sometimes the reeling lasts for months after an attack. He has three cases of Menière's disease under his care now; in one of them, as there is a renal disease —a common condition for retinal and cerebral hæmorrhage—he thinks there is hæmorrhage into the labyrinth. There are, however, no hæmorrhages in the retina. In cases where the ear-disease is irremediable, Dr. Hughlings Jackson treats the effects; he gives digitalis, bromides, etc.

We saw a patient who had simple atrophy of the optic nerves along with locomotor ataxy. Simple atrophy of the optic nerves is an aid to diagnosis in doubtful cases of ataxy. It is a "masculine" affection; rarely seen in women, in whom also locomotor ataxy is rare. Atrophy after neuritis is common enough in women. The case spoken of was in other respects rare; the ataxy was chiefly in the arms. Atrophy of the optic nerves is rarely seen in locomotor ataxy.

There was a patient who, besides being absolutely deaf, had bilateral muscular atrophy. Progressive muscular atrophy, as a rule, not only begins unilaterally, but it affects, first and most, those muscles whose chief use is unilateral; it begins in the hand. In this class of cases, Dr. Hughlings Jackson showed us certain muscles of locomotion are bilaterally affected, which are often used bilaterally or alternately; there was complete palsy of both serrati magni, so that the scapulæ stood out like wings of the erectores spinæ; so that the man's shoulders were held further back than the buttock; and of other muscles. Dr. Hughlings Jackson has seen these palsies with palsies of cranial nerves, of vocal cords, deafness absolute, and with palsy of both facial nerves without deafness. He has had no necropsy. He has never seen a case in an active stage. Several he has had under care for many months, the symptoms remaining unchanged.

## WEST RIDING ASYLUM.

### CASE OF APOPLEXY OF THE CEREBELLUM.

(Under the care of Dr. CRICHTON BROWNE.)

[Reported by ROBERT LAWSON, M.B.]

F. S., aged 28, was admitted into the West Riding Asylum in March 1863. She had been insane for eighteen months, and manifested symptoms of mania. For the first two or three years of her residence she was very liable to outbreaks of excitement, which lasted for two or three days. She was also very idle, and, though in good health, refused to engage in any useful employment. Subsequently the paroxysms of excitement were less numerous, and she became by degrees very industrious and amiable. In 1868, she had a more than usually severe outbreak, in consequence of a disturbance between her and the other patients engaged in the sewing-room. At the same time, she manifested delusions of a different character from those which she had already entertained. During the past few years she had shown a considerable amount of dementia, being very fond of horse-play, and very silly in her behaviour and conversation. In May 1873, she had an attack of pleurisy, with effusion. From that time till the sudden seizure she enjoyed good health. On the morning of May 19th, 1875, the medical officer was called to see her. She had been found by the night-nurse out of bed, cold, and unconscious. Not more than an hour before this the nurse had seen her resting comfortably. On examination, it was found that she could not be roused, and that the whole body was very pale and cold; the respirations irregular, and somewhat slow; the pulse 51, moderately strong, and quite regular; and the pupils unequally contracted, the right being the smaller. The eyeballs were quite insensible to touch, and the pupils inactive under the strongest light. The respirations showed a want of rhythm; rising gradually through eight or ten respirations, till the sound of the inspiration terminated in a loud snort, they suddenly became inappreciable, and remained so for a quarter to half a minute. This irregularity of respiration continued, in a modified manner, till death. Artificial heat and counterirritants were applied to the body and limbs, and the general condition remained unchanged for about an hour and a half. There was no convulsive movement; no twitching or flattening of either side of the face; no alteration in the direction of the axis of either eyeball; no flexion of the limbs; and no reflex action could be produced in any part of the body. There was also total insensibility to painful impressions. At 4.30, the pulse, which up to this time had remained at 51 per minute, began to intermit, but did not become weaker. The intervals of inappreciable respiration became so much longer, that artificial respiration had to be practised to avert immediate death. The body had regained a certain amount of its lost heat, when suddenly, shortly after 4.30, the pulse, which had been intermitting, suddenly rose to 120; and the respirations were quickened, but retained the same character as before. In another half hour, the pulse again fell quickly to 50, but was weaker than before the rise. There was every evidence of some sudden and important cerebral change having occurred. The respirations became more stertorous, and the intervals of inappreciable breathing or apnœa were much lengthened. The tongue was kept well forward, and artificial respiration maintained; but the pulse suddenly became imperceptible, and the breathing fell almost at once to two short inspirations a minute. The patient died at 5.15 A.M. From the commencement of the apoplectic seizure to the time of death, there was no vomiting.

A *post mortem* examination was held thirty-five hours after death. There was no mark of injury either over the occiput or on any other part of the head. There was no adhesion of the dura mater. The bones of the skull were of average thickness and density, and the skull-cap was symmetrical. Some fluid blood was found underneath the tentorium. On the under-surface of the right hemisphere of the cerebellum there was a projecting clot, which, on section of the lobe, was found to be the superficial aspect of a large recent extravasation occupying almost the entire extent of the right cerebellar hemisphere. Projecting from the surface of the biventral lobe of the same hemisphere, there was a second clot, which, on section, was found to be about the size of a small bean. This clot was apparently not connected with the larger extravasation in the same hemisphere. In the left hemisphere of the cerebellum, close under the upper surface, but not appearing externally, was another clot about the size of a pigeon's egg. This extravasation was also of independent origin. The proper substance of both hemispheres was extensively lacerated by the effused blood. The whole extravasation was recent. When the skull-cap was removed, the convolutions were seen to be flattened, but there was no wasting. The membranes were not thickened, and were free from adhesions. There was no atheroma of the vessels at the base. On section, the grey matter of the cerebral convolutions was found to be of average thickness; but both it and the white matter were pale. There was no extravasation into either hemisphere, or into the ganglia or the ventricles; and no blood in the *iter a tertio ad quartum ventriculum*. About three ounces of bloody serum escaped on removal of the brain. The sinuses contained dark fluid-blood. The other organs were fairly healthy. The heart contained dark fluid blood in both sides. The valves were normal, and the heart-substance was of good colour, thickness, and consistency. There was a patch of congestion occupying about three inches of the first part of the duodenum; otherwise, the intestine was free from all appearance of disease. The intestines were examined, because it had been observed that shortly before the patient was found in a state of unconsciousness she had, in the absence of the nurse, passed a copious loose motion. Dr. Crichton Browne called to mind that in several cases of cerebellar apoplexy which had occurred in this asylum, diarrhœa had been observed to come on immediately before the seizure. It is possible that this association may have been the result of mere coincidence; but it was certainly present both in this case and in another which occurred here in 1868. It is only necessary to add, that the sudden recurrence of the slowness of pulse, and the intensification of the cephalic respiration, which came on shortly before death, appear to have been caused by a second extravasation of blood, and that though the contraction and inequality of the pupils may have existed previously to the occurrence of the cerebellar apoplexy, yet it is highly probable that they owed their origin to the same sudden cause as produced the absolute insensibility of the pupils to light. Consequently, it may be fairly assumed that all the symptoms which have been referred to as present after the occurrence of the stroke, were directly due to sudden extravasation into the cerebellum, and mechanical pressure on the medulla and pons Varolii.

# REPORTS OF SOCIETIES.

## OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JUNE 2ND, 1875.

W. O. PRIESTLEY, M.D., F.R.C.P., President, in the Chair.

### THE RELATION OF PUERPERAL FEVER TO THE INFECTIVE DISEASES AND TO PYÆMIA. (*Continued from page 648.*)

DR. SAVAGE: I was quite prepared to commence the discussion this evening; but as I hear with great satisfaction that we are favoured with the presence of Dr. Farre, I should much prefer to listen to any observations that he may make.

DR. ARTHUR FARRE: I am very sorry if I have disturbed the order of the discussion, but I rise in obedience to the invitation conveyed to me by you, sir, and, as I understand, by the Society at large, to take part in the debate. As an honorary Fellow of this Society, I thank you for the compliment you have thus paid me. It has occurred to me to think what are the principal objects which the Fellows of this Society had in view in promoting this discussion. It was hardly, I should think, to elicit anything very new from any of the speakers; but the purpose probably was, that we should compare our observations, that we should as it were take stock of our knowledge, and incite each other to further inquiry and investigation; and, with this idea, I have come to night to take what little part I may in this discussion. In speaking of taking stock of our knowledge, I have it in my mind that we should not only compare our observations together as men of the present day, but that we should also take into account the labours of men who have long preceded us. I have no doubt that the Fellows of the Society have in their recollection those excellent works of such men as Denman, Lees, Hull, and various other workers at the end of the last century, who gave their attention to this subject. I have no doubt that a great deal of information might be evoked from a reperusal of the works of those men. Actuated by this idea, and looking into some of these works, I have been much struck by the observations of Dr. Kirtland upon this subject in his most interesting essay, which I have no doubt is well known to the Fellows of this Society, on *Child-bed Fever*. Dr. Kirtland commences his essay by inquiring, What is properly puerperal fever? and here he seems to open up the very subject we have met to discuss to-night. It is interesting to observe how a man more than a century ago took in all the points which we have now met to discuss, or most of them, and valued much in the same way as we now value these very same questions. He begins, for example, by admitting that every disease happening to a woman in child-bed, connected with the act of parturition, may perhaps be properly termed puerperal fever, though some writers use this by way of eminence to distinguish that form which they think most dangerous, from milk-fever and other forms of fever connected with child-bearing. Having admitted this, he proceeds to offer the following objections. He says that, if by using the term puerperal fever these writers had chosen to fix upon any particular form, it might have answered a good purpose; but he does not see what good will arise from combining together such diseases as may happen to a woman in child-bearing, as inflammation of the uterus, or putrefaction of clots within the uterus producing fever, or a fever engendered from without by the admission of atmospheric poisons. Then he adduces several such instances as the proposer of this question has adduced. He mentions the case of small-pox occurring to a woman in child-bed, hospital fever, and the like; and then he discusses the propriety of considering these as puerperal fevers at all. He points out very accurately that, when we give a specific name to a disease, the name ought rather to indicate the disease than the condition of the individual in whom it occurs. Then he makes another very excellent observation, which I think we should all keep in view, namely, that when we speak of fever we are not speaking of a disease, but of a sign, or a set of signs, indicative of a mischief going on within. He then sums up by saying, "In short, the writers in the present day seem to include under this name of puerperal fever a thousand disorders". Now that, I think, is as nearly as possible in accordance with the views of the Fellow of this Society who has brought the matter under our consideration to-night. He objects to the term "puerperal fever", and thinks that we ought to distinguish the different diseases which have been classed together under this title. I suppose he had in mind some such idea as that which actuated Lord Bacon, in reminding us that we are all too much in the habit of neglecting things, and worshipping specious names. I suppose that, in the use of the term puerperal fever, we have for a long time been worshipping a specious name, and not considering sufficiently the thing which that name indicates. Having asked your attention to the works of this author, and shown how far his idea seemed to be in a measure coincident with those which are now under discussion, I would proceed to refer to a few of the circumstances connected with the definition of puerperal fever, which has appeared in the work known as the *Nomenclature of Diseases*, emanating from the College of Physicians. I should not have done this, if the author of these questions had not done me the honour to mention my name in connection with the part which I took in the Nomenclature Committee of the College of Physicians in respect to this matter, as one whose business it was mainly to suggest to that Committee the various definitions that should be accepted in regard to those subjects that come particularly under my department. I think some little misapprehension must have arisen as to the objects of the Committee in framing that definition and offering it for the consideration of the profession. In order to make this clear, perhaps you will allow me to call attention to one or two observations that are made in the introduction to this work. Few men, I believe, read the preface to a book, and it may be that many of the Fellows of this Society have not read the few observations that precede the catalogue of diseases known as the nomenclature of the College of Physicians. They begin by saying: "The object of this nomenclature is to aid in perfecting the statistical registration of diseases, with a view to the discovery of statistical truths concerning their history, nature, and phenomena." Beyond this they do not profess to proceed. They then call attention to this fact, that whilst, generally speaking, the name of a disease only is given—as small-pox, for instance, which requires no explanation—there must naturally occur some that would seem to require explanation; and to those they have added a definition. But then they distinctly say that those diseases only have been defined which seem to require it; and the definitions have been framed for the purpose of identification only, not as explanations of the phenomena of disease. Hence, when a definition is offered, it is offered under these circumstances; and there is no attempt at dogmatic teaching, or entering upon any other considerations than those which would enable practitioners, whose business it was to register diseases under their respective titles, to identify the disease that was intended. I think it is as well to keep this in view with reference to the observations made upon this subject by the proposer of these questions. Now, I would like for a minute to draw attention to this definition of puerperal fever here offered. It is defined to be "a continuous fever communicable by contagion". I ask your attention for a moment to the word "communicable", for there was a good deal of discussion upon it. It is simply meant to convey the idea that the disease may be communicated, or is capable of being communicated; but that it does not necessarily arise in that way—that it may have a more spontaneous origin. "A continued fever communicable by contagion, occurring in connection with childbirth, and often associated with extensive local lesions, especially of the uterine system." That word "often" was also made the subject of comment; and I wish to observe, in connection with what has gone before, that the object of introducing that word was simply to call the attention of those who would have to register disease to the frequency with which these complications arise; there was no intention of entering upon any doctrinal question, or expressing any views as to the precise nature of the disease under consideration. Then there is added a note in which those who register diseases are requested to return under the name "puerperal fever" the more important local lesions, such as peritonitis, effusions into serous and synovial cavities, and the like. That is done for the same purpose, so that nothing might escape observation, and that every circumstance connected with the disease should be carefully recorded, for the purpose of collecting facts. I will now allude to the place which this term puerperal fever occupies, because I observe that it has excited much attention. It is not placed among the fevers at all; it is placed among the general diseases, but it is placed far away from the fevers. First of all come the infective fevers—small-pox, cow-pox, chicken-pox, measles, and the like; then, lower down in the list, follow pyæmia, erysipelas, etc.; then comes puerperal fever. It was placed in this position, because the Nomenclature Committee were entirely at a loss to know where it ought to come in the catalogue of diseases. It found a place of refuge at last at the bottom of the list, after pyæmia, erysipelas, etc.; and the Committee had it in their minds to indicate by this place which they assigned to the disease the apparent connection of puerperal fever with those antecedently named diseases. I would further call attention to the fact that, independently of this, there is in the nomenclature a list of those affections which are consequent on parturition; and this is quite apart from the subject which we have now been considering. Now, in connection with the same subject, I would ask the Fellows to consider if there be any objection to this term puerperal fever. What is meant by the term fever at all? What are our views with regard to fever?

Do we consider fever as a disease to which we ought to attach a special name? or is it only a symptom (as Dr. Kirtland long ago reminded us) of a disease? Do we regard fever—that is, the pyrexial action—as anything more than an indication of an underlying disease? If we keep this in view, we shall find the difficulties that continually occur in framing a nomenclature when we take the name of a disease to indicate that which does not signify its nature. These few observations I thought it right to offer with respect to this part of the subject. And now, as each of us is expected to answer to the best of his ability the questions put to us, I will take them in turn. But first I must confess that, in approaching the subject, I feel a great difficulty on account of the manner in which it is brought under our notice. I observe that these questions, which only profess to be questions, assume rather the form of an argument; they are rather put to us in a syllogistic form; and they are intended to lead up to a conclusion, though no conclusion is stated. Obviously, they are questions merely, and they are left to us to consider. But, if we are to follow the order of these questions, I must say it is with some difficulty that I approach the subject, inasmuch as that which we have to deal with is associated with a great deal of imperfect knowledge, and we cannot precisely formulate all the facts so easily in the shape which is offered to us. Still, with this difficulty before me, I will endeavour to the best of my ability to notice each of these three questions. The first, as you well know, relates to this: Whether there is any form of continued fever communicated by actual contagion or infection, in connection with childbirth, which is distinctly caused by a special morbid poison, and as definite in its progress as the diseases which are taken in illustration. To that question I can return a very plain answer, and say that I am not aware of any form of contagious or infectious fever connected with childbirth which is distinctly caused by a special morbid poison (if by that be intended a specific virus), and which has a definite progress. I am not acquainted with such a disease. The next question and the following one must, I think, be taken together. "May all forms of puerperal fever be referred to attacks of some infective continued fever—as scarlet fever or measles—occurring in connection with childbirth, on the one hand; or, on the other, to some form of surgical fever, or to erysipelas, caused by or associated with changes in the uterus and neighbouring parts following the process of childbirth?" I am unwilling to give an answer to this question, because I wish to keep open another subject, which seems to be closed by the question which follows it. If I were to give an answer to that question, I should be shut out entirely by the form that is laid before us from giving a satisfactory reply to the third, which is this: "If all cases of contagious and infectious diseases which occur under other conditions than that of childbirth are set aside, does there remain any such disease as puerperal fever?" Now, it is to the form of this question that I wish to take exception; because it appears to me that, in this question, the several infectious and contagious diseases are treated as if they occurred in the body of a man, a non-parturient woman, or a child; whereas I wish to keep together the connection which associates them with the act of parturition, and shows them as occurring in the parturient woman; and I think it is the separation of these two conditions that occasions the difficulty I now encounter. I cannot, consistently with my experience, agree to consider these diseases as one and the same when they occur to the non-parturient woman and the parturient woman. I think here there are several circumstances that have to be taken into account. In the first place, when any of these attack a parturient woman, she is not in the same condition as a healthy person whom they may attack. Scarlatina, measles, and the like, occurring to healthy persons, do not enter the bodies of those individuals in the same conditions as they enter the body of a parturient woman. Let us remember, in the first instance, she has been in some degree weakened by the previous confinement. It may be said, "Well, but in some cases we have a parallel—cases in which the diseases here mentioned follow after an operation." But I will go further. We have two processes going on in the body of the lying-in woman naturally, which do not occur in the person of one ordinarily struck down by one of these diseases. First, I refer to the milk-process, the milk-secretion, and to that attendant disturbance of the constitution which we term milk-fever. That is one element to be taken into consideration, and one disturbing force. And there is another and a much more important one, and that is the change which goes on in the uterus, and which we all know as the involution process. Nothing of this kind occurs in the body of an ordinary recipient of those diseases. This natural process, as we know, goes on in the body of the woman at a time when she is most likely to be attacked with the diseases that we have met to consider; and when any of these diseases attack a parturient woman, this process is materially interrupted. Now we know that when this process is interrupted, there is an arrest of all that eliminative action which that involution process implies; and we may fairly conclude that, in consequence of this arrest, there is some accumulation in the body of those effete matters which ought to be expelled from the system; and this, added to the already existing blood-dyscrasia, must very much aggravate the disease. Nor is it quite certain that this may not add a new form of sepsis to that which is already in the blood. Before admitting, therefore, that there is no such thing as puerperal fever, I would say that all these things ought to be taken into account. It has been thought by some that such a thing as a pure and independent puerperal fever may be found. I should be sorry to shut out that idea altogether as one that is impracticable, and not to be entertained. I think it is very easy to see where we shall find a puerperal fever, if we are to look for it at all. I mean a fever not caused by any of the circumstances here suggested to us; it is quite plain that we must look for it here, in the arrest of some of these processes that I have been referring to. If we are to look for a puerperal fever at all, one that can be properly so called, a disease which is *sui generis*, we shall probably find it in the interruption of these healthy processes. Then, if I am not trespassing too long upon your attention, I should like to express a little more nearly my own views with regard to puerperal fever. I very much regret now that, when we were framing this definition, it did not occur to me to suggest that the term "puerperal fever" should be rendered "puerperal fevers"; and that a note should be placed to the effect that, under this name, is intended to be comprehended a class of continued fevers communicable by contagion occurring in connection with childbirth, and so on. I think we should have got over a good deal of the objection taken to this word, if we had considered this not as a special form of fever, as it appears to be when it occurs in the *Nomenclature*, but as a group of fevers connected with the act of childbirth. If I were asked how I would classify the diseases that we have been in the habit of grouping together under the name of puerperal fever, I would divide them into these three, as it appears to me, very natural classes. We have to look at this matter in a practical light, and see how we shall consider this subject, not by the teachings of the dissecting room, but as we see it in the lying-in chamber, when asked, as we constantly are, to determine the nature of the disease that we are called in to examine and advise upon. I have been in the habit of dividing all cases that can in any shape be termed puerperal fevers into three classes. First, there are those simple fevers which may, for the want of a better term, be called irritative fevers; and under that name I would class that febrile action which results from simple mammary irritation, and is known as milk-fever; those simple febrile consequences of a traumatic origin which result from slight injuries to the soft parts, laceration, and the like, though those are of rare occurrence; and those pyrexial states which are of a fugitive and transient nature (I think, in a second catalogue in the *Nomenclature*, we call them puerperal ephemera). First, then, we have those irritative fevers arising from some local irritation, and not implying blood-infection of any kind. In the second class, I would place those infective fevers which are not of a specific origin, and in which the poison or sepsis does not undergo a distinct period of incubation, though I have no doubt there is a poison conveyed into the blood, in what way it is not necessary now to consider. Under the name, then, of the milder forms of infective fevers, I would class all those in which the infection is not of a specific nature, in which the process does not undergo a period of evolution, a period of development, and in which the consequences follow no definite order. Then, in the third class, I would include eruptive fevers, and those which depend upon a blood-infection, the poison following a specific course, having a regular period of incubation, and terminating in those several diseases, eruptive fevers and the like, which occur, of course, to the lying-in woman in common with others. These I do not consider as in any way taking any part in the puerperal fever. The only fevers that I would acknowledge as in any way connected with the puerperal state, are the first two. I would entirely exclude the others from the catalogue; but, in the present imperfect state of our knowledge on these questions, I would like to retain these diseases under some name corresponding to that under which we now group them together. If I proposed any alternative, I would change the name. One that I am in the habit of employing is *post partum* fevers. I have long discarded the name puerperal fever, and have used the term *post partum* fevers, which implies no theory at all, but simply expresses the fact that they occur to women after delivery. I think that, under that head, we might include all these three forms of fever. If, for the purposes of statistical registration, it were desired to know how these names should be registered, I would suggest that those cases should be registered under a separate head in connection with childbirth, never mind in what relation they stand. I would place, for instance, "scarlatina" and "scarlatina in the puerperal form" in parallel columns; "erysipelas" and "erysipelas in the puerperal form". In this way, we should satisfy the requirements of the Nomenclature Committee, and not foreclose that most important question that we have now under discussion. I dare not trespass longer upon your time; I cannot venture to offer any further observations upon this subject; but I may at some future time, if you please, further develope my ideas, and particularly call the attention of the Society to this circumstance, which appears to me to have been left too much out of consideration—it seems to me that, in considering the pathology of these cases, we have given too much attention to the influence of a blood-poison, and have lost sight of that intermediate condition—or, rather, we have not attempted to determine it—which intervenes between the entrance of the poison into the blood and the development of it in the various ways and forms which give significant names to the diseases under which they are classed. I think we have too much left out of consideration the influence of the nervous system, the influence of these poisons upon the nervous centres; and I think if we were to direct our attention further to this particular, we should be able to throw a great deal more light upon these diseases, and, perhaps, get over some of the difficulties that now surround us.

Dr. SAVAGE: I feel under some embarrassment after hearing Dr. Farre. I certainly came prepared with very decided views, but they have been somewhat shaken by what has fallen from that eminent authority. With regard to these questions of Mr. Spencer Wells, I do not know that Dr. Farre finds any more difficulty in dealing with them than the rest of us. Evidently, the object is to catch us at every corner, so that we might not escape from the subject in any way. I can scarcely agree with Dr. Farre in leaving the subject in so uncertain a state as he proposes. We have already had, in the course of the last two discussions, some positive statements made to us which touch closely on the real nature of the complaint. I was at an early period prepared to argue strongly against any pathological relation or affinity between fevers and these under discussion; but I listened attentively to what fell from Dr. Squire and some of our country friends, who sustained so well the argument on that point, that I think it scarcely necessary to trouble the Society with any observations of mine. I only wish to say that there seemed to be, on the part of Dr. Barnes and Dr. Braxton Hicks, a clinging to the opinion that there was a sort of connection between scarlet fever, or the sort of scarlet fever that they had seen, and puerperal septicæmia. It could not be the orthodox scarlet fever, because it is clear that you can have in a parturient woman distinct scarlet fever, and she will get over the scarlet fever and the parturition exceedingly well. I suspect these gentlemen mean some other form—a bastard form of fever—that sort of thing spoken of by pathologists, in their new vocabulary, when they say that a thing exists "potentially", and not actually. I will not criticise anything that has fallen from these authorities; I will only say that I find a difficulty in recognising the presence of any disease in the absence of its distinctive symptoms. Now, is this fever in any sense of the word? First, we have decided that it is utterly distinct from such things as we have called fever. Is it fever? We all agree that there must be some heat of the skin, some elevation of the temperature in anything that you can call fever. Now, I know that you may have many of these fatal cases of septicæmia in a parturient woman running their course in eight days, without any elevation of temperature from first to last. Or it happens that there is an elevation on the second day after you discover the presence of the poison. I agree with Dr. Farre, that a great deal may happen before you discover the presence of the poison. It is not impossible that, if we kept our eyes open and watched, we might anticipate the effect of the poison; but it is seldom done—we see the cases late, and they are generally fatal. In the matter of temperature, then, I think it is clear that the disease should not be called fever at all. Then, the next point is, whether it is septicæmia peculiar to a parturient woman, not like any other septicæmia. I have seen septicæmia from operations on silly women who are not intended to have a family, who are intended to be barren; septicæmia from the introduction of that most treacherous of all things, the uterine stem; septicæmia from legitimate operations upon the uterus; septicæmia after ovarian operations. I have seen all these, and I have also seen (but I am no authority on that point) surgical septicæmia in wards, and I can distinguish no difference between it and septicæmia in parturient women. I think it is a simple septicæmia—that is, a disease which you must set apart from every other sort of disease likely to occur in parturient women, such as the disease you call fever in connection with the secretion of milk, and other fevers. It stands quite apart and alone, and I think it of great importance that we should consider it as such. I think, if we do not, we shall be likely to overlook it in our patients; and, instead of applying, as we might with some effect at an early date, some remedy, we may let the case go on until it is past hope. Now, do we know anything of the poison? Have any of us seen or touched or felt it? Mr. Wells will tell you by and bye, if he please, that in the course of ovarian septicæmia he sometimes taps the peritoneum with great effect, and lets out a great quantity of it. There must be poison in or about it, because the woman is better when it is let out, is worse again when it accumulates, and again better when it is let out. Then, there are the processes, which it would take too long to enter into, such as washing the peritoneum and the like. If the case be taken in time, the woman recovers. Evidently, in such a case, we are dealing with a poison in some shape or other. Is the whole fluid poisonous, or is there something special in it? Our German *confrères* have helped us a good deal in this way, in a negative sense. The ordinary results of putrefactive changes in dead matter should be carefully distinguished from the changes which occur in fermentation; they are two different things, but are often confounded. We have sulphuretted hydrogen, sulphuret of ammonium, and butyric acid; there are other things, no doubt, but these have been discovered. I am referring to the experiments of Billroth and Weber. They take a solution of each of these things and throw it into the cellular tissue of dogs and horses, and produce in each instance septicæmia, the animals dying. You could not tell whether they had chills or not; still they died, and it was clear that they were killed through septicæmia. I must not forget to say that sometimes the severity of the symptoms did accord with the offensiveness of the liquid. I have had my fingers in the liquid, and could not eat any dinner for a week or two; and I have no doubt that if I had attended a parturient woman with my fingers in that state she would have had septicæmia. In the case of the peritoneum, it is clear that this question can be answered. What are the channels for the introduction of this fluid into the system? Unless the peritoneum be inflamed in the small vessels, it is clear it must be through the absorbents. There is an instructive experiment by Dr. Sanderson, in his beautiful book lately published, in which he shows that liquids may possibly enter the system through the vessels, but what he calls particulate poisons cannot—they must enter in by the absorbents. I do not know what he alludes to by those poisons, but I refer gentlemen who wish to know more about it to the book itself. It is quite clear, then, that in the case of the peritoneum the poison must enter in through the absorbents—that is, if it be particulate, because it is asserted by the more recent pathologists that all septic matter is particulate, which, I think, is a mistake. I am sure one of Billroth's experiments shows that it is a mistake, because a solution of sulphuretted hydrogen cannot be particulate. Let us apply this to the uterus. We are first in some difficulty unless you acknowledge the existence of absorbents such as you have them in the peritoneum. I think these absorbents are denied by some authorities. They are denied in a recent communication to our *Transactions*. Still, they do exist. I make this remark the more, because there was a theory started by Dr. Graily Hewitt the other day (as I saw by the report), about what he called the burglar-theory; that is, he said he had no doubt that in the majority of instances there was an imperfect contraction of the uterus, a clot within it and clots within the veins; and the locks being taken off the doors, and the doors thrown wide open, the thief stepped in. In the first place, I can scarcely imagine such a state of the uterus without considerable hæmorrhage. He also spoke of sinuses of the uterus. Now, there are no sinuses of the uterus in my opinion. I do not know of any open sinuses after parturition at all. I know it is exceedingly difficult in the dead subject to separate the placenta from the uterus without tearing into the veins. Nothing is so easy as to separate the placenta, *e.g.*, in placenta prævia; you come into contact with one of the large veins, and you feel the small arteries, veins, and absorbents yielding; you separate the whole, and there is the uterus in a dilated state, and no hæmorrhage. That could not be if there were open sinuses. Even if you have clots in the veins, it is a matter of demonstration, since Virchow's discovery of the true mechanism of embola, that clots in the veins do not get into the circulation by themselves—they never break up. That was the old opinion of Dr. Lee, whose name has not been sufficiently mentioned except by Mr. Hutchinson. Dr. Lee showed incontestably that one of the concomitants of this disease, septicæmia, was a clogging of the veins; but it was Virchow who demonstrated (it was quite a demonstration) that the clots will not break up; that is not the way that the clots pass in and disappear. Books on pathology, especially German books, describe how the veins empty themselves, but time will not permit me to refer to that. We have arrived at this, that you cannot get the poison through the veins. We have, then, to do with another channel: the lymphatics. Now, the lymphatics have been shown by Lee to be very peculiar in the mucous membrane of the uterus. The surface is highly absorbent, and the small vessels of the uterus are invaginated in these lymphatics. It is a very curious arrangement shown in Leopold's book. I fancy I have seen them. I do not say anything as to the microscope, since I find a power of fifty talked of, whereas I found a power of twelve difficult to manage. It seems to me, then, that as a matter of demonstration we have brought it down to this—

that we have seen the septic matter, we have touched it, and smelled it; I have mentioned experiments in regard to the composition of it; and we now can have no difficulty in believing that some septic stuff will accumulate in the interior of the uterus and enter the circulation, as it did in the case of the peritoneum. Now we come to the difficulty about the fingers. I said that if I attended a woman in her confinement with my fingers in that state I had no doubt she would have septicæmia, and I really have no doubt of it. You remember that we had some painful statements from a gentleman in the country who seemed to have had his fingers in that condition, and who lost case after case, and was obliged to give up his practice. I know it is difficult for most of us to comprehend how it is that the mere approximation of a finger should set going this curious septic thing. Now, every old woman will tell you that, if she puts a piece of fœtid meat in the cupboard, though it does not touch the rest, all will be turned in the morning. The other day, when passing a butcher's shop in a large district, I found him hard at work with all his men. Having these perplexing questions in my mind, I walked in to hear what sort of disinfectant he used, and he said, "I use no disinfectant; I wash everything with soap and water every night, hooks, cleavers, knives, and everything, then I admit the meat; if I did not, it would all be turned towards the morning". I do not myself profess to understand or explain how it is that the approximation of bad meat to good will turn the good bad; but so it is, and we can apply that fact, though I have no explanation of it, to show how contact with a fœtid finger would lead to septicæmia in a woman. Then we come to the question of pyæmia and bacteria. Now, the question of bacteria has occupied the minds of leading members of our profession during six hours, at three meetings, in a sister institution, where they all contradicted one another, and arrived at no conclusion, but made shipwreck of the whole affair. Nevertheless, we have to entertain it. Why did Mr. Wells tell us of pyæmia? What is pyæmia? A woman after her confinement has a pain in the upper part of the thigh, and there is a little swelling; you think there must be an abscess; you open it, and you let out a pint of matter. In a week's time, there is a similar swelling in the calf of the leg; you open that, and there is half a pint of matter; and then she does well. Another woman with septic symptoms dies suddenly with clots in the heart, and numerous abscesses in the lung. Another, has not only clots in the lung, but has pus in the kidneys, a breaking down of the spleen, and concretions on the valves of the heart. Now, Cruveilhier long ago injected quicksilver into the medullary cavities of dogs, and they died with all the symptoms of septicæmia; then he found numerous abscesses in the body, and in the centre of each a small globule of mercury. I mention these facts in relation to the question of pyæmia. I should like to know which you call pyæmia and which you do not. In the case of a woman with an abscess in the calf of her leg, you would call it pyæmia; but, if you have any septicæmia with it, you would call it septicæmia; yet, the source of the pus is the same in every case. I am inclined to dismiss pyæmia, as I would puerperal fever, entirely from the catalogue; and I believe that Mr. Callender, whom we heard the other night, has the same feeling. He seemed to me to hesitate very much as to the term pyæmia.

Dr. Braxton Hicks: I have never said that there is distinct scarlet fever producing puerperal fever. If Dr. Savage looks at my paper, he will find it stated that it might permit a condition which we call puerperal fever to come on; and, as a clinical fact, I have no doubt of that.

Dr. Savage: It seemed to me that Dr. Hicks and Dr. Barnes had an idea that there was some connection between the two, or between some form of scarlet fever and some form of puerperal fever. I say again, it would not be real scarlet fever, because we have had testimony that you can have scarlet fever in very severe form, and the woman will do well; therefore, I could not imagine that regular scarlet fever was meant.

Dr. Barnes: I also wish to disclaim the interpretation put upon my words, and I refer the Society to what I have written on the subject.

Dr. Wynn Williams: In answer to Mr. Wells's first question, I can only say that, in my experience, I have never met with a case of so-called puerperal fever existing as a disease *per se*. I have seen many cases of disease described as puerperal fever, with all the characteristics, which I have been invariably able to trace to a cause easily recognisable, and capable, in most cases, of being recognised early enough for removal; and, as a matter of course, I do not believe that the disease is due to any special morbid poison. In answer to the second question, I am also decidedly of opinion that puerperal fever cannot be referred to any special disease, although the existing cause of puerperal disease may arise during the progress of any one of the diseases alluded to, and many others—that is, should they happen to be accompanied by any gangrenous or suppurating wound. Women are often confined with the diseases mentioned in the same room with them, and derive no injurious effects therefrom. Again, puerperal women exposed to those diseases, and who have not been previously attacked with them, will take them, as other persons, without any special action on the uterine organs. I could relate numerous instances proving both these statements, did time permit. I shall consider the third, fourth, and sixth questions together; each one is so intimately connected, practically, with the others. I have stated what I believe the disease not to be; I will now state what I believe it is. Every case of so-called puerperal fever—I do not mean peritonitis and such like—is due to septicæmia, to septic contamination of the blood; and its injurious effects are first and most severely recognised in the wearied and bruised uterine organs and surrounding parts. The disease, then, is purely septicæmic. I agree in the main on this head with what fell from Dr. Graily Hewitt, with the exception of his terming the disease pyæmia. It is not pyæmia, and I consider that the calling of it so has led to much of the erroneous doctrines that have been promulgated. For instance, a female, three or four days after her confinement, is taken with what is termed puerperal fever, and rapidly sinks in a few hours. It is said she has died of pyæmia. A *post mortem* examination is made, and no pus is found, only a quantity of bloody sanious serum, with a peculiarly sickening and offensive odour. This is poisonous matter. If the patient had not been prepared, as it were, by the powerful doses of septic poison in her system, and had possessed sufficient strength and vitality to form pus, she would have had a far better chance of recovery. I look on the formation of pus as a healthy effort of nature to surround and isolate the irritating poison. In fact, I do not believe that pus—laudable pus, as it used to be called, whether in or out of the circulation—ever killed any one: it is only injurious when it becomes putrid. I believe that putrid animal matter acts injuriously on the puerperal female in two ways, and that the symptoms vary both in intensity and character. In both instances the septic poison enters the system, but in a different form; and as in the one case the poison is much more concentrated than in the other, so its effects are more overpowering and rapid. In the case of most intensity, the poison enters the system in a state of solution: in the more chronic cases, it enters as vapour. In the first case there is a breach of surface, generally in the vagina; in the other there is no breach of surface. Where there is a breach of surface, the septic poison comes immediately in contact with the fresh wound, and a dose sufficient to knock the patient down at once is taken into the circulation; in the other case, a mass of putrid matter—it may be decomposing blood—is pent up in the uterus or vagina, and penetrates the mucous membranes and deeper tissues more slowly: in fact, it is a case of continuous poisoning. This form frequently terminates in puerperal mania. There is, then, no such disease as puerperal fever; it is nothing more nor less than septicæmia, and is always due to the presence of putrid animal matter. Now, this putrefaction may be caused in three ways: by retention of portions of the placenta or blood-clots long enough for them to undergo decomposition; by the bruising and sloughing of vaginal mucous membrane; and, thirdly, where the septic poison is conveyed to the discharges of the patient, and by its presence sets up rapid putrefaction in the lochia—so rapid that, when once the fermentation is set up, the whole of the lochia appears to become putrid at once, like the action of yeast, or wort, or dough. The first is to be prevented by not leaving any portion of the placenta or of blood-clot (as far as practicable) in the uterus or vagina. It must not be overlooked that certain conditions of the atmosphere also tend very materially to promote this putrefactive fermentation. This has been described by Sir J. Paget, who has pointed out that at times the wounds of patients not only in hospital but outside take on an unhealthy character and become gangrenous. Of course, should any portion of placenta or blood-clot be present, your first care will be to remove them, and wash out the vagina, and, when necessary, the cavity of the uterus, with some antiseptic fluid. You must not be satisfied with telling the nurse to do it, you must see her do it, or (as I generally do) do it yourself the first time. The treatment of the second form, when you have a slough, is the same—to syringe out frequently with some antiseptic fluid. To prevent the third cause, every care must be taken to prevent any septic or putrid poison from coming into contact with the lochia. I have not time to point out how this may be best attained; neither is it necessary, as you have already heard all that can be said on the subject, as to isolation, ventilation, and the like. No method, however, has been pointed out, or even alluded to, in the course of the discussion, by which the septic poison could be got rid of should it have attached itself in any way to the body or dress of the accoucheur or nurse. We have more than one substance—one in particular, iodine—that will not tolerate the presence of putrid animal matter or septic poison. Let any one who has been in attendance on any case, whether a parturient female or any other, where there is any putrid emanation, wash his hands in water into which he has poured tincture of iodine, and I will answer for it he has no septic matter under his finger-nails. Again, if he fancy that his clothes, hair, and skin are saturated with it, let him go into the water-closet (I mention that as the smallest room in the house), place a few scales of iodine on a plate and put a spirit-lamp under it, and he will soon find himself surrounded by a violet vapour, which will fall upon him in a shower of minute scales, from which he has only to protect his eyes. If he then carry with him any of the puerperal poison, my whole theory of the disease must be wrong. One thing I can assert, that in my own practice I have never had a case of fatal puerperal septicæmia since I first used iodine as an antiseptic, now more than twenty years ago. Iodine is equally efficacious in warding off septicæmia in other surgical diseases. I have injected solutions of septic poison under the skin of guinea-pigs, and produced death by septicæmia. I have also injected some of the same solutions, into which I had dropped a few drops of the tincture of iodine, without producing any ill effects. It is needless to observe that the prevention and the cure of this disease go hand in hand together. Should any septic poison be present in the puerperal woman, wash her out again and again with solution of iodine, until the solution comes back the same colour as it was thrown up. The temperature of the patient will probably be 103 or 104, and it will go down in a very short time to 98. This I have witnessed since the present discussion began. The fifth question is as to bacteria—a delusion and a snare. It is possible that the septic poison may be conveyed by them as by any other substance floating in the air that is called harmless: that is all the harm they can do, as I take it; they live on this putrid matter as mites and maggots on cheese, or vibrios on decayed potatoes during an epidemic of potato-disease: in fact, I am inclined to think that they are present for the purpose of removing the poison, not of generating it.

Dr. PLAYFAIR: If there is one fact to be gathered from this discussion, I think it is that we have remarkably little reliable knowledge about the subject on which we are talking. It seems to me that that is a lesson really of the greatest importance; because I cannot but fancy that a great part of the almost unmistakable confusion that surrounds the whole matter has arisen from the non-recognition of that fact, from the circumstance that systematic writers upon the subject have thought it necessary to give a complete and fully rounded history of puerperal fever without recognising, as I hope they will do after this discussion, that we are only at the threshold of the inquiry, and that we have to build up all our knowledge by unprejudiced and patient clinical investigation. After saying this, I shall not err in the same way by talking too dogmatically in the few observations I have to make, and I will confine myself as much as possible to one question only which Mr. Wells has brought before us, and which has been talked a great deal of to-night—that is, the relation of the specific zymotic diseases to the so-called puerperal fever, a relation which, to my mind, is, in spite of what has been said about it, one of the most obscure subjects connected with puerperal fever. My belief about puerperal fever is very much what I understand to be that of several other speakers. I do not believe that there is any specific condition justifying the name of puerperal fever; nor do I believe that there is any special miasm arising from the puerperal patient capable of being conveyed to another patient; nor do I think that there is any evidence whatever to show that there has been an epidemic of puerperal fever in the strict sense of that word, although we all know how fatally endemic it has been in our large lying-in hospitals. In the second place, I believe that the theory which considers so-called puerperal fever to be practically the same disease as surgical septicæmia or pyæmia, or whatever we choose to call it, is the one which is most consonant with the facts of the case; that it arises from the contact of septic matter with lesions of continuity in the generative track, such as exist in every parturient woman; that there are channels of diffusion through the lymphatics, or possibly the veins; and that there are after that, just as there is in surgical pyæmia, general and local results of great consequence, rendered in the puerperal patient particularly intense and virulent, on account of the particular condition existing after delivery, which was so graphically described at the first meeting by Dr. Richardson. But, sir, the moment that that theory is stated, I think a great number of difficulties and objections naturally present themselves; and amongst these, I know none more difficult to resolve than that connected with zymotic disease. It has long been a recognised axiom amongst British obstetricians of the highest eminence, and I think I may venture to include Dr. Farre amongst them after what has fallen from him to-day, that the puerperal patient to whom the poison of some specific zymotic disease, such as scarlet fever, is brought, may be attacked with an intense form of the disease, which does not show the specific characters of the disease that produced the contagion, and which is practically undistinguishable from the ordinary puerperal fever. I know that that view has been strongly controverted. It has been controverted by Dr. Savage, in his somewhat caustic remarks. It was controverted at the last meeting by my friend Dr. Brunton, who brought forward a great many practical facts of great value, as all the facts that he brings before us are; but I think that Dr. Brunton fell into the common error—he argued from negative observations. I believe that no number of negative observations can outweigh even one single positive fact carefully observed. Dr. Brunton's argument reminds me of those fortunate gentlemen that I occasionally hear of from patients who tell me, "Dr. So and So has attended a thousand or fifteen hundred, or two thousand, cases of labour, and has never lost a patient." Now, I do not doubt the fact, and I congratulate the gentleman on his good fortune; but I must say that that fact does not to my mind vitiate the returns of the Registrar-General, or make me disbelieve the puerperal mortality throughout the whole of Great Britain and Ireland. So I think the facts in regard to these zymotic diseases are really beyond question. There is no one of the diseases about which strong evidence could not be brought forward. With regard to erysipelas, the fact is scarcely questioned at all. We all know how erysipelas is interchangeable in lying-in hospitals with puerperal fever; we had, as you will remember, at King's College Hospital, frequent opportunities of observing that at the time when we had a lying-in ward there. Then, with regard to scarlet fever, about which Dr. Savage has particularly spoken, I need only refer to Dr. Braxton Hicks's most valuable paper. There are, in that paper, no fewer than seventeen examples, if I remember rightly, of women who had a disease which presented no symptoms of scarlet fever, and which was clearly due to the contagium of scarlet fever. We all know that there is not, perhaps, in the room, a more careful observer than Dr. Hicks; and any man who can read that paper over without a preconceived judgment, and who does not agree with it, has a mind which I believe to be not open to conviction. Then there is diphtheria; we do not see so many cases of diphtheria, so that we cannot judge of it; but I may remind you that the most brand new theory of puerperal fever, that of Dr. Martin, is that puerperal fever and diphtheria are the same thing. I saw, within the last few months, a case remarkably illustrative of the influence of diphtheria in producing a disease which I was unable to distinguish from puerperal septicæmia. A newly married couple at Notting Hill had gone into a new house shortly before the confinement of the lady. The house was in a most unhygienic condition; an untrapped drain opening into the bedroom; an untrapped pipe from the drain and a gully under the window giving off offensive smells. The patient had an attack of intense septicæmia, from which she barely recovered with her life; and the husband at the same time was laid up with a well-marked acute attack of diphtheria, the patient presenting no symptoms of diphtheria, and the husband nearly dying. Who could rationally disbelieve that those two diseases were produced by the same septic poison? I do not think there could be any doubt about it. The arguments on the other hand are unquestionably of considerable force. There is one that Dr. Savage dwelt upon; namely, that patients have these diseases in the puerperal state typically developed and running a favourable course. I am well aware of that. There are many examples of that kind on record; and that is just one of the great puzzles which I hope time will explain to us, but which we cannot explain satisfactorily now. My own idea about that is—and I merely suggest it as an idea, which further clinical investigation of the matter may prove to be correct or not—that in the one case possibly the contagious poison was brought immediately into contact with solutions of continuity in the generative track, and therefore produced an intense form of septicæmia; and in the other case the poison may have been absorbed by the more ordinary channels. I think that is a sufficiently reasonable hypothesis, but one which, of course, we cannot prove. Then there is another argument, also of some consequence; that is to say, if puerperal fever be pyæmia, and if the poison of zymotic diseases can produce a condition which is not to be distinguished from pyæmia under certain circumstances, should it not be the case that, after surgical operations, these zymotic poisons should act in the same way? The whole subject of surgical pyæmia, especially the contagious qualities of it, has been so little worked at, that I do not think any surgeons would be justified in saying that zymotic poisons would not act in that way. I should like to know what Mr. Wells would say upon that point; and I hope that, when he comes to his reply, he will be able to spare a word or two with regard to it. But, knowing as I do the great care that Mr. Wells pays to his ovariotomy cases, I should be surprised to learn that he would be happy if he heard that some one was assisting him in ovariotomy who had been just handling either a scarlet fever or a diphtheritic case, whatever views he might form as to septicæmia. I have but a minute or two to refer to that burning question, the conduct of the practitioner in cases of this kind, which is one of the most important questions connected with this subject. It is practically impossible, whatever we may think, to give up attending together zymotic disease and fever; nor, indeed, do I think that it is at all necessary. I am quite at one with what Dr. Matthews Duncan has said in the letter that has been read here: that, if proper antiseptic precautions be taken, any risk from this source might be eliminated, whether we use iodine or any other disinfectant that we like. I have no doubt that danger from this source might be obviated; but at the same time I think it quite consistent with common good sense that, instead of blindly shutting our eyes to facts, however unpalatable these facts may be—and no one considers them more unpalatable than I do—we should look them fully in the face. I believe the risk is not from the facts themselves, so much as from ignoring the facts and refusing to take the proper precautions which they would naturally suggest.

Dr. TILT: I am in the unfortunate position of a man who, having put down a few notes, finds himself forestalled by the observations of those who have spoken before him. I rise also under a feeling of some diffidence, inasmuch as I am afraid that I come within the malediction of the last speaker as a man not open to conviction. On the first night of the discussion, Dr. Braxton Hicks attributed puerperal fever to zymotic influence in three-fourths of his cases. I was most interested with his paper; it certainly is a most valuable one; but, then, I found that he put down as cases of puerperal fever due to scarlet fever all those cases that he could trace as having been brought in anyhow into connection with scarlet fever; and whereas the paper contains twenty cases in which puerperal fever was said to have been caused by scarlet fever in which there was a rash, which we should all admit, there were fifteen cases in which there was no rash; that seems to me a very large proportion of exceptional cases, and I should say that in all probability many of those cases were cases of puerperal fever arising from other causes, certainly not from zymotic influence. If the zymotic influence is to have such an extraordinary effect in the production of puerperal fever, scarcely a puerperal woman could escape in the densely populated parts of a metropolis like London, where zymotic influences, call them scarlet fever, measles, typhoid fever, or anything else, are crossing and recrossing themselves with a frequency with which we medical men are fully acquainted. I am not alone in opposing this, which I call an extravagant view of the power of zymotic influence in the production of puerperal fever, for Dr. Robertson of Glasgow, who is at the head of a Maternity Hospital, immediately after the discussion, wrote to say that he did not at all participate in the opinion expressed. Several gentlemen who spoke at the last meeting controverted the opinion, and several general practitioners from the country protested against it; so that, I think, allowing full power to zymotic influence in the aggravation or production of puerperal fever, the theory was pushed a great deal too far on the first night of this discussion. With regard to the germ-theory of puerperal fever, I will say just two words. I think the Pathological Society has been kind enough to settle the question for us up to the present time. With reference to bacteria as a *post mortem* phenomenon, it is quite an exceptional case. While Heiberg at Christiania was relating in an interesting paper that he had found an enormous quantity of bacteria in the lymphatics of those who died during an epidemic of puerperal fever, other practitioners in Paris were making similar minute microscopic examinations in various hospitals, and found no trace of bacteria. It is one of those exceptional facts that you meet with in all puerperal epidemics; sometimes one condition will be found and sometimes another; sometimes pus in the veins, sometimes pus in the lymphatics, sometimes a brown sanious fluid in the lymphatics similar to what is found in the wound; and I think, if too much importance has been attached to zymotic influence as a cause of puerperal fever, too little has been attached in this discussion to what I should call the autogenesis of puerperal fever, until it was so strongly and ably advocated by Dr. Wynn Williams. I think that, if a woman be sometimes poisoned by others, she most frequently poisons herself, and I do not see how you can find a better arrangement for poisoning a human body than you would find in the womb if once you admit that the womb contains a fœtid fluid. You have a large bag, a spongy bag, partly bruised, sometimes torn; you have lymphatics abundant, lymphatics enlarged by the gravid process; you have lymphatics whose duty it is to absorb more speedily than at any other time; they are bent upon absorption; if you have a putrid fluid, I was going to say it must be absorbed, and, if it be absorbed, it goes into the lymphatics, and, if it go into the lymphatics, we must admit now that it goes into the peritoneum, because it is clearly made out that the lymphatics open into the peritoneum. Here, then, you have not only the lymphatics, but you have the peritoneum liable to be inflamed; and, being inflamed, and inflamed early, from the fourth or the sixth day, that is what has been observed. Peritonitis has been grouped with cellulitis and other things as sequelæ, but it ought to be considered as something more than that; or, if it be a sequela at all, it is exceedingly near the beginning of the disease, and is quite sufficient to produce fever. I have shown the ichor of the fœtid lochia passing from the lymphatics into the blood—blood which is in a peculiar state. Then, this poison may pass into the lymphatics without inflaming them as others do—syphilitic poisons do so. There are numerous cases in which a woman has died of puerperal fever, in whom nothing has been found in them but a sanious brown fœtid fluid similar to what is found in the womb. In other cases they may be, of course, inflamed. With regard to zymotic influence, no practitioner can deny its importance, and it acts in this way. We know that all zymotic diseases—take scarlatina for instance—cause the secretions of the human body to tend towards decomposition. When a puerperal woman is submitted to the influence of scarlet fever, scarlet fever renders fœtid secretions which would not otherwise be so; so, if they be already rendered fœtid by a portion of placenta, or blood-clot, or membrane of the womb, it renders them doubly fœtid, it renders the poison more virulent, and that sufficiently explains the importance of the case. Now, after the practical applications of the theory that Dr. Wynn Williams and myself more particularly advocate, it seems to me that, talking of sporadic cases of puerperal fever, the prevention of puerperal fever will depend to a very great extent upon the belief that a medical man may have in the autogenesis of puerperal fever. If medical men will be on the look-out for fœtid lochia, I believe they will find them a great deal more frequently than they do. I believe that medical men in this room will bear me out that they have not unfrequently been struck with the fact, that some accoucheurs, and, still more, some nurses, are not gifted with the sense of smell. When we are ushered into a room to consult about a puerperal case, we are often struck with the offensiveness of the atmosphere, which has not struck them. Then it strikes me that, if anything seem wrong, medical men should not trust to the testimony of the nurse, as we too often do, and as I myself have too often done; we should examine and ascertain with our own fingers whether the lochia be fœtid or not. If they be, I think we ought not to be contented with vaginal injections, but ought to resort to intrauterine injections. I was talking, a few weeks ago, to Professor Stoltz, formerly of Strasburg, whom I met at the President's house, and he was saying that, for fourteen years, he had been in the habit of making intrauterine injections when the lochia were putrid, and with the best results. There is concurrent testimony in favour of their value, not only amongst ourselves in this country, but in foreign countries; and not only that: there are many instances of the sudden utility of antiseptic intrauterine injections; I mean the sudden abatement of the worst symptoms of puerperal fever, when the womb was washed out twice a day with disinfecting fluid. I know that there are objections made to intrauterine injections. An interesting pamphlet, which may have been sent to you as well as to me, has been published by an American physician in Pennsylvania, who states that these injections are unnecessary, because no fœtid lochia can occur. He says, if you let the patient use the usual utensil, and let it be emptied four times a day, that will be sufficient to prevent fœtid lochia. That is an interesting fact, which would require to be confirmed by our own experience. Then, there are two more important objections: one is, that the nozzle of the instrument that we should use would be itself a medium of infection. Of course, if it were carelessly used and improperly cleaned, one could understand it; but we all use powerful means of disinfection. If the nozzle were steeped in a strong solution, I cannot understand how that objection would hold ground. The assertion is contrary to our European experience. Then there is another objection: the fear that the fluid injected should pass through the Fallopian tubes into the peritoneum. I can only say that strong alcoholic solutions of carbolic acid, of tincture of iodine, have been during the past few years injected hundreds of times in the Paris hospitals, and I ascertained the other day from a friend of mine that they did not know of any case in which passage into the peritoneum had occurred.

Dr. BRAXTON HICKS: I wish to say that my paper has been misinterpreted. My paper was a communication with regard to cases of puerperal disease, not specially stating any particular point, but taking all the surroundings of the patients, and, out of those eighty-nine cases that I mentioned, I found that nearly half were associated with scarlet fever; some of them undoubtedly are associated with scarlatina; erysipelas, diphtheria, mental emotions, did the same thing. I stated that erysipelas in lying-in hospitals was most common, perhaps more common than scarlatina. I left it as a clinical point not yet cleared up to explain why and how this came about. That it is associated with the production of what we are accustomed to call puerperal fever, I think there can be no doubt.

The discussion was again adjourned.

## PATHOLOGICAL SOCIETY OF LONDON.

### TUESDAY, MAY 18TH, 1875.

GEO. D. POLLOCK, F.R.C.S., President, in the Chair.

*Stricture of the Bowel.*—The reports of the Morbid Growths' Committee on Mr. BRYANT's case of stricture of the bowel and ovary was read. On microscopic examination, there were found fibrous bands, with alveoli and large cells of an epithelial type. Consequently, the growth was cancerous. The disease had commenced in the ovary or in the subperitoneal connective tissue.

*Tumour of the Scapula.*—The report on Mr. JOHN WOOD's tumour of the scapula was read. The growth was very vascular; it consisted of spindle, oval, and round celled sarcoma. In some sections, the alveoli were packed with cells. In many respects, the growth was a malignant one.

*Tumour of the Zygomatic Fossa.*—The report on Mr. WOOD's tumour of the zygomatic fossa had nothing to add to what had been said.

*Blood-Cyst in Sarcoma.*—Mr. GODLEE showed a blood-cyst formed in a sarcoma, from the leg of a man, aged 40. A seton had been passed through the growth, and then an incision had been made into it without results, so it was decided to remove it. Only a drachm of blood or so came out at the incision, and then some denser material. It was a sarcomatous tumour with hæmorrhage into its substance at various points.

*Nails in a Duck's Crop.*—Mr. ARNOTT exhibited for Mr. Curran, of the Indian Army, a duck's crop filled with nails; originally, there were seventeen. The duck belonged to a subordinate of Dr. Curran's, and picked up the nails around his wooden hut. Anorexia and languor preceded death, but the duck did not grow thinner.

*Tuberculosis in the Pheasant.*—Dr. CRISP showed a case of tuberculosis in the pheasant. He had had thirty pheasants die lately, and had taken the temperature, etc., in each case. The spleen and liver were always affected, the intestines often, the lungs but once. The tubercle was not from inoculation. It commenced in a semitransparent mass attached to a blood-vessel, but never to a lymphatic. The fowls were not in confinement, but were kept for breeding purposes. They laid two sets of eggs a year. The hens became diseased, but the cock-birds were unaffected.—The PRESIDENT said that recently a poultry-breeder had spoken of scarlatina being a fatal disease among poultry, and asked if Dr. Crisp had any experience of it.—Dr. CRISP said that seven weeks ago he had exhibited a hen with a twisted neck, which spun around when put down on the ground. On killing her, he found some coagula in the cord.

*Cancer in Fowls.*—Dr. CRISP showed two specimens of cancer (probable) from fowls. The first formed a tumour near the eye; the second was in the breast of a Dorking fowl. He asked to have them examined microscopically.—Mr. ARNOTT said he would comply with Dr. Crisp's request.

*Gangrene of both Lower Limbs.*—Dr. DUKA showed a case of gangrene of both lower extremities from an Hindoo girl, fifteen years and a half of age, in Simla. It extended nearly up to the knees. Amputation was performed. There were no bleeding vessels to be secured. The stump soon healed perfectly. Six weeks after this, she was delivered of a full-grown child. Gangrene was not uncommon in that part of India in various parts of the body. Often the cheek was affected, and such cases were always fatal; it generally occurred in persons affected with a low malarial cachexia. Possibly there was some occlusion of the arteries in the popliteal space.—The PRESIDENT asked if there had been any exposure to cold.—Dr. DUKA said there had not.

*Prolapsus Linguæ.*—Mr. FAIRLIE CLARKE exhibited drawings of a case of prolapsus linguæ, shown to the Society three years ago. The present condition was that of a well grown boy, perfectly formed. The tongue was still thickened and clubbed; but the boy could close his mouth, though it was generally a little open. He was now four years old; his speech was a little thick and indistinct. His parents knew all he said. His jaws and teeth could almost close. The teeth were good and straight. The result was good.—Mr. WAGSTAFFE asked what was the growth microscopically, and what the operation performed.—Mr. CLARKE replied that the operation was amputation with the simple wire *écraseur* at the line of the teeth; the protruding portion, about an inch and a quarter in extent, being removed. The microscopic sections were so identical with those of Mr. Arnott's in the volume of *Transactions* for 1872 that a second set were not made. The child was a fine child, in the possession of all his faculties.

*Lymphadenoma in the Pelvis.*—Mr. FRANCIS MASON exhibited a lymphadenoma from the pelvis, lying between the sacrum and the rectum. The child was sixteen months old. It had had scarlatina, and quite recovered from it. There was noted a protrusion from the anus, and, on examination, a tumour was found. When it was punctured, some bloody serum came out. There was albuminuria. The child was apparently quite well for a time; and ultimately died comatose. It had a sister with spina bifida; and the mother had an angular curvature of the spine low down.

*Softening of the Cerebellum.*—Dr. CRISP showed a preparation of a case of softening of the cerebellum from a girl, aged 17. She was dead when seen first; but was a remarkably fine, well-developed woman. For two years, she had suffered from headache in the occiput; the pain often being very intense, so that she held the head with both hands, which gave some relief. She had lived in an aguish district, and left it. She was tolerably well the night before she was found dead. The body was healthy, except the left lobe of the cerebellum, which was simply a pulp. Both kidneys were lobulate; and there were three spleens. There was no disturbance in motor power in disease of the cerebellum; at least, in thirty collected cases, he had failed to find any reference to motor symptoms.—Dr. PYE-SMITH asked if the sight was affected.—Dr. CRISP replied that it was not. Often the girl had no pain, and was very lively, so as to make it appear impossible that she could be suffering from serious disease.

*Pleuropneumonia.*—Dr. CRISP showed a piece of lung, where death had occurred from pleuropneumonia, and where there had been severe hæmoptysis eighteen months before. In the left apex, there was a small mass like a bean, bony, whence had come the hæmoptysis. There was no other lesion.—In answer to a question, Dr. CRISP said the mass was rather calcareous than bony.

*Pyopericardium.*—Dr. CRISP exhibited a case of pyopericardium, where death had also resulted from pleuropneumonia. From the pulse, he had thought it hydropericardium. He said that he believed if he had bled in these two cases the result might have been different.

*Dislocation of the Astragalus.*—Mr. MAC CORMAC showed a case. The injury was received two years ago. It was treated for the fracture which accompanied the injury. Disease had since set in, and the foot had to be amputated. There was little deformity or loss of power. The joint was completely anchylosed, and the astragalus dislocated. There was fracture of the internal malleolus. He related a similar case from the practice of Mr. Le Gros Clark, of which a cast was shown. In answer to a question from the President, Mr. Mac Cormac said there was considerable movement in the latter case.—The PRESIDENT said that, some years ago, he had investigated these accidents to the astragalus, and had never found fracture without dislocation. He asked Mr. De Morgan what his experience had been.—Mr. DE MORGAN said he could not say positively. He could recall one case where there was no evidence of fracture; it was a case of dislocation backwards. The foot was dislocated with it, and had to be amputated.—The PRESIDENT said he had had three cases. Two sloughed, and amputation had to be performed; in the third, the piece was removed, but the posterior tibial artery became frayed, and ultimately amputation had to be performed.

*Colloid Cancer of the Rectum.*—Mr. ARNOTT showed a case. When fresh, the matter was like molten glass. The case occurred in a girl aged 17. There was rectal hæmorrhage, and, for two years, a discharge from the bowels, with small-sized fæces. The patient was much worn. The bowel, for an inch from the anus, was a rigid tube. Colotomy was performed, with a fair recovery. By means of charcoal biscuits, the fæces were made inoffensive. At last, the cancer protruded at the anus. There was little pain. No fæcal matter had passed the anus for a long time. Pain reappeared as the cancer progressed. There was atrophy for two or three months before death. The dropsy rose as the disease progressed. There was pallor of the face and upper limbs. The œdema extended to the mammæ. The rectum, peritoneum, and vulva, were all involved; while the anus was a ragged chasm. The venæ cavæ were blocked. The colloid spaces were filled with clear material.

*Melanotic Sarcoma of the Eyeball.*—Mr. GEORGE LAWSON exhibited a large melanotic sarcoma which he had removed, with the eyeball, from the left orbit of a female fifty-eight years of age. The point of interest in the case was that the growth had originated in an eye, the sight of which had been lost twelve years before, owing to a slight blow received accidentally while reaping. The patient, who was admitted into the Middlesex Hospital in April last, stated that twelve months previously she began to feel shooting pains in the blind eye, and shortly afterwards the eyelids began to swell and the eye to protrude. This protrusion gradually increased, until at the time of her admission the eye projected about three-quarters of an inch, and both eyelids were distended by a dark, elastic tumour. Mr. Lawson excised the eye and the tumour; the latter, which completely filled the orbit, was black and very soft, resembling black currant jelly. After the operation, the cavity of the orbit was lined with strips of lint covered with chloride of zinc paste, and these were kept *in situ* by a pad of cotton wool and a bandage. The patient has since progressed favourably. On examining the excised eye, the retina was found coarcted; the tumour appeared to have originated in the space between the detached retina and the choroid, and to have extended thence backwards through the sclerotic into the cavity of the orbit.

*Annular Constriction of the Aorta at the Ductus Arteriosus.*—Dr. GOODHART showed two cases. The symptoms in each case came on suddenly, with general dropsy and albuminuria. In both cases, there was a systolic *bruit* at the apex; the patients were too ill to be examined behind. In the second case, there was a mitral regurgitant murmur. In both cases, the collateral circulation was carried on by the mammary and epigastric arteries, and large intercostals. There was no atheroma in the aorta behind the stricture, which appeared to go against the hypothesis of strain producing atheroma; but in reality there was disease in both the aortic and mitral valves, and so there was no strain on the aorta. There was evidence of inflammation at the ductus arteriosus, where there was cicatricial tissue around the vessel. There had been chronic inflammation.

*Spontaneous Cure of Aortic Aneurism.*—Dr. GOODHART showed a spontaneously cured aortic aneurism. The patient died with paralysis and double gangrene. He was well up to nine weeks before admission into the hospital. There was loss of control over the rectum and bladder. The aneurism was filled up by lamination. The superior and interior mesenteric arteries were blocked.—Mr. MORRANT BAKER asked if any observations were made as to the state of the pulse in the arm and lower extremities. There was pulselessness in the lower limbs in such cases.—Dr. GOODHART replied to the effect that there was no change in the radial arteries, and there was no account of the pulse in the lower limbs.

*Hernia Testis in an Infant.*—Mr. MORRANT BAKER exhibited a case of hernia testis in an infant. The scrotum grew red and painful. Later on, there was hernia testis protruding and fungating; it was therefore removed. The child was strumous. He had had the mass examined microscopically by Mr. Butlin. There were no tubuli uriniferi apparent in most of the mass. The child was eighteen months old.

*Acute Miliary Tuberculosis in an Infant.*—Dr. DYCE DUCKWORTH showed a specimen of acute miliary tuberculosis in an infant eighteen months old. It was brought into the hospital dead from pericardial effusion. Most of the organs were affected, but not either the brain or the peritoneum. The spleen was affected in both its structure and coverings.—Dr. GREEN said he had performed a *post mortem* examination upon a child seven weeks and a half old, with miliary tuberculosis.

The Society then adjourned till next session.

## MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

MAY 5TH, 1875.

P. H. WATSON, M.D., Vice-President, in the Chair.

*Pathological Specimens.*—Dr. CLOUSTON showed the morbid appearances in the brain of a patient with General Paralysis, in whose case he had traced the disease as originating by peripheral propagation from the retina. After bathing when very hot, total blindness came on. Five years after this, he married, and a year afterwards general paralysis set in. The optic nerves were found degenerated, grey in colour, and only one-third of the normal size. This degeneration could be traced from the optic commissure through the optic tracts to the optic thalami, and the nates of the corpora quadrigemina. Dr. Clouston also showed a case of Syphilitic Brain-tumour on the frontal lobes, with symptoms of violent headache and epileptiform fits; death occurring within six months. He showed also a slowly growing Carcinoma in the same position, but as large as a hen's egg, without any marked symptoms at all; and the brains of two Epileptic Patients. In both the dura mater was thickened. In one, in whose case there was a history of an injury, an irregular projection of bone was found with thickening of the dura mater and adhesions of the brain. Dr. Clouston showed also a bottleful of "chucky stones", eighty in number, and weighing twenty-four ounces, which had been swallowed by an insane patient with a strong tendency to suicide, but had all been passed by stool in three days without a single bad symptom.

Dr. A. G. MILLAR showed the Anterior Tibial Artery of a patient whose limb had been amputated for a railway accident. The external coat was twisted, and the vessel thus blocked as usual.

*Experimental Production of a Wound.*—Dr. P. H. WATSON showed a specimen of three ribs with vertebral column and sternum *in situ*, which formed the subject of the following experiment, which is interesting in a medico-legal point of view. The case was one of a woman, seen alive on a Saturday night, but found dead in bed on the Monday morning following, under very suspicious circumstances. As her husband had been the only person in the house with her all the time, he was arrested on a charge of murder. The following is the report of the medical practitioners who examined the body of the murdered woman, as far as regards the wound made. "We found an incised wound penetrating the chest, one inch and three-quarters in length, and about three inches in depth, two inches from the lower point and inner edge of the left shoulder-blade. On opening the chest, we found the left lung collapsed, and a wound, one inch in length and half an inch in depth, on the posterior part of the upper lobe, and behind it two pounds of dark blood, and the third rib fractured opposite the position of the wounds." It was of importance to settle if the wound had been inflicted by the husband with the intention to commit murder. From its position and direction, Dr. Watson was inclined to think it had not been inflicted intentionally. But to satisfy himself as to this point, he performed the following experiment, assisted by his resident house-surgeon, Mr. J. J. Gunn, and also his class-assistant. A dead body was procured and held perpendicularly up. It was then allowed to fall back, and in its fall to come against a carving-knife held in Dr. Watson's hand. A wound was thus made, and the following is the description of its nature, as given by Mr. Joseph Bell and himself. "*Measurements of External Wound.*—Three and three-eighths inches in length in a direction oblique from above downwards and from without inwards. Its lower end was four and three-eighths inches from lower angle of shoulder-blade. Its upper end was one and three-eighths inches from nearest point of shoulder-blade. From the spine of the prominent last vertebra of the neck to the upper end of wound was three and three-eighths inches. From spinal column to lower end, one and three-eighths inches. Distance between spine and shoulder-blade, four and one-eighth inches. *Examination of Wound.*—Finger passed into centre of wound reaches a rib (the fifth) completely severed by a clean cut. Soft parts in interspace below also completely divided. The rib above (fourth) is notched, but not severed. The measurement of the wound of the chest is one and one-sixteenth inch. The sixth rib is also notched at its upper edge. The depth of the wound to level of rib is one inch and a half. Wound in lung is superficial and one inch and three-eighths in length." From this experiment, then, as well as from a consideration of the reasons already given, he was able to show that the wound causing the death of the murdered woman had not necessarily been inflicted intentionally by her husband, but might have been purely accidental, and this had led the prosecutor for the Crown to withdraw the charge of murder, and only press that of culpable homicide. The knife with which the experiment was performed was shown.

*Injury of Hand.*—Dr. WATSON also showed a gas-burner which he had extracted from a boy's hand. It had been used as loading for a small pistol, for the possession of which the boys were struggling when it went off. He also showed an urethral calculus.

*Disease of the Knee-joint.*—Dr. A. G. MILLER read a short paper on two cases of disease of the knee-joint, treated by Sayre's splints, and showed the patients, and also a method of applying the splints which he regards as simpler, more efficacious and less troublesome than that of Dr. Sayre. In the discussion which followed, the President, Mr. Bell, Drs. Sinclair, Matthews Duncan, and Miller took part.

## GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

APRIL 13TH, 1875.

W. T. GAIRDNER, M.D., President, in the Chair.

*Stricture of the Urethra.*—Dr. W. HUNTER showed a specimen from a man, under the care of Dr. Strethill Wright, who had died from pericarditis at Barnhill Hospital. The man had long suffered from stricture, and an operation by forcible dilatation had been performed in Edinburgh with the effect of affording some relief, but only for a few weeks, as the difficulty returned with increased severity. Attempts to pass a catheter into the bladder during his residence at Barnhill failed; but during its introduction, urine passed by the side of the instrument. This was due apparently to the great constriction of the canal, through which a bristle was passed in the specimen, while by its side an artificial pouch existed, into which the catheter no doubt passed; but it seemed that any pressure made on this pouch by the catheter must have stretched the walls of the adjoining constricted portion of the urethra, and so favoured the escape of urine. The constricted portion was funnel-shaped, with the smaller opening towards the meatus. The walls of the bladder were much hypertrophied. Some relief to the difficulty in micturition had been experienced from the application of poultices to the perinæum.

*Hæmatoma Auris in Insane Patients.*—Dr. A. Robertson showed two insane patients with this affection. A man aged 41, with advanced general paralysis, had a tumour of the left ear. It had subsided considerably, but the swelling of the surface was still well marked. Its duration had been two months. A young woman, aged 22, was affected with acute mania: both ears were affected in this case, particularly the right. The disease was of a month's duration; the swelling of the right ear had diminished a little; it had never been large in the left. This girl had been in the asylum since January. On admission, the chief symptoms of Graves' disease were present—the affection of the throat, eyes, and heart, being pretty well marked. The goître, though now smaller, could still be seen. On the morning after admission, a remarkable red band, about an inch and a half broad, appeared on the left side of the face, extending from the brow to the chin, where it became narrower. At one part it divided into two, but these reunited, leaving an islet of sound skin between them. Both ears were red, but particularly the left; other portions of skin at the back of the neck were also similarly affected. The surface of the red portion was appreciably raised and slightly hotter than the neighbouring skin, but there seemed to be no pain. The redness gradually faded and disappeared in about three days, being followed by a fine furfuraceous desquamation. In his remarks on these cases, Dr. Robertson said that this peculiar affection of the ear was met with occasionally in all the leading forms of insanity, having been most frequent, in his experience, in general paralysis. It never occurred except when the mental disturbance was of great severity; and restoration to sanity was rare in cases where it had existed. He controverted the view that it was generally, or even often, the result of injury: this he held to be improbable, in view of the fact that it not unfrequently appeared in both ears simultaneously, or nearly so, as in the second of his cases shown to the meeting. And in one case, some years since, an ecchymosis was observed under the conjunctiva on the same side as the tumour of the ear, both appearing on the same day, and there not being the slightest indication of bruise to account for either of them. He did not deny, however, that in exceptional cases it might be the result of injury, or that a slight injury might cause it in a system predisposed to the disorder. His opinion was, that it was most commonly the result of a functional disturbance of the sympathetic in the neck; and he considered that the second case was specially corroborative of this view, as the symptoms of Graves' disease (which was now generally regarded as a disorder of that system of the neighbouring part of the cord in the cervical region) had been distinctly manifested; and it was further strengthened by the appearance, at an earlier stage of her illness, of the red band referred to.

*Affection of the Retina in Bright's Disease.*—Dr. Meighan demonstrated with the ophthalmoscope a case of disease of the retina in a young woman (aged 22) with albuminuria. She had first come under his notice at the Eye Infirmary in December last, complaining of dimness of vision of six weeks' duration. She could then read No. 19 with the right eye and No. 20 with the left (Jäger). The papillæ were then found congested, and not defined at their margins; the arteries were diminished in number and calibre, and some of them accompanied by white streaks; the veins were dilated and tortuous, and the vessels covered at parts by a whitish infiltration. In the neighbourhood of the macula lutea a large yellowish white granular patch was seen, with shining spots interspersed; numerous white spots were seen elsewhere in the fundus, and also some hæmorrhagic spots. The eyes were hypermetropic. The urine was found to be albuminous, specific gravity 1010; and the sediment contained granular casts. There was no dropsy, but there had been headache and vomiting. The heart was hypertrophied. She improved so that she could read No. 16 and No. 12; but on February 22nd, intense headache, with slight delirium and vomiting, supervened, and next day she could not distinguish light from darkness. There was then circumorbital œdema, with œdema and congestion of the conjunctivæ, and dilated pupils. Ophthalmoscopic examination showed œdema of the retina, the refraction being thus rendered highly hypermetropic; and a large white mound encircled the disc, and at the circumference a few hæmorrhagic spots were found. The urine had become diminished before this attack, and the breath seemed to have an urinous odour. The œdema of the retina subsided, the urine increased, and the vision improved, so that on April 8th she could read No. 6 with the right and No. 4 with the left. When she was shown to the Society, the œdema had disappeared, but the white spots had extended and coalesced, forming large patches: the hæmorrhagic spots had become absorbed. The urine was still albuminous; measured during the previous week, it had averaged 36 ounces, and the specific gravity was rather low. There was no dropsy. The cardiac hypertrophy affected chiefly the left ventricle. Dr. Meighan regarded the case as of interest, in showing a well marked lesion of the retina in Bright's disease apart from dropsy. There was fatty degeneration of the cellular tissue of the retina, as well as sclerosis of the nerve-fibres and blood-vessels. The sudden loss of vision, associated with something like uræmic poisoning and œdema of the retina, had come on with a diminished secretion of urine; and the sight improved as the urine became more abundant.

*Calcified Tumour of the Uterus.*—Dr. Joseph Coats showed a large tumour of the uterus, which had been sent by Dr. Chapman of Hereford. It had undergone calcification, and felt like bone covered with thin cartilage. Its surface was rough, and there were several deep depressions. A section made with the saw showed that the calcareous material was present in every region of the growth, but was more abundant towards the surface. On the surface itself there was a continuous layer of soft tissue, and the spaces left by the calcareous portions internally were also filled by a tissue whose consistence, however, was considerably softer than the external layer, which was almost cartilaginous to the touch. The microscopic structure of the soft tissue in both regions was almost identical, being that of the myoma or fibroid of the uterus. Sections were shown in which it could be seen that the tissue was made up of cells closely set, and containing rod-shaped nuclei. The calcareous portions presented nothing of the structure of true bone, but simply a homogeneous appearance, with a crystalline aspect. The addition of a dilute acid dissolved the lime-salts with abundant evolution of gas, so that carbonate of lime was present in preponderating amount. Dr. Chapman stated that the tumour had been found on *post mortem* examination, and no symptoms were known to exist during life.

*Enteric Fever and Suppuration of Ear.*—Dr. Gairdner exhibited a temperature-chart, with appended notes, which showed very clearly the gradual defervescence of a case of enteric fever, coincidently with the disappearance of the eruption and of all the local symptoms. Just when the temperature had become normal, a new disturbance occurred, which, on careful examination, proved to be a suppuration of the left ear. This continued, with irregularly oscillating temperatures, deafness, and some degree of local pain and swelling over the mastoid process, until an incision was made extending down to, or perhaps into, the bone, and dressed antiseptically; after which the discharge through the ear dried up, the hearing partially returned, and the temperature became normal.

*Instruments and Specimens.*—Dr. Foulis demonstrated the use of a cheap arrangement for autolaryngoscopy, which, he thought, might aid students.—Dr. Strethill Wright sent a very marked specimen of calcareous deposit in the valves and orifices of the heart.—Dr. Alex. Robertson showed the urinary organs in a long-standing case of disease.—Dr. Cameron showed a fatty tumour which had undergone calcification.—Dr. Alex. Robertson showed the viscera from a child affected with general tuberculosis.

## PATHOLOGICAL SOCIETY OF DUBLIN.

Saturday, April 10th, 1875.

Henry Kennedy, M.B., Vice-President, in the Chair.

*Mitral Stenosis and Tricuspid Regurgitation.*—Dr. Quinlan presented the heart of a girl, aged 17, who was admitted to hospital complaining of dyspnœa, and with strong pulsation in the cervical veins, synchronous with the heart's systole. The pulse was feeble. A sphygmographic tracing of it was shown. The diagnosis was mitral stenosis and tricuspid regurgitation, although there was no presystolic murmur. On the evening of April 5th, the patient died suddenly on leaving her bed. More than twelve ounces of serum were found in the pericardium. The apex of the heart was slightly bifid, and formed equally by both ventricles. The aorta was small. A large fleshy thrombus was entangled in the tricuspid opening, which was about twice its usual size. Warty vegetations studded the valves. The mitral orifice did not admit the tip of the little finger; it was crescentic. The left chambers were hypertrophied. There was no evidence of fatty degeneration.

*Impacted Fracture of Neck of Femur.*—Dr. E. H. Bennett showed a specimen of that rare form of extracapsular fracture of the neck of the thigh-bone, in which there is impaction of the lower into the upper fragment. In the absence of any history of the case, the nature of the injury was ascertained by a section of the bone. Dr. Bennett observed that, in this form of fracture, while the angle formed by the head of the bone with the neck was almost normal, the level of the summit of the head of the bone was depressed below that of the trochanters. There was slight rotation of the head backwards; and, on examination of the surface, the existence of a detachment of the lesser trochanter was indicated. On inspection of the section of the bone, it was remarked that, at the upper part of the section, the traces of the injury were obliterated. At the lower portion, the two pieces of compact tissue overlapped each other to the extent of three-fourths of an inch. Dr. Bennett said that there were only three or four cases of this variety of fracture recorded.

## BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1875.

SUBSCRIPTIONS to the Association for 1875 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, JUNE 12TH, 1875.

## INFANT INSURANCE AND MORTALITY.

AMONG the many important questions bearing upon the relations between friendly societies and the "working classes", not the least important is the influence of burial societies upon infant mortality. Although the limitation of the power of the Royal Commission on Friendly Societies, 1872-4, prevented this branch of the subject from being fully investigated, it was not entirely overlooked, and the Fourth Report contains some evidence bearing upon it which calls for the gravest consideration. It was proved that a considerable number of children are insured in several different societies, so that the sum payable at death is far more than sufficient to defray the expenses of a decent burial. In one notable case, a child was insured "in eight societies, which would have produced £30 at death". Evidence, moreover, was given showing that, in some of these societies, the proportion of infant mortality was terribly high; and it was directly stated that, in Macclesfield, the adoption of means for checking the reinsurance of infants occurred simultaneously with a remarkable decline of infant mortality. Without necessarily leading to the conclusion that this form of insurance is conducive to an increased rate of infant mortality, the facts brought to light appear to afford strong ground for preventing as far as possible by legislative enactment the possibility of parents having a pecuniary interest in the death of their children. In the Friendly Societies' Bill of last Session, it was proposed to limit the amount for which any infant might be insured to such sum as would defray the cost of burial, and, at the same time, to adopt measures, at all events, to check reinsurances. This clause in the proposed Bill has been vigorously opposed, not only by deputations to the Home Secretary of members and others interested in friendly societies, but by other forms of agitation. Statistical reports have been published by more than one of the societies interested in this form of insurance, with a view to disprove the assertion of the Commissioners that the experience of the societies shows an unduly high rate of mortality. We propose briefly to notice two of these publications, with a view to ascertain how far their figures may be accepted in support of their clients, the insurance societies.

The Royal Liver Friendly Burial Society, on the appearance of the Fourth Report of the Commission on Friendly Societies, instructed Mr. T. B. Sprague, Vice-President of the Society of Actuaries, to thoroughly investigate the rate of mortality among the members of that society (who number more than half a million), with special reference to the death-rate among young children. The registers kept at the head office of this society in Liverpool, furnish, it is stated, all the necessary materials for the investigation. In these registers are recorded the "name of every member, the date of joining the society, the particulars of the insurance, and the date of death, or (*as nearly as can be ascertained*) the date of the member leaving the society voluntarily". The italics in the foregoing extract are our own, and it will be well, before considering the results arrived at by Mr. Sprague, to notice this weak point in the facts upon which his figures are based. It is well known, that of the policies issued by offices doing what is called "industrial" business, a very large proportion are surrendered, or, more correctly speaking, lapse by non-payment of the premiums. In the Fourth Report of the Commissioners, it is stated that this proportion in a large number of the societies exceeds two-thirds of the policies issued; Mr. Sprague states that this proportion in the Royal Liver Society was only 25 per cent. In fixing the duration of membership in cases of lapsed policies in the Royal Liver Society, Mr. Sprague admits to have experienced difficulty "in consequence of the length of time which elapses, according to the rules, before a member is finally expelled from the society". Now if, in consequence of this difficulty, the duration of membership in all the cases of lapsed policies were only overstated by six months, the effect in reducing the rate of mortality among the members, by the increase of the period during which they were assumed to be exposed to risk, would go far to destroy the value of the calculated ratio of mortality at each age. The same objection appears to hold good against a tabular statement of the mortality experience in the Industrial Branch of the Prudential Assurance Company, compared with the average annual rate of mortality in England and Wales during the ten years, 1861-70. It would be important to know, with regard both to the Royal Liver and the Prudential Societies, whether it is not an inevitable result of their extended system of agencies that members' names are almost invariably kept on the books at the head office for at least some months after membership, and all claim against the society in case of death, have really ceased.

There is one other point which is not alluded to by Mr. Sprague, and is only mentioned in the tabular statement of the Prudential Assurance Company in the following words: "No lives are assured under one month of age." There is very little doubt that some such rule exists in the Royal Liver Society; and, in calculating the rate of mortality under one year of age, it is highly necessary that this should be borne in mind. According to the English life-table, of 1,000,000 children born, 149,493 die before they reach the age of one year; and of these 149,493 deaths, 46,503, or nearly a third, die during the first month of life. The annual rate of mortality per 1,000 among infants, according to this English life table, is equal to 571.3 in the first month of life; declining, however, to 91.6 per 1,000 in the eleventh month. The annual rate among infants, aged one month and under one year, does not exceed 114.6 per 1,000; whereas, among infants from birth to one year of age, it is equal to 165.6. It is evident that, in dealing with the mortality among infants during the first year of life, it is necessary to take account of the age in months at insurance, for the rate of mortality among infants aged six months is but one-fifth of the rate which prevails during the first month of life. This difficulty, as to the age in months of entrance among infants, does not, however, affect to any considerable extent the calculations of mortality after the first year of age. In the first year, however, the result of infants under one month of age not being insured in the Prudential is very evident, as the company reports that the mortality among infants under one year insured in their society did not exceed 79.7 per 1,000 in 1872 and 1873, whereas the average rate in England and Wales, in the ten years 1861-70, was 180.3. To show that this comparison is fallacious, it is only necessary to refer to the subsequent ages, at which the societies' rates differ but slightly from the average English rates. So with the Royal Liver Society's calculations under one year of age, based upon the lives of 86,462 infants insured in that society during the four years, 1869-72, the rate of mortality is given as 123.2 per 1,000, against 180.3 in England and Wales; whereas, at each subsequent age, the society's rate far exceeds the average English rates. It is well to bear in mind that the average English rate among infants aged one month and under one year is 114.6 per 1,000, or lower than the Liver Society's experience; whereas the average age at insurance is probably considerably over one month, which would still further considerably decrease the expected rate of mortality. Disregarding for these reasons all Mr. Sprague's calculations of mortality under one year, it is but fair to state that for subsequent years, although the aggregate rates in the whole society considerably exceed the average English rates, the rates shown among the lives insured in the society at Manchester, Leeds, Sheffield, Birmingham, and Preston, are in the main decidedly lower than the rates of mortality for those districts published in the Report by the Commissioners. It was, perhaps, to be expected, that, as a large proportion of the members of the Royal Liver Society are residents in these large manufacturing towns, in which infant mortality is abnormally high, its experience of mortality would exceed the average for all England; on the other hand, however, it must be remembered, that the members of these provident societies do not belong to the poorest classes, among whom the rate of mortality is highest, but are principally drawn from the better paid and more well-to-do mechanic and artisan class, who can better afford to join clubs and benefit societies.

It appears that, according to the rules of the Royal Liver Society, no claim can be made on behalf of an insured child until after six months of membership shall have been completed; at six months, the child comes into what is called "half benefit", and it does not come into "full benefit" until the end of twelve months' insurance. Whatever may have given rise to this unusual form of insurance, there can be no question as to the wholesomeness of such a rule. In order to test the validity of the suspicions of the Commissioners as to the influence of burial society insurance upon mortality, Mr. Sprague appears to have directed his inquiry specially to ascertain whether the records of the society showed any increased mortality in the seventh and thirteenth months from the date of insurance, when, according to the rules, claims for half or full benefit could be made on behalf of the children insured. The result of this inquiry was to show that the highest rate of mortality was experienced in the "fourth month of insurance, that is to say, before the children had arrived even unto half benefit". Mr. Sprague seems to think that the low rate of mortality during the first three months of insurance, is due to the fact that, as no benefit will accrue to the parents if the child die within six months, only healthy children, or at all events, those who are likely to live for six months, are insured. Certain it is, that the rate of mortality after the fourth month declines steadily in each month of insurance, except, indeed, a small increase in the sixth and twelfth months, which is just before the period when the children come into half and full benefit. These figures are the strongest part of Mr. Sprague's case, and he considers that they justify him in coming to the conclusion that "these facts conclusively prove that the coldblooded calculations attributed by the Commissioners to the members of the Royal Liver (among other societies) have no existence save in the imagination of the Commissioners".

Without, however, inclining to the alarmist's opinion as to the frequency of infanticide in England, we agree so far with the Commissioners as to believe that the annals of our criminal courts, and one's every day experience among the poor of our large cities, prove that there exists a terrible amount of neglect and recklessness about infant life, which is not likely to be lessened by infant insurance in burial societies. On this account, we cannot help arriving at the conclusion that the Commissioners and the Home Secretary are right in recommending that some legislative check should be put upon those societies who offer great facilities to parents for purchasing, by small weekly or monthly payments, a pecuniary interest in the deaths of their children. Mr. Sprague, moreover, as counsel for the Royal Liver Society, appears to us to have attempted to prove too much, especially as regards the death-rate among insured infants under one year of age.

The very difficulties which surround the arrival at a thoroughly sound conclusion from such an inquiry as that upon which Mr. Sprague has reported; is a strong argument in favour of some change in the present system of insuring children in burial societies. As education gradually developes more intelligence among the working classes, we may hope to see a system of endowment for children in some measure take the place of the present objectionable system of insurance. In the meantime, we can only hope that, in the proposed new Friendly Societies' Act, the clause for the restriction of infant insurance will not be surrendered to the clamour of the societies which derive large profits from this unsound and dangerous business.

## THE ARMY MEDICAL SERVICE.

The Deputation from the Royal College of Surgeons of Ireland, which waited on the Secretary of State for War on the 3rd instant, for the purpose of presenting a memorial on the grievances of the Army Medical Officers, elicited some remarks from the right honourable gentleman, which are not without interest to our military brethren. In the first place, Mr. Gathorne Hardy assured the deputation that he had been giving the subjects complained of by the medical officers his full attention ever since the deputation from the Parliamentary Bills Committee of the British Medical Association had had an interview with him in May last year. He regretted that he had been so long in coming to a settlement on the questions under discussion; but he assured the deputation that the delay arose from his endeavours to ascertain in what way they could be most fairly adjusted, so that no real and reasonable grievance might be left behind. He several times repeated this assertion, that his wish was for medical officers to receive all the consideration, wherever they might be placed, to which they were entitled as gentlemen of education and intelligence; and he expressed himself as being fully alive to the necessity of remunerating them liberally in order to ensure a good class of candidates to come forward for commissions in the Army Medical Service.

Nothing could be more satisfactory than all these assurances on the part of the Minister for War, but we look in vain for any solid concessions to the requests of the medical officers or any promises of them. Mr. Gathorne Hardy rather pointed out to the deputation what he finds himself unable to do. The Irish deputation particularly called the attention of the Minister, as the deputation from the British Medical Association did last year, to the stagnation in promotion in the department, and as one step towards remedying this evil, recommended that promotion from the rank of surgeon to that of surgeon-major should take place after twelve years' full pay service, as it does among the medical officers of Her Majesty's Indian Army. To this Mr. Hardy replied, that he was asked last year to make this promotion the rule after fifteen years' full pay service, and that it was now made evident to him that, if that request had been conceded, it would not have been accepted as a satisfactory solution of the question. We would, however, point out that at the interview with Mr. Hardy, in 1874, Mr. Ernest Hart called his attention to the depressing effects of the long service which had to be submitted to in the junior ranks, and forcibly contrasted this protracted service with the different state of things in the Indian Army, where the regulations established that after twelve years' service the medical officer, without exception, was to receive promotion to the superior grade of surgeon-major. He showed that this retardation of promotion was not felt to the same degree by the senior officers with whom the Secretary of State was most likely to come into contact; and he pointed out the necessity of doing something for the profession in the service, such as "a rule of promotion after twelve years' service". (See the report of the proceedings of the deputation from the Parliamentary Bills Committee to Mr. Gathorne Hardy, in the British Medical Journal of May 9th, 1874, p. 622.) Mr. Hardy's memory seems to have failed him on this point. Mr. Hardy's predecessor had held out the hope of promotion taking place after fifteen years' service, but did not make a rule of universal application to that effect, though he gave the promotion in many instances. We still think that there ought not to be any difference between the medical officers of the general and the Indian services in this regard; and, though it might add to the cost if promotion after twelve years' service were made the rule, the cost would be well repaid by the increased contentment which would result from the concession. Moreover, so many medical officers of the Queen's general service have to serve in India, that the different rules as regards promotion in the two services act as a constant source of unpleasant friction and difficulty.

One thing Mr. Hardy was very decided upon, and it is well that the decision should be made generally known. A return to the system of regimental hospitals, he asserted, is impossible. It would be too costly to go back from the present to the former arrangements. Medical officers attached to regiments will be retained with them as far as possible. The deputation had stated that one of the sources of discontent in the army medical service was the dislike to the unification of the department; but Mr. Hardy replied that, on the whole, the letters and pamphlets by medical officers which had reached him were in favour of the system of unification, though some modifications of it were suggested. There can be no doubt that the majority of the published pamphlets have advocated the union of the medical officers with a single staff, and probably the ablest among them have argued in favour of this arrangement, but, in all, objections have been raised against some of its details. We have already, on various occasions, sufficiently indicated the parts of the system which, as it has been carried out in practice, have proved themselves injurious to the medical officers, and inconvenient to the service at large; and we should have gladly noticed any hopes held out by Mr. Hardy that they would be amended. Another source of disappointment was to find, judging from Mr. Hardy's observations, that there is little prospect of the forage allowance question receiving a satisfactory settlement. The minister argued that a readjustment of the present arrangement could not be made in the interest of medical officers, without being equally altered for the officers of other branches of the military service. The real question, however, as regards the medical officers, is simply one of good faith and justice. An allowance, which belonged to medical officers of a certain rank and position as a matter of right from long custom and previous warrants, was virtually taken away by a recent warrant, and the restoration of this allowance, to which such medical officers are justly entitled, is now demanded. It is no answer to an appeal for payment of a just claim, to say that the rule which deprives medical officers of the allowance claimed by them is also applied to combatant and other officers. The question is one which ought to be settled on its own merits. There is no doubt that the number of medical officers of the rank of surgeon-major has been largely increased of late years, and, as was pointed out by the late Director-General, often without reference to the duties they were called upon to perform; but, on the other hand, it cannot be gainsaid that medical officers of field rank always enjoyed the privilege of keeping a horse under all circumstances, and that this privilege, which was practically abolished by the last warrant and by the Army Circular of March 1873, was one which had always been regarded as essential to a proper maintenance of their position as officers of that rank. Under any circumstances, the privilege should not have been taken away without some advantage of corresponding value being given in lieu of it.

Another matter to which the Secretary for War referred with apparent satisfaction, in announcing it to the deputation, will not, we fear, be received with equal satisfaction by the officers directly concerned. After explaining that relative rank chiefly resolved itself into choice of quarters, Mr. Hardy mentioned that he had given directions for the quarters of medical officers to be permanently marked off as far as possible, so that they might be placed in positions best suited to their duties. Astonishment must not be excited if this announcement should create a sense of distrust among the medical officers. The medical officers themselves will probably have no part in the selection of the quarters; and there was once a most distinct promise in a royal warrant that "relative rank shall carry with it all precedence and advantages attaching to the rank with which it corresponds, and shall regulate the *choice of quarters*". The *choice of quarters*, according to rank, is what the medical officers therefore consider themselves entitled to, as they well may, on the faith of a royal warrant. Experience will prove whether the medical officers will be better or worse off under the new directions of Mr. Hardy.

Altogether, we cannot regard the results of the interview of the deputation from the Royal College of Surgeons of Ireland with the Minister for War as very satisfactory. Nearly all the points urged by the Irish deputation were urged a twelvemonth ago by the deputation of the British Medical Association, as a reference to the report in the JOURNAL, already quoted, will sufficiently show. The only parts of Mr. Hardy's remarks that are calculated to encourage the hopes of the army medical officers are the expression of his desire to come to a settlement of their grievances on fair and reasonable terms, and the assurance that he is continuing efforts to arrive at this desirable conclusion. If a settlement on such a basis can be attained, we feel assured that contentment will be restored in the ranks of the army medical department, while, without a settlement on a fair and reasonable basis, we fear that the discontent will increase instead of becoming diminished as time goes on.

## MR. SIMON'S REPORT.[*]

### II.

IN resuming our notice of Mr. Simon's report, we shall confine our attention to the report proper, or that part of the volume in which Mr. Simon records his opinions, based upon the experience which the reports given in the appendix record, and upon the general work which he has conducted for many years in carrying into effect those portions of the various Nuisance Removal and Sanitary Acts which have been passed with the view of providing efficient means for the removal and prevention of nuisances.

Mr. Simon says that the deaths "are fully 125,000 more numerous than they would be if existing knowledge of the chief causes of diseases as affecting masses of population were reasonably well applied throughout England; and this is an opinion", Mr. Simon adds, "which is the common conviction of persons who have studied the subject". Mr. Simon then goes into the question of the brevity of life of many of those who are presumably killed unnecessarily by filth, and he says, as a result of an examination of death-statistics, that there are districts where the infantine death-rate ranges from 19 to 30 in 1,000, while the present average general annual death-rate (at all ages) is about 22½ in 1,000, there is, therefore, he adds, *primâ facie* evidence that there are influences hostile to life operating more strongly in some parts of England than in other parts, and an examination of the causes of death in these districts reveals the fact that this very excessive death-rate is due to preventable diseases, and mostly to such diseases as are nearly allied to filth. "Uncleanliness must, without doubt, be reckoned as the deadliest of our present removable causes of disease." Mr. Simon explains that by uncleanliness he means filth, not in its minor degrees, as in subtle pollution of water, but in degrees in which "in most cases obviously, and in other cases but under slight mask, are such as any average man or woman should be disgusted at, such as eminently the presence of putrescent refuse matter, solid and fluid, causing nuisance by its effluvia and soakage." It has been for ages believed that filth makes disease; but our knowledge on this subject is very far in advance of that of our ancestors; for science has demonstrated, as Mr. Simon says, that filth can by various channels of indirect and clandestine influence "operate far more subtly, and also far more widely and more destructively, than our forefathers conjectured". The old cesspit, and its abominations, are still met with; and the fact that water may be dangerously polluted while yet clear and sparkling is by some persons regarded as a delusion. Again, there are educated men who do not believe in the necessity for the thorough ventilation of sewers.

Having spoken generally of the ill effects of filth, Mr. Simon adverts to those diseases which are generally to be met with in places where there has been neglect of sanitary work, and to which he gives the generic name of "filth-diseases". Those most generally known are diarrhœa and enteric or typhoid fever. We hail with pleasure the statement of Mr. Simon's belief that, in the scientific investigations which he has conducted for the Privy Council, a discovery has been made which he says is of critical importance, and which seems to give us for the first time an ocular test for the contagium of enteric fever; for further information on this matter, the profession will look with anxious interest. But, in the meantime, Mr. Simon does not think any doubt can be entertained as to substantial dependence of epidemics of cholera and of enteric fever in this country on the opportunities which are ever widely open for infection by filth.

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[*] Supplementary Report of the Medical Officer of the Privy Council and Local Government Board. New Series. No. II.

A state of filth, not only in houses but in whole localities, is still to be met with. And this filth is able to infect beyond the immediate *locus in quo*, as experience has proved; for, in many epidemics of fever, the infection has been traced to a cause which was originally operative at a distance. Thus, in one case, it has been traced to the drinking of milk with which polluted water has become mixed. The harm likely to result from the system of intermittent water-supply is a point on which Mr. Simon lays great stress; in fact, so impressed is he with the hurtful effects likely to result from water-closets being in direct connection with the water-mains that, though he does not so express himself, it is very easy to infer that in his opinion there should be no connection between a closet and a main without the intervention of a service-cistern. He points for proof of the danger caused by this system to two reports on Sherborne and on Caius College, contained in the volume under notice. And to this experience may be added, we fear, a recent epidemic of typhoid fever at Croydon, where there is apparently, in parts of the town, that bad system of direct communication between closets and the water-main; and though we learn from the local papers that doubts have been expressed as to the correctness of this theory, there is this important fact in connection with the epidemic, that it commenced shortly after an intermittent supply commenced, and that soon after the supply became again continuous the epidemic ceased in its virulence, and is now dying out.

The principal part of the remainder of the report is confined to the discussion of the operativeness of the Sanitary Acts, as to how they are administered by the local authorities, and as to how they might be administered by these authorities. Mr. Simon urges rightly, that it should be the duty of the local authorities to *prevent* rather than to *remove* nuisances; but how are the local authorities to do this unless they be properly instructed? and how can they be properly instructed unless the teacher sent be specially qualified to give the instruction? Mr. Stansfeld's notion apparently was, that sanitary matters could be treated by the rule of thumb; and to this very probably is due to some extent the non-progressive, if not retrogressive, scientific sanitary movement since the change of central supervision.

For the public good, a system of cleanliness is absolutely necessary; and we quite endorse Mr. Simon's opinion: "That local authorities proceeding to act upon this principle with a clear intelligence of what cleanliness really means, and with sincere resolution to enforce it in their respective districts, can, within a few years, reduce by some tens of thousands the annual mortality of England." This, Mr. Simon says, he believes to be as certain, as it is certain that such ought to be the aim of local authorities.

We cannot conclude this notice better than by calling especial attention to this statement as to what may be accomplished by a vigorous administration of the Sanitary Acts; and we may observe that it is not at all probable that the powers for good which have been entrusted to the Local Government Board will be allowed, either from a failure on the part of those in authority to recognise the right course to pursue, or from a perverse use of that power, to be used to obstruct, or even retard, the progress of sanitary science, whose only aim is the saving of human lives.

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DR. R. PAYNE COTTON and Dr. Richard Quain, after twenty-seven years of active service at the Brompton Hospital for Consumption and Diseases of the Chest, have retired from their posts, and have been appointed consulting physicians.

AN examination of surgeons in the royal navy who are eligible and who may be desirous of qualifying for the rank of staff surgeon, will be held at the Royal Naval Hospitals at Haslar and Plymouth on Monday, the 19th of July next.

A SOLICITOR of Liverpool died last Wednesday from hydrophobia. He was bitten by a dog about three weeks since.

DR. J. MARION SIMS of New York, is nominated as the President of the next annual meeting of the American Medical Association, which will take place in Philadelphia.

WE understand that Dr. Birt Davies has resigned the office of Coroner for Birmingham, which he has long held with distinction and usefulness.

WE are glad to be able to state that Mr. Southam of Manchester, who has lately been suffering from a severe indisposition, is now improving in health.

IT is stated that fever has become developed in an exceedingly alarming form at Sheffield, owing to the careless and indiscriminate crowding of a number of Irish people at the funeral of a man who had committed suicide by jumping from a garret window in Bailey Lane, he being then ill from fever, and his family but just recovering. An extraordinary number of cases are already reported, and the infection is spreading very rapidly.

THE epidemic of measles introduced into the Fiji Islands by Her Majesty's Ship *Dido*, has proved very disastrous, no fewer than 50,000 natives having, it is stated, already died of the disease. The last advices by mail reported that the whites were but little affected.

THE following gentlemen have each given notice of motion that the second reading of the County Coroners' Bill shall take place three months from the day on which it is to be again brought forward: Mr. Charles Lewis, Mr. Joshua Fielden, Mr. Cobbett, and Mr. Rodwell.

ON Wednesday, at the Charing Cross Hospital, Mr. Barwell amputated at the hip-joint the right lower limb of a woman, aged 40. The disease, a malignant growth from the upper and outer part of the femur, was so placed as to render the usual anterior and posterior flap operation inadmissible; the whole covering for the stump was taken from the inner side, the outer portion being cut off square from the acetabulum. The operation was quickly performed; barely two ounces of blood were lost, but the shock was considerable. The patient has, however, regained power, in spite of distressing sickness, probably due to the ether.

AT the recent meeting of the American Medical Association, Professor Gross read an address "on one of the lost arts in medicine", which was in fact a plea for blood-letting, of which he advocated a revival in the strongest and most uncompromising language. So little do great surgeons really know of the progress of therapeutics, and so easy is it to be led away by a theory of "fashion" in medicine, it may seriously be doubted whether there ever has been "a fashion" in medicine, although superficial observers are apt enough to say that there is nothing else.

THERE is not much business in the regular course for the General Medical Council, but some is likely to be made out of the regular course. It is evident, from the course which Mr. Stansfeld and his friends took this week on the debate on the College of Surgeons' Bill, that the question of medical reform is entering on a more active phase, and that sundry questions of external medical interest are likely to be raised. Mr. Stansfeld urged at length, and in very forcible language, that the scheme of general reorganisation introduced by the Government, supported by the British Medical Association, and adopted by the General Medical Council, has been unduly neglected in favour of small partial and incomplete local arrangements. He argued that a voluntary union of certain English bodies, subject to the will and pleasure of each, and from which either might at any time retire, was not in the real interest of the profession and the public, and did not contain the elements of a satisfactory solution of the problem of medical reform. He also strongly supported the right for women, now that they have at their own cost established a well-officered school of medicine, to be admitted to a registerable degree on giving adequate proof of their knowledge, and called for an expression of the intention of the Government. It is understood that the Government will in turn apply to the Medical Council on the subject.

THE professorship of chemistry at Munich, which has remained vacant since the death of Liebig, has been accepted by Professor Baeyer of Strasburg, who will commence his duties next winter session.

THE University of Naples has lately been the scene of disorderly manifestations on the part of the students, in consequence of the Minister of Public Instruction having introduced a Bill in the Italian Parliament, providing for the carrying out of the system of inscription in the University. In consequence of the disorder, the pretext for which was that the proposed measure interfered with freedom of teaching, the University has been closed for a time; but, the Bill having received the Royal assent, it has been reopened by order of the Minister.

THE twenty-sixth annual meeting of the Dutch Association for the Promotion of Medical Knowledge will be held in Utrecht on Tuesday, Wednesday, and Thursday, the 22nd, 23rd, and 24th instant. After the public reception of the visitors at 8 o'clock on the 22nd, they, and the ladies accompanying them, will attend, by invitation of the local members, a concert given by the band of the Utrecht militia. On the two following days, papers will be read, and visits made to the several museums and other institutions of interest in Utrecht. There will be a public dinner on each of the last two days; and, after the last, an excursion by railway to Trompenberg will be made.

THE noble museum of the College of Surgeons was the scene on Wednesday evening of a large gathering of ladies and gentlemen, including most of the leading professional men in London and their wives, on the invitation of Professor and Mrs. Flower. The company was large and brilliant, and the scene most animated and picturesque. The galleries were closed; the theatre, the floor of the museum, and the hall, were lighted up, and filled with a moving crowd of grave and gay personages of both sexes. Besides the splendid osteological collections of the College, which, as arranged by Mr. Flower, have a deep interest to the least educated person, and appeal to the eye by the display of a series of morphological gradations which instruct and delight the least technically informed, there were some special treasures displayed, including a great collection of the bones of the Solitaire, and other recently extinct creatures, from the Island of Rodriguez, the treasure trove of the naturalists of the transit expedition; and an unrivalled collection of mastodon teeth, and other fossils from the Suffolk Crag, shown by Mr. Charlesworth.

PROFESSOR TURNER will commence his course of three lectures, on the Comparative Anatomy of the Placenta, in the theatre of the Royal College of Surgeons, on Monday the 14th instant; a microscopic demonstration of the structures described will be given after each lecture. The following is the syllabus of the course, viz.: 1. Development, form, and structure of the Chorion. Structure of the Mucous Membrane of the unimpregnated Uterus; 2. Changes which occur in the Uterine Mucous Membrane during pregnancy. Structure of the diffused Placenta. Structure of the Polycotyledonary Placenta; 3. Structure of the Zonular Placenta. General morphological conclusions. Physiological conclusions.

### ROYAL COLLEGE OF SURGEONS: ARTS EXAMINATIONS.

AT the preliminary examinations for the diplomas of fellow and member of the Royal College of Surgeons, which was commenced on Tuesday last at Burlington House, by the authorities of the College of Preceptors, the large number of 312 candidates offered themselves, viz., 85 for the fellowship, and 227 for membership. The examination will be brought to a close this day (Friday), but owing to the large number of papers to be read the result will not be known for several weeks.

### RECENT URBAN MORTALITY.

DURING last week 5,526 births and 3,347 deaths were registered in London and twenty other large towns of the United Kingdom. The annual death-rate was 23, and varied in the different towns as follows: Sunderland, 16; Wolverhampton, 18; Bradford, Edinburgh, London, and Leicester, 20; Liverpool, Salford, and Portsmouth, 22; Leeds and Newcastle-upon-Tyne, 23, Manchester, 24; Birmingham and Sheffield 25; Dublin, 26; Norwich, 27; Nottingham, 28; Bristol and Hull 29; Glasgow, 30; and, the highest rate during the week, 35 in Oldham. The zymotic rate was 3.3 in the eighteen English towns, and ranged from 1.2 and 1.3 in Oldham and Leeds to 6.9 and 7.0 in Norwich and Hull. Whooping-cough is severe at Norwich; whooping-cough and scarlet fever at Hull; small-pox at Birmingham and Bristol; and scarlet fever at Bradford. In London 2,258 births and 1323 deaths were registered. The births were 3 above, the deaths 63 below, the average for the week. The deaths due to the seven principal zymotic diseases were 21; 133 below the average. They equalled an annual rate of 3.2 per 1,000, and were as follows: From small-pox, 2; measles, 32; scarlet fever, 41; diphtheria, 11; whooping-cough, 71; fever, 25; diarrhœa, 29. The death of a labourer, aged 21 years, in Percy Terrace, South Hackney, was referred to "colic, choleraic diarrhœa, 24 hours". The deaths from disease of the respiratory organs were 232, and from different forms of violence, 51. The Asylum District Fever and Small pox Hospitals at Homerton and Stockwell contained 187 patients on the 5th instant, of which 48 were under treatment for fever, 116 for scarlet fever, and 14 for small-pox. In greater London, 2,730 births and 1,556 deaths were registered, equal to annual rates of 33.9 and 19.3 per 1,000. In outer London, the general death-rate and zymotic death-rate were 16.0 and 2.1 per 1,000 respectively, against 20.0 and 3.2 in inner London. At Greenwich, the mean reading of the barometer was 29.84 inches; the mean temperature 59.9 deg., or 3.2 deg. above the average. The general direction of the wind was E.N.E. No rain fell during the week.

### SICKNESS IN THE NAVY.

LETTERS from the Australian station, received at Plymouth by the Overland route, state that fever is seriously prevalent among Her Majesty's ships at Sydney, and also on shore. Typhoid cases had been landed from the *Pearl* and *Beagle*, and at the latest dates thirty-four of the *Barracouta's* crew were in hospital with typhoid. The foul condition of the ships was supposed to account for this, and all the hands had gone into quarters on shore, while the *Barracouta* was thoroughly cleansed and fumigated. Protests were being raised at Sydney against this importation of disease.

### SUPERSTITION IN INDIA.

OF the many strange stories of medical superstition amongst the ignorant people, the following, which we find in the *Indian Medical Gazette*, is one of the most extraordinary.

"A few months back, in the native state of Marwar, one of the principalities of Rajputana, a man suddenly announced a cure for small-pox. And, strange to say, this person was not a high caste Brahmin, whom the people might be expected to follow and believe in, but one of the despised order of 'Chumars'! The 'Chumar', having found a peculiarly oval-shaped hole in a rock, declared that all children passed through this hole would escape the much dreaded disease. The news spread far and wide, and, as we are credibly informed, parents brought their children from near and far, even from a distance of fifty miles, in order that they might be passed through the rock, and become proof against 'Sitla'. The 'Chumar', beating a gong, seated himself above the hole, and for days received the alms and offerings of the deluded wretches trooping to the goal. At last, the Thakoor or chief of a neighbouring village also brought his child, which was duly passed through the hole. It is not, however, an improbable supposition that, out of the numbers of children previously taken there, some few might have been suffering from the disease which it was desired to prevent; and the fact of the malady breaking out among a concourse of people thus assembled is altogether in accordance with our knowledge of *variola*. Be this, however, as it may, unfortunately the Thakoor's child, on returning home, sickened, suffered from small-pox, and died. Naturally the deluded Thakoor was fully inclined for vengeance on the 'Chumar'. But the latter appears to have been equal to the occasion, and to have thoroughly understood the bent of the minds with which he had to deal. He immediately declared that the child had been bewitched by a village woman, and the wrath of the Thakoor was as immediately turned from the 'Chumar' to the reputed witch. The latter was seized, under the orders of the Thakoor, and burnt with hot copper pice—a species of punishment formerly much in vogue in Rajputana, and which, it would appear, has not yet entirely died out. It is satisfactory, however, to add that, on complaint by the woman's friends to the political authorities, the Thakoor himself was seized, and now, in durance vile, has time to meditate on the cunning manner in which he was deluded by the astute 'Chumar'. Where the latter went we have not been informed, but it would not be surprising if he again turned up in some other part of the country, with a specific against some other disease, finding the *rôle* so easy and remunerative."

### HOSPITAL SUNDAY.

SUNDAY, the 13th inst., has been fixed as the day upon which the annual collection in aid of the hospitals and dispensaries of the metropolis is to be made. The difficult questions which have agitated and perplexed the Council of the fund ever since its establishment, have been happily settled, and the resolutions which were passed at the last general meeting, and which we published on the 15th ult., appear to have given satisfaction. We may, therefore, hope that the collection will show a marked increase upon the amount realised last year. It is announced that the following gentlemen will form the Committee of Distribution for the present year: Alderman Sir Sydney H. Waterlow, M.P.; Lord Ashley; Mr. Hankey, M.P.; Mr. S. Morley, M.P.; Mr. Alderman McArthur, M.P.; Dr. W. Sedgwick Saunders; Mr. G. W. Callender, F.R.S.; Mr. Thomas Turner, Treasurer of Guy's Hospital; and Mr. Jervoise Smith. The Lord Mayor, the aldermen, and the sheriffs will, as usual, attend the morning service at St. Paul's, and the afternoon service at Westminster Abbey.—The Lord Mayor writes to invite earnest co-operation for the support of the Hospital Sunday Fund. He is happy to make a report in every way favourable to the cause, as the subscription last year exceeded that of the previous one, and the number of places of worship in which collections were made has steadily increased. He says that the principles on which the distribution of the fund has been made, and the organisation of the movement, have been subjected to close and repeated examination, from which much advantage has resulted. After prolonged and renewed discussion of the claims of those institutions which were not satisfied with the distribution, a great and permanent benefit has resulted to the fund. "The organisation of the Council and its relation to those from whom it springs have been so defined as to give to the Hospital Sunday Fund a constitution directly representing those who have associated themselves together for this noble work of mercy to our sick poor. It was only by experience that so large and so new a work could grow into its ultimate shape, and we may look back on the past few months as time well spent in revising and completing its working constitution and its method of administration." The Lord Mayor concludes with an earnest appeal on behalf of the Hospital Sunday Fund, which we shall be glad to see liberally responded to.

### RIGHTS OF WAY ON COMMONS.

ON Monday, the Master of the Rolls gave judgment in the case of the Conservators of Wimbledon Common *v.* Dixon. The defendant in this case has for some time past been erecting houses on a part of Wimbledon Common near Cæsar's Camp, and he has been using a new road across the common in order to cart his building materials. The plaintiffs urged that the defendant either had no right of way across the common, or, if he had, it was only a right of way for agricultural purposes. The Master of the Rolls decided that the defendant had no right of way over the new road except for agricultural purposes; and he made a perpetual injunction against the defendant, ordering him to pay the costs of the suit. This is an important decision, and one materially affecting the public interests. It seems to draw a distinction between the public user of common lands for purposes of recreation, and user by private persons for vehicular traffic. Our metropolitan commons and open spaces would soon become unsightly if such traffic were permitted.

### OBJECTIONABLE HANDBILLS.

IT is satisfactory to find that the police and the magistrates are at length taking measures to suppress the distribution of obscene handbills in the streets. A labourer named John Robinson was recently charged before Mr. Woolrych with having distributed handbills of a character not sanctioned by the Commissioners of Police; and in this instance the chief offender, a charlatan named Du Brange (whose name does not, of course, appear in the *Medical Directory*) was also charged with instigating Robinson to commit the offence. Du Brange put a bold face on the matter, made the best of a bad cause, and urged that, before there could be a conviction, it would be necessary to prove an annoyance to passengers. Mr. Woolrych looked at the Act, and said nothing of the sort was required. Du Brange, turning about in the dock, repeated that it was required. Mr. Woolrych told him that his manner was in the highest degree offensive and ungentlemanly, and he had better conduct himself properly. The offence was clearly proved; and he would pay 10s. and costs, with an alternative of seven days' imprisonment. Robinson would be discharged with a caution. The penalties were paid by the chief offender, who, according to the newspaper report, left the court in a hurry. We are glad to see that the law officials are beginning now to take up this quack advertising nuisance, and trust that they will soon suppress it entirely. For years past, it has been a disgrace to the metropolis.

### A PATHOLOGIST'S REPORT.

DR. SUTTON, the able pathologist of the London Hospital, has set an excellent example in issuing a printed report to the House Committee on the work in the pathological department during the past year, giving particulars taken from the *post mortem* records of the last year, which show the causes of death. His report is prefaced by observations of so much general interest and utility, that, although they are long, we quote them. He says:

"The physicians and surgeons of the hospital would doubtless support me in saying that the *post mortem* examinations are of the utmost utility, because they enable us to ascertain how far their opinions of cases are correct, and in what degree the treatment adopted has been appropriate and serviceable. The knowledge almost every day thus gained is applicable and used for the assistance of the patients in the hospital and elsewhere. But it is perhaps not sufficiently recognised that these examinations exercise a corrective influence against hasty conclusions, carelessness, or, possibly, injurious practice; for they are made publicly, in the presence of the members of the staff, the officers of the hospital, students, and others. The diagnosis and other opinions of the cases are also openly discussed and commented on, and any carelessness or oversight is thus not likely to be altogether overlooked. The records of these examinations, kept in the hospital, become a store-house of valuable particulars, which may at any time be referred to and examined, should questions arise as to individual cases. These examinations are also of great educational value. The student observes in the wards of the hospital the symptomatic phenomena of disease, and the measures adopted to arrest it and relieve the sufferer; but during the *post mortem* examinations he is brought face to face with the effects of disease. Thus he acquires, in a degree greater than he could in any other way, an intimate knowledge of the morbid changes. Moreover, even the most skilful and experienced medical men would affirm the great and even indispensable use of such examinations for the development of pathology and for the guidance of practitioners; for facts are thus presented to them which can be obtained from no other source. Physicians and surgeons the most eminent are compelled to admit that the most accurate diagnosis of disease is more or less imperfect. They know that, even when the opinions formed are exceptionally correct, it is only necessary to institute a sufficiently minute and careful examination to find out that they are of necessity incomplete, and generally much too limited. As a rule, in these examinations something more is discovered than the diagnosis expressed. These inspections, therefore, break down narrow conceptions, enlarge the number of facts, and insure progress. Many persons are aware that these examinations are interesting and instructive to medical men, and have, therefore, sanctioned, if not encouraged, the practice; but they do not see how such examinations are useful, and in fact indispensable, for the ascertainment of the conditions which cause disease, and the actions required for its removal or amelioration. They fail to recognise that these investigations are required both for the successful prevention and for the efficient treatment of disease. Those who study to prevent disease know full well that its effects are often the best guides to the direction in which the cause may be looked for and discovered. The Registrar-General's and other reports have shown the public the importance and necessity of knowing, for purposes of prevention, the nature of the diseases which cause death. But these registration returns, founded, as they are for the most part, on the diagnosis during life, of necessity convey an imperfect and far too limited knowledge of the morbid conditions which have destroyed life. But, whilst gladly acknowledging the great value and use these returns have been and continue to be, I am compelled by pathological experience to say, that they do not sufficiently supp'y the information which either pathologists or sanitarians require to determine the true causes of disease. The morbid effects must be accurately and wholly known in order to estimate correctly and fully the injurious causes. This can only be done by examining the organs and tissues of the body —ascertaining what are the minute morbid changes in the single and aggregated parts of the body; the pathologist may then, by these and other means, trace the relation of the many changes within to the multitude of actions in the world without."

### THE ROYAL NATIONAL HOSPITAL FOR CONSUMPTION.

THE Royal National Hospital for Consumption and Diseases of the Chest will hold a grand fancy bazaar on June 16th, 17th, and 18th, at the Duke of Wellington Riding School, Knightsbridge, in aid of the funds of the institution. The General Committee announce that the original design of the institution, which embraced the erection of sixteen houses, for the reception of upwards of one hundred patients, at Ventnor, is now drawing near completion. Ten houses have been fully occupied for some time past, two more will be opened at an early date, and the funds for the remaining four houses have been generously provided by individual donors. A large sum is, however, required to furnish these houses, to construct the subways, roads, drainage-works, etc., and to provide for the maintenance of the largely increased number of patients, there being no endowments. The forthcoming bazaar is largely patronised by royalty, and is announced to be opened in person by the Princess Christian.

### THE PECULIAR PEOPLE.

A MEMBER of the sect known as the "Peculiar People", named John Robert Downes, surrendered on Tuesday last to take his trial at the Central Criminal Court for the manslaughter by criminal neglect of his son, a child aged two years. It appears that the child had pleurisy and pneumonia, and that the prisoner did not obtain medical asssitance, but had him treated in accordance with the tenets of the sect, by anointing with oil and laying on of hands and prayer. It was stated that the prisoner gave the child nourishing food and port wine. The jury found the prisoner guilty, adding, however, that they believed that he considered he was acting for the best, according to his religious notions, and that what he did was intended for the benefit of the child. They also said they were of opinion that the law ought to be such as to compel people to obtain medical assistance for their children when they were ill. The judge (Mr. Justice Blackburn) respited judgment, in order that the Court of Criminal Appeal might consider the question of law as to the obligation to obtain medical assistance, and in the meantime the prisoner was allowed to go at large upon bail.

## SCOTLAND.

WE regret to learn that Dr. Henderson of Auchenblae died, in the course of a few days, of the injuries received by him, as described in the JOURNAL of last week.

A NUMBER of boys were playing with a black retriever dog on Sunday week in a street in Glasgow, when one of them was bitten by the animal on the lower part of the abdomen. Nothing serious was apprehended at first; but, in a few days, an attack of peritonitis set in, and carried him off in a few hours.

AT its last meeting, the Parochial Board of Greenock agreed to proceed with the new asylum and poor-house at Smithstone, at a cost of £78,599, this sum including £7,000 for cost of site. The original estimates for the buildings amounted to £46,000, and there was considerable discussion as to the increased cost.

THE fever cases at Greenock are increasing in number; and it is reported that more than a hundred cases of typhoid are known to exist in the town. The authorities are taking precautions against the spread of the disease.

### PROPOSED CLOSING OF GOUROCK GRAVEYARD.

EVIDENCE has been taken for some time past on the necessity of closing the graveyard at Gourock. On May 25th, Dr. Littlejohn of Edinburgh gave evidence to the effect that the graveyard was overcrowded and otherwise objectionable; and he had no hesitation in saying that the drainage of the ground must find its way through the foundation of the houses in the vicinity. On a later day of the inquiry, it came out in evidence that a typhoid fever epidemic is just now prevalent both at Greenock and Gourock. Seventy-four cases were known to exist in the two places; and Sheriff Smith remarked that, in one house on the Greenock Esplanade, six persons were affected with the malady. The evidence went on further to show that water had frequently been found in the graves to the depth of from six to eight inches; and the gravedigger had been seen to bale out the water when a funeral was approaching, and straw had been put in the bottom to conceal the fact that the graves were inundated. The inquiry is not yet concluded.

### THE ASSOCIATION OF SANITARY INSPECTORS.

THE first annual meeting of the Association of Sanitary Inspectors for Scotland was held last week at Stirling, the President, Mr. Macleod of Glasgow, in the chair. The association consists of 102 ordinary, and 73 honorary members. Papers were read and discussed, entitled "The Removal of Waste or Foul Water from Dwellings, and the Cleansing of the Surface of Streets"; and "General Observations bearing on the Health of Towns". The propriety of establishing a Scottish sanitary journal was also discussed, the question being eventually remitted to the Committee of Management. The members afterwards dined together.

### MORISONIAN LECTURES ON INSANITY.

THE two concluding lectures of this series were delivered by Dr. Batty Tuke on the 1st and 4th inst. The subject of the former of the two was classifications of insanity. The lecturer objected to all systems based upon psychology and symptomatology, on various grounds, and showed that the vagueness of their terminology frequently affects the treatment of the diseases, and causes very various conditions to be classed under one head. After a review of the classifications of Bucknill and Tuke, Skae and Morel, the author's own system was submitted, and its advantages discussed. The concluding lecture was devoted to the treatment of certain forms of insanity, the principal point insisted on being the disadvantages of retaining patients in asylums as soon as convalescence is once thoroughly established. Dr. Tuke concluded with some remarks on the petition recently forwarded to the various examining bodies by lecturers on insanity, praying that a three months' course of clinical instruction in an asylum may be substituted, at the option of the student, for a like period of medical hospital practice; and pointed out the advantages which would accrue to both student and patient, if wards for the treatment of incipient and acute cases of insanity were attached to large general hospitals in this country as they are in Berlin, Strasburg, and other continental schools.

# IRELAND.

THE King and Queen's College of Physicians have petitioned in favour of the Pharmacy (Ireland) Bill. It will be remembered by our readers, that it was owing to the action of the Irish College of Physicians that the first Bill owes its existence.

### KILRUSH UNION.

A COUPLE of weeks since, the matron of this workhouse made a complaint against Dr. Molony, the medical officer of the union, that he ordered her out of the female ward whilst paying his visits. The guardians brought the matter under the notice of the Local Government Board; who replied that it was improper that the master or matron should force themselves into the hospital whilst the medical officer was present, against his will; and that the medical officer should be allowed to exercise the right of discharging his duties in the manner he thought fit.

### DUBLIN MAIN DRAINAGE.

A SPECIAL meeting of the Council of the Dublin Corporation was held last Monday, consequent on a requisition signed by some members of the Council, in reference to the recommendations of the Main Drainage Committee; when, after some discussion, it was resolved, by a large majority, that their recommendations should be adopted, and that the Bill referred to should be authorised by the corporation, and that it should be promoted by them in the next session of Parliament. The suggestion of Sir John Arnott, which he offered to carry out free of expense to the citizens, to put a stop to the present filthy condition of the Liffey, was refused by the Port and Docks Board, because the plan of placing low weirs with flood-gates, it was said, would obstruct the navigation of the river; but as these weirs were to be placed above Island Bridge, where no boats pass, no impediment to navigation could result. In the meantime, whilst waiting for the system of intercepting sewers, which may never be completed, the effluvia from the river are as bad as ever; and it is not easy to understand why this expedient of Sir John Arnott's, temporary though it may be, should not be allowed to be tried.

### ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE election of officers and council took place on Monday, June 7th, when the following candidates were successful. *President:* Edward Hamilton; *Vice-President:* John Hamilton; *Secretary:* William Colles; *Council:* John K. Barton, Richard G. H. Butcher, Samuel Chaplin, William Colles, John Denham, Archibald H. Jacob, George H. Kidd, Edward Ledwich, Alfred H. McClintock, B. G. McDowel, Rawdon Macnamara, Edward D. Mapother, John Morgan, George H. Porter, Philip C. Smyly, William Stokes, T. Jolliffe Tufnell, Albert J. Walsh, William I. Wheeler. There were two vacancies by death or resignation, and one former member of Council, Mr. Kirkpatrick, was removed. There are three new names, Messrs. Mapother, Jacob, and Wheeler.

### SANITARY LECTURES.

ON Tuesday, the 1st inst., a lecture in connection with the Dublin Sanitary Association was delivered in St. Matthias's School House, by Dr. Bell, Lecturer on Chemistry to Steevens's Hospital. The subject was "Air", and the lecturer, after explaining the composition of pure air, showed how nature provided means for removing the impurities in air caused by combustion. He next pointed out what amount of impurity rendered an atmosphere objectionable to health, and how it might be detected and obviated. Details concerning ventilation were given, especially how dwelling-houses and public buildings could be sufficiently ventilated without the occurrence of draughts. During the lecture, several experiments bearing on these topics were shown by Dr. Bell.

# THE MUTINEERS ON THE *JEFFERSON BORDEN.*

THE wounded mutineers of the *Jefferson Borden* have been under the care of Mr. Rivington in the London Hospital, whence they were removed this week to take their trial.

Smith received the following injuries. A bullet passed through the front of the right arm just above the elbow-joint. It entered on the inner side externally to the inner condyle and ulnar nerve, and travelled, it would appear, underneath the brachial artery and median nerve, lifting them up, but not injuring them, and it passed out after traversing the brachialis anticus not far from the outer condyle. Another bullet struck the dorsal surface of the right hand over the base of the fifth metacarpal bone, and, being deflected by the metacarpal bone, turned round it and lodged in the fleshy part of the palm in front of it. This bullet was removed. Besides these wounds, Smith was grazed on the back and fingers of the left hand, none of the bullets penetrating or lodging.

Miller was lying with his head towards the captain and his legs (which were flexed at the hips and knee-joints) exposed. He received whilst in this position two bullets in the right thigh, the tracks passing downwards from the trunk to the toes. One bullet appears to have entered about three inches above the patella, and to have lodged over the internal condyle of the femur. This bullet is still *in situ.* The other bullet entered further to the inner side, and probably passed out of an aperture which existed in the popliteal space. A third bullet, said to be the one that passed through Smith's arm, lodged in the fleshy part of Miller's left thigh on the posterior surface just below the fold of the buttock. On Miller's admission into the hospital, the right knee-joint was a little swollen, and the surrounding parts were much swollen and ecchymosed. The bullet in the left thigh could not be felt with the probe, and it was not thought advisable to explore. As the bullet over the inner condyle close to the joint was creating no irritation and did not interfere with progression, it was thought to be as well to leave it for a time and not run any risk of delaying the case by its removal. All swelling had subsided when Miller left the hospital. Miller received some grazes in other parts, but no other bullet lodged or penetrated.

Glew received two bullets. One lodged in the left shoulder near the lower part of the left deltoid, but the track of the bullet had healed. There was no interference with the movements of the arm, and the exact site of the bullet could not be positively decided. The second bullet entered between the last rib and the crest of the ilium on the left side, about the situation of the centre of the incision in the lumbar colotomy. The track was only open for about an inch, and seemed to pass transversely towards the vertebræ. At no time had there been any symptoms of peritonitis, but the bowels had not been relieved for three weeks, and during that time the patient had eaten with avidity. The other men said he had the "death hunger" upon him. On admission, he was unable to move either of his lower limbs, and he complained loudly of pain on being touched. There were marked hyperæsthesia and hyperalgesia. After his bowels had been relieved, he improved, and soon recovered power over his right leg. On testing his limbs with the faradaic current, it was found that all the muscles supplied by the anterior crural on the left side failed to respond to the stimulus, whilst those on the right side acted well. The muscles supplied by the sciatic on the left side responded, but not so well as on the right side. After the application, which was repeated, he improved still further; and from crawling about the ward, adopted crutches, resting his weight on the right leg, but dragging the left after him. The great sensibility to the least touch on the left side also left him. It was difficult to explain the loss of motion, coupled with the entire absence of anæsthesia and presence of hyperæsthesia on the left side. So far as the evidence went, it appeared to point to some injury to a portion of the left lumbar plexus. The bullet track ran in that direction, and the bullet itself might have lodged close to the spine. The temperature on both sides was rather below normal, and there was about half an inch difference in measurement between the two limbs. There was also some diminution from disuse during the time the patient was confined to bed. He took his food with appetite throughout his stay in the hospital. The general impression was that Glew exaggerated his sensations; and the rapid manner in which the hyperæsthesia left him after the application of electricity tended to confirm this view.

## IRISH MEDICAL ASSOCIATION.

THE annual meeting of this Association was held at the Royal College of Surgeons in Dublin on Monday last, June 7th; Dr. HENRY SMITH of Donoughmore, President, in the Chair.

The report of the Council was read by Dr. CHAPMAN (Honorary Secretary), and was adopted.

The following resolutions were passed.

Proposed by Dr. TAGGART, and seconded by Dr. NOLAN (Gort): "That the Irish Medical Association deserves the support of every member of the profession in Ireland, and especially of the Poor-law and dispensary medical officers."

Proposed by Dr. HAYES, and seconded by Dr. McDOWELL (Carlow): "That the interests of the public and justice to the Poor-law and dispensary medical officers require that a scale of superannuation allowance shall be fixed and be claimable as a matter of right by all such officers who can prove to the satisfaction of the Local Government Board that they have held office for thirty years, or have attained the age of seventy years, or through illness or infirmity have been rendered unfit to discharge their duties, and that such scale should be proportionate to the emoluments of all their public offices and payable as salaries are—half from local rates and half from money voted by Parliament."

Proposed by Dr. WHISTLER, and seconded by Mr. DAVYS (Swords): "That the fees paid to registrars of births, deaths, and marriages, and to public vaccinators in Ireland are inadequate to the duties required to be performed, and being less than those paid in England for similar services, the Council of this Association are requested to give this matter special attention; and, at the same time, to inquire into the unnecessary clerkwork imposed upon those officers, with the view to adopting such measures as may appear most advisable for the improvement of their positions in these respects."

Proposed by Mr. O'LEARY, M.P., and seconded by Dr. MARTIN: "That the remuneration offered for the services of the sanitary officers of Ireland is not only derogatory to their professional status, but totally inadequate as compared with the duties required to be performed; that, whilst those officers are determined to discharge faithfully and impartially the duties imposed upon them—which in many instances incur odium and pecuniary loss—this Association is of opinion that they should be fairly requited for inspections and reports, and that whenever they shall be required to attend at or assist in any proceedings they should be specially remunerated for the loss of time involved in such attendance."

Proposed by Dr. DARBY, and seconded by Dr. JACOB: "That, as it is an apparent fact that medical men during their lifetime are seldom enabled to make sufficient provision for their widows and orphans, we are of opinion that the objects of this Association would be much enhanced by the adoption of a scheme adequate to meet this deficiency, and that the Council be requested to consider this important matter, with a view to framing a practicable scheme applicable to the case."

Proposed by Dr. GRIMSHAW, and seconded by Dr. BELLEW KELLY: "That the Association deprecates the insufficient remuneration given by the Government to medical practitioners for their attendance and professional evidence at courts of law."

Proposed by Dr. FISHER, and seconded by Dr. BROWN: "That the system of dispensary medical relief is constantly abused by well-to-do persons obtaining tickets for same; that persons who can afford to fee a medical practitioner for his services were never intended to receive it; that by obtaining it they not only tend to their own degradation, and increase the expenditure of the poor's rate, but unfairly occupy the time of the dispensary medical officers; and that they and all persons who have provided for medical attendance upon themselves and their families, by becoming members of any society which provides same, should, in every instance of receiving dispensary medical relief, be brought under the notice of the proper authority."

Proposed by Dr. NUGENT DUNCAN, and seconded by Dr. CARTE: "That this Association considers it a monstrous injustice to dispensary medical officers that they should be compelled to examine the mental condition of persons alleged to be dangerous lunatics, and certify as to same, without fee or reward."

Proposed by Dr. MORGAN, and seconded by Dr. DARBY: "That the clauses recommended by Council for introduction into the new Coroners' Bill, with the object of removing the flagrant abuses at present existing, are warmly approved of; and that the Council be requested to persist in their efforts to have them introduced into the new Bill."

The following resolution was also unanimously agreed to: "That this Association considers the existing restrictions as to the qualifications of compounders of medicines unsatisfactory, not only to the public, but to physicians and surgeons, who, not being themselves general practitioners, are of necessity obliged to have their prescriptions compounded by those who are competing with them in the practice of their profession; that this Association approves of the Government Pharmacy Bill now before Parliament, and that the Council be directed to take measures to support this Bill."

Cordial votes of thanks were accorded to Dr. Morgan (Honorary Treasurer), Dr. Chapman (Honorary Secretary), and the press. The council and officers for the ensuing year were elected; and the new President, Dr. Chaplin, took the chair. A warm vote of thanks to the outgoing President brought the proceedings to a close.

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# ASSOCIATION INTELLIGENCE.

## NORTH WALES BRANCH.

THE twenty-sixth annual meeting of the North Wales Branch will be held at Rhyl, on Tuesday, June 15th, at 1 P.M.; under the presidency of D. KENT JONES, Esq., of Vochriew.

The dinner will take place at 3.30 P.M. Tickets, 7s. 6d., exclusive of wine. T. EYTON JONES, M.D., *Honorary Secretary.*

The Priory, Wrexham, May 22nd, 1875.

## MIDLAND BRANCH.

THE general annual meeting of this Branch will be held at the Derby Infirmary on the 17th June, at 2 o'clock P.M.; President, T. SYMPSON, Esq., F.R.C.S.; President-elect, A. H. DOLMAN, Esq., M.R.C.S.

Dinner at five o'clock punctually, at St. James's Hotel; fifteen shillings inclusive.

Papers are already promised by the following gentlemen, viz.: The President; W. M. Knipe, Esq.; John Barclay, M.D.; C. H. Marriott, M.D.; F. H. Hodges, Esq.; C. Bell Taylor, M.D.; F. W. Wright, Esq.; J. Wright Baker, Esq.; Beverley Morris, M.D.

Gentlemen intending to dine are requested to communicate at once with the Honorary Secretary.

The President-elect begs to invite all members to a light refreshment at the Infirmary previous to the meeting.

F. W. WRIGHT, *Honorary Secretary, pro tem.*

Derby, May 1875.

## SOUTH-WESTERN BRANCH.

THE annual meeting of this Branch will be held by direction of the President-elect, PAUL W. SWAIN, Esq., F.R.C.S., on Thursday, June 17th, at 1 P.M., at the Royal Albert Hospital, Devonport.

Previously to the meeting, arrangements will be made for any members who desire it to visit the Dockyard; and, after the meeting, a marine excursion in a steam-launch is proposed.

A paper is promised on the Ethics of Consulting Practice, by W. P. Swain, Esq., F.R.C.S.; and the Secretary will be glad to receive the names of members proposing to read short papers.

The dinner will be held at the Royal Hotel, Devonport, at 5.15 P.M. Tickets, exclusive of wine, 7s. 6d.

Return tickets—first and second class—at single fares, available from 16th to 18th of June, will be granted on production of dinner-tickets, by the London and South-Western, North Devon, South Devon, and Cornwall Railway Companies.

JOHN WOODMAN, F.R.C.S., *Honorary Secretary.*

2, Chichester Place, Exeter, May 25th, 1875.

## SOUTHERN BRANCH.

THE second annual meeting of the Southern Branch will be held at the South-Western Hotel, Southampton, on Tuesday, June 29th, 1875, at a quarter past Two o'clock P.M.; when Surgeon-General W. C. MACLEAN, M.D., C.B., will deliver an address.

During the afternoon, excursions will be made to the Royal Victoria Hospital and Netley Abbey.

The dinner will take place punctually at Six P.M. Tickets, 7s. 6d. each, exclusive of wine.

The Committee particularly request that those gentlemen who intend to be present at the dinner will send in their names to Dr. Trend, Southampton, on or before Friday, the 25th of June.

J. WARD COUSINS, *Honorary Secretary.*

## METROPOLITAN COUNTIES BRANCH.

THE twenty-third annual meeting of this Branch will be held at the Alexandra Palace on Monday, June 28th, at 4 P.M. precisely; *President*, T. B. CURLING, Esq., F.R.S.; *President-elect*, ROBERT BARNES, M.D.

Dinner at 5.30 precisely. Tickets, 15s. each, exclusive of wine.

ALEXANDER HENRY, M.D. } *Hon.*
ROBERT FARQUHARSON, M.D. } *Secs.*

London, June 3rd, 1875.

## BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE annual meeting of this Branch will be held at the Midland Hotel, New Street, Birmingham, on Tuesday, June 29th, at 3 P.M.; when an address will be delivered by the President, W. F. WADE, Esq., M.B., F.R.C.P.

The annual dinner will also be held at the Midland Hotel, at 5 P.M. precisely. Dinner tickets, exclusive of wine, 7s. 6d.

BALTHAZAR FOSTER, M.D. } *Honorary Secretaries.*
JAMES SAWYER, M.D. }

Birmingham, May 29th, 1875.

## LANCASHIRE AND CHESHIRE BRANCH.

THE annual meeting of this Branch will be held in the Town Hall, Chester, on Wednesday, June 30th, at 1 P.M.—JOHN SKAIFE, Esq., President; Dr. DAVIES-COLLEY, President-elect.

The dinner at the Grosvenor Hotel at 5 P.M. Tickets, 7s. 6d., exclusive of wine.

*Communications.*—1. Lymphoma or Lymphadenoma in a Child. By Dr. Oxley.
2. Supracondyloid Amputation of Thigh. By Dr. C. E. Lyster.
3. Note on Cæsarean Operation. By Dr. Lloyd Roberts.
4. Case of Sudden Death after Thoracentesis. By Dr. Glynn.
5. Cancer of Mediastinal Glands. By Dr. Glynn.
6. Hydrophobia. By Dr. Haddon.

Notice of papers (which must not exceed fifteen minutes) should be forwarded at once to the undersigned. None received after June 12th can appear in the circular.

A. B. STEELE, *Honorary Secretary.*

54, Rodney Street, Liverpool, June 9th, 1875.

## CAMBRIDGESHIRE AND HUNTINGDONSHIRE, EAST ANGLIAN, AND SOUTH MIDLAND BRANCHES.

THE combined annual meeting of the above Branches will be held in the Anatomical Museum, Cambridge, on Friday, July 2nd, at 2.30 P.M.; G. M. HUMPHRY, M.D., F.R.S., President.

The dinner will take place in the Hall of St. Peter's College, at 6.30 P.M. Tickets, 17s. 6d. each.

Members intending to read papers, or to be present at the dinner, are requested to intimate their intention, at their earliest convenience, to one of the Honorary Secretaries.

J. B. BRADBURY, M.D., Cambridge. }
B. CHEVALLIER, M.D., Ipswich. } *Honorary*
J. B. PITT, M.D., Norwich. } *Secretaries.*
J. M. BRYAN, M.D., Northampton. }

Cambridge, May 1875.

## NORTH OF ENGLAND BRANCH.

THE annual meeting of this Branch will be held in the Town Hall, Darlington, on Thursday, July 8th, at 3 P.M. President, 1874-75, ANDREW LEGAT, M.D.; President-elect, 1875-76, S. E. PIPER, Esq., F.R.C.S.

The annual dinner will take place at the King's Head Hotel, Darlington, at 4.45 P.M. precisely.

G. H. PHILIPSON, M.D., *Honorary Secretary.*

Newcastle-upon-Tyne, May 29th, 1875.

## ABERDEEN, BANFF, AND KINCARDINE BRANCH.

THE annual meeting of the above Branch will be held at Aberdeen, on Saturday, July 17th, at 1.30 o'clock P.M.

Further particulars will be intimated by circular.

ALEXANDER OGSTON, *Honorary Secretary.*

Aberdeen, June 1875.

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# CORRESPONDENCE.

## PRACTITIONERS AND PUERPERAL PYÆMIA.

SIR,—In your issue of to-day appears a letter from Dr. Matthews Duncan upon the above subject, in reply to one by Mr. Cullingworth. In it Dr. Duncan has referred to myself in such a manner as to make it incumbent upon me, however unwillingly, to request space for an answer. Dr. Duncan uses the following words:—"Puerperal pyæmia is, at least in some of its forms, a contagious disease; and, *if* Mr. Cullingworth *and Dr. Thorburn* act according to *their* principles in conducting obstetric practices not microscopic in extent (omitting consideration of hospital and consultation practice), *they* achieve impossibilities." The italicising is my own. Speaking for myself alone, this sentence implies three things: 1. That Dr. Duncan knows what my principles are; 2. A more or less politely worded doubt as to whether I am honest enough to act upon them, conveyed by the "if"; 3. A practical denial that I do so, involved in the assertion that it is an impossibility. You must agree with me that, as a responsible teacher of obstetrics, I dare not refrain from a reply to such charges.

Dr. Duncan, then, does *not* know what my principles of action are. In Mr. Cullingworth's letter, there is merely the fact stated that I once abandoned midwifery for a time, owing to my connection with a case of infectious disease; not a word more. The only other possible source of information would be a private letter which I addressed to Dr. Duncan about a fortnight ago, at the suggestion of my friend Mr. Southam, giving a few reasons why we could not here originate a petition for the release of the convict Marsden. I therein mentioned some facts, but gave no expression to any principles of my own. Moreover, as I have not received the slightest acknowledgment of this note, I presume it has never reached its destination.

If, then, Dr. Duncan do not know what are my views on the subject of *post partum* infection, I think I am justified in asserting that he was unwarranted in suggesting, implying, or stating that I do not act upon them.

I feel compelled to state now what are my principles of action; to insist that I have honestly acted upon them, and that the results are not "impossibilities", although Dr. Duncan may choose to assert that they are. I have hitherto taught, believed, and acted upon the following maxims, derived by myself equally with Dr. Duncan from the late Sir James Simpson, and simply confirmed and reiterated during the whole of the long discussion at the Obstetrical Society of London.

1. The puerperal woman is placed much in the same position as one who has undergone a serious surgical operation involving raw absorbing surfaces, together with, not unfrequently, a sudden depression of the vital powers.

2. In virtue of this, she is specially liable to the attacks of infectious disease, and, when attacked, to sink rapidly under their influence.

3. She is also most liable to every form of pyæmia and septicæmia.

4. When attacked by these latter, she is subject, in many instances, to a group of fatal symptoms, which has, for convenience sake, been termed puerperal fever.

5. This fatal group of symptoms, however induced, has a remarkable tendency to be conveyed to other parturient women in an almost identical form.

6. The mere theoretical question as to what we should call this group of symptoms has no bearing on the practical question, What must be done to prevent its propagation to other parturient women?

7. It is, therefore, the duty of every practitioner to avoid, as far as possible, any communication of the effluvia, secretions, or emanations of fever, erysipelas, pyæmia, unhealthy sores, or the like, to his obstetric patients.

8. This implies that he shall use all the precautions which modern science or his own knowledge recommend, such as the use of antiseptics, change of clothing, selection of time for visiting, and the like; but cannot possibly imply, in the present state of society, that no general practitioner shall, with proper care, visit simultaneously any cases of infectious disease and cases of confinement.

9. One of the most important precautions, however, is to abandon for a time the practice of midwifery whenever the practitioner is compelled (using Dr. Duncan's own word) to nurse a case of scarlatina, etc. By nursing, I mean to very frequently visit, stay with, or handle as a nurse does: the only means of saving many cases of fever.

10. When a group of symptoms, probably due to septicæmia or approximating to that popularly termed puerperal fever, has occurred to a practitioner, he should redouble the usual precautions; and, if he meet shortly with a second case in his own practice, he is morally

bound—I suspect legally also—to abstain from midwifery practice for some weeks. If Dr. Duncan could by statistics, of which he is so great a master, and which seem invariably to obey his command, determine the exact time of necessary quarantine, he would confer the greatest possible obligation, in more senses than one, upon the medical profession.

11. A professed obstetrician should not indulge in *post mortem* examinations, or other probable sources of septicæmia.*

12. Midwives who, like Mrs. Marsden, nurse their patients from the commencement of labour till convalescence; who administer all enemata and vaginal injections, and who perform all ablutions, are not justified, after they have lost three nearly successive cases, in trying whether a fourth will die, after they have been warned by more than one medical practitioner of the danger incurred.

These principles of action, roughly sketched, I have ever taught in this school of medicine; that I have faithfully, even fastidiously acted upon them, I can simply appeal for proof to every practitioner in Manchester with whom I am acquainted, and especially to my fellow Edinburgh graduates. So far from it being an "impossibility" to do so, I can confidently ask Dr. Duncan whether he or any member of our obstetrical societies would like to disclaim having used similar precautions, whatever may be their passing nosological fancies. Though occasionally a heavy pecuniary loser, I feel quite consoled by the fact that, during a practice of some twenty years, "not microscopic in extent", and "omitting consideration of hospital and consultation practice", I have, with the exception of three or four mild cases of phlegmasia dolens, never had a single instance of anything that could be called pyæmia, septicæmia, or puerperal fever.

I look with considerable confidence, then, to an honourable acquittance by Dr. Matthews Duncan from the serious charge which he has, doubtless in haste, made against me, a teacher and practitioner of midwifery.—I am, yours etc., J. THORBURN, M.D.,

Lecturer on Obstetrics and Gynæcology, Owens College School of Medicine; Obstetric Physician, Manchester Royal Infirmary.

Manchester, June 5th, 1875.

P.S.—It will be seen that I have not in any way interfered in the controversy between Mr. Cullingworth and Dr. Matthews Duncan. Mr. Cullingworth is perfectly able to answer for himself, if he think that Dr. Duncan's letter requires a rejoinder.

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SIR,—There are one or two practical questions connected with the subject of puerperal fever which are of very great importance to the profession and the public. I refer to the responsibility of medical men and nurses in the exercise of their duties in puerperal cases, and to the extent to which legislative influence may fairly be put in force, whether in prevention or in punishment.

These questions are amongst those which come home to us perhaps more directly than any others connected with our professional duties; for this fever is a just cause of alarm when it attacks those whose lives are valuable to us, or when it threatens to injure professional reputation by its occurrence in practice.

It is unnecessary to prove that, if every member of our profession and the public generally were convinced of the truth of certain phenomena connected with the origin and extension of puerperal fever, there would be no necessity for legal interference; but, when we consider how slowly general assent was obtained to the practice of vaccination; and that even now we are obliged to resort to the assistance of law to enforce its observance; I consider that it is our duty to assist in every way in our power in the promotion of just legislative enactments for the prevention of the serious consequences of puerperal diseases.

In a recent number of the JOURNAL (April 3rd), a correspondent from Vienna reports that "puerperal fever carries off a number of patients; and it seems strange to find both Professor Carl Braun's and Professor Späth's assistants conducting classes of practical obstetrics on the dead body while daily examining and delivering parturient women in the wards".

Now, sir, no one supposes that the gentlemen referred to consider that there is any danger in the practice described, and they would certainly imagine themselves very unjustly treated, if they were severely punished by the verdict of a jury for what they had probably been long accustomed to do. But I must honestly confess that all the evidence would be against them, and none that they could bring in their own favour would bear analysis. I am almost inclined to think that professional and public opinion in this country would condemn them: an instance where English common sense and justice shows its superiority.

It might be said: "Surely Professors Braun and Späth would not allow such practices to be carried on, if there were any danger." The answer to this is simple enough. The question is not whether there be any danger or not, but whether Professor Braun thinks so or not. We should, of course, conceive that there is no one more competent to form an opinion on the subject of the connection between the examination of dead bodies and the occurrence of puerperal fever in healthy; but I could give you good reasons, if I chose, for doubting the opinion of those who have been long accustomed to certain positive views and certain scepticisms, however much opportunity they may have had to enable them to settle the latter or change the former.

Much of that valuable pathological research which engaged the attention of the leading practitioners of obstetric medicine thirty or forty years ago was conducted in the intervals of practice, and confessedly with serious consequences to their patients. I could name one who, I think, was generally allowed to be an authority on the subject of puerperal fever, who was at that time, and indeed till much later in life, so sceptical of the actual danger of carrying infection from one patient to another, or from a dead body to a healthy woman, that I have no hesitation in saying he would have done as Professor Braun does now, with the same feeling of irresponsibility.

In the preparation of the lectures which I recently delivered at the Royal College of Physicians on puerperal fever, it was necessary to become acquainted with a good deal that was said and thought many years ago, and the result of such acquaintance has been to diminish my veneration for age, so far as concerns matters of scientific observation. Men who were experts in their day, I could prove to you, entertained ideas which would now astonish us, and one almost would feel disposed to avoid being expert in anything whatever, as it seems to limit our views and mar our judgment. There can be little doubt that, as time goes on, the prevention of puerperal infection will receive more and more attention from judicial authorities. We feel that, after all, self-interest is a stronger influence in regulating conduct than scientific theory, and that we must resort to law to defend ourselves from those whose scepticism makes them a source of danger. With your permission, I shall continue these remarks in another communication.

I am, sir, yours obediently, ROBERT J. LEE.

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SIR,—Nothing is easier than to ask a series of questions on a subject like puerperal fever, which, in our present state of knowledge, would be quite unanswerable.

If my cases differed in any way from thousands which have been recorded before by careful observers, or if I had discovered anything fresh, I should not miss this opportunity of making it known and earning a distinction worthy to rank with any in the history of medicine. I do not think that multiplication of cases will assist us at present; and I take it that careful sifting and sorting are more necessary than heaping case upon case.

The clinical symptoms of puerperal fever are pretty well known; and on May 22nd there was a leader in the BRITISH MEDICAL JOURNAL on a paper by Dr. Sirédey, which so closely expressed my views that, if "Ignoramus" will read that article, he will find the information he asks, and spare repetition.

"Ignoramus" would infer that we had a specific for puerperal fever in the shape of "injection of a disinfectant lotion into the uterus", and that antiseptics do not have the same beneficial effect on an external inflamed spot. In answer to this fallacious statement, I would say that, unless "Ignoramus" can show that the writings of Lemaire, Lister, etc., are mere fables, his views are not in accordance with modern surgery. Given as nearly as possible similar conditions—namely, an open wound bathed with a pyrogenic liquid—it is not unreasonable to expect an antiseptic lotion to dilute, destroy, wash away, or so far modify the poison, that inflammation may be abated.

The scarf of a *tauridor* could scarcely be more exciting to a Spanish bull than my suggestion about hospitals has proved to "Ignoramus". He has drawn on his imagination to an extent which would only have been justified if I had really made such a charge against hospitals and their managers as he has depicted. I shall only quote the following to show that there are people who consider a woman's chances are better if she be delivered at her own home, than in a maternity hospital.

"The lying-in hospital is a propagating house for every form of puerperal fever." (Barnes).

"From a review of the history of the epidemics of puerperal fever, it appears that there is some remarkable connection between them and lying-in hospitals. We have no record of any epidemic independent of them in earlier times." (Churchill).

"Statistics have proved that, at the Rotundo Hospital, 1 in 32⅖ die;

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* The country practitioner who has no fraternal assistance available, must, of course, as in many other matters, be guided by a wise selection of the lesser of two evils.

while of women attended by pupils of the Rotundo at their own homes, 1 in 62 die."

The *Lancet* says: "We see no way of resisting the conclusion to which these facts lead, that lying-in hospitals are institutions which no obstetric skill and no ventilation yet devised can make otherwise than dangerous, and that they should be given up. The history of nearly all lying-in hospital, whether in Dublin, London, Paris, or Vienna, teaches the same lesson."

"Ignoramus" asks: "If the hands alone be the means of inoculation, why should the nurses apply the catheter? Do their hands never come into contact with abraded or torn surfaces when attending to their patients? Who is more likely to use the most suitable mode of disinfection, the half-ignorant nurse, or the highly educated scientific medical man?"

In answer to all this, I never suggested that nurses should use intrauterine disinfectants, but that they should all be trained to use the catheter. Any clear-headed person must see that, when puerperal fever is once established, it is not *that* patient's abraded or torn surfaces that are in danger; and it is surely safer for the nurse, whose duties are confined to the one patient already poisoned, to use the catheter, than for the medical man to charge his fingers two or three times a day with deadly stuff, and go forth to attend others.

Apologising for the length of this reply, I am, etc.,

6, Seymour Street, June 5th. PERCY BOULTON.

### ETHER AND CHLOROFORM.

SIR,—In your issue of the 8th instant, there appears a communication from Dr. Skinner, with reference to Dr. Fifield's demonstration of the administration of sulphuric ether, which is incorrect in several particulars. We are in the habit here of respectfully accepting as true remarks such as Dr. Fifield made regarding his impartiality in the choice between chloroform and ether, unless they be proved to be false; and we also confine professional discussions to the point at issue, leaving to pothouse politicians all bombast concerning "stars and stripes, the superior liberty and intelligence, and the personal independence", which evidently irritates Dr. Skinner so much. We in this country at least *are* surprised that Dr. Skinner should charge Dr. Fifield with being "surcharged with purblind American prejudice, founded on fear, patriotism, and ignorance"; and for one I believe that you also are. Whilst it is true that chloroform was extensively used during our late war, it was employed for special reasons, notably because of its portability as compared with ether, the smaller quantity required, and its freedom from danger by fire during operations by artificial light. I used it in several hundred operations on the field, in common with other surgeons; but we fully realised its dangerous qualities, and guarded sedulously against them. We rarely operated except in the open air, simply covering the operating-table with a tent-fly, reserving any buildings we occupied as wards for the reception of cases after all operations had been performed. Many gentlemen used ether exclusively; and the employment of it would have been greater, except for the reasons above cited.

The propriety of anæsthesia during parturition has been fully discussed here; and Dr. Fifield neither misrepresents our professional views in the matter, nor are our obstetricians so ignorant as Dr. Skinner imagines them to be. I may incidentally remark that, in a pretty large obstetric experience in both northern and southern States of the Union, I am convinced that (the negro excepted) American women bear the pain of labour better than do those of other nationalities; and the same tolerance held good amongst our American soldiers when under operations without anæsthesia. As a subject born under the British flag, Dr. Skinner will not, I trust, put down my opinion on this point to blind American prejudice or egotism. Aside from all private views, statistics have abundantly and painfully shown chloroform to be a dangerous agent in the hands of any one, be he never so skilful. Dr. Skinner himself appreciates the truth of this when he declines to "take it" from more than six out of hundreds whom he has seen administer it. On the other hand, ether is infinitely safer; it requires no skill in its administration; it is a perfect anæsthetic, provided only enough be given, and given freely. We cannot, amongst our forty millions of people, scattered as they are over an extended territory, employ professional chloroformists, such as Dr. Skinner would appear to entrust, to the exclusion of the mass of practitioners; hence the value of ether. Ether is here successfully used for all varieties of operations, including those in which Dr. Skinner prefers chloroform.

In concluding this letter, I hope Dr. Skinner does not really believe that chloroform or any other medicinal agent is proscribed with us, or that a surgeon would be either tried for his life or driven from society, should he be so unfortunate as to lose a patient during an operation. We have latitude enough here—too much, if the truth be told; and many of our eminent surgeons are as stubborn in their advocacy of chloroform in America as is Dr. Skinner in England. The true question is one of *moral responsibility*. Your patient is a human being. Is it right to endanger his life by the use of a deadly anæsthetic, such as chloroform has been proved to be; or is it not better for him, and for the surgeon too, that ether be used, with its infinitely safer record? He is already, from the necessity of surgical assistance, a pitiable object. How much more so is the healer of the sick when he hands over the dead body from a fatal use of chloroform, as has been done so many times already! A mechanic is held responsible for the proper performance of his work, but the medical man is free to do as he sees best. "To whom much is given, of him much shall be required." Let us realise this, and at least give the helpless patient a chance for his life.—I am, etc., WILLIAM R. D. BLACKWOOD, M.D.

Philadelphia, May 25th, 1875.

# PUBLIC HEALTH
AND
# POOR-LAW MEDICAL SERVICES.

## POOR-LAW MEDICAL APPOINTMENTS.

BRANFOOT, H. S., Esq., appointed Assistant Medical Officer at the Highgate Asylum of the Central London Sick Asylum District, *vice* H. A. Lediard, M.B., resigned.

CALVERT, C., M.R.C.S.Eng., appointed Medical Officer for the Workhouse and the Southwell District of the Southwell Union, *vice* G. S. Elliott, M.D., resigned.

CARMICHAEL, Walter S., M.D., appointed Medical Officer and Public Vaccinator for the South-East District of Edinburgh, *vice* C. Cuthbert, M.D., deceased.

### VACCINATION CERTIFICATES.

"A CERTIFICATE under the Vaccination Acts must be signed by a duly registered medical practitioner; but it may be signed by such practitioner, whatever his qualification to practise may be, whether medical or surgical, or both." (Note 9, clause 35; 30 and 31 Vict., cap. 84; Fry's *Manual on the Law relating to Vaccination.*) In clause 7. 34 and 35 Vict., cap. 98, rules are laid down for the due performance of vaccination, whether performed by the public vaccinator or by any duly registered practitioner, the delivering of the certificate of such successful vaccination to the vaccination-officer, etc. At section 3, the following will be found. "Every person who acts in contravention of, or fails to comply with, any provision of this section, shall be liable, on summary conviction, to a penalty not exceeding twenty shillings; and every person who wilfully signs a false certificate or duplicate under this section shall be guilty of a misdemeanour, and be liable to fine or to imprisonment, with or without hard labour, for a period not exceeding two years." It will therefore be obvious that the intention of the legislature is clear and distinct; viz., that only a registered medical practitioner or duly appointed public vaccinator can be empowered to vaccinate and fill in the subsequent certificate; therefore the vaccination-officer, by accepting certificates from a family chemist, and the family chemist in daring to vaccinate, in filling in, and sending certificates of successful vaccination, are equally acting in contravention of the law, and can be dealt with summarily before the county or borough magistrates.

# MILITARY AND NAVAL MEDICAL SERVICES.

MOVEMENTS OF ARMY MEDICAL OFFICERS.—The following medical officers have obtained leave of absence. Surgeon-Major P. F. Newland, per troopship, from date of embarkation.—Surgeon-Major E. Wilkes, doing duty with No. 7 battery 23rd Brigade R. A., to Kashmir, from April 14th to October 13th.—Surgeon A. W. Duke, M.D., per troopship, from date of embarkation.—Surgeon A. F. S. Clarke, M.D., per troopship, from date of embarkation.—Surgeon Major Manifold is to proceed to take charge of the Birmah Circle, which is to be vacated by Deputy Surgeon-General Kendall.—Surgeon R. Bowman, surgeon to the Political Agent, Khelat, is allowed furlough to Europe for two years, on medical certificate.

# MEDICO-PARLIAMENTARY.

### *HOUSE OF LORDS.—Friday, June 4th.*

*Sanitary Officers in Ireland.*—Lord LIFFORD brought under the notice of the House the appointments of the salaries of certain sanitary officers in Ireland by sealed orders of the Local Government Board, and complained that the opinions of the Boards of Guardians in the matter were disregarded by the Irish Local Government Board. He moved for a return of the names of Boards of Guardians of the Poor in Ireland who had objected to such appointments.—After some observations from Lord LURGAN and Lord DARTREY, the Duke of RICHMOND said he had no objection to the production of the return moved for; but he protested against the accusations made against the Local Government Board.

### *HOUSE OF COMMONS.—Thursday, June 3rd.*

*The Artisans' Dwellings Bill* was considered in Committee; and the various clauses were adopted, after a brief discussion, with some slight amendments.

*The Chimney-sweepers' Bill* was passed through Committee.

### *Tuesday, June 8th.*

*Medical Acts Amendment* (*College of Surgeons*) *Bill.*—On the order for going into Committee on this Bill, Mr. STANSFELD complained of the incompleteness of the measure, and declared that it would accomplish nothing, whilst what was really required was uniformity. The right honourable gentleman was addressing the House when the time for closing the debate arrived.

## MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following members of the College, having undergone the necessary examinations for the Fellowship, on the 27th, 28th, and 29th ultimo, were reported to have acquitted themselves to the satisfaction of the Court of Examiners; and at a meeting of the Council on the 10th instant, were admitted Fellows of the College, viz.:

Messrs. N. C. Macnamara, of H.M. Indian Army; Henry Brietzcke, L.R.C.P.L., H.M. Prison, Millbank; F. K. Green, L.S.A., West Dulwich; J. W. Ley, L.S.A., Poplar Hospital; W. G. Lowe, M.B.Lond., Burton-on-Trent; H. J. Rope, Blaxhall, Wickham Market; G. E. Herman, L.S.A., Bethnal Green Infirmary; A. H. G. Doran, L.S.A., Lansdown Road, W.; R. J. Pye-Smith, Argyll Road, W.; W. J. Walsham, M.B.Aberd. & L.S.A., Camden Road; R. C. Chicken, Nottingham; Thomas Eastes, M.B.Lond., Folkestone; and W. H. Cripps, Pall Mall.

Eleven candidates having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for twelve months.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, June 3rd, 1875.

Burnes, Henry Foster, Burwell Road, Highbury Park
Croudace, James Henry, Waratah, South Australia
Powell, Joshua, Broniwan, Newcastle Emlyn
Smith, William Robert, Seaford, Ontario, Canada
Turner, Walter Pickett, Stanford, Kent

The following gentlemen also on the same day passed their primary professional examination.

Houchin, Edward King, London Hospital
Kay, Alfred, London Hospital
Marsh, Edwin Addison, London Hospital
Pletts, John Menham, St. Bartholomew's Hospital
Whitehead, George Marsden, St. Thomas's Hospital
Wilmot, Thomas, St. Bartholomew's Hospital

## MEDICAL VACANCIES.

THE following vacancies are announced:—

AMERSHAM UNION—Medical Officer for the Workhouse and the Amersham District.

BEDWELTY UNION—Medical Officer for the Ebbw Valc District. Salary, £15 per annum.

BRADFORD INFIRMARY AND DISPENSARY—Physician. Applications to be sent on or before June 12th.

BRIGHTON HOSPITAL FOR SICK CHILDREN—Surgeon. Applications on or before the 14th instant.

BRISTOL GENERAL HOSPITAL—Physician's Assistant. Salary, £50 per annum, with board, lodging, and washing. Applications on or before the 24th instant.

CHERTSEY UNION—Medical Officer for the Windlesham District. Salary, £50 per annum.

EVELINA HOSPITAL, Southwark Bridge Road—Registrar and Chloroformist. Salary, £50 per annum.

HAY UNION—Medical Officer for the Workhouse. Salary, £55 per annum.

HONITON UNION—Medical Officer for the Fourth District.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street—House-Surgeon. Salary, £80 per annum, with board and residence. Applications on or before the 17th instant.

KENT and CANTERBURY HOSPITAL—Surgeon. Applications on or before the 18th instant.—Assistant House-Surgeon and Dispenser. Salary, £50 per annum, with board, lodging, and washing. Applications on or before the 25th instant.

KING'S COLLEGE, London—Professorship of Physiology.

KNOCKBAIN AND KILLEARNAN, Parishes of—Medical Officer. Salary for Knockbain, £50 per annum; and for Killearnan, £35. Applications on or before June 15th.

LERWICK and GULBERWICK, Parish of—Medical Officer. Salary, £50 per anuum. Applications to Major Cameron, Lerwick.

LIVERPOOL, Township of, Toxteth Park—Resident Assistant Medical Officer. Salary, £100 per annum, with board and lodging. Applications on or before the 16th instant.

LONDON TEMPERANCE HOSPITAL—Visiting Hospital Surgeon. Applications to the Rev. Dawson Burns, Honorary Secretary, 112, Gower Street.

LOUTH UNION—Medical Officer for the Tetney District.

MANCHESTER TOWNSHIP -Junior Assistant Medical Officer for the Workhouse Hospital.

METROPOLITAN FREE HOSPITAL, Devonshire Square—House-Surgeon.

NEWMARKET UNION—Medical Officer for Nos. 1 and 3 Districts. Salary, £85 per annum.

NEWCASTLE EMLYN UNION—Medical Officer for the Penbryn District. Salary, £50 per annum.—Medical Officer for the Llandyssul District. Salary, £50 per annum.

NORWICH DISPENSARY—Resident Medical Officer. Salary, £120 per ann., and residence.

ROYAL FREE HOSPITAL, Gray's Inn Road—Surgeon. Applications on or before June 28th.

ROYAL HOSPITAL FOR CHEST DISEASES, City Road—Physician. Applications on or before June 22nd.

SAFFRON WALDEN UNION—Medical Officer for the Fifth District. Salary, £15 per annum.

STOURBRIDGE UNION—Medical Officer for the First Kingswinford District. Salary, £56 per annum.

TORBAY INFIRMARY—House-Surgeon. Salary, £100 per annum, with board and lodging.

WELLINGBOROUGH UNION—Medical Officer for the Workhouse and the Wellingborough District.

## MEDICAL APPOINTMENTS.

*Names marked with an asterisk are those of Members of the Association.*

ALSOP, T. O. Fabian, M.B., reappointed Resident Physician to the University Clinical Wards, Edinburgh.

BOND, George W., M.R.C.S.Eng., appointed House-Surgeon to the Great Yarmouth Hospital, *vice* C. F. F. Murrell, M.B., resigned.

CHEYNE, Wm. R., M.R.C.S Eng., appointed Surgeon-in-Ordinary to the Western General Dispensary, *vice* G. E. Norton, M.R.C.S.Eng., resigned.

COLLINS, Ed. W., M.D., appointed Surgeon to the Jervis Street Hospital, Dublin.

COTTON, J. Holland, M.B., appointed Resident Physician to the University Clinical Wards, Edinburgh.

CURRIE, Andrew S., M.B., appointed Resident Physician to the University Clinical Wards, Edinburgh.

ELLIOT, H. F., L.R.C.S.E., appointed Resident Physician to the University Clinical Wards, Edinburgh.

ELLIOT, J., L.R.C.P.Ed., appointed House-Physician to the Royal Infirmary, Edinburgh.

GIBBONS, R. A., M.B., appointed House-Surgeon to the University Clinical Wards, Edinburgh.

GILL, G. F., L.R.C.P.E., appointed Resident Physician to the University Fever Wards, Edinburgh.

GLENDINNING, George, M.B., appointed Resident Surgeon to the University Clinical Wards, Edinburgh.

HYATT, James T., L.R.C.P.Ed., appointed Medical Officer to the Somerset County Prison, Shepton Mallet, *vice* W. C. Walker, M.R.C.S.Eng., resigned.

KILGARIFF, Malachy J., L.K.Q.C.P.I., appointed Surgeon to the Jervis Street Hospital, Dublin.

MORISON, J. R., L.R.C.S.E., appointed Resident Surgeon to the University Clinical Wards, Edinburgh.

PALFREV, James, M.D., elected Lecturer on Midwifery and Diseases of Women at the London Hospital.

PIRRIE, Gustavus F., L.R.C.P. & S.Ed., appointed Attending Medical Officer to the Hampton House Reformatory for Girls, Belfast, *vice* H. Purdon, L.R.C.S.Ed., resigned.

PHILPOT, Joseph H., M.B., appointed Physician to the St. Pancras and Northern Dispensary, *vice* J. Edgecome, M.D., resigned.

RICE, George, M.B., appointed Resident Surgeon to the University Clinical Wards, Edinburgh.

RONALDSON, T. R., M.B., appointed Resident Physician to the University Clinical Wards, Edinburgh.

SCOTT, J. H,, M.B., appointed Resident Surgeon to the University Clinical Wards, Edinburgh.

SQUIRE, Wm., M.D., appointed Physician to the St. George's Dispensary, *vice* E. I. Sparks, M.B., resigned.

THORNLEV, J. G., M.D., appointed Assistant House-Surgeon to the Bristol General Hospital, *vice* Percy Owen-Jones, M.R.C.S.Eng., resigned.

YOUNG, Patrick P., L.S.A., appointed Resident Surgical Officer to the Charing Cross Hospital.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.*

### MARRIAGES.

BURMAN—KING.—On Thursday, June 3rd last, at St. James Church, Devizes, by the Rev. John Cunningham, Assistant Curate of Holy Trinity Church, Bingley, Yorkshire, assisted by the Rev. Stafford Tordiffe, Vicar of St. James' Parish, Devizes, James Wilkie Burman, M.D., Medical Officer and Superintendent of the Wilts County Asylum, to Mary Weare, only child of the late Mr. George King, of Devizes.—No cards.

THE LATE DR. JAMES YOUNG.—About £600 has already been subscribed out of respect to the memory of the late Dr. James Young of Kirkcaldy; and when the subscription list is closed, the amount will be placed in the hands of trustees for the benefit of the family.

## OPERATION DAYS AT THE HOSPITALS.

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| MONDAY ...... | Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M. |
| TUESDAY ...... | Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M. |
| WEDNESDAY .. | St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M. |
| THURSDAY .... | St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M. |
| FRIDAY ......... | Royal Westminster Ophthalmic, 1.30 P.M. — Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M. |
| SATURDAY .... | St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M. |

## MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

FRIDAY.—Medical Microscopical Society, 8 P.M. Meeting for the Exhibition of Pathological and Normal Histological Preparations.

## NOTICES TO CORRESPONDENTS.

Correspondents not answered, are requested to look to the Notices to Correspondents of the following week.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

Authors desiring reprints of their articles published in the Journal, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

We cannot undertake to return Manuscripts not used.

Communications respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the Journal, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

Dr. Hoggan.—Our readers are naturally addressed through our own columns.

### Invalid Travelling by Rail in Hammocks.

On Saturday last, Mr. Richard Davy personally superintended the transit of two patients from the Westminster Hospital to Ringwood and West Bournemouth; one a girl, an advanced case of morbus coxæ; the other a woman, convalescent from strumous inguinal abscesses. By the courtesy of Mr. Archibald Scott, manager of the London and South Western Railway, a guard's van was placed at their service, in which two net-hammocks were slung at equal and parallel distances. The Chaplain and Sister Holland accompanied the patients all the way. The girl repeatedly fell asleep; the woman remarked how much more comfortable the hammock was than her bed. Mr. Richard Davy will be happy for a time to superintend the transit of any private patient requiring removal; and would state, in answer to many inquiries, that Seydels' address is 7½, St. Mary's Row, Birmingham; and their London agents are Maclean and Pisani, 37, Basinghall Street, City.

Question.—Taylor's *Manual of Medical Jurisprudence*, or the larger treatise on the same subject by the same author; Neligan's *Medicines;* Scoresby-Jackson and Macdonald's *Note-Book of Materia Medica;* Garrod's *Essentials of Materia Medica*, supplemented by Ringer's *Handbook of Therapeutics;* or Bentley and Redwood's abridged edition of Pereira's *Elements of Materia Medica and Therapeutics.* All these are good books.

### The Probability of a Second Attack of Measles.

Sir,—As this subject is attracting attention in your Journal, perhaps the following case may not be without interest. A lady, born in 1840, has had three several attacks of measles; viz., in 1854, in 1860, and in 1868. On the second occasion, it spread to three other members of the family after the usual days of incubation.—Yours faithfully,

Heywood Smith.

Portugal Street, W., June 5th, 1875.

### Naso-Pharyngeal Polypus.

Sir,—I would recommend Dr. Dowling, if he meet with another case of naso-pharyngeal polypus, to remove it by Syme's method, which I have found very effectual, free from risk, and comparatively easy of performance. The growth is first seized by two fingers of the left hand passed up behind the soft palate; its pedicle is then torn forcibly through by a pair of narrow-bladed polypus forceps passed along the floor of the nose. This having been done, the whole mass may be easily removed through the mouth. Syme's *Clinical Surgery* contains a graphic account of this and some other surgical procedures, which seem in danger of being forgotten.—I am, etc.,

J. Walters. M.B.

A Staff-Surgeon.—The stewards of the Fellows' Festival would have been glad to invite the Directors-General of the Medical Departments of the Navy and Army to preside on the occasion, but neither of them is a Fellow of the London College of Surgeons. Mr. Longmore is deservedly well known and highly respected by both services, and will be a most efficient chairman.

Notice to Advertisers.—Advertisements for insertion in the British Medical Journal, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. Fowke, not later than *Thursday*, twelve o'clock.

### On Pain—Physiological or Pathological.

Sir,—According to Sir William Hamilton, "pleasure is the result of certain harmonious relations, of certain agreements; pain, on the contrary, the effect of certain inharmonious relations, of certain disagreements. Pleasure is the reflex of the spontaneous and unimpeded exertion of a power of whose energy we are conscious; pain the reflex of the overstrained or repressed exertion of such a power". Now, what are we to understand of the logical consistency of a writer who, after quoting with evident approval the above unqualified representation of the nature of pain—placing it, in fact, as his text, at the very head of his Prize Essay on Pain*—proceeds to inform us, a few pages further on, that "pain is either physiological or pathological", and that "pain is physiological in the act of parturition; the contraction of uterine muscle would not be to any effective purpose without pain"? Pain, according to Dr. Spender, is all right and proper—physiological, in fact—during parturition; "the contraction of uterine muscle would not be to any effective purpose without pain"; and such, indeed, is the generally accepted view of the profession on this subject. Nevertheless, we have seen that solely under the combined influences of cheerfulness of mind, activity of body, and an elevated surrounding temperature, can labour ever be accomplished with the highest degree of efficiency; that under such combination of favourable conditions the whole process of "contraction of uterine muscle" constituting labour may become absolutely painless; the patient, in fact, though thoroughly conscious of everything surrounding her, being utterly unconscious of the parturient process going on in her own body. Only at the last moment, when the child is about to be expelled into the world, does she suffer any pain; such pain, moreover, being comparatively trifling in amount, as proved by her ability to place herself in a suitable position for the effective completion of the act; such pain, too, obviously depending, not on uterine contraction, but on the sudden stretching of the fibres of the sphincter vaginæ. What foundation, then, is there for any such distinction as physiological and pathological pain? "As a rule", says the author, "pain is pathological." Precisely so; and I venture to think it will require a considerable amount of logical acumen to prove that pain is ever anything else than pathological. Indeed, the author himself appears to have a vague consciousness that he has been following a "will o' the wisp"; for, after asserting that "if we could pick out and inspect a nerve which is the medium of temporary pain, it is probable we should see no difference between it and any other nerve"; as if, forsooth, such kind of negative evidence, depending on the very imperfection of our senses, could be of the slightest value in deciding any such question. There is subjoined, in a footnote, the following most curious foreshadowing of a possible recantation. "This statement may soon have to be qualified; at least such was the impression conveyed by a remark in Dr. Burdon Sanderson's Address on Physiology before the British Medical Association in 1873." Hence after all, by the author's own admission, this fine-drawn distinction between physiological and pathological pain, this brilliant bubble, may burst at any moment, purely in consequence of some experimental discovery by Dr. Burdon Sanderson or other physiologist tending to prove the possibility of detecting "a difference between a nerve which is the medium of temporary pain and any other nerve"; in which case it is obvious that it would be impossible any longer to regard pain as physiological, or a condition of health. It must then, perforce, in consequence of such positive evidence, be placed among the data of pathology or disease. Then, too, Dr. Spender's assertion to the contrary would have to be not merely qualified but reversed.

And what other examples does the author adduce of physiological pain? Nothing further on the subject occurs throughout the volume except the following passage. "There are a number of painful troubles relating to the uterus, some of which are physiological, some pathological." Which are the physiological and which are the pathological troubles? To this, as might be expected, the book offers no reply: in fact, we are left to take our choice; for the author goes on to say: "The errors of physiological processes often involve pain to an excruciating degree. Dysmenorrhœa is divided by obstetric writers into the neuralgic, inflammatory, and congestive varieties." Admitting all this, I would still ask, Which are the examples therein afforded of physiological as distinguished from pathological pain?

Harlesden, June 1875. Yours, etc., M.D.

### Royal College of Surgeons of England Election.

The time having expired for nominations of Fellows to seats in the Council of the Royal College of Surgeons, we are able to anticipate the official circular about to be sent to all the Fellows whose addresses are known to the authorities of the College, by stating that three candidates are retiring members of the Council who offer themselves for re-election—viz., Messrs. Prescott Hewett, Spencer Smith, and John Birkett: and as new candidates, there are Mr. Cooper Forster, of Guy's Hospital; Mr. E. L. Hussey, of the Radcliffe Infirmary; and Mr. Alfred Smee, F.R.S. The election will take place on Thursday, July 1st; and the annual dinner of the Fellows the same evening, at the Albion Tavern, when Surgeon-General T. Longmore, C.B., will take the chair, supported by the Directors-General of both departments of the Navy and Army, and other distinguished visitors.

### The County Coroners' Bill.

Sir,—In your remarks on the New County Coroners' Bill, you think the proposition to place the appointment in the hands of the county magistracy is a grave objection to the Bill, inasmuch as they would lean more to the legal than to the medical profession. My experience is the opposite of your opinion. In two contests between a solicitor and a doctor, in which I was interested on the part of the latter, the doctor obtained more county support than the lawyer, but the superior tactics of the solicitor gained the majority of the freeholders. Your suggestion that the coroner shall be elected by the registered county voters will be very little improvement upon the present mode, especially if the county franchise should be lowered. The expense of circulars, bills, and canvassers, will be the same, and the superior tactics and longer purse of the legal candidate will continue to prevail. On the other hand, I believe the county magistrates would give an intelligent consideration to the claims and fitness of all the candidates without any bias against our profession. Moreover, in many counties one or more medical men are on the commission, who would have an opportunity of speaking to their brother magistrates on behalf of the medical candidate.

I hope, sir, these few remarks will remove your objections to the Bill, and induce you to give it your cordial support.—I am, yours truly,

M.D., and a County Magistrate.

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* *Prize Essay on Pain*, by Dr. Spender.

Correspondents are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

### Ventilation.

Sir,—Whilst this question is attracting some serious attention in official circles, and several new modes, more or less elaborate. are undergoing experiment, it may not be uninteresting to some of your readers to hear of the following simple and inexpensive mode of window ventilation which has occurred to my mind as an improvement upon similar plans.

The centre frame of the top sash of a window is fitted with double panes of glass. one attached to the outer margin of the frame and the other to the inner, leaving an interval of about an inch between. The outer pane is deficient for the last inch at the bottom, and the inner pane for an inch at the top, thus allowing a current of air to enter at the bottom of the outside pane, pass upwards between the two, and enter the room in a vertical direction, causing no draft, but maintaining a constant supply of fresh air, which can of course be increased or diminished to any extent, in proportion to the number of panes thus treated.—I beg to remain, sir, your obedient servant,

Edward S. Copeman.

*** We do not think this is a new suggestion: it resembles the plan adopted for ventilating wooden huts, by leaving out a plank at the bottom of the outer wall and at the top of the inner one. There is no doubt that it would answer to some extent, but it would hardly be enough for more than a small room. It would not give more than twelve square inches of inlet, which, allowing for friction, would yield something under seventy-five cubic feet per hour for every linear foot of velocity per second. Now this, although it would be a material addition with a rapid velocity, would yield too little for thorough ventilation. If the whole of the upper panes were so treated it would be more advantageous, provided there were means for closing them at will in cold weather.

### The Title of Doctor.

Apropos of the title of Doctor, as applied to a L.R.C.P.Lond., I send you the enclosed copy of letter received by my late partner, which bears on the point. But what has the London College done to limit the use of "the title"?—I am, yours faithfully,

E. H. G.

(Copy.)

"Royal College of Physicians, London, S.W., June 22nd, 1869.

"Dear Sir,—In reply to your inquiries, I beg leave to inform you that the College licence does not confer the right on its possessor to call himself Doctor; and the College does all in its power to limit the use of such title to graduates in medicine.—I am, yours faithfully, (Signed) "Henry Pitman, Registrar."

### Unqualified Assistants.

Sir,—Though entirely disagreeing with the purport of a letter appearing in your paper of the 29th ultimo under the above heading, I desire to take exception to the answering communication from a "Qualified Assistant". The last named correspondent would endeavour to lead one to imagine that, so logically imbued is he, that of course he cannot deign to answer a very simple assertion that J. L. made use of. He says that it being an argument of no value, it had better be passed by. I quite commend him for so doing. Facts are very stubborn things, and hence better let alone. Most sincerely do I hope that F. F., for the sake of his patients, does not belong to that very interesting class which he himself designates "qualified men comparatively ignorant". I will take for granted that he forms not one of this much-to-be-pitied band. He further informs us that, should any other than a solicitor draw up a deed, punishment justly falls on the delinquent. May I ask, is there such a class as solicitors' clerks? May I further inquire, what are their duties? and perhaps F. F. will kindly inform me the percentage of these clerks who are duly and legally enrolled solicitors. It is F.'s opinion that a quack and an unqualified assistant are synonymous terms. Hitherto I have understood the former to be a disreputable person, who, trading on the ignorance of the masses, avows that not only is he familiar with all diseases, but that he can cure them, more especially those of long standing, and which have steadfastly resisted all means of treatment; in fact, a hideously repulsive creature, who is shunned by all fairly educated and decently disposed people. I am under the impression that the latter is a young man who certainly cannot be charged with having more money than brains. Probably the majority are similarly circumstanced as myself—an undergraduate of an University, having had a full curriculum of the medical course, a late clinical clerk in a metropolitan hospital, but, through unfortunate circumstances, as yet neither a physician nor a surgeon. On seeking employment, it is obtained through a medical agent. The applicant is received into the house of the medical man, who employs him as a gentleman, and is introduced as such. The assistant receives no fee; he acts under the guidance of his principal; and how thus he poaches on medical science I am stupid enough not to conceive. He certainly in some few cases, or when a junior, must content himself by being

"Passing rich on forty pounds a year."

Still I have yet to learn that he does work of a menial character. Should such be the case (F. F. seems to be aware of it), surely this should be visited on the principal, who in all cases at least professes to treat his assistant as a gentleman. As to F. F.'s reasons why men like myself lower the profession, I really cannot understand. I should say that the reason why people consider me on a par with F. F. is, that my study is to relieve the sick, and my best effort to heal the wounded; and that my endeavours have not been in vain, is proved by what so much disgusts my thin-skinned fellow-worker. As regards accepting Poor-law appointments or becoming principal quacks, I am afraid F.F.'s brilliant conception, as expressed in epistolary rhetoric, was, as he drew to an end, getting "smaller by degrees and beautifully less" (I thank him for the quotation), as his closing sentences were so chimerically draped that I fail to observe their force: their charms let fancy play with.

Finally, while agreeing with F. F. that empirical practice should be put an end to, I think it high time that something should be done in preventing some unscrupulous practitioners whose names we find in the *Directory* from behaving in a manner scandalous to the profession. If these and other evil practices could be swept away, I have no doubt that the ranks of the profession would be filled up by men who perhaps might bear happy comparison even with so refulgent a light as the assistant practitioner who can designate a student of his own art by no more worthy appellation than "a quack".—Yours obediently,

Portsmouth, June 7th, 1875. H. C., Unqualified Assistant.

Notices of Births, Deaths, Marriages, and Appointments, intended for insertion in the British Medical Journal, should arrive at the Office not later than 10 A.M. on Thursday.

### Vixere Fortes.

Sir,—There is one point in Dr. Lyon Playfair's very able address delivered at our distribution of prizes at King's College, which appears to me to call for some notice. Dr. Playfair seems inclined to extol and praise the present position of medical science greatly at the expense of the past; and cites two instances in which the advice of some medical men of the day was so absurd as to appear almost incredible. Of course each century has its Paracelsus; but surely it is only fair to also state that many of the medical men of the seventeenth century were in no sense inferior to the brightest lights in the scientific world now. I am sure the history of medicine in the past (and it has been a splendid one, with its great failures, but also conspicuous for its great successes) will bear me out in saying that we owe a very large amount of our present knowledge to the untiring labours and brilliant genius of such men as Linacre, Colot, Sylvius, Paré, Fallopius, of Malpighi, Wharton, Harvey, and a host of other illustrious discoverers, whose names will live for ever in the history of our profession. It would be, then, as ungrateful as it would be unwise to attempt to exalt a *successful present* at the expense of a *glorious past*. Each age has its quacks and empirics, who carry on a successful trade at the expense of society; but this is not confined to the past; we see it all around us now. The fifteenth and sixteenth centuries in Italy, and all over Europe, witnessed a host of genius in art and science, which was absolutely without its match in history; and we cannot afford, and ought not to wish, to ignore and disparage a brilliant record such as the last three hundred years can show in medical science. It must also be remembered that the great discoveries which have marked the three last centuries were made without any of the modern appliances and advantages which we now enjoy. There were, indeed, "giants in those days". And it will always do us good to remember that, in many points, we are not so much the *discoverers* as the *revivers* of theories and practices known to our forefathers, whose names will live in history long after we and our generation shall have passed away.—I remain, Sir, your obedient Servant,

June 8th, 1875. T. Francis Ker Underwood.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Lincolnshire Herald; The Sunderland Daily Echo; The Melbourne Medical Record; The Hackney and Kingsland Gazette; The Worcestershire Chronicle; The Grocer; The Glasgow Herald; The Cork Examiner; The Scotsman; the Sussex Daily News; etc.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. George Johnson, London; Mr. H. Lee, London; Dr. Copeman, Norwich; Dr. Farquharson, London; Dr. J. H. Bennet, London; Mr. T. Annandale, Edinburgh; Dr. Edis, London; Dr. Bateman, Norwich; Dr. J. W. Langmore, London; Mr. T. Holmes, London; Dr. J. Crichton Browne, Wakefield; Our Dublin Correspondent; The Secretary of the Obstetrical Society; Our Paris Correspondent; Dr. J. Candy, Devonport; Mr. J. Newton, Liverpool; Mr. Paul Wm. Swain, Devonport; Dr. J. Morris, London; Mr. Vincent Jackson, Wolverhampton; Mr. H. Carden, Landport; Dr. R. Beales, Congleton; Mr. F. Manby, East Rudham; Dr. John Manley, Fareham; Mr. E. Morgan, London; Dr. T. Keith, Edinburgh; Mr. Gustavus F. Pirrie, Belfast; Mr. G. H. Edlin, Plymouth; Mr. Wm. Fairlie Clarke, London; Mr. Walter Rivington, London; Dr. J. Milner Fothergill, London; Mr. G. Field, London; Mr. J. Masterton, Devizes; Dr. Percy Boulton, London: Dr. Heywood Smith, London; Mr. L. G. Blyth, Worcester; Mr. J. G. Thornley, Bristol; Dr. G. Griffith, London; Dr. H. G. Sutton, London; Mr. Eccles Haigh, Liverpool; Dr. Geo. Hoggan, London; Dr. Arthur Gamgee, Manchester; Mr. Herbert J. Mayor, Wakefield; Mr. J. Walters, Reigate; Dr. J. Palfrey, London: Mr. T. F. K. Underwood, London; Mr. John Lowe, Merthyr; Mr. Lewis Jones, Burry-Post, South Wales; Dr. J. Bell, Edinburgh; Dr. W. R. D. Blackwood, Philadelphia; Dr. Alfred Hill, Birmingham; Mr. Henry Greenway, Plymouth; Mr. G. Radford, Ben Rhydding; Dr. Rogers, Prescot; Dr. Thorburn, Manchester; Mr. W. L. Lane, Dunfermline; Dr. A. B. Steele, Liverpool; The Registrar-General of England; Mr. F. W. Wright, Derby; The Secretary of Apothecaries' Hall; The Registrar-General of Ireland; Our Edinburgh Correspondent; Mr. T. M. Stone, London; Dr. Finlayson, Glasgow; Dr. J. Petrie, Liverpool; Dr. W. Easby, Darlington; Mr. John White, Greenock; Mr. T. S. Ellis, Gloucester; Dr. T. Trollope, St. Leonards-on-Sea; Mr. E. D. Stead, London; Mr. T. M. Ward, Exmouth; Dr. T. Keith, Edinburgh; Dr. A. Ogston, Aberdeen; Dr. E. J. Tilt, London; Mr. S. Colette, Homersham; Dr. A. Sheen, Cardiff; Dr. G. W. Grabham, Earlswood; The Secretary of the Medical Microscopical Society; Dr. R. J. Lee, London; Mr. R. S. Fowler, Bath: Dr. Parsons, Dover; Mr. G. Hills, London; Mr. R. H. B. Nicholson, Hull; Mr. S. S. Alford, London; Mr. J. Garrett, Castletown, Isle of Man; Dr. D. Nicolson, Portsmouth; Dr. W. M. Kelly, Taunton; Dr. Crockatt, Dundee; Mr. W. Eddowes, Pontesbury; Dr. F. J. Brown, Rochester: Dr. V. Bedolfe, Dulwich; Mr. A. Roper, Croydon; Dr. J. M. Duncan, Edinburgh; Dr. Sutherland, London; Mr. J. Kershaw, Manchester; etc.

## BOOKS, etc., RECEIVED.

Anatomy: Descriptive and Surgical. By Henry Gray, F.R.C.S. Seventh Edition. London; Longman, Green, and Co. 1875.

Memorials of Milbank, and Chapters in Prison History. By Arthur Griffiths. Vols. I and II. London: Henry S. King and Co. 1875.

The Marriage of Near Kin. By Alfred Henry Huth. London: J. and A. Churchill. 1875.

# AN ADDRESS
TO THE
# GENERAL MEDICAL COUNCIL.

By HENRY W. ACLAND, M.D., F.R.S.,
President.

AT the last session of the Medical Council, a review of the work of the Council was made by our late President. The absence of Dr. Paget from the chair and from the Council is felt by us all as a grave loss. There was something in the gentle wisdom of that sterling man which gave us the confidence we feel when crossing slippery paths with a sure-footed mountain guide. Only one change has taken place in the Council since we parted. Oxford sends us no stranger in one who brings, from the sister university to that which Paget adorns, mature experience for our common duties.

Only a third of the members of the Council who formed it in 1858 remain. Not half, therefore, know how great is the change which has come over the opinions of the medical profession since eighteen representatives of nineteen universities and corporations, all distinct, some in admitted rivalry, met six nominees of the Crown as representatives of the public at large, and proceeded to construct a sound and uniform system of medical education, general, scientific, and professional. It is well known in the Council how rapidly, though silently, the promotion of the general good superseded solicitude for particular interests, and how soon the arduous task of harmonising diversities in national sentiment, of seeking the good in every existing system, of purging the evil from every usage, however time-honoured, became the aim of every member of the Council. It would ill become me to dwell on this topic, or even to have touched on it, but for the purpose of our strengthening each other's hands in the discharge of our complex duties.

The construction of the register, the removal of offenders from it, the completion of the *Pharmacopœia*, the visitation of old institutions, and freely reporting on them, all, a few years since, arduous tasks in prospect, seem now to us a matter of course and a page in history. What the old universities would have thought twenty-five years ago of giving up their examination-papers to strangers without resistance, it is not easy to realise. They now heartily recognise our endeavours, and aid in promoting our success.

I am far from wishing to be understood as implying that our work is nearly done. That is not my opinion. On the contrary, it would seem we have only lately made our tools, and sharpened them for their work. A glance at the subjects to which the attention of the Executive Committee has been drawn during the recess, and at the programme of business, will show this.

The Committee has had a correspondence with the Registrar-General, on his invitation, as to the working of the certificates of death under the new Act. The machinery of the Council, and your individual care and attention, enabled the President to forward a final answer, which was the result of much thought by representatives of opinion all over the country, without the labour to you of a meeting of the Council.

The Committee has had occasion to address the Home Office on the subject of legal proceedings for offences under the Medical Act. They hope that the letter sent on behalf of the Council will meet your approval.

They have also been compelled to draw the attention of the Local Government Board to Article 178 of the General Consolidated order of the Poor-Law Board, which is contrary to the spirit of the Medical Act. It excludes from certain important professional duties all surgeons not being members of the College of Surgeons of London. The Board have undertaken to reconsider the clause. The various letters thus addressed will be laid before you.

It is within the knowledge of the Council that the Executive Committee was summoned in April last to consider the effect of two Bills, brought in by private members, for the amendment of the Medical Act. First, the Bill of Sir John Lubbock, to enable the College of Surgeons of London to take part in the conjoint scheme of examination in England, was to be opposed by Mr. Stansfeld, in order, if we are to believe report, to make it compulsory on that College, or on the conjoint scheme, to admit women to their examinations. Whatever may be the merits of this real or supposed act of justice to women, it could not receive your sanction or approval that a conjoint scheme, an admitted good for England, should be impossible, except under a condition to which many entertain the strongest objection.

His Grace the President of the Council, having received the Executive Committee, clearly appreciated the force and the fairness of this view, and promised the fullest attention of the Government.

The second Bill, that of Mr. Cowper-Temple, to compel the Council to register degrees granted to women by certain foreign universities, was open to still graver objection on grounds of public policy. The effect of this Bill would be fatal to two principles of the Medical Act of 1858. That Act makes the Medical Council responsible for the courses of study and examination undergone by all persons placed on the *Register*. It is clear they could not, without much diplomatic negotiation and great expense of visitations, if at all, be responsible for foreign degrees; and, secondly, it would be impossible to refuse to men so dangerous a privilege if it were accorded to women. His Grace the President of the Privy Council, and Lord Sandon, the Vice-President, considered with courtesy and prolonged attention this subject also. They undertook to lay the matter before the Cabinet. They further assured your committee that no steps would be taken in respect of medical legislation, except after the fullest communication with the Medical Council.

To the subject of these Bills we shall have to return. Since we parted, medical and surgical examinations in the Universities of Oxford, Cambridge, Durham, Edinburgh, Aberdeen, St. Andrews, Dublin, and examinations in the College of Physicians and College of Surgeons in London, and the College of Physicians, the College of Surgeons, and the Society of Apothecaries in Dublin, have been visited. The reports on them have, for the most part, been already circulated among you, and will all shortly be laid on the table. We have to thank the visitors, both those of the Council and those appointed by the Council, for their cordial co-operation. When all the arrangements are complete, the matter seems simple enough; but the Council owes a debt of gratitude to Dr. Quain and Dr. Bennett for the pains they have bestowed on the work assigned by you to the Executive Committee.

It has been truly said that the Medical Council is limited in its powers. It is no doubt bound, and happily, within the four corners of the Medical Act. Nevertheless, the functions which have to be discharged by the Council are wide enough, as the various subjects already enumerated show, heavily to tax our time and attention. Yet these subjects imperfectly represent what is still before us. When I said just now that we had been much employed in making tools, implying that much work had still to be done, I had in my mind many other things which will come before the Council, as year by year it considers what it is the public want from the medical profession, and lays down the conditions under which the profession can fulfil the just expectations of cultivated men. We have only to take three instances from progressive subjects before Parliament: the duties of officers of health; the qualifications of analysts; the medical duties of women.

It may be reckoned as certain that the eminent and experienced persons who, from all the seats of medical study, come to sit round this Council-table, will sooner or later have to consider the due qualification of all these persons under their several heads. For—1. As to the highest sanitary officers; are they to be all on the *Register*, all debarred from practice, all equally experts? and, if so, how educated, examined, and certificated? 2. Are analysts, who are to arbitrate in doubtful cases of chemical analysis, to adjudicate without appeal on what is and what is not injurious to health—a subject on which we have certainly much yet to learn in this country? or are they to judge only of the purely chemical question of adulteration? 3. Are midwives to be licensed? If so, by whom, how educated, how examined, how certified?

The Council will not fail to remember that these questions have been the subjects of special reports by Committees of the Council. The Report on Public Health, 1869; the Report on the Medical Education of Women, 1873; and the Report with reference to Public Analysts, 1874, show that the Council is not unprepared whenever public opinion or Government inquiry calls upon it for advice.

Such reports, however, and such visitations, are but the framework, or mould, or machinery, by which our work is to be proved. They are not the work. When once the public is satisfied that the preliminary and most obvious end has been gained, of securing perfectly righteous examination, then, indeed, two difficult problems still remain: how to secure good teaching and what to teach.

Unjust indeed would it be to say that the question of teaching, as far as professional subjects is concerned, has not been handled. The report of 1869 on professional education, condensing the reflections of no less than 131 teachers of experience, has laid down certain definite principles from which few bodies dissent, and, on the whole, few schools depart. The consequence is that teaching, though not, perhaps, uniform throughout the country, is, without doubt, greatly improved, and the results attained most encouraging. For many deficiencies that captious critics might point out, for usages prior to 1858, and for the transitional character of the age in which we live, neither the medical profession nor the Medical Council is responsible. The State has endowed no medical schools, and but very few medical teachers. It has maintained no medical colleges. All has been done by voluntary and unconnected effort. Hence our freedom and our success, but also the cause of our failings. When, however, the testing machinery, for which the Council is responsible, is in perfect order, there will be much need of sober thought as to the period, quality, plans, and extent of literary, scientific, and professional instruction to be absolutely required of all youths destined for the medical profession. Not seldom is there a tendency to require too much of youth. We see clearly what is needed in the profession as a whole; we ought not to expect that whole to be found in every unit of it. The method of optional subjects is becoming urgent. In the optional subjects, limitation of range is every year more necessary, although we must not forget that the average children of modern educated races acquire the higher knowledge more readily than the children of the past.

When the Council, now sixteen years ago, decided to leave the education in arts to the national educating institutions, *i.e.*, mainly the universities, it did so in the conviction that they would represent the full experience and wisdom of the age. Yet opinion is by no means settled, even in the universities, as to the basis on which the scientific mind should be moulded. Neither the opponents nor the disciples of Bentham, Mill, Darwin, or Herbert Spencer, have said their last word on the whole theory of human existence, and human aims. When men are divided on the fundamental conception of humanity, they will not be agreed on the objects of practical life in the world. And yet we here have to fit men for some of the most practical, most necessary, most human, most beneficent work, for every climate, for every race—as well for the millions of all castes in India and the protected negroes of Africa, as for our own poor, our own nobles, and our toilers and defenders by sea and by land. While educational theories are being discussed, we have to act.

I have touched upon these topics, however slightly, because a motion will be brought before you referring to the whole of the reports upon education; and because the Council has from the first emphatically laid stress on the supreme importance of general education; has delegated in full confidence to the national educational bodies the charge of that education; and has maintained its right to inquire into the mode in which that education is carried on.

It were not to be desired that we should, with all our other duties, be needlessly entangled in this thorny path; but once the professional examinations arranged, their extent and their method happily agreed upon in the three branches of the kingdom, this fundamental work may not be forgotten. The general, nay the scientific, education of the lower and the middle classes is making enormous strides. For the sake of our successors in our profession, we must not use the standard of our younger days as the touchstone for their attainments in general culture; not if we mean them to keep their places in the brotherhood of true and thoughtful men.

The withdrawal of Lord Ripon's Bill in 1870, however necessary that withdrawal was, under circumstances which accidentally complicated it, has no doubt delayed the consideration of several important subjects. Perhaps no real harm has ensued. Time is an element in all healthy growth. The progress which has been made since the reports to the Council on professional study in 1869, is shown by the report of 1873 to have been great indeed. The papers which will be laid before you, together with your own opinions, as expressed up to last year (1874), and the reports of your committees on education in 1869, 1870, 1871, 1872, may be brought by a committee into a condition for your full discussion, and indeed form a very complete statement as to the present condition of the attainments of the medical students in this country. Nor, I am convinced, need you shrink from the survey. I wish I could say that I am as convinced that the energy, knowledge, high character, and opportunities of our staff of teachers were arranged with the least loss to the students, or waste of power to the teachers. The observations of the Teachers' Association, in appendix II of the report of 1869, will partly illustrate this.

I return now, as I promised, to the subject of two Bills at present before Parliament, viz., Sir John Lubbock's and Mr. Cowper-Temple's Bills. It was important that you should meet in time to express an opinion, should you desire it, on these Bills.

These Bills touch the very eye of the Medical Act. Sir John's Bill, if passed, will make at length possible the combination of all the licensing bodies in England. There may then be one pass examination uniform for all England. If defeated, it would be defeated, so report says, because it did not enter into the question of the registration of women, which it left unaltered. Your Executive Committee had reason to hope that the Government would not permit so important a measure to fall on a collateral issue. I am happy to say that the Bill passed through Committee on Tuesday night last, the Vice-President of the Privy Council having satisfied Mr. Stansfeld with respect to the intentions and the effects of the Bill.

The effects of Mr. Cowper-Temple's Bill have been already described. A letter bearing upon it, written by direction of the Lord President of the Privy Council, will be laid before you. His Grace requests that, at this meeting of the Council, the Bill shall be brought under consideration, and that the Council will make to him their observations upon it. He is of opinion that Mr. Cowper-Temple's Bill, though very limited in its direct scope, can hardly fail to raise in Parliament the general question whether women ought to be able to look to medical practice, or certain branches of it, as open to them equally with men as a profession and means of livelihood; and, as Government may have to express an opinion on this general question—with regard on the one hand to women who desire to obtain legal status as medical practitioners in this country, and on the other hand to the examination-rules or other conditions which prevent them from accomplishing their wish, he desires that our observations should not be restricted to the particular proposal of Mr. Cowper-Temple's Bill, but should discuss, as fully as you may see fit, the object to which that proposal would contribute.

One more topic, that of the public health, must be noticed. On no question of first class social importance has the public mind changed more in the memory of most of us than in this. The prevention of diseases as a subject of common national interest, strange as it now may seem to us, is but of comparatively recent growth, except as regards our prisons, our armies, and our fleets. Foresight would have prevented evils which have grown up unnoticed, both in our villages and in our towns, and are now causing great labour in the removal, as well as greater trouble in the prevention in future. The prevention of disease has become a great branch in our profession. The Universities have taken the matter up as well as the profession and the public at large. Education, certificates of qualification to practise, and diplomas, already exist in Dublin, Edinburgh, London, and Cambridge, and are in preparation at Oxford.

I forbear to dwell on this topic any further than to say, that it may be a question whether the Council should ask for power to regulate this education, and enter these diplomas or certificates on the *Register*. The desirability of conjoint boards of examination in this branch of knowledge may also demand consideration.

And now I have performed, as simply as I am able, the honourable task which you have in your goodness imposed on me, of opening a new session of the Medical Council. I ask of you that which you will certainly grant, your support, as I endeavour to second your efforts. Our hope is, by the agency of ancient and progressive institutions, to make medical education uniformly adequate through the whole kingdom; to bring former experience into harmony with the lessons of true culture and modern science; and to provide, as far as human agency can provide, a constant supply of persons qualified to promote the individual and the public health in a nation, whose destiny calls her children to every form of human labour, in all climates, and in every condition of human life.

ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.—The twenty-eighth annual meeting of this most estimable society was held on Monday the 7th instant, at the Royal College of Surgeons, presided over by Mr. Tufnell, president of the College. From the annual report we learn that the funds are steadily improving, the donations during the year amounting to about £200, and the total amount of subscriptions and of interest received was £1,877. The number of applications this year was ninety-eight, viz., fourteen from medical men, seventy-two from widows of medical men, and twelve from children of medical men, whilst in eleven cases no grants were awarded. Since last general meeting, £182 15s. was awarded for urgent necessitous cases, four of the recipients being medical men. The sum distributed in grants for the year is upwards of £1,600, which far exceeds that of any former year; of this sum, £392 goes among medical men, £1,044 to widows, and £166 to orphans. The statement of accounts showed that a sum of £5,000 was invested for the benefit of the society, the interest of which is only utilised. Several resolutions having been passed, the committee and officers for the ensuing year were appointed, and the meeting separated.

# REMARKS
ON
# ADHESION OF THE PLACENTA.

By J. G. SWAYNE, M.D.,
Consulting Physician-Accoucheur to the Bristol General Hospital.*

ADHESION of the placenta is one of those complications of labour which are especially dangerous in the hands of an unskilful accoucheur. Both the diagnosis and the treatment of it demand from the obstetric practitioner the exercise of the *tactus eruditus;* and, if this be wanting, the most disastrous consequences may ensue. The patient may die either quickly from hæmorrhage, or more slowly, but not less surely, from septicæmia. Moreover, adhesion of the placenta is not unfrequently the cause of those frightful cases of malapraxis in midwifery which lead to coroners' inquests. For instance, an incompetent midwife, either male or female, sets about removing what is supposed to be a retained placenta, and, in the rashness of ignorance, tears away the entire uterus, and perhaps a considerable portion of the intestines. It is most desirable, therefore, that we should ascertain the causes of a complication that may be so hazardous, and use every means in our power to prevent it. But here, it must be confessed, our knowledge is very much at fault; the diseases, both of the fœtus and of the placenta and membranes, are at present veiled in the greatest obscurity. Nor is our knowledge of the pathology of the gravid uterus much more advanced. Most obstetric authorities who have gone much into the etiology of morbid adhesion of the placenta have been disposed to attribute it to a subacute inflammatory affection of the lining membrane of the uterus, most probably of a rheumatic character. Others, again, such as the late Sir James Simpson (who has written a very able memoir on "Congestion and Inflammation of the Placenta"), are of opinion that placental adhesion is a result of inflammation of the placenta, or placentitis. Sir J. Simpson remarks: "The effusion or secretion of coagulable lymph as a termination of placental inflammation is best known by the effect to which it not unfrequently gives rise, of producing more or less intimate and extensive adhesion between the uterine surface of the placenta and the inner corresponding surface of the uterus, constituting a morbid state of the after-birth that frequently forms a most formidable and dangerous cause of uterine hæmorrhage after the expulsion of the child."

I have never had an opportunity of making a *post mortem* examination of an uterus in a case of adherent placenta either before or after delivery, and therefore I am unable to say from my own observation how far the lining membrane of the uterus is implicated in the formation of the adhesions in question. My own experience of these cases, however, inclines me to believe that Sir James Simpson's view of the origin of the adhesions is the more correct one. I have met with a good many cases of adherent placenta since I have been in practice, but yet I cannot call to mind one in which this complication was preceded by very definite symptoms of uterine inflammation, or by anything beyond vague and uncertain pains in various parts of the abdomen, which the patient, on being questioned, stated that she had felt some time or other during her pregnancy, but yet which were not sufficiently severe to cause her to seek medical relief. I have always made a point of carefully examining all the adherent placentæ which I have at different times removed, and I find the following morbid appearances very constantly present. In slighter cases, the whole of the placenta on its amniotic surface is studded with spots having some resemblance to tubercles. They are usually more abundant near the circumference of the placenta, are very slightly elevated above the surface, and appear to consist on examination of small patches of lymph effused between the placenta and its amniotic covering. In the more severe cases, the effused lymph forms a tolerably firm consistent layer beneath the amniotic surface. This layer is much thicker and more marked towards the circumference of the placenta. It is of a pale yellow colour, and in this respect presents a remarkable contrast to the deep red colour of the placenta beneath. This contrast in colour is shown in the accompanying drawing, which I took from a very well marked specimen of adherent placenta. The specimen has been preserved in spirit, and has, in consequence, quite lost the characteristic differences in colour which are represented in the drawing. In strongly marked specimens, the whole placenta is much reduced in bulk; but this shrinking is most evident on the amniotic surface, near the circumference; and this causes the placenta to appear concave or cupped, so that it has a very striking resemblance, both in shape and colour, to a highly buffed and cupped coagulum, such as we used so often to observe in the days when it was customary to bleed for acute rheumatism. I have seen but few specimens of retained placenta in which this yellow layer seemed to dip down for any distance between the uterine surface of the placenta and the inner surface of the uterus; nor have I seen any in which it presented at its circumference a torn and jagged edge, as if it had been continuous with a similar layer on the free surface of the uterus. As far as I have observed, a contracted placenta of this kind does not appear to impair the nutrition of the child. This remark applies especially to the case of one of my patients who had placental adhesion in several consecutive labours. Although this was always accompanied with very marked contraction of the placenta, yet the children were all of fair size and well nourished. I should mention, also, that the yellow layer I have just described may be present without producing adhesions. This I once observed in the case of a patient of mine who had had adherent placenta on two previous occasions. Although on these occasions I had considerable difficulty in detaching the placenta with my hand, yet, in the next labour, it was expelled, apparently with ease, by the natural efforts, but presented in a very marked manner the characteristic morbid appearances which I have described.

The microscopical appearances of this yellow membranous layer have been well noted by my friend and colleague Dr. Martyn, who kindly examined for me a portion taken from the specimen which I have exhibited. He found it to be "a layer of fibrinous lymph of uniform texture, firm and white, and tearing with difficulty into fasciculi. A section shows fibrinous lymph very granular, and interspersed with the usual corpuscular elements, which are here and there in a state of advanced fatty degeneration, showing that the deposit is of considerable standing."

The frequency with which adhesion of the placenta occurs is a matter which is yet somewhat undecided, and upon which the experience of various practitioners yields somewhat opposite results. The more general opinion seems to be that it is a rare complication of labour. Dr. Barnes, in his *Lectures on Obstetric Operations*, and Dr. Leishman in his *System of Midwifery*, both express this opinion. The records of obstetric practice in Dublin also seem to point to the same conclusion. Dr. Churchill, in his very interesting and valuable "Report of Private Obstetric Practice for thirty-nine years" (*Dublin Journal of Medical Science*, June 1872), states that, out of a total of 2,547 cases attended by himself, there were only ten "in which extraction was necessary for different reasons, such as flooding, irregular contraction, and morbid adhesion." The number of cases of morbid adhesion is not stated; but if we take them at a third of 10, or 3⅓, this would not give a percentage of 2 in 1,000. In Dr. George Johnston's very careful and elaborate report of the Rotundo Lying-in Hospital for the year 1874 (*Dublin Journal of Medical Science*, February 1875), I find that, out of a total of 1,236 deliveries, there were only two instances of retention of the placenta, or not 2 in 1,000.

The result of my own experience is very different, and, in some respects, so curious, that I must refer to it somewhat in detail. Before doing this, I must premise that, ever since I have been engaged in midwifery practice, it has been my habit to write short notes of every case I have attended immediately after it was over, and not to trust to my memory some time afterwards for details. I must also state that I have considered no case to be one of adherent placenta in which it was not necessary to introduce the hand into the uterus, and separate the placenta from it by a troublesome process of peeling. Since I have been engaged in obstetric practice, I have met with no fewer than forty-three cases of morbid adhesion of the placenta; but, singular to relate, none of these occurred during the early years of my practice. For instance, during the first ten years, from July 1838, when I attended my first midwifery case as a student, up to July 1848, when I had been six years a qualified practitioner, I never met with a single case. During that period, I attended myself 264 labours, besides having the superintendence of several hundreds more, which were attended by the students of the Bristol Medical School. I had many times during this period been sent for by students to remove detached placentæ from the vagina, but never to take away an adherent placenta. In fact, the first case of this kind that I met with was in 1849. From 1849 to 1865, I have only noted six cases of placental adhesion. But in the last ten years (commencing in April 1865, and ending in April 1875), I have met with not fewer than 37 out of a total of 576 cases attended in the same period. Thus, in the first ten years, not a single case is recorded; and, in the last ten years, a percentage of rather less than seven. This is certainly a most startling difference; and I must now try to account for it. The most natural solution of the difficulty would be this: that, during the last ten years, when a medical man has acquired age and experience, he is, of course, called in to a number of difficult cases by other practitioners, but that he would not be so called in during the first ten years of his obstetric career. To some extent this is true; yet it will not account for the great difference just spoken of. In the first place, although I was scarcely ever consulted by other practitioners in my first ten years, yet I was called in a great deal by medical students, whose cases I superintended; and in the next place, I find that only eight of the thirty-seven cases met with in my last ten years were consultation cases. We may endeavour to account for the discrepancy by supposing that, as every twenty or thirty years there appears to be a change in the type of many other diseases, so adhesion of the placenta, after being little heard of for a time, has reappeared with great frequency of late years. But this theory is upset by the statistics which I have quoted from Dublin which show that there, at all events, this complication has not become more common. Here, however, it is common, as far as my experience goes; and I am sure that many present, who have had much experience in midwifery, will bear the same testimony. My own statistics disprove the idea that the disease is in any way endemic in Bristol, or, at all events, they show that it can only have become so very lately. Is there anything, then, in the station and habits of life of the patients to explain so great a difference? Here I believe we shall find the solution of the problem. The 264 patients attended by me in the first ten years of obstetric practice were nearly all very poor, or ought to have been very poor, for I attended them gratuitously in connection with various lying-in charities; only thirty-seven out of the number being private patients, who paid me for my services. During the last ten years, the 576 cases recorded, with very few exceptions, belonged to the upper and middle ranks of society. Moreover, I have carefully noted the names and addresses of the forty-three cases of placental adhesion, and I do not find one that could be called poor. All were in easy or even affluent circumstances.

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* Read before the Bath and Bristol Branch.

The facts just mentioned lead me to believe that placental adhesion arises from a depraved condition of the blood of the mother, analogous to what is considered to exist in a rheumatic or rather gouty diathesis; and that this peculiar state of the blood is induced by a too stimulating and nutritious diet, combined, perhaps, with too little exercise. I do not think that the abuse of fermented liquors, or syphilitic taint, has anything to do with it; for those causes would be more likely to be in operation amongst the lower classes; and in nearly all the forty-three cases I have recorded, there was not the least reason to suspect that either of these causes existed. I believe that too many meals in the day, and too much animal food, are the real causes; and what we know of the habits of society in the present day tends to favour this idea. We most of us eat too much and too often. Instead of three meals a day, which ought to be enough for any one in ordinary health, most people take four, or even five; and instead of eating meat at most twice a day, many will eat it three or even four times, and say that they cannot keep up their strength on less; and this idea is being continually impressed on the minds of ladies either nursing or pregnant. These habits, combined with the small amount of active muscular exercise which married ladies usually take, are quite sufficient to produce the peculiar diathesis to which I have alluded.

For the reasons I have already stated, I have come to the conclusion that adhesion is rather due to disease of the placenta than of the uterus, and that it is mostly met with in the rich and well-to-do class. In this respect, I must differ *in toto* from Dr. F. Ramsbotham, who states that "adhesion of the placenta is more frequent in the lower classes than in the higher circles; and this is easily explained by the greater liability of the poor to such accidents during pregnancy as are likely to induce inflammation in the uterine structure, and which may terminate in the agglutination of the two surfaces together".

In accordance with the theory I have put forth as to the effect of high living in the production of adherent placenta, I can easily explain why there should be only two cases of it in the 1,236 deliveries at the Rotundo Hospital, Dublin; but I cannot account for the small number met with by Dr. Churchill in private practice. It is very possible that the upper and middle classes in Ireland do not, as a rule, take so much animal food as they do in England; or there may be some other important difference in their habits of life. The labouring class certainly take much less than the same class in England.

There are a few other points of interest in my record of cases which I must speak of very briefly. Thus, twelve of the forty-three cases were primiparæ, and thirty-one multiparæ. Amongst the latter, there were five cases in which the placenta was adherent in more than one confinement. Thus I had to remove it twice in four patients, and five times in one. In this case, I had to remove the placenta for adhesion only in the third and fourth confinements, for hour-glass contraction only in the fifth, and for both hour-glass contraction and adhesion in the sixth and seventh. The placentæ in some of these instances were more diseased than any others I have examined. The patient to whom this occurred was the wife of a shopkeeper who was doing a very large and respectable business, and was in very comfortable circumstances. For some months before her confinement, her countenance wore a very sallow cachectic aspect; but I do not think she ever had any decided symptoms of gout or rheumatism. This and the other cases I have just given show (what has often been remarked before) the great tendency which adhesion of the placenta has to recur.

In eighteen cases out of the forty-three, the adhesion of the placenta was complicated with hour-glass or irregular contraction of the uterus, and in twenty-five it was uncomplicated.

There were two deaths in the forty-three cases; but in neither of these did the fatal result seem to be directly traceable to the hæmorrhage or septicæmia, which are the usual sources of danger from adherent placenta. In one case, the placenta was enormously enlarged, and apparently in a state of fatty degeneration. The patient was suffering from jaundice and albuminuria, and in such a precarious condition that it was necessary to induce premature labour at the seventh month. She died from shock within two days after delivery. In the other case, the patient had symptoms of ruptured uterus. She had given birth to a child with hydrocephalus, which had been expelled by three or four violent pains. From the time of the child's birth, she suffered the most acute pain, and was in a state of great prostration; and this continued until her death a few hours afterwards. There was no hæmorrhage of consequence; and, when I introduced my hand to remove the placenta, I could detect no rent in the uterus. Unfortunately, I could not succeed in obtaining a *post mortem* examination.

The *diagnosis* of placental adhesion is a matter of considerable uncertainty, unless the hand be introduced into the uterus, so as actually to ascertain by the touch the nature and extent of the adhesion. Before this is done, we can only form probable conjectures. We may suppose that there is morbid adhesion, if, after the child is born, on placing the hand over the fundus uteri, the uterus can be felt contracting repeatedly and even energetically without any apparent result; and this presumption is strengthened if the cord, on gently pulling it and then letting it go, be observed to spring back as if the placenta were tightly held by the uterus, especially if we can feel that there is no constriction of the circular fibres of the uterus to account for this. It should be borne in mind, however, that the presence of irregular contraction of the uterus is no proof of the non-existence of placental adhesion; for in some of the worst cases these conditions coexist. The introduction of the hand is equally necessary in either case, and soon removes all doubt as to the cause of retention. The existence of hæmorrhage proves nothing, as this may accompany retention of the placenta from any cause.

The *treatment* of adherent placenta should be prompt, because this complication is generally accompanied with hæmorrhage, which may speedily become dangerous. It is never safe to leave such cases long to the unaided powers of nature, or to rely on ergot, styptics, or any kind of drug. The hand of the accoucheur supplies the only safe and effectual remedy. To employ this remedy properly, some coolness and dexterity and a considerable amount of patience are required. The hand has sometimes to be kept in the uterus for half an hour or more before the operation can be completed. In the ordinary obstetric position, the woman lying on her left side, the left hand will be found to be much the most convenient for this purpose; but, to perform the operation properly, both hands should be used. The right hand applied externally over the fundus uteri steadies the uterus, and gives important help to the other hand during these manipulations. If, in addition to placental adhesion, there should be hour-glass contraction of the uterus, the case is rendered more tedious and difficult; for the circular constriction has first to be overcome before the hand can be passed far enough to separate the adhesions. In such a case, the vagina will probably be found to be loose and capacious, and perhaps filled with clots; whilst the upper portion of it is occupied by a firm fleshy mass, into which the cord is apparently inserted. On making a careful examination, however, by passing up the fingers of the left hand along the cord, which should serve as a guide, this mass is found to be the uterus, tightly contracted around the retained placenta; the circular fibres of the os uteri internum surrounding the cord very closely. This is precisely the condition of things which leads to those horrible blunders which are sometimes committed by ignorant and incompetent practitioners. A practitioner of this sort, for instance, having waited a reasonable time after the birth of child for the expulsion of the placenta, and finding that this does not take place, and that, moreover, there is some hæmorrhage, endeavours to remove the after-birth by tugging at the cord. The only result of this proceeding is, that the cord breaks short off, and the hæmorrhage is increased. By the breaking of the cord, he loses his guide; and, becoming still more flurried from observing the fresh hæmorrhage, he passes up his hand, and feels nothing but the uterus tightly contracted around the placenta. Mistaking this for the latter, he gets his fingers into the hollow of the sacrum behind it, with the object of scooping out the after-birth, which he supposes to be (what the old nurses call) "grown to the side". At last, by means of his nails, he succeeds in separating the posterior wall of the vagina from its attachment to the uterus, and gets his hand into the pouch of Douglas, and of course, into the peritoneal cavity. Still unaware of his mistake, he grasps the fundus uteri from behind; and, thus obtaining a good purchase, he tears away the entire organ; and then at last, with the appearance of the intestines, the horrible conviction of his blunder dawns upon him.

Such is the manner in which we may reasonably suppose that many of these awful cases of malapraxis take place. I need scarcely remark that such accidents ought to be impossible to any one possessed of the smallest amount of skill and anatomical knowledge.

To pass on, however, to the manipulation necessary in these cases: if the cord be tightly encircled by the os uteri, the constriction should be overcome by insinuating the tips of the fingers into the os in a conical form; whilst the right hand all this time is making counter-pressure upon the fundus uteri, so as to steady that organ. Should these precautions be neglected, the connections between the vagina and the uterus may be put very injuriously on the stretch, especially if the circular fibres of the os oppose much resistance to the introduction of the hand. As the tips of the fingers pass through the os, they should be gradually expanded and separated from one another, until, by sheer fatigue, they overcome the contraction of the uterine fibres, so as to allow the passage of the entire hand into the uterus. When this is accomplished, the next step is to pass up the hand sufficiently high to reach the placenta. The distance which it has to pass before this can be felt will depend very much upon the position of the placenta and the degree of contraction of the uterus. If the placenta be attached, as it usually is, to the fundus uteri, or if the uterus be in a flaccid condition, it will be necessary to pass the hand much further than when the placenta is attached lower down, or when the uterus is well contracted. I have sometimes had to pass the hand quite into the epigastric region in search of a retained placenta. As soon as the placenta is arrived at, the fingers should be spread out, taking care not to entangle them in the membranes, until the circumference of the placenta can be felt. If any portion of the circumference be already detached, the tips of the fingers should be cautiously inserted between this portion and the inner surface of the uterus, and the placenta gradually peeled off. All this time, the right hand, externally applied, steadies the portion of the uterus from which the left hand is detaching the placenta, and enables the accoucheur to estimate the exact thickness of the uterine walls included between the hands, so that he can avoid digging his nails into the substance of the uterus. There is sometimes considerable danger of such an accident when the adhesions are very firm and close. There is also considerable danger of leaving portions of placenta behind: a risk that one can readily comprehend in such cases as those described by Dr. Ramsbotham, who states: "I have opened more than one body where a part was left adherent to the uterus, and where, on making a longitudinal section of the organs, and examining the cut edges, I could not determine the boundary line between the uterus and the placenta, so intimate an union had taken place between them." In all such difficult cases, it will be necessary to sever the adhesions by using the finger-nails with a kind of sawing motion from side to side. The tips of the fingers are placed in a line like the edge of a saw, keeping the palm towards the placenta and the knuckles towards the uterus, and the sawing motion is continued very slowly and gradually, until the entire placenta is separated and falls into the hollow of the hand. This proceeding sometimes requires a great deal of patience, and is exceedingly tiring; but the accoucheur should take his time about it, working with both hands, and making his ground sure as he goes on, and not withdrawing his hand with the placenta until he is certain that he has brought away every part of it that can be safely separated. It is very seldom, comparatively, that the adhesions are so firm that this cannot be done. Should this, however, be the case, we have a choice of evils: either to run the risk of causing secondary hæmorrhage and septicæmia by leaving portions behind, or of causing metritis from injury to the uterus in bringing them away. For my own part, I think that the last of these two courses is the least dangerous, except in very unusual cases. I have notes of only two instances in which it was necessary to leave any portion of consequence behind. Fortunately, in both, the pieces were expelled on the third day, without having caused any untoward symptoms, although in one the piece expelled was as large as a hen's egg. Of course, in all such instances, the dangers of septicæmia should be guarded against as much as possible by the frequent use of vaginal injections containing Condy's or other disinfectant fluids.

# A REPORT ON INFECTION.

By JOHN HADDON, M.A., M.D., Eccles, Manchester.

In 1872, at the annual meeting of the Lancashire and Cheshire Branch of the British Medical Association, on the suggestion of Dr. Ransome, a committee was formed to inquire into the subject of infection, with a view to rendering our knowledge, if possible, more exact.

The committee, to this end, drew up a letter, asking assistance in obtaining facts; and with this letter a form, containing such questions as we wished answered, was sent to a large number of the profession in Great Britain and Ireland.

The answers received up to this date are not so numerous as could have been desired; nevertheless, they contain some important facts, and, at the request of the committee, I have drawn up the following short report for publication in the Journal, hoping that it may direct attention to the subject, and induce the whole body of members to assist in the undertaking.

By "infectious" is generally understood the power of communicating disease by some emanations from the body of the individual affected. The "infection" is the something which affects the healthy body and produces in it disease. Of the real essence of infections very little is known; but there can be little doubt that in a few years our knowledge in this direction will be materially advanced; and we may yet hope to be able to separate, collect, and bottle up the various infective agents, which are so prolific in our large towns, and so deadly in their action on the human body. For such progress, we look to physiologists, who have the wards of a hospital as a field of observation, and the laboratory, with all modern means of experimental research, in which to unravel the physiology of disease. There are, however, many facts connected with the natural history of infection which can be best observed by the general practitioner, more especially in thinly populated country districts; and it is through the busy practitioner, and not through the experimental physiologist, that the aim of the committee is to be attained.

The diseases selected for investigation are small-pox, measles, scarlet fever, diphtheria, typhus, typhoid, whooping-cough, and mumps. These ailments are seldom entirely absent from a town of any size in this country, and the general practitioner is frequently asked questions about infection with regard to them, which he has to answer in a way that reflects little credit on the medical profession, and makes one wonder that no investigation has been undertaken by the profession as a body, with the view of rendering our knowledge more definite, and the information very naturally required of us more precise and reliable. We have a few examples of an energetic and observant physician investigating the incubation period of some particular disease or class of diseases; but, so far as I am aware, the Lancashire and Cheshire Branch of the British Medical Association affords the first example of a large number of members of the medical profession agreeing to collect facts which may help towards the attainment of more exact knowledge regarding infection; and, since the subject is of such importance to mankind over the whole world, it is to be hoped that its efforts will be appreciated, and the work helped on by the profession abroad as well as at home.

Text-books on medicine teach that a healthy individual associating with a person suffering from any infectious disease is liable to receive the infection into his system through some channel; that, after a certain period known as the "period of incubation", during which time it is supposed that the infection in the blood has been undergoing a process somewhat similar to fermentation, it is rendered able to affect the equilibrium of health. The infected individual then feels what are called the "premonitory" symptoms; and, after a certain time, varying with the particular disease, the sign or symptom which determines the species is developed.

The "period of incubation" then first attracts attention, and what we have to determine is its duration. Now, the text-books do not fail to state the duration of incubation in each of the diseases selected; but in every one it is indefinite, so that it is stated as varying from so many to so many days. Thus, in small-pox, it is from twelve to fourteen days; in measles, ten to sixteen days; in diphtheria, three to twenty-two days; in typhus, a few minutes to twenty-one days; in typhoid, ditto; in whooping-cough, five to six days; in mumps, eight to twenty-two days. That may be accepted as the present teaching with regard to the incubation in each of these diseases, and no one will deny that it is far from definite or satisfactory. What the committee desires is, if possible, to fix the precise duration, since, from all we know, under the same conditions, its duration will be the same. Thus, if two healthy persons enter the sick room of a scarlet fever patient, keep together, and remain for some time breathing the atmosphere of the room, one would expect that, if they both caught the infection, they would become ill at the same time; but, if a third person be in their company, and handle the patient or anything he uses, so as to bring some of the secretions of the patient into contact with a sore, or into his mouth, we need not be astonished if, the latter being infected, the incubation period should be different.

The next point which calls for notice is the "duration of infection", and this divides itself into two parts: 1. When the disease is first infectious; and 2. How long it continues infectious.

It has been the custom to isolate cases when the pathognomonic sign was discovered; but, though it may appear to some unimportant, it now seems probable that some diseases become infectious so soon as the equilibrium of health is upset. Dr. W. Squire, in a paper on the Period of Infection in Epidemic Disease, which is a valuable contribution to the literature of the subject, lays stress upon the fact that measles and whooping-cough may be communicated before the rash and whoop respectively are developed. Our knowledge on this point is very limited, and facts are much needed, since its determination must materially affect the benefit to be expected from late isolation.

As to how long a disease continues to be infectious, we know very little. Dr. Squire says that, in diseases with a long incubation period, the infection generally ceases early in convalescence, whereas, in diseases with a short incubation period, infection persists far into convalescence; but of this statement, I think, we still lack the proof.

Another question which the committee is anxious to have answered is, What is the best method of disinfection to prevent the spread of disease? So far as I know, there are no facts on record to answer this question; still its solution, if disinfection be of any use, is of great importance. Chemists point out many agents which they call disinfectants, practitioners use them assiduously to the best of their ability, and still there is some doubt as to the value of any disinfectant apart from an abundance of fresh air. What we wish to know is, whether any process of disinfection can be applied so as to render the infection inert as it leaves the body of the patient. Were this possible, there would be little need for isolation. If it be impossible, why is there such faith in disinfectants?

And now, taking up the forms returned, seeing that we have not sufficient data from which to generalise, I shall, under each disease, give one or two specimens of the information we have received, and more of which is earnestly desired.

SMALL-POX.—A young woman, aged 19, visited, on April 16th, a village four miles distant from her own home, where there was no small-pox. She called at the house of a friend in the village. One of the daughters of this house, who was just convalescing from small-pox, tried on the visitor's bonnet. The young woman returned home, and felt nothing amiss until April 26th, when she shivered, and had other symptoms, which proved to be premonitory of small-pox.

A young woman, aged 17, slept in the same bed with her sister until the eruption appeared on the latter; viz., until the fourth day of her illness. She was then vaccinated. The pock rose well, and she did not take small-pox.

MEASLES.—Two boys were infected at school by another boy, who became sick in the class-room without previous indisposition. The sick boy did not return to school, but stayed at home, and in due course the rash of measles showed itself. The boy was sick on March 19th, and the two boys, who lived in different parts of the village, both became ill on March 28th. In the house of one of these boys there were other children, two of whom, aged respectively seven months and five years, became ill on April 10th, and a third, aged three years, on April 11th.

A boy, aged 7, was infected by another boy, who left school on the day before Good Friday, 1871, with slight cough, but had no rash till the Saturday. Exactly two weeks afterwards, the boy began with measles.

A young lady, aged 14, travelled in the same compartment of a railway carriage to Marseilles with a friend on Friday, November 8th, 1873. She left her friend at Marseilles, upon whom the rash of measles was seen on Saturday or Sunday; and the young lady herself was taken ill twelve days afterwards.

A boy was on a visit to a friend's house, and became ill, coughing, etc. A child in the house saw the boy for the last time on the third day of his illness, and the child's mother saw the boy on the fourth day for the last time. On the fifth day, when the rash appeared, neither the mother nor child had any communication with the invalid, but left for the seaside; exactly twelve days after leaving, the child sickened and had measles.

SCARLET FEVER.—A clerk, aged 23, received the infection from his brother, whom he neither saw nor had any communication with, direct or indirect, after 9 A.M. on January 14th, fourteen hours before the rash of scarlet fever appeared on his brother.

Two boys on a visit near Manchester began with scarlet fever on September 7th. During their illness, Condy's fluid was put about the room in basins, with a view to disinfection. They went home to a solitary house near Grange on October 5th, and one sister sickened of the same disease on October 9th, another on October 13th, and the governess on October 15th.

Of two sisters, who were generally together, the younger became ill on November 10th with violent sickness. They were together till the second day, when the scarlet fever rash began to show itself; and then the elder was removed to a friend's house. To disinfect, chlorine was used all through the house, and everything from the patient put into Condy's fluid and water. During desquamation, warm-baths with Condy's fluid were given, and every night the whole body was rubbed over with cod-liver oil. On December 17th, she was carried out of the bath into another room, and put in fresh clothes. All toys, etc., were put away. Everything in the sick-room was washed with Condy's fluid in water, and the room well disinfected by competent men. She now went about the house, excepting the sick-room, with kid-gloves on, lest desquamation should continue, though none could be seen. The elder sister returned on December 20th, and did not take the fever.

DIPHTHERIA.—A gentleman, who was a teacher in a school where scarlet fever existed, went home on April 3rd with a sore-throat, which developed into well marked diphtheria. On April 9th, six days after her son's arrival, his mother, who nursed him, began with diphtheria.

A surgeon performed tracheotomy in a case of diphtheria, and with his mouth sucked some mucus up the tube from the trachea. Fourteen days afterwards, he was seized with *malaise*, and in two days more the exudation of diphtheria was detected.

TYPHUS FEVER.—A practitioner, who had several cases of typhus under his care, saw no cases after a certain Monday, left home on Tuesday, and became ill on Thursday of the next week with typhus.

A practitioner began to attend a case of typhus fever with full rash on September 3rd. Having had typhus, as he supposed, he had no fear of infection; and, amongst other things, he daily smelt the patient's breath. In ten days, he was seized with intense headache, such as he never had felt before; nevertheless, he continued working as usual until the morning of September 29th, when he attempted to rise, but was unable, and then found the spots of typhus on his skin. His wife, who slept with him till the rash was seen, and afterwards nursed him, did not take the fever. To disinfect, the windows were kept constantly open, and all discharges were immediately buried: Condy's fluid and sulphur fumigation were also used.

TYPHOID FEVER.—A domestic servant visited her home from June 7th to 21st, and began with typhoid fever on July 14th, having spots on July 19th. Three of her sisters were taken ill at home before her. All being confined to bed on July 10th. A cousin who visited the house from June 17th to 19th, was taken ill with typhoid fever on July 13th.

A gentleman, in the habit of visiting Rochdale every fortnight on a Wednesday, shivered as he returned the last time he was there. Typhoid was very prevalent in Rochdale, and close to where his office was. He was in the habit of having a meal when in Rochdale, and occasionally had a cup of tea in the office. There was no fever about his house, he was least at home of a large family, and he had not been, knowingly, near any fever, except in Rochdale.

HOOPING-COUGH.—A boy at school had a cough, which developed into hooping-cough; but, ten or twelve days before he began to whoop, seven or eight of the other boys began to cough, and in due course to whoop also.

Under "Mumps", we have as yet no returns.

The following are the questions which the Committee desire to have answered.

A. *Relating to Infected Persons.*—1. Disease. 2. Age. 3. Sex. 4. Supposed origin of disease, whether from infection or *de novo*; mentioning—*a.* The length of time from supposed infection to the outbreak of the disorder; *b.* Other possible sources of infection; *c.* The channel through which the infection is supposed to have entered the system, *e.g.*, by the stomach, the lungs, a wound, etc.

B. *Relating to the Case from which the Infection is supposed to have arisen.*—1. The time before the outbreak of the disease, or after it, at which the infection was communicated; 2. Whether desquamation had been completed; 3. Whether disinfection had been practised; in what manner and to what extent, giving any facts illustrative of the value of any method of disinfection employed, as well as cases showing how soon it is safe, or unsafe, for the convalescent to mix with his fellows.

Answers may be written on ordinary note-paper, or schedules to be filled up may be had on application to me, at Monks' Hall, Eccles, Manchester.

The Committee hope that every member will endeavour to supply them with the particulars of any cases which may come under observation. Were each member to furnish us with even one case only, what a mass of facts we would possess! And, surely, the Committee's appeal will not be in vain, considering the importance of the inquiry, and the well known enthusiasm of the Associates in every undertaking which has for its object the attainment of scientific truth.

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# CATARRH AND PYÆMIA CAUSING LARYNGEAL ABSCESS.

By THOMAS WHIPHAM, M.B., F.R.C.P.,
Assistant-Physician to St. George's Hospital.

In the January number of the *New York Medical Journal*, an interesting case of abscess in the epiglottidean folds is recorded as having occurred at the Bellevue Hospital. The patient, two or three days before he was taken sick, was in excellent health, and engaged in Jefferson Market. After exposure to cold, he was attacked with swelling on the right side of the neck, and, on admission to the hospital, this was very marked on both sides, but particularly on the right. He suffered from dyspnœa, also due, as was supposed, to œdema of the glottis. The dyspnœa increased to such a marked extent, that laryngotomy was advised and performed. The operation relieved the dyspnœa; but, shortly afterwards, the patient died of exhaustion. The necropsy showed that the swelling of the neck was due to a diffuse cellulitis, which had not yet undergone suppuration. In the epiglottidean folds, however, there was an abscess, which gave rise to the diagnosis of œdema glottidis. At the beginning of the present year, during the absence of Dr. Barclay for a few days, a somewhat similar case came under my care in St. George's Hospital.

A young man in domestic service, aged 25, was admitted on Feb. 3rd, 1875, who had five days previously been attacked with stiff neck, soon followed by headache, so severe as to compel him to take to his bed. He had then some swelling at the back of his neck, but this had almost entirely subsided at the time of his admission. The day before he came under notice, he had an attack of diarrhœa. At first, one or two spots of doubtful character on the belly led to the suspicion that it was a case of enteric fever, more especially as there was tenderness in the flanks. He was put upon bark and acid, with a small quantity of brandy, the diarrhœa of the preceding day having exhausted him considerably. On the 5th, the back of the right hand became red and painful. Similar pain and redness affected the knee and outer side of the ankle on the right side; the urine was high coloured and acid; pulse, 100; temperature, 104.2; bowels open once. The treatment was changed to effervescing citrate of potash with quinine every four hours, and, next day, as the pain was still severe, half a drachm of bicarbonate of potash was added to the medicine. He complained now of sore throat and slight tenderness on the left side of the neck, and the voice had become husky. Laryngoscopic examination showed a red, rounded, and opaque swelling of the mucous membrane over the left arytenoid cartilage, and, in addition, great general congestion of the larynx, but no tumefaction except as above mentioned. Small doses of antimony were ordered every two hours, of which he took about six. On the 6th, dyspnœa accompanied by dysphagia became urgent, and the patient broke out at intervals into a profuse clammy perspiration. Various inhalations were tried, but, as they manifestly increased his distress, were discontinued. Laryngotomy was then suggested; the throat being by this time too irritable to allow any examination or treatment of the larynx itself. The patient, however, obstinately refused to submit to the operation. About 7 P.M. next day, the dyspnœa being most distressing, Mr. Harper, the house-physician, tried to obtain his consent to the insertion of a tracheal tube; the man, however, became greatly excited, and, evidently thinking that force would be employed to compel his submission, turned quickly over on to his face in the bed, and was dead in a few seconds. The larynx was opened as soon as it was discovered that the muscles were relaxed, and artificial respiration was kept up for some time, but without effect.

*Post mortem* examination revealed an abscess in the soft parts on the inner surface of the left ala of the thyroid cartilage. The pus lay in contact with the cartilage, and had caused inward bulging of the ventricular band, slightly so of the vocal cord, and a certain amount of eversion of the ventricle. The normal orifice of the glottis was in consequence reduced in size. No disease of the thyroid or other cartilages existed. Microscopic examination of the swelling over the arytenoid proved the tissues to be infiltrated with a nuclear growth, which was most abundant in the neighbourhood of the blood-vessels, and immediately beneath the mucous membrane.

Cases of laryngeal abscess are at all times of great interest, and more especially so to the laryngoscopist, who may, by actual demonstration of the nature of the malady, be enabled by evacuating their contents to avert the immediate danger of suffocation, and to place the patient under conditions favourable to his recovery. But, in order to effect these results, a clear history of the formation of pus is required in addition to actual demonstration of the abscess by the laryngoscope. The above cases are placed together, with a view of showing how extremely obscure in some instances is the diagnosis of these purulent formations in the larynx.

In the first case, cold seems to have been the starting point of the disease, and this was followed by laryngitis, an event of common experience. Nothing, however, in the course of the case as reported, gave rise to a suspicion of abscess. In the second, the absence of the earlier manifestations of suppuration was remarkable; the patient had no rigors, sweatings, or any of the ordinary symptoms (save elevated temperature) of pus-formation. The most prominent feature in the case was the pain in the joints, which was at first thought to be rheumatic; but afterwards, from the brightness of the erythema, and the circumscribed area of the patches, it seemed more probable that the patient was suffering from pyæmia. Sweating certainly occurred, and profusely, towards the later periods of his life; but only after the dyspnœa became urgent. This symptom, therefore, might have been as much due to the latter cause as to the former.

A notable feature in this case is that, although after death such serious lesions were found in the larynx, there was nothing in the earlier part of the case indicating special laryngeal trouble. Swelling of the neck, doubtless, had occurred before the man's admission into hospital, but it had nearly subsided when he came under observation; and it was only after he had been under treatment for two days that special attention was directed to the throat. The voice then became husky, and the swelling over the left arytenoid was detected. This swelling, it may be well to observe, was unilateral and limited in extent; it was, therefore, not considered advisable to resort to operative interference. As the sequel proved, moreover, incision into this swelling alone would have been unproductive of good.

The throat-affection in the case which occurred at the Bellevue Hospital appears to have originated in catarrhal laryngitis, the inflammation resulting in the formation of a laryngeal abscess. Such cases are interesting by reason of their unfrequency. In my own case, the cause is less evident. Possibly it may have been due to exposure to cold; and this supposition (in the absence of any definite history) is strengthened by the occurrence of swelling and stiffness of the neck. The cold, however, will scarcely explain the disease in the larynx; and for this reason, that there was no laryngeal inflammation until the eighth day of the patient's illness. It can hardly be supposed, therefore, that laryngitis was the prime cause of the malady. The idea naturally occurred at the time of the *post mortem* examination, that the laryngeal abscess was but the local manifestation of general pyæmia. But as no other cause for the blood-poisoning could be discovered, this theory would seem to lack support. Nevertheless, it every now and again happens that in a case which may clinically have been considered as an undoubted case of pyæmia, the cause of the blood-poisoning, even after most diligent search, cannot be demonstrated. I am therefore disposed, seeing that the affection of the larynx did not manifest itself until so late in the patient's illness, and then as a sequela of general blood-poisoning, to consider the abscess in this case to be of pyæmic origin.

Abscesses of the larynx, except in cases where the cartilages are diseased, are, as has been stated, rare. According to the observations of Porter, "their most usual situation is behind the broad portion of the cricoid cartilage"; and this is doubtless due to the fact, that this cartilage is more liable to be affected by caries than the thyroid epiglottis or arytenoid. "The presence of an abscess in this situation", he continues, "exercises a very decided influence in pressing upon and obstructing the rima glottidis. The approach of the suffocating symptoms is very gradual, and their progress slow; and it is extremely difficult either to ascertain its existence or to apply a remedy." Owing to the position of the abscess in each of the recorded cases, symptoms of suffocation occurred in the natural course of events: they encroached upon and obstructed the rima glottidis. The approach of the suffocating symptoms and their progress was, however, neither so gradual nor so slow as in Porter's description; unless, indeed, we are to institute a comparison between the formation of an abscess and the course of acute laryngitis. In the American case, laryngotomy appears to have been rendered necessary very shortly after the onset of the laryngeal symptoms. In my own case, the patient died suffocated within forty-eight hours from the accession of the disease. The difficulty in demonstrating laryngeal abscess is in exact proportion to the irritability and congestion of the surrounding parts, and more especially of the fauces. In my case, two laryngoscopic examinations only were possible, and neither of those showed the swelling on the left side of the larynx, which was afterwards demonstrated at the necropsy. Remedial measures are, however, since the introduction of the laryngoscope, less difficult than heretofore. Provided a satisfactory exploration of the larynx can be made and the swelling detected, the contents of the abscess may be evacuated with comparative ease with Mackenzie's laryngeal lancet. The only other alternatives, if the dyspnœa be urgent, are laryngotomy, or the method suggested by Porter—viz., to cut gradually down to the cartilage from without, and give exit to the pus externally. With regard to this last operation, Porter observes that, "although it has happened that I have not cut upon the matter in the first instance, yet it always made its appearance on the following day, the abscess never failing to burst into the wound. The result of the incision in the neighbourhood of an abscess seems to depend on the disposition of purulent matter to make its way to the surface by that route which offers least resistance; and the principle may be turned to advantage in every case where matter exists in a hazardous situation, and it is desirable that it should be discharged externally." This latter operation might, however, have been resorted to in days before the laryngoscope came into use; it is far less simple than the intralaryngeal method, and, in all probability, no less dangerous. In the case here related, it would have been difficult to give exit to the pus by such a proceeding, seeing that the abscess lay entirely under cover of the ala of the thyroid cartilage. Moreover, in the presence of urgent dyspnœa, there would scarcely be time for the amount of careful dissection which operations in this neighbourhood render necessary. In the treatment of laryngeal abscess, then, where the dyspnœa demands immediate relief, the only means that appear to afford any prospect of successful termination are direct incision into the abscess with the laryngeal lancet, or, failing this, laryngotomy.

## ON A NEW FORM OF ARTIFICIAL MEMBRANA TYMPANI.

By GEORGE FIELD, Esq.,
Aural Surgeon to St. Mary's Hospital.

In treating cases of perforation of the membrana tympani, it has always appeared remarkable that some patients should derive benefit from Yearsley's pellet of moistened cotton-wool, while others gain greater advantage from Toynbee's artificial membrane. It has, therefore, occurred to me that the instrument I am about to describe might prove advantageous; and such I have found to be the case. It is simply a combination of Toynbee's artificial membrane, viz., a thin disc of India-rubber mounted on a fine silver-wire stem, and Yearsley's cotton-wool. In my instrument, the wire is carried beyond the India-rubber for about a quarter of an inch, and terminates in a second disc, made of flannel. The space between the two is filled up with a small portion of Dr. von Bruns's wound-dressing cotton-wool, which is absorbent, and so takes up and communicates to the flannel disc any medicated solution which it may be desirable to apply. To prevent overcharging the cotton-wool, a pipette should be used, as one or two drops are sufficient to moisten every fibre of the wool and flannel.*

Its advantages are the following.

1. It does not irritate the membrane, and being very soft, is not likely to injure it.

2. It is made of cotton-wool, which is absorbent; lotions can by this means be constantly applied with much advantage.

3. By thus keeping the part clean, the membrane gets into a healthy state, and the perforation heals.

4. The hearing distance is improved.

5. It is not liable to leave the India-rubber disc in the meatus.

6. It is easily used; and does not require the forceps, as is the case with Yearsley's cotton-wool.

The following cases are interesting.

E. F., aged 26, a clerk, came to consult me at St. Mary's Hospital, having suffered from deafness for twenty years. Both membranes were perforated. On the right side, there was a large perforation; he could not hear my watch on contact. On the left side, there was a smaller perforation; he heard the watch at the distance of an inch. On the right side, Toynbee's membrane increased his hearing about seven inches; cotton-wool had no effect. In the left ear, Yearsley's mode of applying cotton-wool answered best; the India-rubber disc having very little effect on this side. With my instrument, he can hear nearly eighteen inches on both sides. His hearing is thus greatly improved. The membranes are gradually getting into a healthy state. He says "he can now hear sermons", a benefit he was never able previously to enjoy.

H. J., aged 19, came to consult me at St. Mary's Hospital. She had been deaf for two years in both ears. The deafness came on after measles. She had a large perforation of the membrana tympani on the right side, with constant offensive discharge. She could not hear a watch on contact. After the new artificial membrana tympani was used, her hearing improved one foot, and by using (by this means) various lotions applied directly to the perforation, the discharge has gradually ceased, and her hearing distance when wearing the instrument is now one yard, and about four inches without it. The membrane now looks healthy, and the perforation is decidedly smaller.

W. D., had perforation of the left membrana tympani. He could not hear a watch on contact. He had been deaf eight months; the deafness came on after "brain-fever." This boy's hearing improved four inches, and the discharge, which had previously been very great, has ceased altogether.

H. L., aged 17, had had deafness for five years in both ears after scarlet fever. There were large perforations in both membranes. With Toynbee's artificial membrane, her hearing is greatly improved, four to five inches. The application of the cotton-wool also affords benefit; but, with the combination of the two, a much better result is obtained; for, when she wears them in her ears, she can hear ordinary conversation perfectly well, and the hearing distances were twelve and fifteen inches. The lotion she has lately used (which has quite stopped the discharge) consists of two grains of the nitrate of silver to the ounce of water; she says, also, that when wearing them, the sound seems much clearer than with the others.

S. M., aged 26, had perforation of both membranes, much the same as the last case. It came on from scarlet fever. Her hearing is improved to a very great extent on both sides. She says that my instrument is much more comfortable than the other, and does not move about like the India-rubber one; she also hears double the distance with it. The discharge has stopped.

I have several other cases of the same kind, both in hospital and private practice, in all of which the benefit has been the same.

My predecessor at St. Mary's, Dr. Peter Allen, was of opinion that in Yearsley's contrivance (when the natural membrane is perforated or lost) the benefit is derived from support given to the ossicula, by which they are enabled to exercise that due pressure at the fenestra ovalis, which keeps the membrane of the fenestra rotunda in a condition susceptible of vibration, and capable of transmitting them to the nerve-expansion of the labyrinth. And Yearsley himself says his object is to support the remaining portion of the membrana tympani or the ossicula, and that care must be taken that the entire opening be not covered, otherwise the experiment will not succeed; it is also indispensable to success, that the moisture of the wool should be preserved.

Toynbee, on the other hand, says, "It seems to me no doubt but that one of the functions of the membrana tympani is to confine the sonorous undulations to the tympanic cavity, in order that they may be concentrated on the membrana fenestræ rotundæ. Indeed, it is probable, that the vibrations only partially pass through the chain of bones to the vestibule, and that the air in the tympanic cavity is one great medium of communication with the labyrinth. If the means of communication with the labyrinth be the air in the tympanic cavity, it is palpable that any aperture in the membrana tympani is likely to diminish the power of hearing, by permitting the vibrations to escape from that cavity into the meatus, and so prevent their concentration upon the membrana fenestræ rotundæ."

But, in the supplement of his book, Hinton says, "Mr. Toynbee, also, modified the view he at first entertained (by page 452). This he was partly led to do by intercourse with Dr. Julius Erhard who, without any perforation, found his hearing much improved by the use of cotton-wool, and published his experience in a paper entitled, *Deafness Curable by Pressure.*"

Roosa says, "That the artificial membrane is only of service in cases of partial or complete loss of the drumhead." (Page 380.)

Von Troeltsch is of opinion, that the action upon which the benefit mainly depends is the pressure on the remaining portion of the membrana tympani and the chain of ossicula; whether it be that, by this mechanical influence a morbid relaxation in the connection of the ossicula is removed, or the fluid in the labyrinth is put under increased pressure. Such an India-rubber disc will act as a vibrating plate, and can transmit a considerable number of vibrations to one of the ossicula. (Politzer.)

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* It is made by Messrs. Krohne and Sesemann of Duke Street.

This appears to me to be the best explanation. I use the cotton-wool for the necessary pressure on the remaining portion of the membrana tympani, and, at the same time, the India-rubber disc as a vibrating plate.

The improvement I suggest I have found of great service in nearly all cases of perforation. The instrument should not be worn at first for more than an hour at a time, the cotton-wool should be often changed, and the lotions altered occasionally; and, lastly, it is very essential that only a very small quantity of fluid should be applied to the cotton-wool.

# ANALYSIS AND PATHOLOGICAL PHYSIOLOGY OF THE TROUBLES OF SPEECH IN THE GENERAL PARALYSIS OF THE INSANE.

By AUGUSTE VOISIN, M.D., Médecin de la Salpêtrière à Paris.

THE troubles of language which are observed in general paralysis are of various orders, and bear different denominations. They are termed stuttering (*ânonnement*); drawling; hesitation; jabbering; stammering; and quavering.

These denominations are too often confounded in the observations of general paralysis, and indifferently employed. The intimate cause of these symptoms does not seem to me to be sufficiently known. I will here speak of the analysis and pathological physiology of the modifications of language. The faculty of language infers soundness (1) of the cortical substance of the anterior lobes of the brain, the seat of the intellect; (2) of the nervous fibres which pass from the cortical substance to the bulb, and which serve as conductors of the will; (3) of the bulb and the intrabulbous nucleus of nerves animating the muscles which are called into play during speech; (4) of the nerves animating these muscles; (5) of the muscles themselves. The participation of these various organs is indispensable to the regular exercise of speech. It is not enough, indeed, for the movements of these muscles of tongue, pharynx, glottis, and face, to be rightly co-ordinated; it is necessary to have a sound intellect, a knowledge and memory of words; and the voluntary excitement must be easily transmitted to the nerves proceeding from the medulla oblongata. Every restraint on the action of the organs presiding over these functions will disturb speech.

1. Stuttering (*ânonnement*) is the embarrassment of speech produced by a slowness in the presentation and emission of letters, syllables, and words: this delay being occasioned by a disturbance of memory. It is most frequently accompanied with another symptom, the intimate cause of which is the same, and which consists of the omission of words in writing, and of the misplaced insertion of unintelligible signs and hieroglyphs, and indistinct and irrelevant words in the middle of a sentence. In nearly all cases, the patient has very little or no consciousness of the symptoms; this is readily understood, as the lesions by which they are occasioned occupy the part of the brain which is the seat of intellect. The alterations inducing this disturbance of speech are hyperæmia, infiltration with blastema, with exudation, and recent embryoplastic productions, and softening, of the cortical layer of the anterior lobes of the brain. If the stuttering do not exist in the earlier stages in certain cases of paralysis of the insane, it is always to be observed at a later stage, until the patient presents that other sign of the deep alteration of the cortical layer, viz., impossibility of conversing, of expressing thoughts, of pronouncing comprehensible words; finally, muteness. At that moment, the embryoplastic deposits have begun to be transformed into fibrillary tissue, the atrophic consequences of which are known. The circonvolution of the island of Reil, and the three frontal superior convolutions, are the parts the lesions of which, as they are observed in general paralysis, may induce stuttering. As well as the frontal convolutions, the island of Reil is softened on its surface, its substance is infiltrated with a somewhat serous liquid; and microscopical examinations, made when it is recent, show that embryoplastic deposits are blended with the nervous elements, and that endarteritis and embryoplastic bodies exist in the perivascular spaces. I have made a number of fine sections on specimens of the island of Reil, hardened by chromic acid, and my researches have led to the following results.

The vessels presented in their walls, and in the spaces by which they are surrounded, an abundance of embryoplastic nuclei in very close rows. I found vessels that were almost crammed with them, and in some preparations no vessel was free from them. The nervous substance itself contained a numberless quantity of these nuclei. I found lesions of this kind in various stages. In one case, remarkable from the extent of the alterations, the patient offered several characters similar to those observed in cases of aphasia. When questioned, he almost invariably answered, *ça va mieux; ça fait mal* (I am better; it gives me pain).

Stuttering, drawling, and incomprehensibility of speech, may also be consequent upon lesions situated on the course of the nervous fibres, which pass from the cortical substance of the anterior circonvolutions to the medulla oblongata, through the white cerebral substance, the corpora striata, and the pons Varolii. In the course of these fibres, and in their interior, you meet with an enormous quantity of embryoplastic nuclei, which are especially abundant in the vascular sheaths, in the perivascular spaces, and which thence certainly have invaded the nervous substance; and you meet, also, with masses of hæmatosine, of hæmatine in yellow or colourless crystals, or effusion of blood-corpuscles more or less old. I have found even foci of softening between the anterior ascending fibres of the pons Varolii. You understand, in seeing these preparations, how the cerebral functions, and especially the will, must be disturbed by the presence of these enormous quantities of recent productions among the nervous fibres which act as conductors.

2. Stammering, jabbering, and quavering of speech do not result from any troubles of intelligence and will, but are consequent upon an absence of harmony in the co-ordinate acts performed by the muscles animated by the nerves proceeding from the medulla oblongata; I mean the hypoglossal, facial, spinal, and glossopharyngeal nerves. I will now explain these alterations, which have not as yet been described, within my knowledge at least.

The medulla oblongata, in cases of general paralysis, presents in most parts, not uniformly, but more on one side than on the other, an immense quantity of embryoplastic nuclei, of fusiform bodies, interposed among the nervous fibres, among the nerve-cells of the nuclei of origin of the nerves, among the fibres of these nerves, and among the nerve-cells of the olivary bodies. As in the brain, the multiplication of these new productions is especially abundant in the walls of the vessels, in the perivascular spaces, even along the most delicate vessels. The walls of the vessels are often doubled in thickness, with very firm fibrillary tissue. Vessels altered in this manner are found even among the fibres of the roots of the hypoglossal and facial nerves. The cells of the nuclei of origin of the nerves in the medulla oblongata may themselves be altered and transformed into fat in various stages, and suffer a necrotic change. The proportion of cells thus altered to sound ones may be as one to five. I have met more frequently with lesions in the cells of the nucleus of the facial than in those of the hypoglossal nerve; and when they were to be seen in both, the alteration was more advanced and more extensive in the nucleus of the facial.

Schröder van der Kolk, and other authors who have reproduced his opinions, represent the olivary bodies as playing so important a part in the mechanism of speech, that I expected to find considerable lesions in their cells; but there was nothing of the kind; I never found any alterations in the proper tissue of these bodies. With these alterations of the medulla, I have not yet found lesions of the commissural fibres or of the fibres of the nerves arising from the medulla.

The morbid state which I have just explained exists from the first periods of illness. I met with it in a woman who died between the twenty-fifth and thirtieth days of general paralysis. In that case, the number of nuclei was much less considerable, and they existed only in the vascular walls or in the perivascular spaces. In that case, also, the number of diseased cells in the nucleus of origin of the facial nerve, was at most two or three; whilst, in advanced stages, the number may be eight or ten. The nature and form of these alterations appeared to me to explain sufficiently the disturbance of the part of speech which requires the intervention of the medulla oblongata. In that organ, indeed, take place the numerous acts of automatic and involuntary co-ordination which are performed during the articulation of words, the rapidity and good execution of which are dependent on the education and exercise of the organ. Now, if you observe under the microscope the countless number of foreign bodies which are interposed in the fine and compact meshes of the constituent fibres of the medulla, and amidst the cells of the olivary bodies, you will understand the disturbance which this state must produce in the functions of the medulla and in the automatic co-ordination of the nerves proceeding therefrom, and of the muscles supplied by them. These troubles of speech, always accompanied with ataxy of the tongue and lips, demonstrate the important part which is played by the facial nerves in these phenomena. To prove it, comes also pathological anatomy. Alterations in the cells of the nuclei of the facial are indeed more frequent and more advanced than those in the nuclei of the hypoglossal, as has been said; and while, at the outset of the disease, the nuclei of the facial only are injured, they are, at later periods, affected far more severely than the nuclei of the other bulbous nerves.

3. *Muteness occurring in General Paralysis.* — Lastly, there is a whole order of lesions which one of my pupils, M. Hanot, first observed in the muscles of the tongue in some patients in my practice, and which also produce muteness in general paralysis. I refer to fatty alteration of the muscular fibres of the tongue, and the multiplication of the nuclei of the sarcolemma. I have recognised that this alteration may correspond either with a lesion of the cells of the nuclei of the nerves arising from the medulla oblongata, and which are crammed with yellow granulations not coloured by carmine tincture, which are more or less deformed, and the nuclei of which have almost or quite disappeared; or with atrophic lesions of these nerves at their apparent origin; or, finally, with both these orders of alterations.

I have observed this pathological state in cases where patients with general paralysis are unable to protrude their tongue from the mouth, or to articulate any other than incomprehensible sounds. This state ordinarily coexists with paralysis of the pharynx and with dysphagia.

Upon the whole, patients suffering from general paralysis present troubles of speaking, the etiology of which is multiple. The causes of stuttering, of hesitation, of drawling in speaking, originate in the brain, because they are morbid phenomena, involving disturbance of the intellect, of the will, and of the memory of words.

The causes of jabbering, of stammering, of quavering in speaking, have their origin in the medulla oblongata; they are symptoms corresponding with disturbance of automatic and involuntary co-ordination.

Finally, the causes of muteness in the paralytic insane are of lingual and pharyngeal origin, being occasioned by paralysis of the tongue and pharynx.

The first order of troubles of speaking is determined by the infiltration of the cortical substance of the frontal circonvolutions and of the island of Reil with blastema, and by the softening of it by the production of embryoplastic nuclei, first in the vessels, next in the nervous substance among fibres conducting the will, and by the ulterior organisation of these embryoplastic nuclei into fibrillary tissue.

The second order of symptoms is occasioned by the infiltration of blastema, and by the multiplication of embryoplastic nuclei in the vascular sheaths of the perivascular spaces; next, amidst the nerve-fibres of the bulb; and by necrobiotic alterations of the cells of the original nuclei of the nerves of the medulla, and especially of the facial.

The third group of the troubles of speech is produced by atrophic lesions at the apparent origin of the bulbous nerves, and by fatty degeneration of the muscles of the tongue and pharynx.

# THE DIAGNOSIS OF INSANITY, AND THE METHOD OF INVESTIGATING CASES OF SUPPOSED INSANITY.*

By JOHN MANLEY, M.D.,
Medical Superintendent of the Hants County Lunatic Asylum.

In all well-marked cases, the physician can have no doubt that his patient is insane, and little difficulty in naming the form of disease the malady has taken; but it happens, in a great number of cases, that the early diagnosis of insanity is difficult; and, more unfortunately still, that insanity, to be treated successfully, must be treated early; whereas a delay in the diagnosis, and the consequent neglect of those precautions which are absolutely necessary in cases of mental derangement, has in too many instances led to the suicide of the patient, or to injury to those about him.

The diagnosis of mental disease is difficult, because it is so dependent on the evidence which the intellect alone appreciates, and because it presents itself in such a variety of forms, from idiosyncrasies in the patient. It is always well, when one has to examine a patient who is suffering from great excitement, and is supposed to be insane, to ascertain some particulars respecting him and his habits of life, and to inquire if there be any sufficient cause to account for the excitement, to find out if there be an hereditary tendency to insanity in the family, or if he have himself ever been insane. All this will probably be better learnt from neighbours and acquaintances than from relatives; for, in families who have a strong taint of insanity, many of the members are often themselves strange and eccentric, and not to be depended on for the information they give. It is advisable also to notice any peculiarities about the house and furniture, and to watch the patient's conduct and demeanour, though without a seemingly marked attention. With a little tact, a clue will be probably obtained to the patient's state; and, by allowing him to talk, and showing oneself an interested listener, leading him on from time to time, as some salient point occurs, the subjects which are uppermost in the patient's mind will be discovered.

In the early stages of insanity, there is frequently a wasting of tissues, and a tendency to become thin. The head is often hot, the face flushed, and the skin does not look clear and healthy. The expression and the attitudes of the patient to a great extent indicate the state of his mind.

The descriptions of insanity given by Locke and Cullen embrace only those forms of the disease in which the intellects are affected. There are, nevertheless, cases in which the disorder is manifested chiefly in the state of the feelings, temper, and habits. An hallucination depends on an overactive sensorium, which gives to the visionary the conviction of the perception of a sensation when no external object suited to excite the sensation has impressed the senses. When a nerve is stimulated, a sensation is conveyed to the sensorium; but, if the sensation be wrongly interpreted, it is a delusion. All cases of delusion or hallucination, to be indications of insanity, must be fixed, persistent, and the subject of actual belief.

In making a diagnosis of insanity, there is a certain amount of assistance to be derived from a knowledge of the causes which are known to have more or less influence in producing the disease. These causes are generally divided into moral and physical. The moral causes are found in disappointed affections, grief and domestic troubles, excitements of every kind, wounded self-love, fright, over-study, and such like. The physical causes embrace epilepsy, intemperance, vice and dissipation, injuries, disease of the nervous system, and all disease of a depressing character, and intense disturbance, from whatever cause it may arise.

Of 962 patients admitted into the Hants County Lunatic Asylum during the past six years, the probable cause of insanity was ascertained in 828, or 86 per cent.: 263, or 31.8 per cent., were attributable to moral causes; 331, or 40 per cent., to physical causes; 54, or 6.5 per per cent., to epilepsy; 30, or 3.6 per cent., to general paralysis; 99, or 11.9 per cent., to congenital defect; whilst 51, or 6.2 per cent., were probably due to strong hereditary disposition. Amongst the moral causes, 6 per cent. of the admissions were said to arise from intemperance, and 5.4 from religious excitement.

Passing over the forms of mental disease known as mania, melancholia, monomania, dementia, and idiocy, which are so well known as to require no description, I come to a form of mental disease which is rarely seen in its earliest stages in an asylum, whilst in its latest stages it is rarely met with elsewhere. It is the general paralysis of the insane. It is the most insidious form of insanity; and those suffering from it are constantly, before the disease is recognised, getting themselves into all sorts of trouble. I have recently had under my care two patients suffering from it, both of whom were sent from our county prison, and both of whom were, in my opinion, insane when they committed the offences for which they were subsequently punished. The subjects of this form of disorder, whatever their condition in life, become boastful, excitable, and reckless, and consider themselves possessed of boundless wealth. On investigating such a case, it will probably be found that, after a short period of excitement, the patient has become strange in his manner; that he has a little impediment in his speech, and talks like a man who has been drinking; whilst at the same time his gait is unsteady. He shows, however, none of those signs so often met with in a patient after an attack of apoplexy. Gradually all these symptoms increase; the senses are deadened, and the want of cleanliness is extreme. At last, the injuries of the nervous system, which affect the powers both of body and mind, approach their last point. Motionless and insensible, the patient exists simply in a state of vegetation.

In diagnosing insanity, we must guard against confounding the eccentricities which are the result of hysteria with the vagaries of the madman. So also must we recollect that there is a great deal of difference in the characters of eccentricity. A man of one class is endowed with strong good sense and moral courage, and acts in a manner contrary to his neighbours from conscientious motives founded on his own reasonings, setting at nought the ridicule of the world. The other class consists of weak-minded persons, whose conduct is influenced by vanity and the caprice of the hour, and in whose families probably there is often a strong hereditary predisposition to mental disease.

We may fairly agree with the dictum of Cullen, that hypochondriasis passes into insanity when it is accompanied by an hallucination. In distinguishing between real and feigned insanity, it is always advisable to watch the patient without being seen by him, so as to take him off his guard. The feigning madman either breaks down in or overdoes his part; for every case of real madness is a consistent whole, and to imitate it well requires great intelligence, great endurance, and great dramatic power.

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* Read before the South Hants District of the Southern Branch.

## A CASE OF SCALD OF THE GLOTTIS, WITH RECOVERY AFTER TRACHEOTOMY.*

By T. SYMPSON, F.R.C.S.,
President of the Midland Branch.

On December 9th, 1874, at about 7 P.M., I received an urgent message to visit a boy, aged 2½ years, living with his father on the Burton Road. On my arrival, I found the patient extremely restless, and breathing very rapidly, inspiration being accompanied by a harsh croupy sound. The lips, the tongue, and the inside of the cheeks and throat, were swollen, red, and blistered. The face was livid, the extremities were cold, the skin cool and clammy, and the pulse was feeble, and too rapid to be counted.

I was informed that, two hours previously, during the temporary absence of the housekeeper from the room, the child had drunk through the spout of a teapot some very hot water which had just been poured out of a kettle. For some time, he did not seem to suffer much; but, during the last half-hour, the symptoms had become alarming. As the performance of tracheotomy evidently offered the only chance of saving life, I sent to the hospital for our excellent house-surgeon, Mr. Lill, and, with his assistance, commenced the operation at 7.30, but had scarcely completed my first incision when the child ceased to breathe, and became livid, cold, and pulseless. I rapidly opened the trachea and inserted a cannula, through which Mr. Lill sucked out the blood from the air-tubes; and then artificial respiration was practised after Silvester's method, whilst vigorous friction was applied to the extremities by the attendants. In about ten minutes, the child gave a gasp, which was soon followed by others; and, at the end of an hour, we had the extreme gratification of finding respiration well established through the tube, warmth restored to the surface, and the heart beating perceptibly, though very feebly. The occurrence of reaction appeared to have been considerably hastened by the frequent administration of strong brandy and water. At midnight, the child was composed, and had slept quietly at intervals. He was ordered to take milk and beef-tea at short intervals; the temperature of the room to be kept at about 60 deg., and the air to be moistened by steam from a kettle having a long tube attached to its spout.

He progressed favourably until early on the morning of the 14th, when I was requested to visit him. On seeing him at 3.30, he appeared moribund; he had urgent dyspnœa, extreme restlessness, a clammy cold skin, and no pulse; and his lips and cheeks were livid. On removing the tube, I found it almost entirely blocked up by mucus, which I cleared out with a feather. I reintroduced the tube, employed artificial respiration, placed the child in a hot bath, and had sinapisms applied to the chest, with speedy relief to all the symptoms. The report in the evening was to the effect that he had appeared comfortable during the day; had breathed quietly through the tube, and had taken nourishment freely.

He went on well until the night of the 17th, when, at 11.30, he had become very fretful, and suffered from dyspnœa and frequent violent paroxysms of cough. The alæ nasi were dilated, and there was marked retraction of the abdominal parietes and intercostal spaces during inspiration. On auscultation, fine crepitation was audible over the whole lower lobe of the left lung, and bronchial breathing near the spine. There was some dulness on percussion of the lower left half of the chest, posteriorly. Respiration could not be counted, on account of the cough. Pulse, 150; temperature, 103. A large linseed-meal poultice sprinkled with mustard was ordered to be applied to the side after the child had been placed in a hot bath. A mixture, containing ipecacuanha, spirit of nitrous ether, and solution of citrate of ammonia, was ordered to be taken every three hours.

These formidable symptoms appeared to be due to a chill, owing to the fire in the room in which the child lay having been allowed to go out, in consequence of a down draught in the chimney. The weather was extremely cold, and the wind very boisterous.

On the 18th, the paroxysms of cough were less frequent, and were accompanied by copious white frothy expectoration. Respiration was more free. Loud mucous *râles* were heard in the trachea. There was large crepitation over the lower half of the left side. Less dulness on percussion. Pulse, 136; temperature, 100. On the 19th, the child had passed a quiet night. The cough was neither so frequent nor so violent, and attended with less expectoration. Pulse, 120; temperature, 99. The tube was removed, and the wound was found to be granulating healthily. From this date, the child progressed uninterruptedly towards recovery. He began to speak on the 23rd, and the wound had healed by the 30th.

The case I have just related presents various points of extreme interest, not the least of which is the survival of the patient; for we know that recovery is a very rare event when, from the severity of the symptoms in cases of scald of the glottis, it is deemed necessary to open the trachea; in proof of which I may cite the fact stated by Durham in the second volume of Holmes's *System of Surgery*, that, "out of twenty-eight cases of tracheotomy in scald of the larynx (of which he had notes), twenty-three terminated fatally".

Other noteworthy facts are the occurrence of apparent death just prior to the trachea being opened, and the gratifying result of perseverance in the practice of artificial respiration; the narrow escape from suffocation due to want of attention to the state of the tube on the 14th; the sharp attack of pneumonia, induced by sudden change of temperature in the room on the 17th; and the state of the general health of the little patient, who was delicate, rickety, often suffered from attacks of bronchitis, and who had fractured his femur a year ago, from which, however, he made a good recovery.

In conclusion, I would just remark, that occasionally recovery takes place in these cases independently of the performance of tracheotomy, even when they appear in a very desperate condition. One such instance fell to my lot some years ago in the parish of Nettleham, where the parents of the child refused their consent to the operation, but where a good result was obtained by the application of hot mustard and linseed-meal poultices to the front of the chest, the administration of frequent small doses of calomel, and of nourishment in the form of brandy and milk given at short intervals.

## CASE OF PARACENTESIS PERICARDII: IODINE INJECTIONS.

By G. E. MOORE, M.R.C.S.,
House-Physician to King's College Hospital.

The following case of suppurative pericarditis occurred in the practice of Mr. E. Pearl of Windsor, who kindly permitted me to watch and share the treatment with him.

I need not detail the pericarditic symptoms; suffice it to say, that the patient, a strong lad, aged 13 years, living in Windsor, was taken ill on the 15th of last October; that ten days after a loud "to and fro" friction-sound was heard, which was soon followed by extension of the area of pericardial dulness; that, from October 27th until November 7th, he gradually got worse, in spite of the application of all the ordinary methods of treatment; and that the heart-sounds became fainter and more distant, with gradual diminution, ending in complete subsidence of the pericardial rub. An abscess formed on the dorsum of each foot in the second week of the disease.

On November 8th, Dr. George Johnson was called in consultation. He diagnosed suppurative pericarditis, and agreed in the proposal to perform paracentesis, as, under ordinary treatment, the case was sure to prove fatal.

On November 9th, before the first operation, the boy was very exhausted, and desirous of some relief. There was great dyspnœa. Respirations 50 in a minute; pulse 160, very irregular. The præcordium was prominent. The heart-sounds were a confused murmur, heard only at the base. There was extensive pericardial dulness. Paracentesis was performed by Mr. J. W. Gooch of Eton with the aspirator, the previously formed vacuum being put in communication with the needle as soon as the distal aperture had passed through the skin. The puncture was made in the fifth left intercostal space, just internal to the normal situation of the heart's apex, and the needle was directed inwards, upwards, and a little backwards. By this means, twenty-one ounces of purulent fluid were drawn off. During the withdrawal of the fluid, the patient complained only of the needle pricking in the skin; there was not the least symptom of syncope, and he expressed himself as much relieved. Immediately afterwards, the respirations came down to 30 a minute. The pulse was 120, much stronger and regular. For about twenty minutes, there lasted an incessant cough, with a little viscid frothy sputum. Normal heart-sounds could be heard both at the base and apex. The pericardial dulness was diminished to almost the normal limits.

On the 10th and 11th, he seemed much better.

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* Read at a quarterly meeting of the Midland Branch held on May 5th.

On the 13th, the pulse was again irregular, intermitting every third beat.

On the 14th, the physical signs indicated great increase in the fluid; and the operation was done a second time, thirty-five ounces being drawn off. The patient again expressed himself as greatly relieved.

On the 15th, the boy seemed much better. He had passed a good night; and symptoms of œdema of the left lung, which had previously appeared, were less marked.

From the 16th to the 20th, he gradually relapsed, and an offensive and exhausting diarrhœa came on, which was checked by a little chalk mixture.

On the 21st, the dulness then extending up to the clavicle and quite round from the right mamma to the spine behind, paracentesis was again done for the third time, and sixty ounces of purulent fluid were drawn off. We then injected slowly, by reversing the action of the aspirator, two ounces of a mixture of one part of tincture of iodine to two parts of water, previously warmed to the temperature of the body. We intended to remove half this; but, on setting the vacuum in communication with the pericardial cavity, air entered by the side of the needle, which, from the longer retention than usual, had become loose. The needle was then withdrawn, and the injection left in the pericardial sac. The patient complained of no pain at the time, and was not aware until afterwards that anything had been injected. During the next half-hour, he expressed himself as much relieved, and in no pain. Pulse, 118; respiration, 28. The cough came on for a short time as before.

On the 22nd and 23rd, the patient seemed much better; his appetite improved, and his pulse became stronger and more regular. The air which had entered the pericardium gave rise to a tympanic note on percussion, and the "mill-wheel" sound was heard all over the front of the chest, quite obliterating the normal heart-sounds. This continued until the 27th, when sudden symptoms of increase in the effusion were observed.

On the 30th, his parents described him as having had fits of syncope, in which he became quite livid. His breathing was very laboured. A friction-sound, synchronous with the respiration, was then heard at the front of the base of the left lung.

The next day, December 1st, we tapped for the fourth time, making the puncture as nearly as possible at the same spot, but avoiding the old ones, and drawing off fifty ounces of pus and the little air that had entered at the last operation. There was no offensive odour. This was followed up by an injection of two ounces of a solution of equal parts of tincture of iodine and water. The operation was again attended by temporary relief. Pain, with slight swelling, was then noticed over the right hip-joint. The abscesses on the feet had healed up.

The boy seemed better for a day or two, sitting up and eating well; but, on December 4th, without waiting for the symptoms of pericardial distension, we tapped for the fifth time, drawing off thirty ounces of greenish pus and injecting the iodine. This was repeated on the 7th, when only nine ounces were drawn off, the solution injected consisting this time of two parts of tincture of iodine to one part of water. There was no pain at the time, but a transient sensation of warmth was felt soon afterwards. But the patient did not get better; he had profuse sweats at night, and there was slight fluctuation over the right trochanter. He remained in much the same condition until the 10th, supported by a generous diet, port wine, iron, and quinine; the heart-sounds being audible at the base and apex, and the area of pericardial dulness almost normal. There was complete absence of breath-sounds, with dulness on percussion over a space behind corresponding to the upper part of the lower lobe of the left lung.

After this, the patient rapidly became worse. Symptoms of peritonitis appeared, with vomiting and diarrhœa, proving fatal on December 17th.

At a *post mortem* examination made the day afterwards, on removing the sternum, the anterior part of the lower lobe of the left lung was found bound down by adhesions over the front of the pericardium, and was crepitant to the finger. The pericardium itself, distended by about a pint of thick pus, extended backwards to the posterior wall of the thorax; it was much thickened, and covered by soft purulent lymph. The posterior part of the lower lobe was completely collapsed and pushed away from the spinal column by the distended pericardium. The heart itself was pale and softened, the microscope showing fatty degeneration of the muscular fibre. In the abdomen, the peritoneum was very injected, covered in places by purulent lymph, and contained a small quantity of fluid. The liver was congested and fatty, the kidneys congested.

REMARKS.—The operation of paracentesis pericardii has been done many times; but I believe this to be the second case only in which iodine injections have been used. The other case, mentioned by Trousseau, was done by Aran of Paris twenty years ago. Many objections naturally obtruded themselves on what may seem to some a rash line of treatment, but I was led to propose the injection of iodine for the following reasons; the case was analogous to that of empyema; there was already one instance on record in which that mode of treatment had been successful; and, lastly, by the kindness and assistance of Dr. Rutherford, I was enabled experimentally to demonstrate, in the King's College Laboratory, the immediate effect upon the pulse of stimulation of the pericardium. We found, in two experiments, one on a cat, the other on a dog, that, on pinching the pericardium, there was a distinct inhibition of the heart's action (a fact before noticed by Dr. Rutherford), being most marked when the visceral layer was excited, but also observed when the parietal layer was stimulated; and that, on injecting thirty minims of the pharmacopœial tincture of iodine, there was transient retardation of the pulse with slight increase in the arterial blood-pressure (4-10 *millimètres* of the mercurial column). These effects of pericardial stimulation did not, however, appear of sufficient gravity to contraindicate the operation.

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# SURGICAL MEMORANDA.

## LEAD PELLETS SUBSTITUTED FOR PHARYNGEAL FORCEPS IN SEARCH OF IMPACTED BONE IN THE ŒSOPHAGUS, WITH SUCCESSFUL RESULT.

THE following history illustrates one of those cases where the surgeon is at times placed in a dilemma, while he also must exercise the most peremptory means in his power for the recovery if possible of his patient. On Tuesday, the 11th ult., I was requested by a farmer to go hurriedly and visit his wife, Mrs. M—— of this parish, who, to use his own provincialism, was afraid she would "soon be fettin away" unless relief was very soon procured. On hastening to the house, I certainly found the patient in a very distressing condition. The countenance had a very characteristic expression of anxiety, and great weakness had resulted from the deficient supply of nourishment for four days previously. While she was eating a piece of rabbit-pie for dinner, by some unaccountable means part of the shoulder-blade became lodged in the œsophagus. With great difficulty she swallowed large doses of castor-oil for the first two or three days, for the purpose of acting as an emetic in her endeavour to induce its expulsion before seeking aid; but all were of no avail. On the third day, there was considerable abatement of the symptoms, but only to be followed the next morning by sudden spasm of the glottis, alternating with what appeared to me to be inordinate contraction of the muscular fibres, from the hissing noises produced in the throat. All this, however, resolved itself a short time afterwards by the use of hot baths and antispasmodic medicines, though some time elapsed before a succession of different sized bougies even could be passed.

As the patient was very weak, the fauces were first irritated by a feather, thinking this might be sufficient to induce violent expulsive efforts, and carry out the foreign body; but this had no effect whatever, but to increase the patient's agony. A stimulant emetic of mustard and water was next administered with some effort, as she was still unable to perform the act of deglutition, the attempt causing her great pain; and it was only by throwing the head well back and allowing it to be poured in gradually, that we succeeded at all, but only to meet with a similar result. The pharyngeal forceps were then introduced, finding their way a little lower down than the commencement of the œsophagus. Seizing the bone, I made sundry efforts to dislodge it by varied traction power, but was obliged to desist, becoming alarmed by a pretty profuse discharge of hæmorrhage from the mouth. Two courses only were left to me now, either to trust to removal by the ulcerative process, which would soon have (if it had not already, from the foregoing symptom) been excited by pressure on the tissues concerned, or to perform œsophagotomy. While debating with myself as to which of these should be adopted, I devised a contrivance for the purpose, which, I am happy to say, proved effective. A few lead pellets were procured, and I had them firmly secured at the distal end by the ordinary suture wire. As the patient was unable to swallow, the pellets enabled each wire to find its way down the canal, the meshes of the whole becoming entangled with the bone, probably in different parts; and, by pulling two or three of the wires at the proximal end, varying them now and again, the bone was released from its position, much to the delight of the patient, and not less so to my own satisfaction. There can be little doubt, I think, that during the four days of delay, from the pressure and irritation of the bone, organisable matter had been effused into the coats of the gullet, and had more or less caused their contraction and thickening, thus rendering its extraction somewhat more tedious than it might otherwise have been.

ROBERT TORRANCE, L.R.C.S.E., Matfen.

### TETANUS OCCURRING TWENTY-EIGHT DAYS AFTER INJURY, TREATED BY FREQUENT DOSES OF CHLORAL: RECOVERY.

ON March 4th, J. B., aged 13, whilst slicing roots, cut his left forefinger through. As the bone was fairly cut, and the finger was still hanging on by a piece of skin, I determined to save it. I set the bone, and everything went on well until April 2nd, when he called on me, complaining of pains all over, and a general feeling of chilliness. As I found he had been sitting about on the ground the greater part of the previous day, I treated him for a severe cold. On calling the next day, I found him in bed, very excitable, and only able to rest whilst lying on his face. The next day, April 4th, no mistake as regards the diagnosis could be made. He remained in much the same state for a fortnight, and then very severe hysterical fits occurred about every twelve hours. These fits lasted about a week, and, after they left him, he made a gradual recovery. During the first three weeks, he took five grains of chloral in camphor-water every four hours; and, if this mixture were in any way altered, he became more excitable. After that period, I gave him a mixture containing Indian hemp and bromide of potassium. I found all kinds of external applications, as well as hypodermic injection of belladonna, useless; and injections for the relief of the obstinate constipation produced so much excitement that I was obliged to depend on croton-oil. Beef-tea, sherry, whipped eggs, and milk, were taken freely; and the darker and more quiet the room was kept, the better. The mother stated that the boy was always very excitable, and every spring suffered from frequent attacks of epistaxis; this year he had an attack nearly every morning through March, but not a single attack during the time he was under my care.

EDWARD STEPHENS, L.R.C.P., etc., Ilminster.

## PHYSIOLOGICAL MEMORANDA.

### NITRITE OF AMYL AND CHLOROFORM.

IN March last, I performed the following experiment. I gave a cat chloroform until one minute after all sensibility of the cornea had disappeared; then let her recover. Sensibility returned to the cornea in two and a half minutes, and she began to move her limbs in five minutes. When she was quite recovered, I gave her chloroform again to the same extent, and at once used nitrite of amyl. She recovered in exactly half the former time.

A few days ago, my wife, who appears very susceptible to the influence of nitrite of amyl,* was seized, after a few minutes beside me in the room in which I had been using it on a rabbit, with severe flushing of the face, breathlessness, and quick pulse. She was immediately relieved by a few inspirations of chloroform. Her recovery appeared to me a quicker one than she made on a former occasion, when, as she was suffering from asthma, it was given to her. Four drops on a handkerchief, held during two or three inspirations before the face, produced very severe symptoms.

I have lately made experiments on rabbits, using nitrite of amyl by injection, and find that it acts very powerfully in that way; and, if so employed on the human subject, *very small doses* must be used at first.

W. MUNRO, M.D., C.M., Cupar Fife.

## CLINICAL MEMORANDA.

### HEMIKENESIS.

IN the last number of the JOURNAL is the report of a case of "hemikenesis" under the care of Dr. Hughlings Jackson at the London Hospital. Dr. Hammond of New York and Dr. Gairdner have already described, under the name "athetosis", a musculo-nervous disorder which seems to be identical with Dr. Jackson's "hemikenesis". In vol. ix, *St. Bartholomew's Hospital Reports*, I described six cases of this disorder under my own care, and entered fully into the diagnosis, etc. I hope that Dr. Jackson may be induced to publish a complete account of his case, and of the *post mortem* examination, if it be ever made; for the pathology of the disease is uncertain, no *post mortem* investigation ever having been to my knowledge reported since the recognition of the peculiar motor symptoms. If this case of "hemikenesis" be really one of athetosis, it is a pity to coin another word when an expressive one already exists, which is, too, a connotative one. Your reporter uses the term "muscular insanity"—a phrase more strictly allowable to chorea, which is a disease distinct from athetosis in its history and symptoms. I shall certainly try woorara in my cases, as suggested by Dr. Jackson; for the malady is very distressing to those affected by it, since it incapacitates them for useful employment, and, by the peculiar wave-like muscular contortions which it produces, makes them objects of ridicule.

T. CLAYE SHAW, M.D., St. Bartholomew's Hospital.

## REVIEWS AND NOTICES.

### SNAKE-POISON AND SNAKE-POISONING.*

FROM experiments made with the dried poison of the cobra, Drs. FAYRER and LAUDER BRUNTON were led to infer that the life of men or animals poisoned by any of the Indian thanatophidia might be prolonged or saved by the use of artificial respiration. They had ascertained that by this means the heart could be kept pulsating for many hours after all other signs of life had ceased, in the same way, to all appearance, as in poisoning by curare. In most cases of curare-poisoning the animal recovers, if life be kept up by artificial respiration for a sufficient length of time to allow the elimination of the poison, and it seemed therefore not improbable that the same might be the case with cobra-venom. As it was impossible for the experiments necessary to ascertain this to be conducted in England, for want of a sufficient supply of snake-poison, Dr. Fayrer suggested that a commission should be appointed by Government to investigate this subject in Calcutta. This suggestion was carried out, and a commission appointed accordingly, of which Dr. Ewart was president, and Mr. Vincent Richards and Dr. Coull Mackenzie members. The present volume is the result of their joint labours, though several expressions in it lead us to believe that a large proportion of the work was done by Mr. Richards. They first determined the length of time during which life could be preserved after the injection of graduated quantities of the poison by artificial respiration alone; next by artificial respiration *plus* the administration of various remedies, such as liquor ammoniæ, morphia, and strychnia, or the employment of transfusion; and, lastly, they made comparative trials of the lethal power of Australian and Indian snakes, and the effect of intravenous injection of ammonia in poisoning by them. The quantity of poison expelled at each bite by a cobra in full vigour amounts to upwards of thirteen grains of the liquid, and five grains of the dried virus. When this quantity is injected by the snake into the cellular tissue of a dog, the average lapse of time between the bite and the cessation of respiration in the animal is forty-two minutes. The heart usually ceases to beat about three or four minutes after the respiration, but by the use of artificial respiration it may be kept pulsating for ten hours forty-one minutes longer. When the poison was hypodermically injected in quantities of about two and a half grains, one grain, half a grain, and quarter of a grain, respiration ceased on an average in one hour ten minutes, one hour thirty-two minutes, two hours forty-five minutes, and four hours two minutes respectively. By means of artificial respiration the cardiac pulsations could be kept up for seventeen hours forty-four minutes; eleven hours forty minutes (in small weak dogs); twenty-six hours eighteen minutes; and thirty-seven hours two minutes respectively. In one experiment, where artificial respiration was commenced four hours and twenty minutes after the injection of half a grain of the poison, the effects of artificial respiration were very remarkable. When it was begun, the animal was convulsed and insensible, but almost immediately after its commencement the dog became conscious, took notice when called upon, began to wag its tail, and endeavoured to get up from the table. Consciousness continued under the use of artificial respiration for two hours fifty minutes, and then disappeared, and death finally occurred thirty hours and forty minutes after the injection. Notwithstanding the marked power of artificial respiration to prolong life, the animals all ultimately died. The results of artificial respiration *plus* liquor ammoniæ, morphia, strychnia, or transfusion, were *less* favourable than those of artificial respiration alone. Sulphuric acid, chloral-hydrate, cannabis Indica, emetine, podophyllin, atropin, baptisin, irdin, leptandrin, nicotine, and tincture of iodine were also useless; and, indeed, drugs, as well as transfusion of blood with ammonia, hastened death rather than retarded it. The reputation obtained by certain antidotes is probably due to the fact that a very small dose of the poison may produce serious symptoms but not death, so that the natural recovery is put down to the credit of the antidote. The time required to kill dogs seems, from the observations already detailed, to vary strictly according to the quantity of virus injected either by a bite or by means of a hypodermic syringe into the arcolar tissue of the animal. One large dog recovered after being much affected from an injection of one-fourth of a grain. The tenth of a grain killed a small dog, but two larger ones, though evidently affected, ultimately survived. The twelfth of a grain also produced serious oppression, drowsiness, and vomiting, but the animal recovered, and the fortieth and sixty-fourth of a grain produced no perceptible symptoms when ejected subcutaneously. Moreover, a mere scratch from a poisonous snake, or a bite from one exhausted by previous biting, are often followed by symptoms simulating those of snake-poisoning; and persons bitten by innocuous snakes, but who believe themselves to have been attacked by poisonous ones, often suffer from the most intense nervous oppression and syncopal depression of the heart, and, these symptoms being mistaken for the effects produced by the snake-poison, recovery from them is attributed to the antidote instead of to nature.

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* It may be noted here that she requires very large doses of narcotics. May not this and the susceptibility to nitrite of amyl be traceable to the same cause, and make us more careful in the use of the latter in such cases?

* Report on the Effects of Artificial Respiration, Intravenous Injection of Ammonia, and Administration of various Remedies in Indian and Australian Snake-Poisoning, and the Physiological, Chemical, and Microscopical Nature of Snake-Poisons. By the Commission appointed to investigate the subject. Calcutta: Bengal Secretarial Press.

Comparative experiments showed that the poison of Russell's viper (Daboia) is not so powerful in its action, nor so rapidly fatal, as that of the cobra; and the Indian cobra not only possesses a poison which, quantity for quantity, is more powerful and more rapidly fatal than that of the Australian snakes, but yields it in much greater quantity, so that it is from six to twelve times more poisonous than they, instead of being nearly equal to them, as asserted by Halford. A large proportion of the bites of the two kinds of Australian snakes (Hopsocephalus curtus and Pseudectus porphyriacus) with which Drs. Fayrer and Brunton experimented, were under the usual conditions altogether ineffective. These facts account for the recognition of intravenous injection of ammonia as an antidote in poisoning by Australian snakes. In India, it has been uniformly unsuccessful in man, and in animals it seems to do harm rather than good, probably by promoting the absorption of the poison. In no case where the poison was hypodermically injected, and the intravenous use of ammonia subsequently had recourse to, did the animals recover. But a large dog, into which the whole of the venom just extracted from a large tiger-snake had been injected, and which was not treated by ammonia, actually recovered without any important symptoms. The committee's observations confirm the conclusion arrived at regarding the physiological action of the cobra-poison by Drs. Fayrer and Brunton; and they farther find that the poison of Australian snakes has a similar action, the symptoms following their bite and that of the cobra being precisely the same. An analysis of the fresh poison by Mr. Pedler, showed that it closely approached albumen in composition, but contained more nitrogen and hydrogen, and less carbon. The dried poison, submitted to the action of ethylic iodide at 100 deg. C., acted exactly in the same way as the spontaneously dried poison, but much more slowly.

Some conclusions regarding the coagulability of the blood which require some qualification, conclude the first part of the work. The second part is occupied with a review of the literature of snake-poisoning for the past two centuries, and contains references to the works of Redi and others, as well as of Fontana, who, two hundred years ago (as is seen in the first part) tried and found wanting the intravenous injection of ammonia recently revived by Professor Halford.

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A MANUAL OF INSTRUCTIONS FOR THE GUIDANCE OF ARMY SURGEONS IN TESTING THE RANGE AND QUALITY OF VISION OF RECRUITS, AND IN DISTINGUISHING THE CAUSES OF DEFECTIVE VISION IN SOLDIERS. By Surgeon-General T. LONGMORE, C.B., Honorary Surgeon to Her Majesty, Professor of Military Surgery at the Army Medical School. Second edition. Pp. 134. London: 1875.

UNDER the above title, Professor LONGMORE has given us the second edition of a very concise and clearly written Manual of Ophthalmology, or at least of as much of the subject which has a special interest for the medical officers of our two great services; and, notwithstanding the diffidence which is expressed by the author in his preface, it must be admitted that the work will be found most useful to all who have not time to study larger and more advanced works on the subject. The book is written in two parts, in the first and most important of which we have a description of the various appliances needed in the optical examination of the eye, the varieties of vision, and the defects of vision which are most commonly met with. To write shortly and clearly on such a complicated subject as physiological optics is no easy task, and there are one or two of Professor Longmore's phrases which the student may find obscure if not misleading. For instance, "converging power" is used by the author where most writers would speak of refractive power, and the term might be mistaken for the power of convergence, by which nearly everybody would mean the power of the internal recti to converge the eye to any near point. So again, in his definition of the errors of refraction, Professor Longmore calls myopia hypometropia; with all respect be it said, a term of doubtful authority, and obviously very readily to be confounded with hypermetropia. Our nomenclature of these errors of refraction is confessedly inconsistent and imperfect, inasmuch as we speak of normal, when we mean emmetropic, refraction; and while we retain hypermetropia because we have no substitute for it, we ignore the term brachymetropia, in order to retain the old term myopia. Once more; in speaking of hypermetropia, Professor Longmore calls it oversightedness, at some risk of misleading. The method of estimating the degree of refraction by means of a positive lens is more worthy of attention than it generally meets with. The advantages attending the employment of certain test-dots instead of letters are obvious, when it is necessary to determine very accurately the acuteness of vision; and those used by Professor Longmore, as well as the more elaborate test-types of Dr. Bucharest, would appear to answer their purpose fully; Snellen's types are, however, in general use in the army, although, as regards the larger types which a recruit should see, they appear to require some occasional modification. In speaking of asthenopia, a very simple test of Donders in order to ascertain the insufficiency of the internal recti, viz., the effect of a prism with the base held vertically upon a line with a single dot in its centre, would be an addition to the means of detection which Mr. Longmore employs. The term amaurosis is here boldly and, it must be said, wisely discarded, as it has long lost any accurate meaning; but the term amblyopia or blunted vision must logically include defects of vision other than those caused by impairment of the nervous tissues of the eyes. It is interesting to hear, upon such authority, that malingering is rarely met with at our military depôts; in foreign countries, where conscription is the method of recruiting, it is for obvious reasons otherwise. Although the test-types of Snellen are only adapted for the average acuteness of vision, it appears that the standard of vision required for a recruit amounts to no more than one-fifth of the average normal acuteness of vision. In the case of myopes, it appears that although for many reasons glasses are not worn in the ranks, any higher degree of myopia than one-twenty-fourth is inadmissible, but in foreign armies it is otherwise; in Holland, myopia less than one-twelfth is permitted; in France any degree lower than one-fourth; and in Germany a recruit is only ineligible when he cannot distinguish one man from another at ten paces, although it is required that candidates for the Artillery and for Rifle regiments should have normal vision; it must be remembered, however, that in foreign armies arrangements are made by which a soldier who is unable to see well enough as a combatant is yet able to serve in other positions in the force. As regards officers, it is absolutely essential that they should, as far as possible, have normal vision.

The second and the shorter part of the work is devoted to a sketch, for no more is possible, of the manipulation necessary in using the ophthalmoscope. As far as it goes, it is very good, but the subject is too large to be compressed into so short a space with real advantage. On the whole, the book is so clear, concise, and accurate, that it will be found extremely useful to a much larger class than those for whom Professor Longmore has designed it, and it would be well that students elsewhere than at military hospitals should have to learn at least as much ophthalmology as this little work so clearly teaches. It is to be regretted that the responsible authorities should consider the pamphlet-style in which this valuable little work has been produced as an useful method of disseminating good and lasting knowledge.

## COLUMN FOR THE CURIOUS.

ANCIENT REMEDIES.—Scott's *Discovery of Witchcraft* (1584) says:—Charm against the bite of a scorpion—Say to an asse secretly, and as it were whispering in his eare, "I am bitten by a scorpion". Against the toothache—Scarifie the gums in griefe with the tooth of one that hath been slaine. To heale the King's Evil—Touch the place with the hand of one that hath died an untimely death. For the heartache—Tie a halter about your head wherewith one hath been hanged.

## BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1875.

SUBSCRIPTIONS to the Association for 1875 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, JUNE 19TH, 1875.

## HEALTH AND SEWAGE.

A PAPER read by Dr. Alfred Carpenter before the Society of Medical Officers of Health, a short time since, on the power of soil, air, and vegetation combined, to defecate sewage, and the power which plants possess of assimilating organic matter, gave rise to a somewhat lively discussion. The opponents of sewage-farming stoutly declared that a sewage-farm was necessarily a pestilential marsh, which gave rise to malaria and nausea, and that the produce was not only innutritious, but unwholesome; whilst the size to which the root-crops attained was only a proof of the dropsical character of the produce, and formed no test of the nutritive properties. Finally, it was stated that cattle could not thrive upon such fodder, and a challenge was given to prove the contrary.

Dr. Carpenter took up the gauntlet thus thrown down, and pledged himself to convince any gentleman who would take the trouble to visit the Beddington Farm, that not only was the farm wholesome in its surroundings, that it was not a pestilential swamp, but that cattle did thrive upon the produce during their lives, but made excellent meat when killed; and a *déjeûner* was promised, the solid portion at least of which was to consist entirely of sewage-farm produce. Pursuant to this invitation, a large number of gentlemen visited the Beddington Farm last Saturday, the 12th instant.

The Beddington Farm has, for the past fifteen years, received the sewage of about fifty-two thousand inhabitants of Croydon daily, in quantities varying from a minimum of three millions to a maximum of ten millions of gallons *per diem.* The smaller quantity would probably represent the sewage proper, and the larger the increase due to storm-water. In an agricultural district like Croydon, the amount of sewage proper would seldom vary to any appreciable extent. Under a proper system of sewering, storm-water should have, as at Reading, separate and distinct channels provided. As it is, the sewage flows on to the farm in the varying quantities mentioned; and, after being strained through two of Baldwin Latham's patent extractors, which take out lumps of solid matter, dead animals, and other miscellaneous articles, which always find their way into a town-sewer, the strained liquid flows onward to the farm. The Latham's extractors, which are in general use in all towns, resemble gigantic sieves, revolving on their own centres, and strain effectually all the coarser solid impurities from the liquid. This solid matter is mixed with ashes and other refuse, and the compost finds a ready sale at 2s. 6d. per yard or load to the neighbouring gardeners and farmers.

The liquid sewage then flows on to the farm, which is about 480 acres in extent. Of these, there are from 150 to 200 acres generally laid down with rye-grass; 50 acres are meadow, and used chiefly for cleansing the storm-water; 82 are laid down as market-gardens; the remainder being used for mangolds, roots, and cereals. From the great absorbing power of rye-grass, that plant will always be the best adapted for sewage-farming. It can be cropped seven and in some cases eight times yearly. One plot of ground under this cultivation recently produced fifteen and a half tons per acre, and the amount realised by the sale of several successive crops produced £111 : 13 : 6 during the past spring. The grass finds a ready sale in the neighbourhood.

The acreage under sewer-irrigation is found to be amply sufficient to purify the liquid. Dr. Carpenter calculates that in about six hours from the time the sewage enters the receiving house, and nine hours from the time it leaves the Croydon dwellings, the effluent flows into the Wandle in a purified state; the analysis of the effluent, according to Dr. Hassall, giving the following as the result in 100.000.

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|---|---|
| Total hardness ... ... ... ... ... | 23.8 |
| Temporary hardness ... ... ... ... | 15.1 |
| Permanent hardness ... ... ... ... | 8.7 |
| Total solids ... ... ... ... ... ... | 44. |
| Nitric acid ... ... ... ... ... ... | 2.15 |
| Free ammonia ... ... ... ... ... | 0.0082 |
| Albuminoid ammonia ... ... ... ... | 0.0297 |
| Chlorine ... ... ... ... ... ... | 2.0442 |

The nitric acid may be in the water as harmless nitrates, a large quantity being known to be present in superficial chalk-waters. Having to go to the second figure in decimals for the ammonia appears to be most satisfactory. Analysis made by Dr. Frankland, and taken from the effluent stream without notice, has given a much more favourable result than the above; which is, however, higher than the standard of purity laid down by the River Pollution Commissioners. The effluent water flows off colourless, odourless, and almost tasteless. The very slight brackish taste which is perceptible may be partly ascribed to the knowledge of what it really is. It is not, however, recommended or intended that this water should be used for domestic purposes.

The cattle on the estate, numbering about one hundred head, consist of ordinary mixed breed, not of the best pedigree or quality; yet they all look healthy and in good condition, and many were born and bred on the farm. In fattening them, it is of course necessary to supplement their ordinary food with cake, as in all other cases.

The mean death-rate of the neighbourhood immediately surrounding the farm for four years has been 13.6325 per 1,000, and this may be fairly considered as the normal rate. What, however, may be taken as a most crucial test is, that the health of the children in the Infant Orphan Asylum, which abuts on and overlooks the farm, is remarkably good.

As long as sewage exists, of course there must be some unpleasant smells, which will, under any system of defecation, make themselves apparent; but, as far as it is possible to be, there is an almost entire absence of any offensiveness in the Beddington farm. In any case, it is only the smell of fresh sewage, which, if unpleasant, is certainly free from the deleterious qualities of stale sewage.

Of the luncheon, which was entirely produced on the farm, we can, in common with all the other guests, speak in terms of the highest praise. The beef was succulent, tender, and fat, such as Front de Bœuf or Milo himself would have delighted in; and the same standard of excellence applied to the bread, pastry, salads, and other edibles.

We should have been glad to have had a reliable set of figures, in order to see properly the actual profit or loss on the farm, and the amount of capital invested in laying it out. From a rough dissection of Dr. Carpenter's figures, we should estimate that the receipts were about equal to the expenses, but it appears that capital charges have been paid out of current expenses, so that the year's deficit is not really a deficit in the proper sense of the term. In a corporation also there is not the same amount of personal responsibility, management, and economy practised as on a private farm. Colonel Jones of Hafyd, and Mr. Morgan of the Lodge Farm, Barking, both show a profit on their sewage-farms; and we cannot believe but that the same result should be attained at Croydon, notwithstanding the exorbitant rental which they have to pay of £10 per acre; the value of the land being, before the local board took the farm, twenty-two shillings per acre. Mr. Maclagan has, however, stated that he knew of lands whose value has been raised by sewage-farms from thirty shillings to £48 per acre.

These facts point conclusively to the inference that, where practicable, a sewage-farm is the proper solution of the sewage difficulty, when the surroundings are favourable. In large manufacturing towns or in places where suitable land cannot be obtained, or, if obtained, a heavy pumping expense is necessitated, of course some other system of defecation and disposal must be adopted. Croydon is exceptionally well situated in this respect. The sewage flows of its own gravitation, wherever required, all over the farm, and with such force as to supply motive power through turbines to the double Latham's extractor, which would otherwise require an engine of about two-horse power to accomplish. The land is naturally of very poor quality, consisting mainly of a gravel and boulders.

The farm utilises the whole of the sewage of Croydon in a satisfactory manner, and has raised the town from being erstwhile one of the worst, into one of the best, sewered towns in the kingdom. If there be any deficit in the balance-sheet, the inhabitants can fairly look upon it as a modification and improved substitute, which it really is, for a sewers rate. The health of towns is the prime consideration, to be secured at all costs, but there can be no objection to making use of the best systems extant, and utilising the dirt by carrying it to the right place, and thereby make two blades of grass grow where one only grew before.

## HOSPITAL SUNDAY.

Hospital Sunday has come and gone, and the total sum which has as yet been handed over to the Committee does not amount to one-half of that which was received in 1874. We expressed a hope last week that the settlement of the questions with regard to distribution, which have given rise to much discussion, would have led to a very different result. Of course, all the collections have not yet reached the Mansion House. It is certain that a good deal of money has still to come in; but, even after we have made every allowance, the prospect is not encouraging. It would be premature to argue as if there were a notable falling off in the interest which the public show in this scheme; but if, after the lapse of a week or two, such should unfortunately prove to be the case, it will be a subject demanding very serious consideration. The sum which has been realised during the two years that the collection has been made has come far short of what might reasonably have been expected in the metropolis, when compared with the amount contributed upon like occasions in some of the large provincial towns; and, if this very moderate sum should be still further reduced, the hospitals are likely to suffer severely. They cannot now look for special collections in the churches and chapels around them, while the subsidy which they receive from the general fund will not supply them with an equivalent. This, we fear, has already happened in some instances, and it is perhaps one reason why Hospital Sunday is not so popular as it promised to be. There may be other reasons also which make such a plan of united action more difficult in London than elsewhere, and it may become necessary to weigh these circumstances very carefully, and to reconsider the whole scheme. The support which was received by the hospitals before this movement was set on foot was far from sufficient; and, if their difficulties should be increased by the present system, they cannot be expected to look upon it with favour. Meanwhile, there has been no falling off in their efficiency. They are more numerous and more active than ever, and there never was a period when they stood higher in the good opinion of the public. But the very fact that their arrangements are excellent, that comfort reigns in the wards, and that the best medical and surgical treatment is carried out with a liberal hand, seems to give rise to a false impression. It is thought that the hospitals are wealthy institutions, and cannot really stand in need of much pecuniary assistance. It is forgotten that, with a very few exceptions, they are all dependent for their annual income upon donations and subscriptions. The public are constantly reminded that they are "supported by voluntary contributions"; but those who read this familiar inscription are apt to forget that they themselves are the persons by whom such contributions should be made. This neglect of an obvious duty often, no doubt, arises from mere thoughtlessness, and will readily be corrected when the mistake is pointed out. Thus we may hope that a larger amount of support will be forthcoming. But more than this is needed. There are cases of neglect which cannot be attributed merely to a want of thought. It is not unfrequent for servants whose masters are in affluent circumstances to be sent by them to hospitals to which they have never contributed a farthing. Such an abuse as this ought to be impossible. If such patients are to be received at all, it ought not to be without a full return being made for the actual outlay. But this is only one among many impositions that are practised upon the hospitals. Every reader of these pages knows in how many ways the resources of our medical charities are strained beyond their legitimate limits; and every fresh movement, such as Hospital Sunday, which calls special attention to the financial condition of these institutions, shows more and more clearly that it is not only—perhaps we may say not chiefly—increased subscriptions that are needed, so much as a well regulated system of admissions, whereby those only shall be received gratuitously who are fit objects for charity; while some plan should be devised by which all others, if admitted at all, shall be required to contribute in proportion to their means.

Dr. Robert J. Lee has been elected by the Board of the London Temperance Hospital one of the Visiting Medical Officers of that institution.

The Municipal Council of Lyons have appropriated one million francs for the construction of the newly established school of medicine and pharmacy, and negotiations are at once to be opened with a view to the organisation of a faculty.

The annual distribution of prizes at St. Mary's Hospital Medical School will take place in the Board-room of the Hospital on Wednesday, June 23rd, at 3 P.M.: Mr. Grant Duff, M.P., will preside.

There are four candidates already in the field for the Assistant Obstetric Physician's post at St. Bartholomew's Hospital, viz., Dr. Clement Godson, an old pupil and former senior obstetric assistant at St. Bartholomew's; Dr. A. Venn, a recent pupil of the school; Dr. W. Hope, who has also held the post of senior obstetric assistant; and Dr. Heywood Smith. The election does not take place until July 13th.

Professor Traube of Berlin, who has for some time been unable in consequence of illness to perform his duties at the Charité Hospital, has found himself still unable to resume, as he hoped to do, his course of clinical lectures at the Hospital. He is, we understand, about to travel for the recovery of his health.

We have to record further changes in the surgical staff of the University College Hospital. After twenty-five years' service as surgeon, Mr. Erichsen has resigned his office. Mr. John Marshall thus becomes senior surgeon; Mr. Christopher Heath takes charge of Mr. Erichsen's wards, and also succeeds him as Holme professor of Clinical Surgery; whilst Mr. Berkeley Hill takes the wards lately under the care of Sir Henry Thompson, in addition to the surgical ward for children, which he has had ever since it was opened, five or six years ago. There is, therefore, a vacancy for an assistant-surgeon.

The annual election of Councillors of the College of Surgeons takes place on July 1st at 2 o'clock. The three retiring members, as we have mentioned, are Mr. Prescott Hewett, Mr. Spencer Smith, and Mr. Birkett; and three other candidates have been nominated, Mr. Cooper Forster, Mr. Hussey, and Mr. Alfred Smee. At the outset, it was intimated that Mr. Prescott Hewett, who is now a Vice-President of the College, would not again solicit the suffrages of the Fellows. On this interim decision, Mr. Cooper Forster, who was last year a candidate, and within a narrow margin of the required number of votes, was renominated. Subsequently, however, Mr. Hewett, who was urged by many, ourselves among the number, to continue and complete his legitimate career of office and work in the College, reconsidered his former decision, and was again brought forward. Mr. Forster is, however, still there, and as it is understood that he does not desire to oppose his senior colleague Mr. Birkett, the contest lies virtually between Mr. Spencer Smith and Mr. Cooper Forster, who, having been brought forward to fill a gap, remains in the field surrounded by a band of friends, who may either gracefully adjourn their efforts till next year, or raise an impromptu scrimmage for the sake of the fun of the fair; in that case, Mr. Spencer Smith may suffer, and we think it hardly right that he should. Guy's Hospital is at this moment very well and efficiently represented in the College, as it has been indeed for a long term of years, and no doubt the next vacancy will fall to Mr. Cooper Forster, who is well fitted for it. He is not, we imagine, and need not be, in a hurry to take his seat in Lincoln's Inn by the side of his senior colleague. An accident this year has brought him forward, and there seems no particular reason why to this accident, now that Mr. Hewett's laudable change of purpose has altered the face of affairs, Mr. Spencer Smith should be sacrificed. There is no member of Council more assiduous and regular in his attendance to the work of the College and its committees; and to his initiative action in the Council is due a large share of the credit which the College has won by its active cooperation in the conjoint scheme of examination. If a strong combination be made to support Mr. Cooper Forster on this occasion, he will probably be returned; but, if Mr. Spencer Smith be thereby removed from the Council, the College will thereby suffer the loss of one of its most upright, trustworthy, and capable members, and he will have been robbed of the fairly expected collegiate honours which should crown a career so full of usefulness, and marked by so stainless and incorruptible a sense of duty.

We have spoken here chiefly of Mr. Cooper Forster's position, because, under the system which now extensively prevails in the College elections, it is on his candidature at this moment that the interest of the situation chiefly turns. We have not heard of any party move in favour of Mr. Hussey and Mr. Alfred Smee, and we apprehend, therefore, that they are less forward in the running. The claims of Mr. Hussey are now well known, as this is not the first time that he has been nominated. We are always glad to see country candidates show a desire to take part in the College work, and Mr. Hussey is understood to pledge himself to be no *fainéant* labourer in the fields of Lincoln's Inn if sent thither by the Fellows' missive. Mr. Smee, besides his scientific and professional qualifications, bases a claim on the seniority of his membership, which we think a very weighty one. We intimated last year a very strong dissent from the absurd view that, in such elections as these, absolute and primary seniority, that of membership, should count for nothing; and that the secondary seniority, that of fellowship, should alone be considered. Mr. Smee has, however, debated this question as it affects himself, in a circular which he has issued.

The College of Surgeons' Bill may now be considered safe. Mr. Stansfeld, after pressing his objections to the general policy of the Bill far enough to make them felt, has withdrawn opposition on the promises from the Government that, on the one particular point in which he feels most interested, viz., the right of women to study and practise medicine in this country, the Government would carefully consider the matter during the recess, so as to be able to express an opinion next year as to whether legislation is desirable or not.

The editor of the *Spectator* explains, in reply to a recent note in these columns, that his particular reason for thinking that the Royal Commission on Vivisection would not get at the truth unless they had power to call witnesses on their oath, was founded "on the reluctance of porters, assistants, and other subordinates to give evidence, except under the plea of legal necessity, of the number of animals supplied to the medical schools for the purposes of vivisection", and was not intended, as he thinks the context shows to imply, any imputation on the medical men concerned. We accept the explanation unreservedly, and are glad to have elicited the general statement. But, looked at apart from what the writer declares to be his particular meaning, what a shocking implication in the way of distrust there is in the assumption that the principals would not frankly state whatever particulars are wanted as "to the number of animals supplied to the medical schools for the purposes of vivisection", and that it will be necessary to extract them from the porters upon oath. One thing is very certain; the *Spectator* will be surprised to find how few the numbers are. We are by no means opposed to the Commission taking evidence upon oath. The *Spectator* sagaciously points out that "all evidence given on such a subject should be given in the most formal manner possible, and under the gravest sense of responsibility; in other words, should be given upon oath. The difference between an airy statement, corresponding generally to the impression left on a man's mind, and a statement which is guaranteed by all the forms of law, is generally considerable, even though dishonourable suppression of the truth be as far from the witness's mind as it was from our own to suppose that the medical profession in general is not a profession of honourable gentlemen." If there be such virtue on oath that it excludes from evidence "airy impressions" and substitutes accurate facts, we should like very well to hear Mr. Hutton examined on oath before the Commission on the facts which led him publicly to discredit the medical schools and the medical profession as the daily accomplices of hideous barbarity, and as to what he really knows, apart from airy impressions, on a subject on which he has now talked and written so much, so fervidly, with such excellent intentions, and with the result of raising so much public hatred towards men not a whit less humane or less earnest for good than himself. Let us wait however, now, to hear the evidence and the judgment.

The *Gazette Médicale de Strasbourg* is publishing a *feuilleton* description of a visit to "English hospitals and English surgeons". The first part contains a tolerably inaccurate but still passable account of the hospital administration of some of the London hospitals. The author, however, starts with the great discovery that "there is no middle class in England", although the great middle class have been under the delusion that they are the governing power in this country. The writer, however, has seen nothing but immense fortunes on the one hand, and on the other paupers. In which class are professional men and the innumerable host of shopkeepers' officials to be ranged? He is also greatly scandalised at having seen an announcement in one of the hospitals pushing religious fanaticism to the point of compelling every patient to select a minister of his own form of religion, whose visit he must receive once a week. "This", he says, "seems monstrous; when, on the other hand, not only are acts of the highest immorality tolerated, but encouraged and favoured." What does our visitor and censor mean? Is he the victim of an unexplained practical joke?

The General Medical Council has opened, under favourable auspices, what promises to be a very interesting and important session. The President's address strikes at once a high key, looking beyond the bounds of small details and business of committees, and discussing with breadth and moderation large questions which concern the future of the profession and its relations to the public. Dr. Acland sketches a programme which is full of serious and high matter for debate. The honour of the profession is well sustained by this statesmanlike and able address, which breathes the spirit of liberal and cultivated thought. The question of the admission of women to the practice of medicine by suitable means and on equal terms; the adjustment of the education and examination of health-officers; the regulation of the practice of midwifery—these are subjects which largely concern the future of the profession, and which must be settled one way or the other in the interests of the public. The Council will enter upon them under the inspiration of a calm, broad, and generous initiatory address; and we believe that they will consider them in the same spirit.

The details of preliminary business were very rapidly got through at the opening meeting; and Mr. Simon's letter, asking the opinion of the Council on Mr. Cowper-Temple's Bill and on the broad question of the admission of women to registrable degrees, having been read, it was referred to a Committee consisting of Mr. Turner, Sir William Gull, Dr. Apjohn, Dr. Parkes, Dr. Humphry, Dr. Andrew Wood, Dr. Sharpey, and Dr. Rolleston. They will meet and report at once, and we shall next week chronicle the debate. To us, the question seems not, "Shall women be admitted to practise medicine?" for that is already solved in the affirmative. They are practising in this country with acceptance and success; and the two women best known as graduates of medicine practising in London have been, we believe without a dissentient vote, admitted as members of the British Medical Association, in one case by the Committee of Council, in the other by the Metropolitan Counties Branch. The open question is, Shall the artificial barriers now existing against their registration, and against the recognition of their organised school in London, be maintained; or shall these be removed, and the fact that they exist be duly recognised? At present, there is a semblance of unfairness and a great deal of real hardship in their position. Sooner or later this must, we think, be removed. It is for the Medical Council to say whether it shall be done at once or later on. Artificial and accidental barriers of the kind now existing can hardly be long maintained, when they are used to impose serious disqualifications.

### THE OUTBREAK OF PLAGUE IN THE EAST.

MR. J. NETTEN RADCLIFFE read an interesting paper before the Epidemiological Society, on the 10th instant, in which he gave a detailed account of the various outbreaks of this epidemic, and described the districts in which they occurred. It appeared from this, that not fewer than five outbreaks had recurred in various parts of the Levant since 1858, at which time the disease had been apparently dormant for twenty years, though there is a probability that plague was present in the Assyr district in 1853. Of the five reappearances described by Mr. Radcliffe, one occurred in 1867, one in 1870-1871, and three in the past year, 1874. The outbreak on the Euphrates in the present year is held by Mr. Radcliffe to be a continuation of that which took place previously. The reappearance of plague in 1867 occurred among the Arabs living in the midst of the great marshes, known as the Hindieh marshes, on the west bank of the Euphrates, between Rillah and the town of Nedjef (Meshed Ali). These marshes are described as fulfilling literally the prophecy of Isaiah. "I will make it a possession for the bittern, and pools of water; and I will sweep it with the besom of destruction, saith the Lord of Hosts." Spreading out like a vast sea, upon the north and west is a marsh, which all the labours of the ancient and modern rulers of the country have never been able to subdue. Plague appeared among the villages of the Beni Taraf Arabs, who live in these marshes, in 1867, and destroyed about three hundred persons, after having prevailed four months or thereabouts. The reappearance of 1870-71 occurred in Persian Kurdistan, on an elevated table-land lying south of Lake Urumiah, between the head-waters of the rivers Iagata and Tatouran. The disease appeared in the winter of 1870-71, when the villages were snowed in. This district escaped from the famine which existed in Persia in 1871, but the appearance of plague had been preceded by an epizootic among sheep, and ergotism among men. Presumably, therefore, the inhabitants suffered privation in the severe winter of 1870-71. The villages in which the disease earliest appeared were almost depopulated, and when the winter came to an end, and communication was re-established with neighbouring localities, the disease extended to the town of Bana and other places. Fourteen places were attacked, occupied by 1,326 families, and among these families there were 891 cases of plague, and 662 deaths. The reappearance of plague in 1874 occurred on the Lower Euphrates, in the Assyr district, in Eastern Arabia, and in the district of Benghazi, in North Africa, respectively. On the east bank of the Euphrates, is an extensive series of marshes, occupied by the Affij Arabs. Among these Arabs plague appeared in December 1873, but not to any marked extent until April 1874, when the disease began to spread, and reached to Dinamieh, and became scattered along the course of the river as high as Nissah, Nedjef, and Kerbella. The number of deaths during the three months of April, May, and June, is believed to have been 4,000, among a population estimated at 90,000. The Assyr district, the scene of the reappearance in Eastern Arabia, lies between the Nedjaz on the north, Yemen on the south, Nedj on the east, and the Red Sea on the west. It is a district rich in grain, fruit, and coffee, but liable to local droughts, such as form a remarkable phenomenon of East Africa, for famine preceded the appearance of plague. At what time the plague appeared in this district, and to what extent it was destructive, are not yet known. But there appears to be no doubt as to the nature of the disease. It spread eastward beyond the limits of Assyr, and northwards it spread to within four days' journey of Mecca. The reappearance of plague in Benghazi was limited to the few nomadic tribes living among the highlands of the district. It followed upon five years' defective crops, with accompanying privations, and in some instances famine. The disease first took on an epidemic form in April 1874. At the beginning of the outbreak, when the disease was prevalent in the small town of Merdj, Dr. Laval, a French army surgeon, who had gone from Benghazi to ascertain the actual nature of the malady, caught the infection, and died. The outbreak lasted four months; and, among a population numbering only 734, there were 533 cases and 208 deaths. The plague now on the Euphrates is prevalent over a very wide district on both banks of the river, immediately south of the district in which plague was prevalent last year. This district, as the district north of it, has numerous vast marshes, and on the east bank of the river live the Montefik Arabs. In December last, cases are reported to have occurred in Dinamieh, which suffered from the disease last year, and which is on the northern limit of the district now affected. In April, the disease appeared in several localities in the vicinity of Samava, and lying between the town and the Bahr-el-Nedjef. About the same time, an extension began on the east bank of the river, in the district of the Montefik Arabs; and there, according to the latest accounts, the disease has committed considerable ravages. An Ottoman medical commission has been investigating this outbreak, and detailed accounts of it will probably soon be received.

### ODD FELLOWS' MEDICAL INSTITUTION AT HULL..

WE have received the report of a special committee of the Odd Fellows of Hull, which was appointed to consider the desirability of establishing a medical institution in that town, instead of employing lodge surgeons. After noticing the institutions which have been set on foot in Preston, Worcester, Lincoln, and other towns, and, after giving an epitome of their rules, the report concludes.

> After a careful investigation, your committee have come to the conclusion that the establishment of an Odd Fellows' Dispensary in Hull, upon the volunteer principle, would be more beneficial than the old system of lodge surgeons and the public hospital, both to lodges, the members, and their families; for the latter, instead of, as is too often the case, putting off application for doctor's advice on account of the fear of "the bill", until the disease has taken good hold, or seeking charitable medical aid at the infirmary or public dispensary, would at once apply for medical assistance to their own establishment, and the Odd Fellows' Dispensary will, at a very trifling cost, enable every member to become, *in fact* what we *profess* in title, that of being "Independent Oddfellows".

After this report had been duly presented, discussed, and adopted, it was resolved: first, to establish an Odd Fellows' Medical Aid Institution; and further, that the following be the contributions, namely, members of the Manchester Unity, resident in Hull, 3s. 6d. *per annum*, or 10½d. per quarter; that the wives of members be admitted to the benefits on payment of 3s. 6d. *per annum*, payable quarterly; that the families of members be admitted at the rate of 3s. per family *per annum*; such family to comprise all children under eighteen years of age, unmarried, who reside with their parents. We have lately had occasion more than once to refer to these "medical institutions", which are springing up in various parts of the kingdom. So far as they show a desire among the artisans to provide medical attendance for themselves and to be independent of charity, we cannot but approve of them; but we doubt the wisdom of the method they have adopted. We fear it is not likely to secure for them a high class of professional skill. The position which they assign to their medical officer is one which would be quite intolerable to a man of good education and refinement. He is required to devote his whole time to the care of the sick members of the dispensary, and to have no private practice. The dispensary is his home, and, in addition to lodging, he is to be provided with gas, coals, and a salary of £160 *per annum*. For each midwifery case, he receives an extra fee of 10s. 6d. Thus, it will be seen that the surgeon to a "medical institution" is entirely "under the thumb" of the committee—a committee composed wholly of club members. We believe that the provident system, which, so far as the scale of payments is concerned, does not differ much from that which we have quoted above, is much better calculated to meet the wants of the working classes, and to secure for them good medical attendance. This it would do, because the system is one under which any surgeon may be contented to act. It would be easy to point to provident dispensaries which are served by medical men of the highest position and standing.

### PRESENTATION OF A TESTIMONIAL TO DR. A. P. STEWART.

A LARGE number of metropolitan and several provincial members of the British Medical Association assembled last Monday evening at the house of T. B. Curling, Esq., F.R.S., President of the Metropolitan Counties Branch, for the purpose of presenting to Dr. A. P. Stewart a testimonial of the high esteem and regard in which he is held by his professional brethren. The idea of raising the testimonial arose last year, on the occasion of Dr. Stewart's resignation of the office of Secretary of the Metropolitan Counties Branch, which he had held for seventeen years. The application for funds was readily and cordially responded to; and the sum of about £509 was raised, a portion only of which Dr. Stewart would receive for himself, desiring that the bulk of the amount should be placed in the hands of the British Medical Association for the foundation of a grant for researches on the origin, spread, and prevention of epidemic disease. The personal portion of the testimonial consisted of a dinner and breakfast service, with a coffee-pot bearing an inscription denoting it to be "the gift of members of the British Medical Association". The presentation was made by Mr. Curling, in a speech in which he alluded not only to Dr. Stewart's services to the Association, but to his labours in the cause of preventive medicine and the elucidation of epidemic diseases. In acknowledging the gift, Dr. Stewart said that he had scarcely thought himself deserving of such a mark of the goodwill of his brethren—which, indeed, he already knew that he possessed. He had chosen as a personal gift that which would be daily before him, and remind him of his many kind friends; and, as to the grant, he believed that there was no fear that subjects for it would be exhausted for a long time. Dr. Falconer of Bath moved a cordial vote of thanks to the London Committee of the testimonial, which was acknowledged by Dr. Sibson; and after some remarks from Mr. Watkin Williams of Birmingham, in expression of his high gratification at the success of the movement, a vote of thanks to the Chairman brought the proceedings to a close.

### COLLEGE OF PHYSICIANS AND SURGEONS, ONTARIO.

OUT of one hundred and twenty candidates who entered their names for examination at the last commencement, fifty-eight passed and obtained licenses to practise. Among the number was Mrs. J. K. Tout of Toronto. She is the first lady who has obtained a license to practise medicine in all its branches in Ontario.

### WESTMINSTER HOSPITAL MEDICAL SCHOOL.

Dr. FINCHAM and Dr. Sturges have been appointed joint lecturers on Medicine. In the emergency caused by the death of Dr. Anstie, these lectures were last session temporarily undertaken by Dr. Basham and Dr. Fincham. For the chair of Materia Medica, vacant by the resignation of Dr. Sturges, there are already several candidates. Mr. Malcolm Smith, M.B., M.C.Edin., has been appointed demonstrator of Anatomy. Further steps have been taken to complete the dental department, by the appointment of Dr. Dupré, F.R.S., as lecturer on Metallurgy, and Dr. Allchin as lecturer in Dental Histology and Anatomy. It is intended shortly to appoint a gentleman as a second dental surgeon, and a teacher of dental mechanics.

### POISONING BY A HAT.

A PECULIAR case of poisoning occurred lately at Stettin. On the day before Whit Sunday, a shoemaker bought a felt hat. After wearing it, although it did not press on his head, he had severe headache; and an eruption appeared attended with swelling on his forehead, proceeding to suppuration at some parts. The eyes also became inflamed and almost closed; and the swelling extended more or less over the whole face. The hat was placed in the hands of an official analyst, who found that the brown-leather lining was coloured with an aniline dye containing poison.

### STATISTICAL SOCIETY.

THIS Society held its usual monthly meeting on Tuesday, the 15th instant. The paper read was "On the Effect of Migrations upon Death-Rates". The writer, Mr. T. A. Welton, some time since read a paper before the Institute of Actuaries, in which he showed, from the statistics of the years 1851-60, that the mortality amongst females resident in London, aged 10 to 35 years, was exceedingly low; whilst that in the rural districts around London, to the distance of about seventy miles, was at the same ages exceptionally high. He divided these rural districts into an inner ring and an outer ring, and subdivided these rings into thirteen parts; and, finding a great degree of regularity in the phenomena, was led to attribute them to some cause likely to operate over the entire area. This cause, in his opinion, was the undisputed presence of vast numbers of country girls in London, principally in domestic service, and the probable circumstance that these, in case of serious illness, would in most cases return to the homes of their parents in the country, and there die. He found similar but much less striking phenomena in the case of males; and this he supposed might arise from the greater independence of that sex who, soon after their settlement in London, are likely to form a domestic establishment, however humble, of their own. A recent suggestion by Mr. N. A. Humphreys, that the more probable explanation of the facts was that women in service in London enjoy more favourable conditions as to health than if resident in humble rural homes, led Mr. Welton to place the leading results of his investigation before the Statistical Society, and to support them by fresh calculations based upon the statistics of 1861-70. He showed, for instance, that the death-rates amongst young women aged 15 to 25, and resident in the worst districts of London—such as Whitechapel and St. Giles's—were considerably below the national average. He also showed that, whilst tubercular consumption was not particularly fatal in London to persons of either sex aged 15 to 25, this disease carried off a very large number of women between those ages in the surrounding rural districts. The average mortality of females in the ten years 1861-70 in London and in Suffolk served to confirm the figures for the earlier decade, being as under:—

*Death-Rate per Thousand Living at the following Ages.*

| | IN LONDON. | IN SUFFOLK. |
|---|---|---|
| 0—5 | 76.6 | 45.4 |
| 10—15 | 4.1 | 4.8 |
| 15—20 | 5.1 | 7.6 |
| 20—25 | 6.2 | 9.2 |
| 25—35 | 8.8 | 10.0 |
| 55—65 | 33.6 | 21.1 |
| 65—75 | 67.6 | 47.0 |

And similar facts were shown to be derivable from the statistics of seven other counties. Under these circumstances, Mr. Welton suggested two inquiries: one, as to the birth-places of those dying in London; and the other, as to the history of those who die between the ages of 15 and 25 in a few selected rural registration districts. Such inquiries, if made, would effectually resolve the question at issue.

Another aspect of the matter was shown to be the great disparity between male and female death-rates at the ages 15—25, according to the locality under observation, towns showing low female death-rates and rural districts high ones. In London, at the age 15—20, the average death-rates for 1861-70 were: males 5.8, females 5.1 per 1,000; but in Suffolk the figures were: males 5.7, females 7.6 per 1,000; in Oxfordshire: males 4.4, females 6.3 per 1,000; and in other rural districts the results were similar. A very interesting discussion followed the reading of the paper. It was participated in by Mr. N. A. Humphreys (of the General Register Office), Dr. Letheby, Mr. R. Rawlinson, C.B., Mr. Lumley, Q.C., Rev. Wyat Edgell, Mr. Bourne, Dr. Farr, Dr. Mouat, Dr. Rankin, General Babbage, and Mr. W. B. Hodge. The substance of it will appear in the Society's *Journal*.

## SCOTLAND.

Some of the classes at the Edinburgh University are very large this year; that of Professor Balfour (Botany) numbering about 350, and that of Professor Huxley (Natural History) one or two more.

Scarlatina is raging with great virulence at Alva, Stirlingshire. All the schools are closed, and it has been resolved to invite another medical man to the assistance of the town.

Dr. Steele, one of the oldest practitioners in the county, died at Forfar on Thursday night.

The proof on behalf of the local authority in the petition for the closing of the graveyard at Gourock was closed on Wednesday, and the evidence for the defenders began next day. In the course of the petitioners' evidence, the gravedigger stated that, on one occasion, he stood in a grave digging in which there were from eighteen inches to two feet of water.

The ceremony of cutting the first sod in connection with the waterworks of the town of Cupar took place last week. A half holiday was held in the town, and the provost was presented with a silver spade and a mahogany wheelbarrow.

At the last meeting of the Edinburgh Botanical Society, Dr. T. A. G. Balfour reported some interesting experiments on the *Dionæa muscipula*, which he considered a carnivorous plant. He showed that the irritability, under which the leaf contracts, is resident in six delicate hairs, so placed on the surface of the leaf, that no insect could avoid touching them in crawling over. Chloroform dropped on a hair caused the leaf to close immediately; water had no such effect. Contraction only lasted for a considerable time when any object capable of affording nutrition was seized, when it lasted for about three weeks, and the interior of the leaf gave out a viscous acid secretion. A number of interesting points were made out with regard to the secretion, digestion, and absorption performed by the plant.

### PRESENTATION TO PROFESSOR STRUTHERS AT ABERDEEN.

One day last week, an illuminated address was presented to Professor Struthers of Aberdeen, in recognition of the efforts which he has for several years been making to extend a sound knowledge of science by giving voluntary evening lectures on various aspects of anatomy. In acknowledging the presentation, Professor Struthers warmly advocated the establishment in Aberdeen and similar towns of a well equipped school of science, and of chairs of education in the universities.

### MONTROSE ROYAL ASYLUM AND INFIRMARY.

The annual meeting of the Montrose Asylum and Infirmary was held last week, the provost of Montrose in the chair. The revenue for the last year was reported to be about £16,000, and the expenditure £14,530. There had thus been a saving of over £1,400, principally in consequence of the reduction in the price of coal and some other necessaries. The asylum reports stated that there were at present 446 patients in the house, namely, 187 males and 259 females, an increase of 35 on the numbers of the previous year. The house committee was authorised to erect a greenhouse at the cost of £250. In the infirmary reports, it was suggested that a convalescent house should be established at Auchenblae, and the suggestion was favourably received.

### THE WATER-SUPPLY OF EDINBURGH.

At a meeting of the Town Council last week, the Lord Provost stated that there was now only about one hundred days' supply of water in the reservoirs, at the present rate of supply. He proposed that the engineers should consult together, and have power given them to reduce the rate of supply in case no rain came, so as to make the water available over a greater length of time. The suggestion was adopted unanimously. It appears that the water in the whole of the reservoirs has decreased very considerably in the last fortnight, being over eight million cubic feet less than at last measurement. The total quantity in store is more than eleven million cubic feet less than at the corresponding period of last year.

### SUICIDE OF A LUNATIC.

A sad case occurred at the village of Dalrymple, near Ayr, on June 10th. A woman named Mackenzie, who lost her husband about eighteen months ago, subsequently became insane, and, after more than one attempt at suicide, was removed to the Ayr District Asylum. While in the house, she became speedily convalescent; and, at the end of two months, was sent home. Subsequently she had a relapse, however, and again became an inmate of the asylum, from which she escaped on Thursday, and, having mounted a high bridge over the road near Dalrymple, she threw herself over and was killed upon the spot. She was between thirty and forty years of age.

### REGISTRAR-GENERAL'S REPORT FOR SCOTLAND.

From the Registrar-General's report for May, we learn that, in the eight principal towns of Scotland, there were 3,836 children born, 1,996 being males and 1,840 females—of these, 9.2 per cent. were illegitimate; the numbers varying from 3.8 per cent. in Greenock to 14.7 in Perth: 2,398 deaths were registered during the month. Allowing for increase of population, this number is 368 below the average number for May during the last ten years.

## IRELAND.

The mortality from zymotic diseases last week in Belfast, included fifteen deaths from measles and five from scarlatina.

The *Irish Hospital Gazette*, a bi-monthly publication, will not be continued after this week's number. It has been amalgamated with the *Dublin Journal of Medical Science*.

### SMALL-POX IN GALWAY.

In reference to the prevalent reports that small-pox exists to a considerable extent at Galway and the adjoining parts, the chairman of the Galway Town Commissioners states, in a recent letter to the press, that the rumours are incorrect, and that Galway and its suburbs are at present free from any epidemic or infectious disease, and that there has not been a single case of small-pox in the town for several years. However this may be, yet it is notorious that at Athenry in the same county, and only distant twelve miles from Galway town, there has been an outbreak of this dreadful malady; and a relief fund has been originated by influential parties in the district, for the assistance of the poor who have been thrown out of work from contracting the disease, and to provide the convalescent with suitable clothing when they are discharged from hospital, their garments being burnt previous to leaving it; and subscriptions amounting to nearly £100 have already been acknowledged. The Galway militia, it is understood, will be sent to Ennis for the annual training, in consequence of the outbreak at Athenry and other parts of Galway.

## MEDICAL ADVERTISING IN NEWSPAPERS.

AT a meeting of the Reading Branch of the British Medical Association, held on June 15th, the question as to the propriety of advertising medical books in the daily papers was discussed. It was unanimously resolved that the practice is unbecoming to the medical profession, and that it is desirable that every practicable effort should be made to suppress it.

# SPECIAL CORRESPONDENCE.

## PARIS.

[FROM OUR OWN CORRESPONDENT.]

*Germs and Ferments.—Dissociation of Violet of Paris.—New Operation for Cataract.—Cholera.—The Chateau de Suresnes.—Asile Sainte-Anne.—A French Lady-Doctor.*

IN my letter which appeared in the JOURNAL of May 1st, I referred to the discussion that was going on at the Academy of Medicine on the part played by germs and ferments in the process of putrid fermentation, which latter, in my opinion, is an unhappy term, as the word fermentation implies a physiological act, whereas the word putrid applies to a pathological condition. This is made evident by a discussion that lately took place at the Academy of Sciences, in which M. Dumas, the eminent chemist, took part. It is known that there exists a difference between ferments endowed with life and those consisting of an unorganised nitrogenous substance. It is to the latter that M. Dumas applied the characteristic term of "ferments non-reproductibles". However, it is not always easy, with reference to certain transformations, to determine, even with the aid of the microscope, whether these have been the result of the intervention of organised beings or not. In a chemico-physiological point of view, it would be interesting to distinguish these two orders of phenomena confounded under the term "fermentations". According to M. Wurtz, who has addressed the Academy on the subject, it would be easy to establish the distinction by means of chloroform. For instance, M. Wurtz has shown that milk, wine, cane-sugar, flesh, gelatine, placed in contact with a certain quantity of chloroform, are perfectly preserved for an indefinite period without undergoing fermentation, or giving rise to the production of any living being, whether animal or vegetable. On chemical fermentations, on the contrary, chloroform seems to have no effect, whether in preventing or retarding these processes, such as take place in the germination of barley, mustard-meal, etc. I need hardly say how important is the practical application of this discovery, for by it, through the means of chloroform, it would be possible to ascertain whether one had to do with fermentation of a chemical or physiological order. If this be true, it may be foreseen that certain points in the study of virulent affections which are still involved in obscurity may be some day elucidated.

At the same Academy, Dr. Cornil has directed attention to another series of researches not less important to the physiologist or pathologist. Some time ago, M. Lauth showed that, when certain organic tissues, whether normal or pathological, are coloured with the violet of pure methylaniline or the "violet of Paris" discovered by him, a separation or disassociation of the violet into two distinct colours takes place: the one is pink and the other blue. Each of these colours fixes itself with remarkable constancy on certain elements. The colour, the intensity, and the fixity of the coloration vary according to the nature of the tissues and the strength of the solution employed. Dr. Cornil has pointed out the great importance of this discovery, and the use to which it may be applied in the preparation of histological specimens. The coloration thus obtained is more fixed, and the disassociation of the violet is remarkably distinct and constant when it affects tissues undergoing amyloid degeneration. The parts affected with this form of degeneration are coloured pink, whereas the normal tissues are tinted blue. This discovery will doubtless henceforward be adopted in lieu of iodine.

At the same meeting of the Academy of Sciences, Dr. de Wecker presented a paper on a New Method of Operating for Cataract, which consists of extraction through an opening effected in the cornea at its junction with the sclerotic, to which he has given the name of "extraction à lambeau périphérique". After having enumerated the drawbacks of the old classical method of Daviel, M. de Wecker, in order to obviate the frequent insuccesses resulting from Daviel's operation, proposes the following method in its place. 1. After having fixed the eye with a forceps near the middle of the internal edge of the cornea, the upper third of this membrane is detached by an incision at its junction with the sclerotic. 2. The lens is removed without enlarging the pupil. 3. Hernia of the iris is prevented by instilling into the eye a solution of the neutral sulphate of esserine (five *centigrammes* to ten *grammes*). These instillations cause a considerable degree of myosis, which lasts more than twenty-four hours, which is considered sufficient for the healing of the wound; the surgeon may then have recourse to mydriatics, if necessary, without detriment to the iris.

At the Academy of Medicine, the subject of cholera is still being discussed, and is not likely to be exhausted for some time. But, instead of trying to seek means to prevent the introduction or spread of the disease, the members of this learned body are disputing among themselves about priority as to who was the first to propose certain measures for the extermination of the malady at its original source. M. Bonnafont imagined he was the first to propose such a measure, whereupon M. Fauvel declared that nothing of any importance had ever been proposed before the memorable Congress of Constantinople, of which, it will be remembered, M. Fauvel was president. But both these gentlemen seem to have lost sight of the fact that, so long ago as the year 1817, the medical officers of the army in India pointed out the itinerary tendency of the disease, which they had heretofore looked upon as endemic, and in consequence proposed certain sanitary measures which form the basis of all that has since been said or done on the subject.

At a very interesting clinical lecture at the Hôpital St. Antoine, M. Duplay, one of the surgeons, chose for his subject Old or Irreducible Dislocations of the Shoulder. With reference to the immediate cause of the irreducibleness of these dislocations, M. Duplay stated that he believes it to be due less to the formation of false ligaments or adhesions (as taught in classical works) than to the permanent interposition either of a tendon or of the fragment of a muscle, or of the capsule, which, in these cases, would offer an insurmountable obstacle to reduction. In order to overcome the difficulty, it would be necessary to remove the interposing body; but, as it is not always easy to say what the body is, it would be very unsurgical to act with the shoulder as is done in hopeless cases of dislocation of the thumb, to cut into the joint and remove the obstacle. Up to what period can the surgeon hope to reduce a dislocation of the shoulder, or feel himself justified in attempting reduction? This, M. Duplay stated, was a question difficult to answer. He then related the case by Sir Astley Cooper, of the dislocation of the shoulder in a sailor which was accidentally reduced after five years' standing. The oldest dislocation that had been reduced by regular surgical means, is that published by Sédillot, which was one year and fifteen days old. Others are mentioned of eight and nine months, but the average is only three or two months. Among the different varieties of dislocation of the shoulder, that which takes place forwards and inwards is comparatively more easy of reduction. But the limit to which the surgeon ought to confine himself is three months, beyond which period, M. Duplay states, it would be imprudent to make any attempt at reduction. He has known of a case, where the dislocation, although only of three days' duration, was completely irreducible by the ordinary means. When he employs the pulleys he never exceeds a force of two hundred kilogrammes, and, like most French surgeons, he uses chloroform in a most timid manner.

I lately paid a visit to a *maison de santé* just founded conjointly by MM. Magnan, Bouchereau, and Lolliot, three well-known names in connection with the special class of diseases for which the institution is intended. The house is beautifully situated on the banks of the Seine, just outside Paris, at Suresnes, a place familiar to English visitors. It is very commodious, and contains all the arrangements necessary to render life comfortable. The grounds are very extensive, and planted with large trees which afford an agreeable shelter from the burning heat of the sun in summer. Arrangements are also being made for the carrying out on the premises the hydrotherapeutic system of the treatment of disease, which consists of hot and cold baths, hot and cold douches, shower baths, and medicated baths of all sorts. The establishment is intended as a home for the better classes of both sexes labouring under mental and nervous affections, and, from what I have seen, I cannot help thinking that M. Magnan got a wrinkle or two from his visit to England last year, when he was so much abused for his vivisection experiments, as he seems to have adopted the principles of treatment employed in similar institutions on your side of the Channel. The "Château de Suresnes", which is the name given to the establishment, is a home in itself, and it differs from the other institutions of the kind in Paris, in so far that its inmates live altogether *en famille* with the family of the resident superintendent.

Through the kindness of Dr. Magnan, I was shown over the "Asile Sainte-Anne, a lunatic asylum of which he was one of the physicians. It is situated to the south of Paris, not far from the Observatory, and is intended for the reception of insane patients of both sexes. It contains upwards of six hundred beds, and the cases here treated are those of insanity in its acute form. If not cured within a certain time, the patients are drafted off to the other asylums reserved for the treatment of the more chronic cases. The premises are constructed on the pavilion system, two storeys high, and are clean and airy. The grounds which are very extensive are well laid out in gardens, and the patients have plenty of room for recreation. New pavilions are being added, the present premises being found insufficient to meet the demand for admissions. This would show that insanity is on the increase in France, and more than half the cases are caused by the abuse of alcoholic drinks. I was rather surprised to meet with some cases of delirium tremens in this asylum, as I do not think it the proper place for them.

Madame Brès, a French lady, has just taken her degree of Doctor of Medicine of the Faculty of Paris, and is the first French lady who has taken such a step. She passed all her examinations in a most creditable manner, and M. Wurtz, the president of the examining board and dean of the faculty, addressed her in the following terms: "Madame, you have not only raised women from the secondary position they have held in medicine, but your thesis is one of the best that the faculty of Paris has ever received, and it will be consigned with honour to its archives." The title of the thesis is "La Mamelle et l'Allaitement", a very appropriate subject for a doctoress, and is treated of in an anatomical, a chemical, and physiological point of view. I have just learned that Madame Brès has been appointed physician to the Sultan's palace at Constantinople.

## BIRMINGHAM.

[FROM OUR OWN CORRESPONDENT.]

*Medical Benevolent Society.—Medical Institute: Mode of Election of Members.—Queen's Hospital: The Free System.—Queen's College.—The Coronership.—The Rumsey Fund.—Testimonial to Mr. Bartleet.*

AT the recent annual meeting of the Birmingham Medical Benevolent Society, a donation of £500 was announced from the late Rev. C. Ingleby through Mr. Wragge. The Society is flourishing; its yearly income was nearly £800, and its grants nearly £400. Mr. Solomon retired from the presidency, and was succeeded by Dr. Agar of Henley.

An adjourned meeting of the Medical Institute was held last week for the purpose of electing a Committee of Management, and of passing the bye-laws, of which a draft was submitted. Discussion took place, as had been foreseen, upon one law regulating election by ballot, "one black ball in five to exclude". Mr. Bartleet pointed out that this was not in accord with the regulation carried at the last meeting, "That any qualified medical man was eligible for election"; for it would put the elections in the hands of a minority, possibly a clique, and in such an institute, or rather library, there was no need for exclusiveness. He proposed that the election should be by show of hands, and, as another bye-law provided for meetings working by majorities, this meant that the majority present at any meeting would elect without any blackballing. He was supported by Mr. Manby, by Mr. Jordan, and by Dr. Heslop. Mr. Gamgee, who rose apparently to state the negative side, conceded the principle, and only urged that the bye-law had better be allowed to remain as an evidence of "conciliation". Mr. Pemberton, in reply to some observations, said that he did not intend to disturb the harmony of a great professional institute. He was urged by many friends who thought with him, to propose a direct resolution that homœopathic practitioners should not in future be admitted; but he declined, because he took it that their admission was an accomplished fact, though he thought then, as now, that the original committee committed an error of judgment, and he wanted it to be on record that a certain number of members protested. If it were thought that, by the bye-law in question, he or his friends desired still to agitate this question, it was a mistake. On a vote being taken, 95 were found for the amendment against 20 for the original bye-law.

At the Queen's Hospital Board meeting last week, an important resolution was adopted, which, when approved by a general meeting, will place the hospital on a free basis, abolishing the system of tickets, and instituting a small "registration fee". The necessary limitations as to fitness and number of applicants to be received are under consideration.

The staff of the Queen's College has been strengthened by three additional appointments; viz., Dr. Sawyer as professor of pathology; Dr. Rickard as demonstrator in physiology; and Mr. Bennett May as demonstrator in anatomy.

Dr. Birt Davies has held the office of coroner for thirty-six years. It is said that he held annually about 900 inquests; that he never employed a deputy; and that none of his decisions were ever questioned, by authority at least. Several medical men have offered themselves for the office; but it is to be feared that, unless a vigorous and united effort be made by the profession on behalf of some suitable candidate, the probabilities are in favour of a lawyer, a liberal politician and prominent member of the Town Council, and formerly mayor.

A local committee has been formed in aid of the Rumsey Testimonial Fund. Dr. Fletcher is chairman, and Mr. Priestley Smith honorary secretary.

The testimonial to our much esteemed ex-secretary, Mr. Bartleet, has taken the practical shape of a silver salver, which was presented to him by Mr. Garman, the Branch President, at a private meeting of professional friends, with many expressions of appreciation and regard. The handsome present bore the following inscription:—"British Medical Association: Birmingham and Midland Counties Branch. This salver, the result of subscriptions limited in amount, is presented to T. H. Bartleet, Esq., M.B., F.R.C.S., by 134 members of the Branch, in testimony of their obligation to him for his eminent services as secretary during a period of ten years." It is no secret that some opposition had been offered to this friendly proceeding, not, of course, on any personal ground—that would be impossible—but there are those who object to testimonials in any shape, and who objected "to making a precedent". Mr. Bartleet's services, however, had been so long, so courteously given, so effective, and altogether so exceptional, that his friends could not lose them without some acknowledgment. The subscription list was large in number, and included the names of representative men in town and country practice, and amongst all branches of the profession. The presentation was followed by a very friendly dinner, at which Mr. Bartleet was the guest of the evening. May the Association have many such secretaries, and may testimonials—in favour of which, we think, there is, after all, much to be said—be always as thoroughly deserved!

# ASSOCIATION INTELLIGENCE.

## BATH AND BRISTOL BRANCH.

THE annual meeting of the above Branch will be held on Thursday, June 24th, 1875, at 4.30 P.M., at the Royal Hotel, College Green, Bristol; when FREDK. MASON, Esq., will resign the Chair to W. M. CLARKE, Esq., President-elect, who will deliver an address.

The business of the meeting will be to receive the Report of the Council; to elect the Officers of the Branch; to transact the necessary business; and to discuss such subjects connected with the interest of the Branch and of the profession as may be brought before it.

Members having any communications for the meeting are requested to give notice of them to the Secretaries.

Members who propose attending the annual meeting in Edinburgh, are requested to send their names to the Secretaries before the general meeting of the Branch.

Members who have not paid their subscriptions are requested to do so immediately to the Local Secretaries, in order that the accounts may be made up before the anniversary meeting of the Association.

The dinner will be held at the College Green Hotel, at 6.30 P.M. Dinner tickets, including ice and dessert, 7s. 6d. each. Wines at moderate charges.

The Bristol Secretary particularly requests that those members who intend to be present at the dinner, will send in their names before Monday, June 21st, in order that the necessary arrangements may be completed.

E. C. BOARD, Clifton. } *Honorary Secretaries.*
R. S. FOWLER, Bath. }

Clifton, Bristol, June 14th, 1875.

## CAMBRIDGESHIRE AND HUNTINGDONSHIRE, EAST ANGLIAN, AND SOUTH MIDLAND BRANCHES.

THE combined annual meeting of the above Branches will be held in the Anatomical Museum, Cambridge, on Friday, July 2nd, at 2.30 P.M.; G. M. HUMPHRY, M.D., F.R.S., President.

The dinner will take place in the Hall of St. Peter's College, at 6.30 P.M. Tickets, 17s. 6d. each.

Members intending to read papers, or to be present at the dinner are requested to intimate their intention, at their earliest convenience, to one of the Honorary Secretaries.

J. B. BRADBURY, M.D., Cambridge. }
B. CHEVALLIER, M.D., Ipswich. } *Honorary*
J. B. PITT, M.D., Norwich. } *Secretaries.*
J. M. BRYAN, M.D., Northampton. }

Cambridge, May 1875.

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## METROPOLITAN COUNTIES BRANCH.

The twenty-third annual meeting of this Branch will be held at the Alexandra Palace on Monday, June 28th, at 4 P.M. precisely; *President*, T. B. Curling, Esq., F.R.S.; *President-elect*, Robert Barnes, M.D.

Dinner at 5.30 precisely. Tickets, 15s. each, exclusive of wine.

Alexander Henry, M.D.
Robert Farquharson, M.D. } *Hon. Secs.*

London, June 3rd, 1875.

## BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

The annual meeting of this Branch will be held at the Midland Hotel, New Street, Birmingham, on Tuesday, June 29th, at 3 P.M.; when an address will be delivered by the President, W. F. Wade, Esq., M.B., F.R.C.P.

The annual dinner will also be held at the Midland Hotel, at 5 P.M. precisely. Dinner tickets, exclusive of wine, 7s. 6d.

Balthazar Foster, M.D.
James Sawyer, M.D. } *Honorary Secretaries.*

Birmingham, May 29th, 1875.

## SOUTHERN BRANCH.

The second annual meeting of the Southern Branch will be held at the South-Western Hotel, Southampton, on Tuesday, June 29th, 1875, at a quarter past Two o'clock P.M.; when Surgeon-General W. C. Maclean, M.D., C.B., will deliver an address.

During the afternoon, excursions will be made to the Royal Victoria Hospital and Netley Abbey.

The dinner will take place punctually at Six P.M. Tickets, 7s. 6d. each, exclusive of wine.

The Committee particularly request that those gentlemen who intend to be present at the dinner will send in their names to Dr. Trend, Southampton, on or before Friday, the 25th of June.

J. Ward Cousins, *Honorary Secretary.*

## LANCASHIRE AND CHESHIRE BRANCH.

The annual meeting of this Branch will be held in the Town Hall, Chester, on Wednesday, June 30th, at 1 P.M.—John Skaife, Esq., President; Dr. Davies-Colley, President-elect.

The dinner at the Grosvenor Hotel at 5 P.M. Tickets, 7s. 6d., exclusive of wine.

*Communications.*—1. Lymphoma or Lymphadenoma in a Child. By Dr. Oxley.

2. Supracondyloid Amputation of Thigh. By Dr. C. E. Lyster.
3. Note on Cæsarean Operation. By Dr. Lloyd Roberts.
4. Case of Sudden Death after Thoracentesis. By Dr. Glynn.
5. Cancer of Mediastinal Glands. By Dr. Glynn.
6. Hydrophobia. By Dr. Haddon.
7. Note on the Management of the Third Stage of Labour. By Dr. Steele.

Notice of papers (which must not exceed fifteen minutes) should be forwarded at once to the undersigned. None received after June 12th can appear in the circular.

A. B. Steele, *Honorary Secretary.*

54, Rodney Street, Liverpool, June 9th, 1875.

## SOUTH WALES AND MONMOUTHSHIRE BRANCH.

The annual meeting of this Branch will be held at Abergavenny, on Friday, July 16th.

Nomination-papers and the titles of communications, etc., must be sent to one of the undersigned by June 26th at the latest, in order that they may appear in the circulars.

Further particulars in the circulars as usual.

Andrew Davies, Swansea.
Alfred Sheen, M.D., Cardiff. } *Hon. Secs.*

Swansea, June 14th, 1875.

## ABERDEEN, BANFF, AND KINCARDINE BRANCH.

The annual meeting of the above Branch will be held at Aberdeen, on Saturday, July 17th, at 1.30 o'clock P.M.

Further particulars will be intimated by circular.

Alexander Ogston, *Honorary Secretary.*

Aberdeen, June 1875.

## SOUTH-EASTERN BRANCH.

The thirty-first annual meeting of this Branch will be held at the Royal Surrey County Hospital, Guildford, on Thursday, July 1st, at Twelve o'clock; James R. Stedman, M.D., President-elect.

The President-elect kindly invites all members to luncheon at the Hospital after the meeting.

After luncheon, an excursion will be made to the Surrey County Lunatic Asylum at Brookwood, in carriages provided by the Local Committee for the convenience of members.

The following places of interest will also be freely opened, viz.: the Hospital, the Old Castle and Caverns.

Dinner will be provided at the White Hart Hotel, at 5 o'clock precisely. Tickets, exclusive of wine, 7s. each.

Charles Parsons, M.D., *Honorary Secretary.*

2, St. James's Street, Dover, June 14th, 1875.

P.S.—Trains leave Guildford for London at 9.14 P.M.; for Reading and intermediate stations at 8 P.M.; for Horsham, 5.10; for Portsmouth, 8.2; for Redhill, for Tunbridge Wells, Ashford, Dover, and Brighton, at 7.32.

## NORTH OF ENGLAND BRANCH.

The annual meeting of this Branch will be held in the Town Hall, Darlington, on Thursday, July 8th, at 3 P.M. President, 1874-75, Andrew Legat, M.D.; President-elect, 1875-76, S. E. Piper, Esq., F.R.C.S.

The annual dinner will take place at the King's Head Hotel, Darlington, at 4.45 P.M. precisely.

G. H. Philipson, M.D., *Honorary Secretary.*

Newcastle-upon-Tyne, May 29th, 1875.

## BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ORDINARY MEETING.

The seventh ordinary general meeting of the session was held on April 8th, at the Midland Institute, Birmingham. Present: W. C. Garman, Esq., President, in the chair, and thirty-five members.

*New Members.*—Mr. D. Woods, Solihull; Mr. T. Baily; and Mr. E. Townsend, Birmingham, were elected members of the Branch.

*Habitual Drunkards.*—A report from this Committee of the Branch, recommending a form of petition (published in Journal May 22nd) in favour of legislation for the care and restraint of habitual drunkards, was received and adopted.

*Nomination of Officers, etc.*—At this meeting, the officers, Council, and representatives of the Branch on the General Council of the Association for the ensuing year, were nominated.

*Communications.*—The following communications were made.

*Encephaloid Disease of the Ovary.*—Dr. Underhill exhibited a specimen of encephaloid disease of the ovary. The patient came under the care of Mr. Houghton at the General Hospital, Dudley, in an almost moribund condition. She stated that she had noticed the tumour about ten months. She had not much pain, but gradually emaciated. On *post mortem* examination, the tumour was found to weigh eight pounds. It was attached by a long thin pedicle, and there were no adhesions. Its removal at an earlier stage of growth might have been effected without difficulty, and probably life would have been prolonged.

*Multilocular Ovarian Cyst.*—Dr. Underhill also exhibited a specimen of multilocular cystic union of the right ovary removed by him on the preceding Monday. The diagnosis was in this case somewhat obscured by the large accumulation of peritoneal fluid (ten pints). The tumour, with its contents, weighed upwards of twenty pounds, and gave the impression, when felt through the tense abdominal parietes, of a large solid mass. Dr. Underhill objected to tapping a second cyst if it could be avoided, on the following grounds: (1) the smooth surface of the distended cyst was a better guide to the hand in breaking down adhesions than when emptied and collapsed; (2) there was less risk of any of the contents of the sac escaping into the abdominal cavity; and (3) from the distended cyst completely closing the parietal opening, protrusion of the viscera was prevented. In this case, neither the uterus nor any of the intestines were in the least exposed. The patient had not, since the operation, had an unfavourable symptom.

*Osteosarcoma of the Femur.*—Dr. Philip Bindley showed a very large osteosarcoma of the lower end of the femur, not involving the epiphysis, from a boy aged 17, for which amputation at the middle of the thigh was performed by Mr. Oliver Pemberton. The knee-joint was quite healthy.

*Necrosis of the Femur.*—Dr. P. Bindley showed a specimen of necrosis of the femur from a child aged 11, a patient of Mr. T. H. Bartleet's in the Birmingham General Hospital. Owing to the pain which they caused, the splints were temporarily removed, and the child, while shifting its position in bed, fractured its femur. The friends would not permit amputation, and death ultimately ensued. At the necropsy, the whole femur was dissected out, with its periosteum, which hung round it like a large loose bag, capable of holding a pint and a half of fluid. The fracture had taken place at the spot where it appeared that the necrosis was about to end; for a great amount of callus had been thrown out by the upper fragment, and surrounded the lowe—the upper end of the sequestrum—like a thick nodulated ring.

*Pathological Specimens from a Dog.*—Mr. G. H. Evans showed a large sarcomatous tumour, of the size of an adult head, removed from the right renal region of a small Scotch terrier; also a liver, nutmegged, and containing several deposits, probably of similar nature to the tumour; and, from the same animal, a heart with vegetations on the mitral valve, which, for many years before the death of the subject, had given origin to a blowing, and, finally, to a musical systolic murmur occasionally to be heard at the distance of a yard or more, when the dog was lying on the floor.

*Effervescing Citrate of Magnesia.*—Dr. James Thompson called the attention of the Branch to a new preparation of fluid effervescing citrate of magnesia (Kinmond's).

*Congenital Cataract.*—Mr. J. Vose Solomon read a paper entitled Notes on Congenital Cataract, and its treatment.

*General Paralysis of the Insane.*—Dr. Fowler Bodington read a paper on general paralysis of the insane, in which he drew attention to the recent treatment of general paralysis by Calabar bean. He had found advantage from it; but thought, from its various properties, that we have in using it to steer a difficult course between two sets of effects. and its administration required care, consideration, and watchfulness; He was in the habit of treating the peculiar apoplectiform epileptic fist with chloral, to procure quiet sleep. If there were difficulty in administering it, he first gave chloroform, and then got the patient to swallow the dose of chloral while in the chloroform sleep. By this means, quiet sleep, of some hours' duration, was procured, the patient waking up in a much better condition than if the convulsions are allowed to run their course unchecked. As to the causation of general paralysis, Dr. Bodington thought that the excessive sexual indulgence which had been attributed as a cause, was quite as probably an effect, and might, perhaps, be looked upon as one of the earliest symptoms of the malady. In three out of four cases that had lately come under his observation, there was unquestionable evidence of previous constitutional syphilis. The recent investigations of Hitzig and others were of much interest in relation to general paralysis, characterised as it is by both mental and motor disorder, and the seat of the lesion, or, at any rate, its starting point, being the cortex cerebri.

*Paracentesis of the Chest.*—Mr. T. H. Bartleet brought forward the subject of paracentesis of the chest, and the value of drainage in empyema. He also described a new and ingenious method of inserting the drainage tube.

Mr. Buxton (Fazeley), Dr. Russell, Mr. Manby (Wolverhampton), Mr. Bartleet, Dr. Harrison (Walsall), and Dr. Foster, took part in the discussion of the papers.

## EAST YORK AND NORTH LINCOLN BRANCH: ANNUAL MEETING.

The annual meeting was held at the Hull Infirmary on Wednesday, the 26th ult.; John Dix, Esq., President, in the Chair. There were upwards of thirty members and visitors present.

*Report.*—The minutes of the last annual meeting having been read and confirmed, the Secretary read the report of the Committee, the adoption of which was moved by Mr. Craven, and seconded by Mr. Locking.

*Habitual Drunkards.*—It was proposed by Mr. Holder, seconded by Dr. Lunn, and carried, "That this Branch will give its cordial support to any well considered plan for carrying out the principles of the Habitual Drunkards Bill, and that the subject be left in the hands of the Committee."

*Representative on the Parliamentary Bills Committee.*—Mr. Holder was elected.

*Half-yearly Meeting.*—It was proposed by Dr. Lunn, seconded by Sir Henry Cooper, and carried, "That the invitation of the Yorkshire Branch to amalgamate their autumnal meeting with that held by this Branch be accepted; the details to be left to the Committee to arrange."

*Officers for the ensuing Year.*—The following were elected:—*President-elect:* T. B. Keetley, Esq., Grimsby. *Secretary and Treasurer:* R. H. B. Nicholson, Esq. *Committee:* Sir Henry Cooper; R. M. Craven, Esq.; Dr. G. F. Elliott; H. Gibson, Esq.; Dr. K. King; T. Walton, Esq. *Representatives in General Council:* The President, President-elect, and Dr. King.

*New Members of Branch.*—The following were elected. — Appleton, Esq., Beverley; G. J. Briggs, Esq., Hull; C. F. Hutchinson, M.D., Bridlington; W. Jackson, Esq., Hull; J. T. Jones, Esq., Hornsea; J. I. Mackintosh, Esq., Caistor; H. Morris, Esq., Howden; — Plumber, Esq., Hedon; F. J. Sawden, Esq., Hull; W. Sheldon, Esq., Hessle.

*President's Address.* — The President read an address, taking for his subject Medical Charities and Hospital Appointments. There was no discussion; but Sir Henry Cooper, in proposing a vote of thanks to the President for his address, said that there was room for improvement, although he did not agree in all the details with the President's views.—Dr. Elliott, in seconding the motion, spoke of the damage done to the profession by quacks and quackery.—Mr. Nicholson supported the resolution, and stated that it was not a new idea of the President's that the staff of the medical charities should be increased, he having already, some years ago, when there was a contested election for honorary surgeons at the Dispensary, of which he was one, proposed that both candidates should be elected.

A patient was exhibited, on whom a successful operation had recently been done for aneurism of the femoral artery, by Mr. Dix.

*Dinner.*—There was an excellent dinner at the Vittoria Hotel in the evening, at which thirty members and visitors sat down.

## SOUTH-EASTERN BRANCH: EAST KENT DISTICT MEETING.

The fifty-sixth meeting was held in the Library of the County Hospital, Canterbury, on Thursday, May 20th, at 3 o'clock, George Rigden, Esq., in the chair. There were nineteen members and their friends present.

*Secretary.*—Mr. Edward Thurston, the Honorary Secretary, was thanked for his past services, and unanimously re-elected.

*Meetings.*—The places of meeting for the ensuing year were fixed for Folkestone in September, Canterbury in November, Ashford in March, Canterbury in May. Dr. Lewis of Folkestone was chosen as the Chairman of the Folkestone meeting.

*Communications.*—Mr. Millikin exhibited a choice and numerous collection of the latest novelties in surgical and clinical instruments.

Mr. Woodman exhibited a patient of his, a sailor, the subject of paralysis of the serratus magnus, with consequent displacement of the scapula. This proved of considerable interest to the members present, and went far towards controverting the formerly received opinion of a possible dislocation of the scapula.

*Medical Ethics.*—Mr. Reid brought forward a resolution "for the formation of a Committee to take cognisance of and report on ethical subjects relating to the district". In proposing its adoption, he alluded to the general necessity of association in order to produce unanimity and power to amend the discordance and weakness of the relation of medical men towards each other and the public, that was naturally consequent on the isolated position and action too easily fallen into in the practical pursuit of the profession. Reasons in general, which, more than thirty years ago, led to the formation of the British Medical Association, had amply testified their soundness by the force and usefulness to which that organisation had attained, even so far as to become a power in the State on medical matters. Although, from its local origin at Worcester, it had extended to its present magnitude, it retained so much of its primary germs as to allow and foster the formation of district meetings, by which alone the local isolation of members could be best amended, and harmony and union produced for their general comfort and benefit. The British Medical Association, in its several grades of Annual Congress, Branch and district meetings, not only fulfilled its functions in various degrees corresponding to its opportunities and representations, but also offered facilities for special development of some one or other of its principles in each grouping; thus the political element and power was in fullest form and action at the annual congress, whilst the social and scientific objects might best make the bond of union in the smaller division, the district. Similarly ethical questions might some of them, in their greater bearings and fullest sense, be well considered in the larger combinations; yet many of them had an application that was limited and influenced by local circumstances and customs, and were, therefore, better considered in the lesser sections: such, for instance, as the one relating to a tariff of remuneration. The delicate and personal nature of these subjects required that a fair amount of mutual confidence should be attained between the members to whom they are to apply.

During the last twenty-six years, this preliminary confidence had been arrived at by social meetings under the cultivation of literary and scientific objects: at first by the agency of the East Kent Medical Society, and subsequently by its combination with the East Kent District of the British Medical Association. Thus a favourable time had arrived for entering upon ethical matters with a prospect of a satisfactory result. During the period referred to, a desire had frequently been expressed to entertain the subject, but, for reasons stated above, it had been thought more prudent to postpone the consideration. In the present idea of an Ethical Committee, it was not intended to establish a sort of court of appeal for the settlement of disputes and differences between members of the profession, nor was it proposed to invest the decisions with any compulsory action, but merely to leave them to their commendatory condition, and with their natural moral force multiplied by the character and number of those accepting them. It was rather contemplated as a council recommending and advising the best course and arrangements for the profession in matters affecting their common interests. With this view, it was proposed that the members of the committee should be selected from the chief places of meeting; that they should only consider such questions as are referred to them by the wish of a meeting, and should report to a subsequent meeting; and, that when the report was adopted, it should have the force of a general recommendation for the district. The Committee was to be appointed annually, and thus its existence and action was not to encroach upon or disturb the primary objects of the district. The following resolution was passed: "That an Ethical Committee be formed from the members entitled to attend the meeting of the East Kent District of the British Medical Association; that its duty be to consider and advise upon all such matters affecting the general status, actions, and customs of the profession in the district, that may from time to time be referred to it by any of the meetings." It was then proposed by Mr. REID, and seconded by Dr. PARSONS, "That the further consideration of the matter be deferred to the next meeting."

*Retention and Extravasation of Urine.*—Mr. TEEVAN commenced a paper on the causation, diagnosis, and treatment of retention and extravasation of urine, by stating that retention was usually caused by stricture of the urethra, enlarged prostate, or stone, the first being the most common, and the last mentioned the rarest. Retention was often caused by gonorrhœa, an attack of piles, or an operation for their removal, inflammation of the prostate, atony of the bladder. Lastly, retention might ensue from rupture of the urethra, tumours in the bladder, polypus in the urethra, rupture of bladder, tumours in the abdomen, parturition, fevers, paralysis, tumours of the uterus, injuries to the spine, fractures of the lower extremities, loaded rectum, foreign bodies in the vagina or rectum, scrotal tumours, etc. As regarded the diagnosis, it might be broadly stated that retention occurring in boys was caused by stone, in young men and those of middle age by stricture, and in the old by enlarged prostate. In effecting a diagnosis in adult males, the best way was first of all to enucleate the least frequent of the three causes above mentioned as usually originating retention, which was stone, the symptoms of which were (1) painful micturition, (2) escape of blood in varying quantities, (3) increase of both the above by exercise; a man with inflamed prostate might suffer from Nos. 1 and 2, but they were not aggravated by exercise. Prostatic cases were worst whilst in bed, but stone cases were there the most comfortable. A man with stricture was more comfortable after he had passed urine, but a patient with prostatic disease was worse. The use of the *sonde à vis portant un conducteur* would clear up the diagnosis in difficult cases. If it passed into the bladder, it proved that stricture was not the cause of the retention; if all the urine passed out through the instrument in a good stream, it proved that the case was one of enlarged prostate; but if the urine fell vertically as it came out, atony was superadded. If the urine were driven out with great force, and much pain to the patient, and if it passed not only through the instrument, but by its sides also, it showed that there was a stone. If the bougie belonging to the *sonde à vis* would not pass, it ought to be introduced as far as it would go; and if its point were engaged, or caught, as it were, when the instrument was rotated, it proved that its end was in a stricture; but if the point of the bougie bumped up against something solid, it showed that there was an obstruction in the shape of an enlarged lobe of a prostate or a stone. If a metal catheter were then passed down to the spot, it would determine which of the two mentioned was the cause. Time did not permit Mr. Teevan to proceed further with the reading of his paper.

*Dinner.*—The members present afterwards dined together at the Fleur-de-lis Hotel.

*Next Meeting.*—The next meeting of the district will be held at Folkestone on September 16th.

# CORRESPONDENCE.

## THE SCOTCH POOR-LAW SYSTEM.

SIR,—Will you permit me, through your columns, to inform medical gentlemen holding office under the several parochial boards in Scotland, that I propose to read a paper at the forthcoming meeting of the British Medical Association at Edinburgh in August, on the anomalies and deficiencies of the existing system of medical relief to the poor of Scotland, and to make suggestions for an amendment of the same. Although I have, in the annual reports of the Board of Supervision, and the reports of the Select Committee on Poor Relief, Scotland, 1870-1871, ample materials on which to found a case, yet I should be obliged if Poor-law medical officers in Scotland would furnish me with any facts, showing the hardship inflicted on the sick poor, or on themselves, by the present system.

As a matter of course, all such information would be treated as strictly confidential. I am, sir,

33, Dean Street, Soho, Yours obediently,
London, June 14th, 1875. JOSEPH ROGERS,
Formerly President of the Poor-Law Medical Officers' Association, England.

[We would call attention to the importance of compliance with the request embodied in the above letter.]

## PRACTITIONERS AND PUERPERAL PYÆMIA.

SIR,—I think Dr. Thorburn has not succeeded in constructing a charge by me against him out of a passage in my note which is qualified by an "if". At the same time, I readily give him "an honourable acquittance" from any justly or unjustly constructed charge, for I believe in the honourable character and the faithfulness of his practice.

My object has been to avert the risk we all run of being charged, tried, and convicted, as poor Mrs. Marsden was; and this correspondence confirms in a remarkable manner the existence of the danger, for it educes no exception to the statement, that all of us attend dangerous infectious cases, including puerperal pyæmia, and go on with our practice.—Your obedient servant, J. MATTHEWS DUNCAN.

30, Charlotte Square, Edinburgh, June 12th, 1875.

## DISCUSSION ON PUERPERAL FEVER.

SIR,—My explanatory remarks on those of Dr. Tilt as they appeared in your last report of the discussion on puerperal fever having been slightly altered, my meaning is thereby rendered ambiguous. I said I found half of those cases which had been associated with "animal poisons" to have been connected with scarlatina. Of these, nearly half were suffering from scarlatina in the usual way; the rest, from symptoms which we have hitherto called "puerperal fever", though unmistakably associated with scarlatina poisons. I may also add, though I do not at the present time wish to enter fully into the question, that very severe local symptoms were noticed in many of the cases which had the rash. I have never disputed the fact that scarlatina may pass through the usual stage in a puerperal woman: on the contrary, I have shown, in the paper alluded to, that more than half do. And, further, I have frequently asked for well-based information on the subject from the Fellows of the Society. The true proportion of the two has yet to be made out, but the experience of each gentleman in general practice of a negative kind, cannot surely outweigh that of those who have the opportunities in consulting practice of seeing the practice of numbers.

I am, etc., J. BRAXTON HICKS.

## THE NORFOLK AND NORWICH HOSPITAL.

SIR,—I have read with much interest in the JOURNAL of the 29th ult., your remarks on Captain Galton's report on the alterations and additions required at the above institution. Whatever issues from that gentleman's pen on the subject of hospital construction is entitled to consideration; and we are deeply indebted to him for having, at the annual meeting of the British Medical Association in 1869, placed the subject prominently before the profession, and raised a discussion which promises to be fruitful. So far as I can gather from your quotations from the report, Captain Galton has not advanced anything new for the prevention of hospital infection beyond the general principles he laid down nearly six years since. Valuable as are his suggestions for dealing with the majority of patients, yet experience has shown us that the most modern hospitals are unreliable as safe abodes for patients suffering from wounds and infectious diseases. For such cases, isolation of wards, although advantageous, has not proved the boon we were led to expect. Until isolation of patients in properly constructed compartments is carried out, we shall not cut the ground from beneath the feet of the subtle enemy we are dealing with. If the past discussions on the subject of hospital construction are worth anything, they tend to prove that cases of the class under consideration, when placed together in one of our most approved modern wards, will still prove injurious to each other; that the building itself will eventually become injurious, and that the amount of ventilation which is useful to one patient may be detrimental to another—such occurrence being frequently met with in a general ward.

As regards the rendering portions of the existing Norwich hospital habitable for patients not included in the above category, I would suggest that, after the walls and ceilings are scraped, but before the floors are repaired and waxed, a piece of flooring be removed from each side of a ward throughout the whole length; and that, all flues and windows being closed, sulphur be burnt for several days, the disinfecting fumes thus permeating every crevice above and underneath the floor. Without such precaution, infection would be imperfectly sealed up, but not removed.

I trust this letter may not be regarded as obtrusive, considering that Captain Galton's report possesses, as you observe, "general as well as local interest", and that I have already joined in the discussion on the state of the above hospital. (See BRITISH MEDICAL JOURNAL, September 26th, 1874.)—I am, etc., HENRY GREENWAY.

Plymouth, June 7th, 1875.

## THE CONTAGIOUS DISEASES ACTS.

SIR,—I now forward the conclusion of my inquiry into primary venereal sores before and since the Acts in the fourteen stations under the Acts and the fourteen stations not under, and the results are contained in the following tables.

*Fourteen Stations under the Acts.*

| Station. | Average Annual fall of disease per 1000 before & since the Act. | | Character of Station. | Average Strength. | Comments. |
|---|---|---|---|---|---|
| | Before. | Since. | | | |
| Devonport and Plymouth... | 11.0 | 6.0 | Medium size | 3000 | Great falling off since the Act |
| Portsmouth .. | 14.7 | 10.7 | Large | 5000 | Ditto |
| Chatham and Sheerness... | 4.0 | 5.5 | Large | 5000 | Improvement |
| Woolwich .... | 17.0 | 4.4 | Large | 6000 | Very great falling off |
| Aldershot .... | 7.4 | 3 7 | Very large | 12000 | Fell off one-half |
| Cork ........ | 7.0 | 1.1 | Moderate | 2000 | Great falling off |
| Curragh ..... | 9.0 | 11.0 | Large | 5000 | Improvement 1-4th |
| Shorncliffe.... | 9.6 | 6.3 | Medium | 3000 | Falling off 1-3rd |
| Dover........ | 8.3 | 10.2 | Moderate | 2400 | Improvement 1-4th |
| Maidstone.... | 1.3 | 20.0 | Extremely small | 300 | Excess. fluctuation; great improvement |
| Winchester.... | 2.2 | 14.7 | Small | 850 | Ditto |
| Canterbury... | 3.1 | 3.7 | Small | 1000 | Excessive fluctuatn. |
| Colchester.... | 0.7 rise. | 30.0 fall. | Moderate | 2000 | Extreme fluctuation —great improvmet. |

Windsor........ No history before the Acts; disease doubled since the Acts.

From this table, it appears that, in all the *large* stations except Chatham and the Curragh, there has been a very great falling off since the Act; the improvement being 63.7 before the Act, and only 32.2 after it, amongst 31,000 men. In Chatham, the improvement was one-third greater after the Act than before it, amongst 5,000 men; and in the Curragh, also 5,000 men, the improvement increased by nearly one-fourth after the Acts. This leaves the *small* stations to be accounted for; and the most striking feature in the three small stations of Maidstone, Winchester, and Canterbury, is the extreme amount of fluctuation in them, which leaves averages of little value, because they alter rapidly year by year. Giving the average improvement, however, before and after the Acts, as in the other cases, Canterbury shows no difference; Winchester, with less than a thousand men, shows a considerable difference in favour of the Acts; and Maidstone, with only 300 men, a greater difference still in their favour. Windsor, a small station, has doubled disease to show; and Dover, above 2,000 strong, has improved by one-fifth since the Act. Only Colchester (2,000 men) remains; and, after extraordinary fluctuations before the Acts, this town shows a very marked improvement since them. Hence upon the whole, in six large stations with above 30,000 men, there has been a great falling off since the Acts. In two large stations, there has been a moderate improvement; and in two moderate-sized and two very small stations, having altogether about 5,000 men, there has been a great improvement. In one small station, disease has been stationary; and in another, it has doubled since the Acts.

In the fourteen stations not under the Acts (omitting London for reasons stated in my letter on June 5th), the average amount of disease has fallen since 1860 in every station except Manchester, where it has risen one-tenth; and the total fall averages one-third throughout. When the period between 1860 and 1872 (the earliest and latest official returns) is divided into two periods of six years each, disease has fallen in the second six years one-third below its average in the first six years in nine of the stations, including Dublin; and it has risen about one-fifth above the first six years in four of the smaller stations, the improvement being thus nearly four times as great as the falling off. And this improvement has taken place without the Acts having been in force in any one of the stations.

The results, therefore, now arrived at are: 1. That, in the stations under the Acts, there has been a great falling off since the Acts were brought into force; and 2. That there has been a very great reduction of primary venereal sores in the stations not under the Acts, and the fall has been continuous. In these results, the opponents of the Acts can only see an absence of necessity for them as sanitary measures, and injury upon the whole, rather than benefit, where they have been introduced.—I am, sir, yours faithfully, J. BIRKBECK NEVINS.

Liverpool, June 5th, 1875.

P.S. I forward you along with this the data upon which all these conclusions are based.

## THE MODE OF ELECTION INTO THE MEDICAL BENEVOLENT COLLEGE.

SIR,—It is most devoutly to be wished that, by your powerful advocacy and assistance, some change will ere long be made in the mode of electing into the Medical Benevolent College. To show how very necessary it is that a change should be made, let me direct the attention of the governors to the last list of candidates for the four vacancies. Forty-one candidates appeared for these four vacancies, and only one obtained a foundation scholarship on a second application, and that one came before the subscribers with claims of no ordinary kind. The boy was one of ten children left totally unprovided for, and without either father or mother. Last year, by great exertion, his friends obtained an unusual number of votes, and this year, by a great effort, brought him in at the head of the poll. Of the three others elected at the same time, one was an applicant for the third, and two for the fourth time; while the unfortunate boys standing at the head of the list for the fifth and sixth time were not only rejected, but are removed altogether from the list by age. On looking down the list, I find that one other candidate, No. 14, also goes off from the same cause, having attained the age of 14 years.

Next year, it is more than probable that a larger number will be struck out from the operation of the bye-law as to age, as eight have already attained the age of 13 years, and there are no fewer than fourteen whose ages are 11 and 12. Now, if, on an average, it require a four years' canvass to secure a boy's election, it is quite clear that not more than a fourth part of these twenty-one boys have the remotest chance of ever obtaining a foundation scholarship. What a cruel mockery then, what a waste of time and money to put the friends of the respective candidates to, when it is almost impossible they can ever attain the object of their solicitude! How truly heart-rending when it comes before us, as in Case No. 38 on the list, of the son of the poor widow, Mrs. Nind, who, it appears has been "left with ten children, without provision even for the more immediate wants of her family", and whose appeal comes to us in the following terms: "The circumstances of this case are very distressing, and, from the expense incurred in canvassing for votes, it seems very doubtful if funds for a second canvass can be procured."

Does not the case of the poor widow's son suggest to the Council some means of change in the present most unsatisfactory mode of election? It is something like wishing to get rid of the question altogether to tell us that, by the Act of Incorporation, we cannot make some alteration for the better. It is clearly enough laid down in Section 6 of the bye-laws that, "besides the ordinary business, the annual general meeting may transact any other business, of which twenty-one days' notice in writing shall have been given to the Council"; and that "all proposed alterations of the bye-laws, as well as the names of all proposed new members of Council, are to be inserted" in the advertisements convening such meetings. Surely this will enable the majority at such duly constituted meeting to amend, alter, and define the present privileges of governors and subscribers, as at present laid down in Section 16. It is perfectly clear to my mind that, if the mode of admission to the benefits of the Medical Benevolent College as prescribed by the Charter of Incorporation be oppressive to the candidates and adverse to a proper selection being made from among them, it would be just and right to apply at once for some modification of the Charter in this respect. But, in fact, a great improvement may be made without entailing this trouble upon the Council, in the mode of admission, without interfering with the voting privileges allowed by the existing charter.

If the Council will undertake to adopt the suggestion of the Voting Charity Reform Association; sift the cases of candidates; limit their number to, say, twice the number of vacancies, and submit the list to subscribers, with their own recommendations, according to the strength and urgency of the different cases, the polling paper being returned to the Council or secretary duly filled up, the use of the canvassing cards and circulars being prohibited, the worst evils of the existing system will be avoided.

The importance and gravity of the subject will, I hope, sir, prove an excuse for the length of this communication.—I am, your most obedient servant,

JABEZ HOGG,

June 14th, 1875. An Old Governor of the Charity.

SIR,—Many of your readers will be pleased to learn the great success which has so far attended a memorial to the Council of the Royal Medical Benevolent College praying for the abolition of the canvassing system in that institution. No less than 2,066 subscribers have signed in favour of the memorial, and many names are being daily added to the list; whereas only 246 subscribers have dissented from the prayer of the memorial.—I am your obedient servant,

G. W. SHERLOCK, Secretary.

Charity Voting Reform Association, 30, Charing Cross,
June 16th, 1875.

## ACCIDENTAL PRODUCTION OF WOUNDS.

SIR,—In your last issue, under the heading of "Medico-Chirurgical Society of Edinburgh", an account is given of the exhibition of pathological specimens. Among these was one of part of a thorax shown by my friend Dr. Watson, which had been experimented on by him to illustrate the division of a rib with an ordinary table-knife. I agree with Dr. Watson that the experiment is "interesting in a medico-legal point of view"; but I can assure him that it had no such effect on the public prosecutor as he would have us to believe.

The medical witnesses for the Crown allowed the possibility of the wound of the chest and the division of the rib having been of accidental origin; but, at the same time, they regarded it as exceedingly improbable that a woman falling her own height and coming accidentally against a knife held in the husband's hand should receive such injuries.

Dr. Watson is of opinion that his evidence "led the prosecutor for the Crown to withdraw the charge of murder, and only press that of culpable homicide". So far from this being the case, the prisoner, after Dr. Watson had been in the witness-box twice, proffered the plea of culpable homicide, and this was done at the instigation of his attorneys, who had a shrewd notion how the case was progressing.

Had Dr. Watson's evidence had the weight he attaches to it, the prisoner would have been discharged as "not guilty", as an accidental death of the kind spoken of by Dr. Watson involves no criminality. In addition, in Scotland, we have the convenient verdict of "not proven", and, had the jury been in doubt, the prisoner would have had the benefit of it and been discharged from the bar.

As it was, he was of a low type of intelligence, of intemperate habits, and, on the night of the murder, was besotted with drink; and I happen to know that both the judge and the public prosecutor thought it barely possible that the prisoner, at the time of inflicting the fatal injuries, was so beside himself with liquor as hardly to know what he was doing. Hence, though with some hesitation, the plea of culpable homicide was accepted, and the prisoner was then sentenced to eighteen years' penal servitude.

The circumstantial evidence was strong against the prisoner.

I am, etc., HENRY D. LITTLEJOHN, M.D.,
Lecturer on Medical Jurisprudence at Surgeons' Hall.

Edinburgh, June 14th, 1875.

# REPORTS OF SOCIETIES.

## EPIDEMIOLOGICAL SOCIETY OF LONDON.

WEDNESDAY, APRIL 14th, 1875.

Inspector-General LAWSON, Vice-President, in the Chair.

*The Sanitary Conference in Vienna.*—Dr. SEATON brought before the Society the results attained by the International Sanitary Conference at Vienna. Twenty-two states were represented at the conference by delegates from every country in Europe, and also from Persia, Egypt, and Turkey. The United States of America had accepted an invitation to join in the conference, but no representative attended. The assembly consisted of forty-three persons, including the president, the Baron von Gagern; of those delegates thirty-eight were medical, most of them holding official position in the sanitary service of their respective countries. No state was without at least one medical representative. The states were unrestricted as to the number of delegates they sent, but each state, if represented by more than one delegate, had but one vote. Instead of extending over eight months, as the Constantinople conference had done, the sittings at Vienna occupied just thirty days. The amount of work got through could only have been accomplished by men well acquainted with the subjects, and by careful previous arrangement. There was a difficulty in preparing the *procès-verbaux* for each day's sitting. It was not surprising, therefore, that they contained some inaccuracies, but, considering the rapidity of preparation, considering also that two languages were always used and sometimes three, their general accuracy was marvellous. Cholera, it was understood, in its relation to preventive measures and to quarantine, was to be the chief subject of the conference, but was not the only subject for consideration. A project for a permanent commission for the study of epidemic diseases formed an important part of the programme. Before entering on the practical questions connected with cholera, it was considered desirable to submit to the conference the several scientific conclusions which had been arrived at by the conference at Constantinople; these had been separately printed for that purpose. In these conclusions the two conferences were found almost entirely in accord. The conference of Vienna agreed with that of Constantinople: that epidemic cholera has its origin in India, is endemic there, and probably only there; that it is not endemic either in Europe, or Turkey in Asia, or the Caucasus, or North Africa, or in America; that it is transmissible by man, its spread being in relation to the rapidity and activity of human communications; that a single person may be the means of setting up an epidemic probably while suffering only from premonitory diarrhœa. The question also respecting transmissibility by clothing, and articles in domestic use coming from an infected place, especially when they had been used by the sick, was decided affirmatively, as at Constantinople. The subject of transmissibility by food and drink, especially by means of water used as drink, was one which had not been discussed at Constantinople. A majority of delegates considered there was not sufficient evidence for a positive conclusion in regard to food, but admitted it as to drink and by water. The conclusions of the conference at Constantinople that there was no proof of merchandise having transmitted cholera, nor anything conclusive of its transmission by the corpses of those dying from it, were affirmed by that of Vienna; also that there was no evidence of atmospheric transmission to long distances. If cholera were transmissible by air, it must be only through a very limited space. Great deserts were barriers to its progress; fresh air soon destroyed infection; but in certain conditions of confinement of air the infective activity might be preserved, so that the clothes of the sick might convey it. There was no evidence of its reaching a new place more quickly than man travelled. Much attention was devoted to the two questions of duration of incubation and disinfection. With regard to the former, the decision come to was the same as that of Constantinople; that in almost all cases the time from the moment of receiving infection to the beginning of disease was short. This was often less but seldom more than four days; opinions were divided as to whether this period could possibly be extended to a week. Disinfection was a still more difficult question to decide; the discussion ended in resolving that no certain and specific means existed of destroying infection, but the great value was recognised of hygienic means, as aëration, ablution, cleanliness in every form, in conjunction with the use of substances at present regarded as disinfectants. So far, the two conferences were in general agreement. The scientific work at Constantinople was, in Dr. Seaton's opinion, well done, the inquiry conducted in a spirit of fairness and truth, the conclusions logically and well set forth, and valuable hygienic measures had resulted. But on the practical subject of quarantine the recommendations of the two conferences differed greatly. The conference of Constantinople, carrying out its deductions to their logical conclusions, recommended a complete scheme, admirable on paper, for the establishment of quarantine on the Red and Caspian Seas, and on the Persian Gulf, with a complete sanitary cordon on the Turco-Russian and Russo-Prussian frontiers, together with, if necessary, complete interruption of all communication between Egypt and the whole basin of the Mediterranean. It also established principles of maritime quarantine to be applied not only to the ports between Europe and Asia, but in the ports of Europe itself. The conference at Vienna, agreeing in the theoretical principle of quarantine, had to consider on practical grounds and on present international relations, what restrictions were possible and likely to be efficacious. The opinion of the conference was strong as to the uselessness of land quarantine, and the mischief of the sanitary cordons by which it was carried out; only four states offered any opposition to their entire abolition. Nine sittings were devoted to the consideration of maritime quarantine, a subject on which there was great diversity of opinion. The conclusion arrived at was, that while, when cholera was once out of Europe, measures of quarantine at certain points, as on the Red or the Caspian Seas, might be of utility, measures of quarantine in the ports of Europe were inadmissible, and that the substitution of a system of medical inspection, similar to that now practised in England and some other countries in the north of Europe, was advisable. This was opposed by the maritime states of France, Portugal, Greece, Turkey, and Egypt, consequently the conference proceded to consider the system on which quarantine might be retained, introducing considerable improvement on former practice. The recommendation of the conference for the abolition of quarantine in all European ports remained. Dr. Seaton then gave an account of the other subjects deliberated on by the conference, discussions on yellow fever, and the establishment of a permanent international sanitary commission, concluding with some observations on the chief result of the conference, which, if it had not brought about a complete assent on the practical measures to be pursued, had made an important step towards it, and to the abolition of a system which, vexatious and delusive, was now made more than ever useless by railways. Quarantine could no more stand against railways than passports had done.—Mr. J. Netten Radcliffe considered the change effected at this conference so great that the term quarantine ceased to bear the same meaning as before. Much of what was most obnoxious in the old system was done away with. Detention and inspection no longer depended on caprice but on international agreement, and must be applied in a milder and more efficient way.—The discussion was adjourned.

## PATHOLOGICAL SOCIETY OF DUBLIN.

### Saturday, April 17th, 1875.

Robert McDonnell, M.D., F.R.S., President, in the Chair.

*Aneurism of the Ascending Aorta.*—Dr. Hayden exhibited a remarkable specimen from the body of a labouring man, aged 54, formerly intemperate, but generally healthy. Two years ago, he suffered from bronchitis and slight hæmoptysis. Recently, his voice became husky, and he noticed a prominence on the front of his chest. There was stridor from below. The pulse varied from 84 to 100; it was less strong on the right side. In the second right intercostal space, there was a conical tumour, in which a double impulse existed; the first, postsystolic; the second, the "back-stroke" or "impulse of arrest", as it has been well termed. The prominence was two inches in diameter, and projected forwards fully one inch and a half. No signs of pressure on neighbouring organs existed at this time, with the exception of the laryngeal and tracheal symptoms. There was an area of dulness which extended to the fourchette of the sternum, and tracheal resonance was well defined with bronchial respiration in the right scapular region. The sphygmographic pulse-tracings exhibited a marked dicrotism. At this time, the temperature in the right axilla was 98 deg., that in the left axilla was 97 deg.; a still greater difference in favour of the right side existing between the readings of a thermometer placed in the external auditory meatus of each ear. About this time (March 20th), the right pupil became contracted, œdema of the right arm set in, and the pulse was smaller. The tumour now rapidly enlarged, and assumed a hemispherical shape. The eyelid drooped. On March 22nd, the right clavicle was dislocated upwards, the tumour projected above the sternum, but the sounds and impulses diminished in intensity. The man died of asthenia on April 10th. A dry cough had commenced on March 18th, and was soon followed by a rather abundant expectoration. At the *post mortem* examination, acute miliary tuberculosis was found; the heart was large and fatty, but the valves were healthy; there was enormous dilatation of the aorta, which was extensively atheromatous. A vast aneurism engaged the ascending aorta and arteria innominata. The superior vena cava was almost occluded. A false aneurism was situated in front of the sternum. Masses of fibrin lay in the sac. The left subclavian was free of the tumour. The pneumogastric nerves were hypertrophied. One part of the right bronchus was more pressed on than the other, a condition which explained the feebleness of respiration in the upper portion of the lung compared with the base. There was œdema of the glottis.

*Fracture of the Neck of the Thigh-Bone.*—Dr. Bennett laid on the table a series of specimens illustrative of this lesion. Case 1 was an extracapsular fracture, resembling luxation on the dorsum ilii. The neck of the femur was depressed, and the insertion of the neck raised above the level of the head of the bone; the lower fragment was placed in front of the upper one. Case 2 was one of ununited intracapsular fracture, with inversion of the limb, and shortening. The head of the bone was freely movable. Case 3 was a specimen of firm bony union within the capsule in intracapsular fracture. Dr. Bennett stated that six specimens of this condition had come under notice in the Museum of the School of Physic in Ireland.

# PUBLIC HEALTH
AND
# POOR-LAW MEDICAL SERVICES.

## POOR-LAW MEDICAL APPOINTMENTS.

Cuthbert, Clarkson, M.D., appointed Medical Officer and Public Vaccinator for the North-West District of Edinburgh, *vice* W. Hammond, M.D. deceased.

Coote, Michael, M.D,, appointed Medical Officer for the Second and Third Districts of the Ashby-de-la-Zouch Union, *vice* P. Dicken, M.D., deceased.

Gray, Frederick A., L.R.C.P.Lond., appointed Medical Officer and Public Vaccinator for No. 4 District of the Honiton Union, *vice* R. B. Morrell, L.R.C.P.Ed., resigned.

Griffiths, G., L.R.C.P.Ed., appointed Medical Officer for the Western District of the Pontardawe Union.

Kitchener, Thomas, M.D., appointed Medical Officer for the Etwall District of the Burton-on-Trent Union.

Macdonald, J. C. L., L.R.C.P.Ed., appointed Medical Officer for the Babeary District of the Langport Union, *vice* R. Culling, M.R.C.S.Eng., deceased.

Moir, Alexander, L.R.C.P.Ed., appointed Medical Officer to the City Parish Dispensary, Edinburgh, *vice* T. Cairns, M.D., deceased.

Moore, Ayres, L.K.Q.C.P.I., appointed Medical Officer for the Collooney Dispensary District of the Sligo Union, *vice* W. Armstrong, L.R.C.S.I., deceased.

Morell, R. B., L.R.C.P.Ed., appointed Medical Officer for the Fifth District of the Bradfield Union.

Morison, John W., L.R.C.P.Ed., appointed Medical Officer and Public Vaccinaator for the Parish of Kirkcaldy, Fifeshire, *vice* J. Young, M.D., deceased.

Murray, Thomas, L.K.Q.C.P.I., appointed Medical Officer to the Sligo Union Workhouse.

Nisbett, William, L.F.P.S., appointed Medical Officer for the Thornley District of the Easington Union.

Nutt, H., M.R.C.S.Eng., appointed Medical Officer for the North-west District of the Sherborne Union.

Sanderson, C., L.R.C.P.Ed., appointed Parochial Medical Officer for Drymen, Stirlingshire, and Aberfoyle, Perthshire.

Scott, Thos. H., L.R.C.P.Ed., appointed Medical Officer to the Dromore West Union Workhouse, *vice* C. J. Mahon, L.K.Q.P., resigned.

Simpson, W. S., M.R.C.S.Eng., appointed Medical Officer for the First District of the Pontefract Union, *vice* H. Muscroft, M.D., resigned.

Smith, Henry L., L.K.Q.C.P.I.. appointed Medical Officer and Public Vaccinator for the Durrow Dispensary District of the Abbeyleix Union, Queen's County, *vice* H. B. Stoney, M.B., resigned.

Sparrow, Thomas F., M.D., appointed Medical Officer, Public Vaccinator, and Registrar of Births, etc., for Crossakiel Dispensary District of Oldcastle Union, county Meath, *vice* R, Croly, L.K.Q.C.P.I.

Strickland, F. G., L.R.C.P.Ed., appointed Medical Officer for the Southouram District of the Halifax Union, *vice* W. Nowell, M.R.C.S., resigned.

Sutherland, John R., L.R.C.S.Ed., appointed Medical Officer and Public Vaccinator for the Rainton District of the Houghton-le-Spring Union, *vice* W. Curry, M,R.C.S.Eng., resigned.

Turner, F. H., M.R.C.S.Eng., appointed Medical Officer for the Chipping Wycombe District of the Wycombe Union, *vice* J. Turner, F.R.C.S.Eng., resigned.

Tyler, Edward A , M.R.C.S.Eng., appointed Medical Officer for the Ilsley District of the Wantage Union, Berks.

Walshe, Thomas P., L.K.Q.C.P.I., appointed Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Ballinakill Dispensary District of the Abbeyleix Union, Queen's County, *vice* T. J. FitzPatrick, L.K.Q.C.P.I., deceased.

# MILITARY AND NAVAL MEDICAL SERVICES.

Dr. Macleod, Inspector-General of Hospitals and Fleets, has been reappointed to the charge of the Hospital at Great Yarmouth for a further term of years.

Deputy Surgeon-General J. Macbeth, M.D., has joined the Staff at the Curragh as Principal Medical Officer, on return from a long tour of service in India.

WE understand that Deputy Surgeon-General J. F. Beatson has accepted the promotion left in the gift of the India Office, in consequence of the retirement of Surgeon-General Brown, Bengal Medical Department, and that he will shortly proceed out to India.

### DR. LUSH AND ARMY MEDICAL OFFICERS.

SIR,—Dr. Lush has been so fortunate as to get a day to bring the case of army medical officers to the notice of Parliament. It is of the last importance to the profession that every officer with parliamentary influence should use it in having him well seconded in his efforts, and that the Government should not be allowed to evade the difficulty by any of the many manœuvres incidental to official life. Each medical officer should write to his friend or friends, and wish him or them to be present. It will be a fatal mistake not to do so. I would also suggest that the influence of the Parliamentary Bills Committee of the Association should be brought to bear in the same direction, and that its able Chairman will act as a whip on the occasion.

Mr. Hardy stated lately to the very influential deputation of the Irish College of Surgeons which waited upon him, that he was anxious to do all he could for the members of our profession in the army. A somewhat similar reply was given to a deputation of the Association last year; yet twelve months have passed, and nothing has been done. Much of this is due to the various and irreconcilable differences upon the question of organisation, and to the opening given for the plea of want of unanimity. These differences as to points of organisation should be allowed to rest for the present, and the more important ones relative to pay, promotion, retirement, relative rank, and privileges, be pushed well to the front. I think, as a profession, we should demand:

The path to the public honours to be equally open to the medical as the combatant officer.

Supreme control in our own hospitals and over our hospital subordinates.

The charge of stores to be relegated to a subdepartment under the principal medical officer.

Charge-pay to be granted to us, as to officers of the Royal Engineers.

The old departmental distinctions of rank and sense of discipline to be maintained throughout all grades.

The number of good-service pensions to be increased.

Uniform to be as handsome as in other branches of the service.

Relative rank to carry with it all the privileges of the corresponding military grade, according to date of commission. Junior of the rank to be abolished.

Promotion to be guaranteed at fifteen years' service at latest; before, if there be vacancies.

Retirement to be voluntary at 16s. 6d. and 21s. at twenty and twenty-five years respectively; 20s. and 25s., if invalided at the same ages.

Forage and all other allowances to be appanages of rank, as formerly.

Administrative prizes to be only tenable up to sixty years of age.

Promotion from one relative rank to another to be allowed for distinguished service.

Surgeons-general to rank as colonels and major-generals, according to date of commission. Title of deputy to be abolished.

Sick and ordinary leave so be under the same regulations as with combatants. Substitutes to be provided.

Current subscriptions to be only paid by staff-surgeons attached to regiments. I am etc., COMMON SENSE.

## MEDICO-PARLIAMENTARY.

### *HOUSE OF LORDS.—Friday, June 11th.*

*Local Government Boards etc.*—On the motion of the Earl of JERSEY, the Local Government Boards Provisional Orders Confirmation (No. 3) Bill was read a second time.

The Public Health (Scotland) Provisional Order Confirmation (No. 3) Bill was advanced a stage.

*Artisans' Dwellings.*—On the motion for agreeing to the report of amendments to this Bill, Lord REDESDALE objected to a proposal made by Earl Beauchamp to introduce into Clause 12 an amended paragraph, giving power to the Secretary of State to modify, in certain cases, plans laid down by local government boards, and this gave rise to a slight discussion, and to a division, in which the numbers were—Contents, 25; Non-contents, 23; majority for the amendment, 2. The report was then agreed to, and the third reading fixed for Monday.

*Tuesday, June 15th.*

*Food and Drug Bill.*—The House resolved into Committee on the Sale of Food and Drugs Bill, and Lord MORLEY proposed in the third Clause, which prohibits the mixture of injurious ingredients with articles of food intended for sale, and also forbids any person to knowingly sell such mixture, to omit the word "knowingly". This amendment was opposed by the Duke of Richmond, and, on a division, it was negatived by 41 to 23. The other Clauses of the Bill were adopted with a few amendments.

### *HOUSE OF COMMONS.—Thursday, June 10th.*

*Open Spaces (Metropolis) Bill.*—On the motion for the second reading of this Bill, Mr. WHALLEY said he should withdraw it and bring in another Bill that would meet the objections of the Home Secretary. The Bill was then withdrawn.

*Friday, June 11th.*

*Small-pox in Ireland.*—Mr. KIRK asked the Chief Secretary for Ireland whether his attention had been directed to the Registrar-General's reports of the deaths from small-pox in Ireland during the quarter ending June 30th, 1874, which amounted to 123; whether it was true that out of that number 109 occurred in Ulster, where the disease was not considered epidemic, as in many instances it was imported by paupers from Scotland; and whether the Government proposed to bring in a measure with the view of preventing the spread of the disease.—Mr. M'LAREN wished to know whether the question was not somewhat unusual in its form, inasmuch as it contained an assertion to the effect that the deaths to which it related were due to the importation of the disease from Scotland.—Sir M. HICKS-BEACH said that, as he understood the question, it did not contain an assertion, but was simply an inquiry whether the statement alluded to was true. His attention had, he might add, been directed to the reports of the Registrar-General on the subject, and the figures mentioned by the hon. member for Louth were, he believed, correct. He could not, however, state positively that those deaths had occurred "chiefly, if not wholly, among those who had not been vaccinated". He understood that 109 deaths had occurred in Ulster, and that in many of these cases the disease had been imported from Scotland, but he was unable to obtain any information as to whether the persons by whom it was imported were paupers or not. The Irish Government had no control over the Poor Law Guardians at this side of the Channel, and it would therefore not be his duty to introduce any measure on the subject.

*Tuesday, June 15th.*

*Pharmacy in Ireland.*—Sir M. HICKS-BEACH, in answer to Dr. Playfair, stated that there were very few licentiates of the Apothecaries' Hall in Ireland who restricted themselves to pharmacy, and that there was no other class of chemists and druggists in that country who could legally dispense medicine according to prescription.

*Medical Acts Amendment (College of Surgeons) Bill.*—On the order of the day for resuming the adjourned debate on going into committee on this Bill, Mr. STANSFELD said he wished to obtain from his noble friend some statement as to the views of the Government on the right of women to study and practise medicine in this country.—Viscount SANDON replied that that great question would not be prejudiced by the Bill of the hon. member for Maidstone; but, nevertheless, he had given notice of an amendment which would show beyond all doubt that the *status quo* was in no way affected by the present measure, the sole object of which was to enable the College of Surgeons to do what the Act of 1858 was intended to enable them to do. The subject of the medical education of women had only very lately been submitted to the attention of the Government, and they could pronounce no opinion upon it. The Government would, however, consider the matter carefully during the recess, so as to be able to express an opinion next year as to whether legislation was desirable or not. The Bill then passed through committee.

*Irish Lunatics.*—The SOLICITOR-GENERAL for IRELAND, in answer to Mr. Moore, said, there is no power under the existing laws in Ireland, when a dangerous lunatic has been committed to a lunatic asylum by the warrant of two magistrates, to compel his parents or relatives, should they be in good circumstances, to contribute to his support while he is under detention. Such an amendment as that pointed at by the question of my hon. friend is now under the consideration of the Government, and we hope to be able, to some extent at least, to give effect to his suggestion.

*The Hampstead Hospital Question.*—Mr. COOPE called attention to the action of the Metropolitan Asylum Board with reference to the proposed erection of a permanent hospital for contagious diseases near

Hampstead Heath, and moved for a Select Committee to inquire into the Clauses of the Metropolitan Poor Act giving powers to the managers of asylums to take, hold, and dispose of lands and other property for the purposes of the Act.—Mr. Forsyth, in seconding the motion, dwelt on the obstinacy of the Metropolitan Asylum Board, and pointed out that the objection of the Hampstead people was not so much to having a hospital in their neighbourhood as to the site which had been chosen.—Mr. Torrens argued against the congregation of the sick in large hospitals, and preferred treatment of fever, etc., in small temporary hospitals or at home. He moved, as an amendment, that the Committee shall inquire whether any new general hospital for infectious diseases is necessary.—Mr. Gordon advocated inquiry into the powers and the constitution of the Asylum Board.—Mr. Sclater-Booth, speaking on behalf of the Government, said they wished to keep themselves neutral in this matter, and would not oppose a Committee, if it were the wish of the House that there should be an inquiry into the manner in which the managers had exercised their powers. But he pointed out that the Clauses in Mr. Hardy's Act which the motion assailed had been of the greatest value, and he narrated and eulogised the services and sacrifices made by the Asylum Board in the discharge of their onerous duties. It was a bad precedent, too, to overhaul the transactions of a Local Board by a Select Committee, for there was no reason why this interference should be confined to London. Mr. Sclater-Booth's personal opinion was that the pleasure-seekers on Hampstead Heath would be no more injured by the hospital than people in Kensington Gardens. It was a delusion, too, that it was intended to build a permanent hospital at Hampstead. It could not be done without his consent, and he had no intention of giving his sanction to such a proposal.—Mr. J. G. Talbot, as a member of the Asylum Board, in narrating and vindicating its conduct, remarked that the House was descending to-night rather to what Mr. Disraeli called the "vestry" portion of its duties. The Board did not object to a Committee, though it would be a great waste of public time on a purely local affair.—After some remarks from Mr. Chadwick, the amendment of Mr. Torrens was negatived, and Mr. Coope having withdrawn his original motion, a motion was substituted for a Committee to inquire into the conduct of the Asylum Board with regard to the erection of a hospital at Hampstead. This was agreed to, with a protest from Mr. Rathbone against the precedent of interference in local affairs.

# MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, June 10th, 1875.

Clinton, Samuel Aubrey, Chislehurst
Gibsen, Charles, Tynemouth
Lightoller, Harry Martin, Chorley
Pletts, John Menham, Thornton, Ryde, Isle of Wight
Prowse, William Byass, Wallingford, Berkshire
Spark, John, Lee Green, S.E.
Spooner, Frederick Henry, Plymouth

The following gentlemen also on the same day passed their primary professional examination.

Dowding, Alexander W. Woodman, London Hospital
Griffiths, Gilbert Saunders, Middlesex Hospital
Parker, Arthur Frederick, Bristol School of Medicine
Price, Arthur, St. Thomas's Hospital
Steele, Henry Frederic, St. Bartholomew's Hospital

## MEDICAL VACANCIES.

The following vacancies are announced:—

AMERSHAM UNION—Medical Officer for the Workhouse and the Amersham District.

BEDWELTY UNION—Medical Officer for the Ebbw Vale District. Salary, £15 per annum.

BRISTOL GENERAL HOSPITAL—Physician's Assistant. Salary, £50 per annum, with board, lodging, and washing. Applications on or before the 24th instant.

HAY UNION—Medical Officer for the Workhouse. Salary, £55 per annum.

HONITON UNION—Medical Officer for the Fourth District.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton—Resident Medical Officer. Salary, £200 per annum, with board and residence. Applications on or before 23rd instant.

HOSPITAL FOR WOMEN, Soho Square—House-Physician. Applications on before the 23rd instant.

KENSINGTON DISPENSARY—Resident Medical Officer. Salary, £150 per annum, and furnished apartments. Applications on or before July 5th.

KENT and CANTERBURY HOSPITAL—Surgeon. Applications on or before the 18th instant.—Assistant House-Surgeon and Dispenser. Salary, £50 per annum, with board, lodging, and washing. Applications on or before the 25th instant.

LONDON TEMPERANCE HOSPITAL—Visiting Hospital Surgeon. Applications to the Rev. Dawson Burns, Honorary Secretary, 112, Gower Street.

MANCHESTER TOWNSHIP -Junior Assistant Medical Officer for the Workhouse Hospital.

MARLBOROUGH UNION—Medical Officer for the Second District. Salary, £80 per annum, and fees. Applications on or before July 31st.

NEWCASTLE EMLYN UNION—Medical Officer for the Penbryn District. Salary, £50 per annum.—Medical Officer for the Llandyssul District. Salary, £50 per annum.

NORWICH DISPENSARY—Resident Medical Officer. Salary, £120 per ann., and residence.

OUNDLE UNION—Medical Officer for the Weldon District. Salary, £41 : 10 per annum, and fees. Applications on or before the 23rd instant.

PORTSEA ISLAND UNION—Medical Officer for the Workhouse. Salary, £250 per annum. Applications on or before July 7th.

RAINHILL (Lancashire) COUNTY ASYLUM—Assistant Medical Officer. Salary, £100 per annum, with apartments and board.

ROYAL FREE HOSPITAL, Gray's Inn Road—Surgeon. Applications on or before June 28th.

ROYAL HOSPITAL FOR CHEST DISEASES, City Road—Physician. Applications on or before June 22nd.

SAFFRON WALDEN UNION—Medical Officer for the Fifth District. Salary, £15 per annum.

STOURBRIDGE UNION—Medical Officer for the First Kingswinford District. Salary, £56 per annum.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, Newcastle-upon-Tyne—Chair of Physiology. Applications on or before the 25th instant.

WESTMINSTER HOSPITAL MEDICAL SCHOOL—Lecturer on Materia Medica and Therapeutics. Applications up to the 24th instant.

WINCANTON UNION—Medical Officer for the Wincanton East District and for the Workhouse. Salary, £161 per annum, and fees. Applications on or before the 29th instant.

## MEDICAL APPOINTMENTS.

*Names marked with an asterisk are those of Members of the Association.*

Alsop, Fabian T. O., M.B., reappointed Resident Physician to the University Clinical Wards, Royal Infirmary, Edinburgh.

Cotton, Holland J., M.B., appointed Resident Physician to the Royal Infirmary, Edinburgh.

Currie, Andrew S., M.B., appointed Resident Physician to the University Clinical Wards, Royal Infirmary, Edinburgh.

Elliot, H. F., L.R.C.S.&P.Ed., appointed Resident Physician to the Royal Infirmary, Edinburgh.

Gibbons, R. A., M.B., appointed House-Surgeon to the Royal Infirmary, Edinburgh.

Glendinning, George, M.B., appointed Resident Surgeon to the Royal Infirmary, Edinburgh.

Gill, George T., L.R.C.P., appointed Resident Physician to the Fever Wards, Royal Infirmary, Edinburgh.

Gowan, Charles, M.D., C.M., Senior Assistant Medical Officer, Worcester County and City Lunatic Asylum, Powick, appointed Medical Superintendent of the Toronto Lunatic Asylum, Canada, *vice* J. Workman, M.D., resigned.

Hetley, Henry, M.R.C.S.Eng., appointed Resident Clinical Assistant to St. Luke's Hospital.

Lewis, W. B., L.R.C.P.Lond., appointed Clinical Assistant at the West Riding Lunatic Asylum, Wakefield.

Morison, J. R., L.R.C.S., appointed Resident Surgeon to the Royal Infirmary, Edinburgh.

Rice, George, M.B., appointed Resident Surgeon to the University Clinical Wards, Royal Infirmary, Edinburgh.

Ronaldson, T. R., M.B., appointed Resident Physician to the Royal Infirmary, Edinburgh.

Scott, J. H., M.B., appointed Resident Surgeon to the Royal Infirmary, Edinburgh.

Thornton, W. Pugin, M.R.C.S.Eng., elected Surgeon to the Hospital for Disease of the Throat, Golden Square.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.*

### MARRIAGES.

Grant—Jenkins.—On the 16th instant, at St. Michael's, Coventry, by the Rev. Canon Baynes, Frederick Grant, L.R.C.P., etc., of Market Harborough, to Ellen Margaret, the only child of Thomas Jenkins, J.P., of Coventry.

Sheehy—Moody.—On June 10th, at St. Philip's Church, Granville Square, by the Rev. R. H. Clutterbuck, M.A., *W. H. Sheehy, Esq., of 4, Claremont Square, Pentonville, to Sarah, eldest daughter of James Moody, Esq., of Leyburn, Yorkshire, and formerly of Clerkenwell.—No cards.

Dr. C. Beviss has been appointed a Justice of the Peace for the Colony of Natal, and District Surgeon for the County of Durban, Natal.

## BOOKS, etc., RECEIVED.

Remarks on the Origin, Varieties, and Terminations of Idiocy. By George Wallington Grabham. Printed and published at the Earlswood Asylum.

The Art of Swimming in the Eton Style. By Sergeant Leahy. London: Macmillan and Co. 1875.

The Life and Growth of Language. By William Dwight Whitney. London: Henry S. King and Co. 1875.

Cyclopædia of the Practice of Medicine. By Dr. H. von Ziemssen. Vol. III. London: Sampson Low, Marston, Low, and Searle. 1875.

## OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY ......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.

FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M. — Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

## MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

FRIDAY.—Quekett Microscopical Club (University College, Gower Street), 8 P.M. Mr. B. T. Lowne, M.R.C.S., "On the Histology of the Eye". (Second Lecture.)

## NOTICES TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

MEDICUS (Exeter) has not observed our rule of authenticating his letter by signature.

### CANINE PATIENTS.

DR. WALTER F. ATLEE writes to the Editor of the *Philadelphia Medical Times*:—"In a letter recently received from Lancaster, where my father resides, it is said: 'A queer thing occurred just now. Father was in the office, and heard a dog yelping outside the door; he paid no attention until a second and louder yelp was heard, when he opened it, and found a little brown dog standing on the step upon three legs. He brought him in; and, on examining the fourth leg, found a pin sticking in it. He drew out the pin, and the dog ran away again.' The office of my father, Dr. Atlee, is not directly on the street, but stands back, having in front of it some six feet a stone wall with a gate. I will add, that it has not been possible to discover anything more about this dog.

"This story reminds me of something similar that occurred to me while studying medicine in this same office nearly thirty years ago. A man, named Cosgrove, the keeper of a low tavern near the Railroad Station, had his arm broken, and came many times to the office to have the dressings arranged. He was always accompanied by a large, most ferocious looking bull-dog, that watched me most attentively, and most unpleasantly to me, while bandaging his master's arm. A few weeks after Cosgrove's case was discharged, I heard a noise at the office-door, as if some animal was pawing it, and, on opening it, saw there this huge bull-dog, accompanied by another dog that held up one of its front legs, evidently broken. They entered the office. I cut several pieces of wood, and fastened them firmly to the leg with adhesive plaster, after straightening the limb. They left immediately. The dog that came with Cosgrove's dog I never saw before nor since."

### SECOND ATTACKS OF MEASLES.

SIR,—I can in a rather singular way confirm Mr. Symes about second attacks of measles. In the spring of 1874 I had several cases of measles under my care. In one family, a boy aged 4, commenced with the usual symptoms, and had a smart attack of the disease. He was followed by his sister, older than himself, and then followed the mother, who was very ill. Six weeks after the boy had recovered, I was called to him again, and found him covered with the eruption of measles; he also had severe chest-symptoms, and his face and head was very much swollen. On the fifth day the eruption began to fade, and he made a very fair recovery. I may say he was a rickety child; and just before the commencement of his illness he was undergoing treatment for his strumous condition. A member of Parliament for a northern borough has, I believe, had three or four attacks of measles; and altogether in my practice I have seen at least six cases of second attacks, four of these in adults.—I am, etc., W. EASBY, M.D.

North Villa, Darlington, June 8th, 1875.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

### VIVISECTION AND ANÆSTHETICS.

IN commenting in the JOURNAL of June 5th on Dr. Hoggan's letter to the *Spectator*, we pointed out the error of his assertion that chloroform cannot be administered so as to produce complete and continuous anæsthesia in the lower animals, in consequence of the unsatisfactory knowledge of the line which separates insensibility and death. In a second letter to the *Spectator*, he characterises our mention of the fact, that failure of the respiration and failure of the heart indicate this line, as a bold assumption, and asserts "that they do not indicate a line, but are merely symptoms, which, as in all other cases of death, denote that the *line has been passed*; but with chloroform we never know that it has been passed until it is too late". How any medical man, and, still more, one who affirms himself to have had much experience in the administration of chloroform in the operating theatre of a hospital, can venture not only to make such a statement, but to emphasise it by italics, we can hardly conceive, since it is impossible that he can be in ignorance of the instructions given to each medical student, that it is his duty, while administering chloroform, to watch the respiration carefully, and keep his finger upon the pulse, in order that failure of either may give timely warning of impending danger. Nor can he be unaware of the fact, that after the respiration has stopped, and even after the heart has ceased to pulsate, life may be restored by the use of proper means. He may, indeed, say that he intends his assertion to apply to animals only, and not to man; but he is evidently acquainted with the writings of Bernard on the subject of anæsthetics; and that distinguished physiologist expressly mentions, in the *Revue des Cours Scientifiques*, vol. vi, p. 384, that he has often succeeded in averting the death which was threatening animals in a state of anæsthesia.

Dr. Hoggan next tries to quote against us the remarks of Professor Schiff, in page 683 of this JOURNAL for May 22nd, regarding the insecurity of chloroform; but he omits the learned professor's declaration, that ether is free from the objections to which chloroform is subject. The fact that chloroform is a more dangerous anæsthetic than ether does not in the least support Dr. Hoggan in his attempt to prove that anæsthetics cannot be safely administered to animals; for a similar risk is run in giving chloroform to man as in giving it to animals, and yet it is daily administered in almost every hospital throughout the country. In our last article we assumed that errors in Dr. Hoggan's statement were due to ignorance; but what are to say when we find from his own letter that he cannot but be perfectly aware that anæsthetics can readily be and are administered to animals which are the subject of experiment? In his attempt to show that chloroform is dangerous to animals, he quotes the following passage from the lectures of Claude Bernard in the *Revue des Cours Scientifiques*, vol. vi. p. 263: "Cats, and, above all, rabbits, are much more sensitive than dogs to the action of chloroform; and we could not, without danger of death, leave them exposed to its action for nearly so long as we have left this dog. . . . Rats are even more sensitive to its action; birds still more." Here we learn that dogs bear chloroform much better than cats, and cats than rabbits. But what does Bernard say regarding these very rabbits, which are so liable to succumb to the anæsthetic, in the sentences omitted by Dr. Hoggan from his quotation? Let us supply the blank. "The sensitiveness of rabbits to chloroform enables us to anæsthetise them by a very simple proceeding. All we have to do is to put them under a bell-jar, or into any sort of vessel whatever which can be easily closed so as to form a confined atmosphere, and put in at the same time little sponges, or even bits of paper, soaked in chloroform. When we see the animal fall we take away the bell-jar, and insensibility remains long enough to enable us to make the vivisections necessary in the great majority of cases. When necessary, we continue the action for a longer time, or we renew it before its effects have completely disappeared." Well might Dr. Hoggan omit these sentences from his quotation, for in them the veteran physiologist gives the contradiction to the statement in his former letter, that "we have also to bear in mind that even where complete insensibility has been produced at the beginning of an operation, this effect only lasts for at most a minute or two, and, during the rest of the operation, lasting perhaps for hours, the animal must bear its torture as it best may". And where is it that Dr. Hoggan writes these letters? Not in a medical publication, where the readers, possessed of professional knowledge, could at once detect the incorrectness of his statements, but in the pages of a journal intended for the general public, the readers of which, learning from Dr. Hoggan himself that he possesses a medical degree, and has worked some time in a physiological laboratory, are willing to accept his doctrine as authoritative, and can hardly distinguish between him and the illustrious Bernard whom he reviles. Finally, he tries to exculpate himself from the charge of accusing the profession. Let us hear his defence. "Not only in my letter to the *Echo* of February 5th and article in *Fraser* for April have I kept my professional brethren clear of this matter, but also in the letter upon which the charge is founded, I at one sweep strike off 95 per cent. of medical men as knowing little or nothing about the general practices in vivisection. I have not blamed even the remaining 5 per cent., who certainly do not constitute the profession." Dr. Hoggan may not blame the 5 per cent., but he declares, in the public papers, that they would laugh at the idea of performing experiments merely for the purpose of lessening the sufferings of humanity, their object being to keep up with and get ahead of their contemporaries in science; and, in pursuit of this object, they will put animals to dreadful tortures, and administer anæsthetics, only for the purpose of soothing their own consciences, or of deceiving the public by humane statements. And does he really clear the 95 per cent. of all participation in these crimes? Let us hear what he says in his letter to the *Morning Post*. "It matters little what criminality the law may clearly attach to such practices. So long as the present privacy is maintained in regard to them, it will be found impossible to convict for the want of evidence. No student can be expected to come forward as a witness when he knows that he would be hooted, mobbed, or expelled from among his fellows for doing so, and any rising medical man would only achieve professional ruin by following a similar course." We leave it to English readers to say whether, in these lines, he does not accuse his professional brethren of sympathy with horrible practices, and of conspiracy to shield them, no matter what their criminality: a conspiracy at once so complete and so widely spread, that nothing less than ostracism and professional ruin would be the result of any attempt to divulge its secrets. In other words, he charges the physiologists of this country with cruelties so unjustifiable, that they dare neither avow them nor let them be known; and he alleges that "5 per cent." of the profession participate in these cruelties with dark complicity in their crimes, and attempts to convict the whole profession of such a knowledge of these infamous practices, and yet such fear that these horrible and criminal actions should be divulged, that they are banded to encourage them, and to hoot, mob, expel, and professionally ruin any young man who should come forward as a witness to the truth. We can, however, assure Dr. Hoggan that no such heroic fate awaits him or anyone else who speaks his whole mind on the facts: some ridicule and a good deal of regret will of necessity attach to statements so exaggerated, inaccurate, and bombastic are those in which he indulges; but no martyrdom must be expected. A smile or a sneer is the highest guerdon that such effusions can claim.

An old Collegian.—There appear to be just 474 Fellows by examination in the Calendar of the College of Surgeons, and, as showing the interest they take in collegiate elections, it is deserving of notice that, at the last election of Fellows into the Council of the College, there were 129 who recorded their votes, against 106 by election. The total number of Fellows is about 1,300.

A Book-worm.—The following are the lines to which you refer, on a rapacious publisher.

"In the woods of the North there are insects that prey
On the brain of the elk till his very last sigh.
Oh, genius, thy patrons, more cruel than they,
First feed on thy brains, and then leave thee to die.

### Unqualified Assistants.

Sir,—I will trouble you for a corner of your Journal for a reply to F. F.'s letter in your impression of to-day.

He says that I attacked a very proper suggestion of Dr. O'Sullivan's. In my former letter, I endeavoured to show that it was both improper and ridiculous. This I still maintain. He says that I strain the question when I refer to one man picking a thorn out of another man's foot; but the authority for his saying so does not justify such an opinion. He must admit that it is a surgical operation, and that minor operations must be performed with as great an amount of skill as major ones. If the receiving of a fee by an unqualified person only violates the law, why do not qualified persons prosecute unqualified persons, without advocating a scheme in your Journal whereby they could prosecute them? F. F. is very deficient on this point. If a man pay for any services rendered, he cannot recover the money paid by any means. If I receive a fee for services rendered, I wholly deny that any action for violation of the law can lie against me; but if I would go to the county court to recover a fee for such services, I would not be able to do so, neither would any man who is not registered. Your correspondent refers to any persons, other than solicitors, who draft deeds, being liable to punishment. I can inform him that deeds and all other papers or writings, advice by letter, etc., are the work of the solicitors' unqualified assistants. The solicitor's unqualified assistant acts as *locum tenens* in his principal's absence, and charges for his advice in the bill of costs; and why not? Why, therefore, should an unqualified assistant in the medical profession not charge for his services in like manner? We are all aware that many qualified men who competed for appointments in the army and navy heretofore, were found wholly incapable to undertake any professional duties. All qualified men, therefore, should not be entrusted with the lives of human beings. All men, in my opinion (at least, the majority of them say so), pass their examinations by a cram or grind, which they very soon forget; but of course there are exceptions. In my last letter, I compared the qualified and unqualified man by an illustration of their respective careers. I stated that the unqualified man who had the advantage of years of experience in large general practices, in addition to lessons at institutions recognised for that purpose, was more competent to undertake the duties of general practice than he is who has been twenty-four months at hospital and collegiate studies. F. F. states that I compare extremes in this case—that it is a patent fallacy; and he passes it by as an argument of no value. I hold that I have not touched upon the extreme in either case. General practitioners can vouch for the correctness of my description of the unqualified assistant. A reference to the regulations of the ordinary qualifying bodies will convince everyone that I have the soundest authority for my description of the qualified or certificated man. It is very easy to write that such a comparison is a "patent logical fallacy"; "F. F." will do me a favour by proving it to be so. If it be a patent, it is his own; and I do not grudge him the honour of such inappropriate logical terms. The reasons which he puts forward concerning unqualified assistants tending to degrade the profession are not truthful. I have said enough above as to their acquirements in comparison with those of qualified men. F. F. says that "our services can be had cheaply." The salary of an indoor unqualified assistant ranges from £40 to £70 *per annum*, according to the usefulness of the man. A qualified man very often gets £5 more, and very seldom £10. This, Dr. Langley, the very high authority to whom F. F. refers, will prove to him if he doubt it. F. F. must mention the semi-menial work which the unqualified man does, and which the qualified man will not do. Work in general practice must be menial or non-menial, professional or non-professional. Let me remind him that dispensing is not menial work. Qualified assistants would no doubt like it to be considered so, because, as a rule, they are entirely ignorant of it; and this Dr. Langley has pointed out pretty emphatically in his excellent work on *Principals and Assistants, etc.* I did not state that we could accept Poor-law appointments; and if F. F. wish to have one at £20 a year, I am sure none of us will envy him either pay or position. There is nothing, in my opinion, so disgraceful to the profession as men qualified in medicine only holding the appointment of surgeon in manufacturing and mining districts, particularly when such men engage the services of men qualified like themselves. Could anything be more degrading to a profession than this? I imagine a man becoming a physician, and practising as a surgeon, without any legal right. If he were under the control of a surgeon, it would be all right, but otherwise it is simply disgraceful. This is a better example of the "fox and the grapes" than that referred to by F. F. The unqualified assistant is prevented from qualifying, in the majority of instances, for want of funds, which is no fault of his. The man who qualifies as a physician, and practises as a surgeon, displays a want of ability to obtain the latter diploma.—I am, etc., J. L., Unqualified Assistant.

Wales, June 5th, 1875.

D., Auxiliary Forces (Fowey, Cornwall).—In early life, the celebrated Sydenham left Magdalen Hall, Oxford, to serve in the Parliamentary Army. He died in 1689, at his house in Pall Mall, next door to "The Golden Pestle and Mortar", which was only pulled down a few years ago.

A. McM. (Birmingham).—To Dr. Valentine Mott of New York is due the merit of having been the first to suggest and the first to effect the ligature of the common iliac artery

Notice to Advertisers.—Advertisements for insertion in the British Medical Journal, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. Fowke, not later than *Thursday*, twelve o'clock.

J. M., and Others.—Your several applications should have been addressed to the Secretary of the College, by whom we are informed that, not having signed the bye-laws, you will not be allowed to vote at the annual election of Fellows into the Council. Full information has been supplied to all the Fellows whose addresses in the United Kingdom are known at the College.

### A Projected Tour to Australia for Invalids.

An undertaking of medical interest is now being projected for organising a party of persons in delicate health, and conveying them in September to Melbourne, and thence up the country into a district on the south-eastern portion of the colony of Victoria, called Gippsland, described as of great attraction, and where a wandering life of some months' duration will be pursued, with due provision for some of the luxuries and appliances of civilised life. The party would return again in May. The project seems to have a great deal to recommend it. Melbourne is now within forty-eight to fifty-two or fifty-three days' sail of London, by direct steam communication. The voyage is well known as one of the most enjoyable and restorative that can be undertaken. The life of the bush, properly organised and in this pure climate, offers a period of great interest, and frequent change and most heathful and restorative influence. Open air existence, a veritable dwelling in tents, absolute abstraction from all sources of urban worry and degeneration, the romantic surroundings of the country, and its dry bracing air, should make six months spent between October and May the reverse of what they would be spent in the fog and damp and cold of our English winter, or even in the variable and not always tonic condition of a residence in southern Europe. Many of our most eminent physicians regard this proposal of six months' sanitary trip to Australia as a highly promising effort in the climatic treatment of debilitating conditions of health; and in that view we are disposed to concur.

Any one desirous of gaining full particulars of the scheme, will receive information by applying to Dr. Baxter Langley, 50, Lincoln's Inn Fields, W.C., who is the appointed agent. Ladies will be admissible to the party, as the projector's wife, two sons, and their tutor, will form part of it.

A Competitor, and A. M. (Liverpool).—The result of the Arts Examination for the Fellowship and Membership of the College of Surgeons cannot be known for at least three weeks, owing to the many hundred papers to be read.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Lincolnshire Herald; The Sunderland Daily Echo; The Melbourne Medical Record; The Hackney and Kingsland Gazette; The Worcestershire Chronicle; The Grocer; The Glasgow Herald; The Cork Examiner; The Scotsman; the Sussex Daily News; The Birmingham Daily Post; etc.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. J. Matthews Duncan, Edinburgh: Dr. T. Skinner, Liverpool; Dr. J. G. Swayne, Clifton; Dr. T. W. Grimshaw, Dublin; Mr. E. W. Thurston, Ashford; Dr. J. W. F. Smith-Shand, Aberdeen; Mr. Henry H. Sales, Leeds; Dr. Junius Hardwicke, Rotherham; Dr. W. A. Grecnhill, Oxford; Mr. Alfred Smee, London; The Secretary of the Royal College of Physicians, London; Dr. Arthur Ransome, Bowdon; Dr. Wm. Munro, Cupar Fife; The Registrar-General of Ireland; Mr. T. M. Stone, London; Dr. Finlayson, Glasgow; The Secretary of Apothecaries' Hall; Dr. Edis, London; The Registrar-General of England; Mr. H. F. B. Ansell, London; The Rev. Dawson Burns, London; Dr. J. Birkbeck Nevins, Liverpool; Dr. Charles Parsons, Dover; Dr. Herbert J. Major, Wakefield; Mr. Eastes, London; Mr. J. A. Hunt, Rotherham; Dr. J. D. Cronin, Queenstown; Mr. B. H. S. Carpenter, London; Our Paris Correspondent; Dr. J. Braxton Hicks, London; Mr. Henry Harris, Birmingham; Dr. Whitmore, London; Dr. Whipham, London; Mr. C. Gowan, Powick; An Associate; Dr. A. B. Shepherd, London; Mr. J. E. Ingpen, London; Messrs. Mothershead and Co., Manchester; Our Edinburgh Correspondent; Mr. R. S. Fowler, Bath; Our Dublin Correspondent; Mr. E. C. Board, Clifton; The Secretary of the Quekett Microscopical Club; Dr. Morton, Glasgow; Mr. Harrinson, Reading; Mr. G. Cowell, London; The Medical Officers and Lecturers of St. Mary's Hospital Medical School; Mr. Silvester Marsh, St. Helens; The Secretary of the Statistical Society, London; Major-General Robert Shaw, Portsoy; Dr. H. G. Colton, Edinburgh; Mr. J. Murphy, Riverstown; Mr. F. Grant, Market Harborough; Dr. A. Collie, London; Mr. Lawson Tait, Birmingham; Dr. T. W. Blackburn, Stockport; Mr. G. W. Sherlock, London: Dr. Edwards Crisp, London; Mr. John Barber, Derby; The Secretary of the Hospital for Diseases of the Throat, London; Dr. Eastwood, Darlington; Dr. W. Procter, York; Mr. John Cross, London; Mr. Seymour Haden, London; Dr. A. Sheen, Cardiff; Dr. A. Davies, Swansea; Dr. T. Claye Shaw, London; Mr. H. Burdett, London; Dr. H. T. Littlejohn, Edinburgh; Dr. S. W. Hope, Petworth; Dr. Bateman, Norwich; Mr. T. Rayner, London; Messrs. Fannin and Co., Dublin; the Secretary of the Association for Promoting the Extension of the Contagious Diseases Acts; Dr. W. White, Southport; Mr. Sampson, York; Mr. Gibbes, Tavistock; Dr. J. B. Swanton, Bantry; Dr. Saundby, Edinburgh; Dr. Blacklock, Gateshead; Dr. A. B. Steele, Liverpool; Dr. Harland, Wadhurst; Dr. Beale, London; Dr. Samelson, Manchester; Mr. W. H. Steele, Topsham; Dr. Smart, Haslar; Dr. A. S. Merrick, Belfast; Mr. A. Grange, Hythe; Dr. J. B. Tuke, Edinburgh; Dr. Lorimer, Buxton; Mr. J. Savage, Goole; Dr. G. Evans, Curragh Camp; Mr. Husband, York; Dr. J. J. Brown, Edinburgh; Dr. Cousins, Southsea; Dr. Yeo, London; Dr. Styrap, Shrewsbury; Dr. Stephen, Fettercairn; Mr. Casson, Gloucester; Mr. J. Farrar, Bradford; Mr. E. T. Payne, Bath; etc.

# CLINICAL LECTURE
## ON NÆVUS.

By GEORGE BUCHANAN, M.A., M.D.,
Professor of Clinical Surgery in the University of Glasgow; etc.

GENTLEMEN,—I wish to call your attention to-day to a group of allied cases, some of which have been before us this winter, and which are very common in practice. I allude to a morbid or abnormal condition of the vessels connecting the terminal arteries and the commencement of the veins in different regions of the body. The simplest way to introduce the matter will be to get a little patient presenting a well marked example of one of these affections, and from the mother ascertain the history of the case, and, from its appearance, obtain a general knowledge of the outward character of the disease. The example we are about to study is a case of *nævus maternus*, the nature of which we shall proceed to investigate. The little child you now see is fourteen months old. When it was born, there was no mark on its face. Four weeks after birth, there appeared a little red spot on the right side of the face above the eyelid. That spot gradually spread down over the cheek and towards the ear till it invaded the whole of the right side of the cheek below the ear. It has spread forward towards the nose and upper lip, and has extended from the lower lip down along the neck as far as the sternum. At the spot where it first commenced, it appears that some caustic substance was applied, which produced suppuration at the part, the result of which is obvious at present in a cicatrix more or less pale on the site of the original spot. At different points over the surface are various cicatrised marks, the result of the application of this caustic substance; but in none of the places where suppuration has occurred is the colour entirely destroyed. The skin at the parts which are discoloured is elevated and puffy, and upon pressure becomes paler; but no amount of pressure restores the natural colour to the integument. Such is a short account, as obtained from the mother, of the history of the spread of nævus, and of what can be seen by the naked eye upon the examination of such a case.

It is well worth while for us to take up a short time in ascertaining the nature of this affection, and the different modes that can be adopted for its remedy; because it is one of those surgical affections that are exceedingly common, and one which almost every surgeon in active practice may at the outset undertake and probably cure, while there are many other examples of disease which it is out of the range of the ordinary practitioner to deal with.

In order to explain to you the nature of this and allied cases, it may be necessary for me to recall to your minds for a few minutes the normal connection between the extremities of the arteries and the extremities of the veins. In the diagram you see before you, this is made intelligible by the different colours of the vessels. You see on one side one series of vessels coloured red, which indicates the ultimate branches of the minute arteries; on the other part of the diagram, you will see a series of vessels coloured blue, which indicates the radicles of the veins. Now, the termination of the minute arteries in the human body occurs in two ways: first, by direct connection with other arteries; and, secondly, by communication with veins by intervening capillaries.

In the ordinary normal circulation of the body, the arteries may be very minute; but they communicate with the veins, rarely directly, but usually by means of minute vessels of a different character from either the arteries or veins to which the term capillary is applied. The capillaries vary in size, transmitting the blood by a stream which will admit on an average, of from four to five blood-globules. But, in certain parts of the body, there is a peculiar arrangement between these two classes of vessels, which will serve very well for the illustration of such a case as we have got here. In the tissues called erectile, as, for instance, the corpus cavernosum and corpus spongiosum penis, the communication between the arteries and veins is peculiar. Instead of the ordinary nearly equal-sized capillary plexus, there is a special arrangement of the termination of the arteries and veins which is worthy of attention. The minute arteries which carry the blood into the corpus cavernosum and corpus spongiosum are spiral or twisted, and, instead of communicating directly with the capillaries, enter into minute vessels, on which there are pouches or dilatations, into which the blood passes as in a whirlpool, and from which pouches it escapes either by the aperture of entrance or by another aperture. They are like Florence flasks, into the mouth of which a minute spiral vessel enters, and through which the blood, having whirled, passes away; the principle of the circulation being that, in the passage of the blood from the arterial duct to the venous duct, instead of passing through the intricate network of capillaries, which in other parts of the body tend to equalise the current of the blood, in this peculiar pouched circulation the tendency rather is to confine and complicate the flow of blood, to make it whirl as in a whirlpool through the tissue and pass out. In ordinary circumstances, the arrangement of the mouths of these pouches is such as to permit of this circulation taking place without any great interruption; but, in peculiar circumstances of nervous excitement, something happens to accelerate the flow of blood through the arteries, and to retard the flow of blood to the veins, and in consequence an increased quantity of blood is thrown into the erectile tissues in question, and an interruption of the passage out of the blood takes place, the result of which is, that the blood is to a certain extent stagnated in the erectile tissue, whirled into these pouches, and, being partially arrested there, the tissue in which these pouches are becomes turgid, its whole substance becomes temporarily gorged with blood, and produces the phenomena of erection.

I have introduced this description to you, because it to a certain extent enables us to understand the difference between the skin on the healthy side of the child's face and the skin or integument on the unhealthy part of it. Nævus, which is an example of one of the varieties of aneurism by anastomosis, exists principally in the integument, but it may occur in the subcutaneous tissue; hence we have cutaneous and subcutaneous nævi. In a large number of instances, these two kinds of nævus are combined in the same example, as in the case before us; but, when we have two distinct specimens, the one cutaneous, the other subcutaneous, the characteristics are a little different. Cutaneous nævus exists as a red patch—a red spot upon the skin—and, as it very often is found immediately after birth or at birth, it is popularly called mother's mark. In the form of a red spot upon the skin, it may have no tendency to spread; it may remain a permanent patch of the size it was when the child was born, or it may tend to spread over the surface of the skin, as we see in the example before us. Subcutaneous nævus exists as a tumour, swelling, or protrusion of the integument. It produces a bluish tinge of the surface, and is soft, puffy, elastic, capable of being compressed and reduced in size by the emptying of the vessels, but returning to its original size when the pressure is taken away. This subcutaneous nævus exists in the tissue between the skin and the adjacent structures; in other words, underneath the cutis in the adipose tissue; and it is soft, yielding, and elastic, and the tumour may rise to a considerable extent. Now, in the case before us, you have a very well marked specimen of the two kinds: nævus maternus proper, or patch upon the skin, combined with the subcutaneous projection or tumour caused by disease of the vessels of the subcutaneous tissues.

Let us for a moment or two attend to the first kind: the nævus maternus, or mother's mark. Very little explanation is necessary for it. It is simply an exaggeration of the capillary circulation; hence it is called capillary nævus. When circumscribed, as it very often is, within the circumference of the patch, the size of the capillary vessels is increased, and the consequence is that, instead of being pale pink, it becomes red in colour, slightly turgid, from the increased quantity of blood-corpuscles. It may, therefore, be described as a condition of the skin in which the capillary circulation is enormously exaggerated, and consequently the part becomes more swollen. Most commonly, it is congenital; but sometimes, as in the case we have just seen, it begins a few weeks after birth, and, when it begins after birth, its tendency to spread is greater than when the child is born with it.

If, therefore, you are called to see a child born with a nævus of small size, and if you notice that within the next few weeks there is no tendency to enlarge, you are not to be in any great hurry to deal with that spot. But, if the spot enlarge rapidly after birth, or if it make its appearance some time after birth and begin to enlarge, then is the time to attack the nævus maternus, if you wish to do it in an effectual way. A minute spot of nævus maternus, which is a very important thing, especially in the case of females, when it attacks, as it usually does, the head or face, can very often be satisfactorily treated at an early stage. There are a great number of ways of treating it.

If it be very small, a very useful way is by vaccination; by putting the vaccine vesicle upon it. The vaccine vesicle runs its course, and results in a cicatrix, which involves the whole tissue of he nævus maternus. The effect is, that what was a red mark be-omes a pale cicatrix. If it be not larger than a finger-nail, then, by pplying a number of points of vaccine lymph round the circumference, and perhaps one or two in the centre, you include a large portion of it in the vaccine disease, and it frequently has the effect of obliterating the spot. Then the vaccine vesicle equally protects the child from small-pox, as if it were applied in other parts of the body, consequently you are, so to speak, killing two dogs with one stone. You will often fail, however. Conversing with general practitioners who undertake the treatment of this condition in the child, you will find almost every one of them say that, though they succeed in one or two cases by the adoption of this method, there are a great number of failures. And, in my own experience, I have been called on frequently to deal with cases of nævus which have been unsuccessfully vaccinated at an early stage; but I only bring this forward in order to prevent you being discouraged when you are unsuccessful with this mode of treatment. In a considerable proportion of cases, vaccination will serve the purpose of curing the disease; in others, it must be treated in another mode.

Another way of treating nævus, when of small size, is by introducing red-hot needles. The needle of the galvanic cautery will coagulate the blood, produce inflammation, and cause the destruction of the tumour and the obliteration of the spot. The point of a needle dipped in nitric acid, or in a concentrated solution of perchloride of iron, sometimes has the effect, all of these aiming at the same thing: coagulation of the blood in the skin or nævus.

These are examples of methods of treatment of the simple form of nævus maternus; but, when it comes to be a case of the other kind, which is the case that is most frequently dealt with in hospital, such a method of treatment is altogether unsuitable. Subcutaneous nævus or nævoid tumour, to which I refer, consists of a dilatation of the vessels of the venous side of the tumour; hence it is often called venous nævus. To understand my observations, recollect that a tumour of the nature of aneurism by anastomosis is found of two varieties, according as the venous side of the circulation or the arterial side is affected. I am disappointed in being unable to show you a patient whose presence I expected, a good example of the arterial variety of the tumour; but I may state that, when a subcutaneous tumour results from dilatation or enlargement of the arterial side of the circulation, it is called cirsoid aneurism. In that case, the tumour is semi-solid, pulsating, and presents many of the characteristics of aneurism. It most naturally occurs somewhere on the forehead or on the scalp in the inosculation between the temporal and occipital arteries. In the instance referred to, the tumour consisted of dilated arteries, which, under the finger, felt serpentine, being compressible and soft, evidently from being thin in their coats. They have somewhat the character of veins, except that they are pulsating; hence the tumour into which they enter being full of tortuous dilated vessels like varicose veins is called cirsoid.

I shall devote the rest of the time to the consideration of the nature of venous subcutaneous nævus. This exists in the form of tumour, elastic, compressible; and, when we take the fingers and compress it, we can diminish its size by the force which we apply to it. When a tumour of this kind can be removed from the body, it is found in its interior structure to have a close resemblance to the corpus cavernosum or corpus spongiosum penis. It consists of two tissues—a quantity of fibrous tissue, which forms, as it were, the envelope of the tumour and the blood-vessels contained in the interior. On a section of the tumour being made (such as I now make of the one removed three weeks ago), it is found to consist of a number of threads of fibrous tissue dividing the interior into a large number of spaces, which are not separate exactly one from another, but communicate with each other. Among these threads or trabeculæ there pass a number of vessels connected with the arteries which enter the tumour on one side and the veins which leave the tumour on the opposite; and the vascular tissue in the interior is not composed of capillaries, but capillaries which have become enormously dilated, and in which gradually the walls of the dilatations have come to be adherent; and one very often finds that perforations have occurred between one of these dilated capillaries and the other; so that, instead of the blood passing from a series of vessels, it passes through a series of blood-spaces, which have resulted from the destruction of the walls of these dilated capillaries. Hence any injury to such a tumour containing blood lying in these blood-spaces must be a dangerous thing, and greatly to be feared.

Now, this nævus may occur in almost any part of the body; but I need scarcely say that the parts where it most naturally occurs are the most vascular; those parts where the communications between the vessels are most frequent; namely, the scalp, brow, and face, and generally the front part of the body, but not exclusively, for I have seen nævi upon the back, upon the thigh, and upon the buttock, and almost upon any part of the body you could name; but the vast majority of nævi occur upon the face and head, and consequently in places where the deformity is very great indeed. The tendency of these nævi frequently is to spread and involve more of the adjoining tissue. In the example we have before us, the spot made its appearance at the side of the eye, and gradually has extended to the other side of the face and down upon the neck as far as the breast. Such cases frequently occur; but there are others that extend and grow outwards, and are more dangerous, though not having so great a circumference.

With regard to the treatment of subcutaneous nævus, various methods may be adopted. It is to be remembered that in them the circulation is sluggish, as you would naturally suppose from the description I have given you of the condition of the vessels; but, when the tumour is injured, dangerous hæmorrhage may ensue, and hence various plans have been proposed and put in execution for their removal, most of which I shall mention. The first plan has for its object to coagulate the blood in the tumour, and in consequence produce contraction and obliteration. There are many modes by which the blood existing in the tumour may be coagulated, the result of which would be consolidation and contraction of the tumour, and gradual absorption of the condensed tissues produced. One of the most common modes is by inflammation produced in the tumour by the introduction of a seton. The needle is threaded with cotton thread. The thread may be dipped in some acrid substance, and the tumour may be transfixed in several places and the string left in the interior. As I mentioned to you, the circulation is not very active, and it is some encouragement to you that the hæmorrhage in such an operation is rarely worthy of notice. The thread left in the tumour produces a certain amount of inflammation, and that inflammation coagulation round the thread; and, if two or three threads are passed through, there will be two or three lines of coagulation, and so it spreads till the whole tumour is consolidated. If you do not succeed in the first instance, another series of threads may be passed through, and, in the end, the tumour will be consolidated. That method only applies to tumours of a comparatively limited extent. Another plan of dealing with nævus is by the application of caustic substances, especially when it is a combination of the two kinds of the disease, and when the tumour is of comparatively small size, and is upon the edge of the lip, the tip of the nose, the brow, or the cheek. The application of strong nitric acid on a piece of wood held against the spot for a considerable time has the effect of producing an eschar or slough. That slough may separate with a certain amount of inflammation; that inflammation coagulates the blood, and gradually obliterates the tumour as before. The third plan is to produce coagulation in the interior by the introduction of the galvanic cautery, or a red-hot iron, if you like—the actual cautery. But the galvanic cautery is best, because it gives you a continually red-hot needle. It produces coagulation in the neighbourhood of the needle; the coagulation extends till the tumour is consolidated and obliteration takes place. Another plan is to introduce, by means of a very fine syringe and hollow needle, a drop or two of perchloride of iron. Perchloride of iron is, of all salts of which we are aware, the one which most rapidly coagulates the blood; hence, when we have hæmorrhage from a wound in which we cannot get the blood-vessels tied, we take a small bit of perchloride of iron, or take a piece of lint and dip it in a solution of perchloride of iron, and it will coagulate the blood at once. A few drops of this fluid introduced in subcutaneous nævus will coagulate the blood, and produce consolidation and obliteration as before. Take care, however, that you never employ this form of treatment of nævus in the neighbourhood of a large vein, such as a nævus situated at the lower part of the neck, which is a rare thing, or a nævus near the circumference of the orbit, because a portion of the blood coagulated by the introduction of this fluid may become detached, and may form what is called embolus, or a floating clot, and may get into the circulation of the blood and float away nobody knows where; and may continue floating on until it produces a plug, which may interrupt the circulation in the vessels and produce serious consequences. I knew a case in which a few drops of perchloride of iron were introduced into a subcutaneous nævus on the eyelid of a young child. I was not present, but the description of the result was to me appalling. The child was brought alive, and looking well on its mother's knee. A drop of perchloride of iron was introduced, and in two minutes it was dead, just as if shot through the head with a pistol. A particle or portion of the coagulated blood had entered into the ophthalmic vein, and had gone back and got plugged in some part of the venous circulation at the base of the brain, or orbit. Congestion or stagnation of the blood had taken place, and the result was fatal. Such are the principal plans that may be adopted to produce consolidation.

When the tumour is too large, or when it has resisted all these plans—and you will frequently find examples where these plans are not capable of being performed, or, where having been tried, they have proved ineffectual—there are other two methods by which a tumour may be removed. There is, first, by ligature. Ligature is applicable to nævus when it is circumscribed; when you can, without difficulty, pass a needle under the base of the tumour. The needle is armed with a piece of string, then the string is passed beyond the edge of the tumour, brought underneath its base, and made to emerge beyond its base on the opposite side. The tumour is again transfixed at right angles to the former direction, and a double ligature is brought through underneath the tumour. We have thus two ligatures passing underneath the tumour in one direction, and two passing through in the opposite direction. Next, the ligatures are tied together, and then the whole is constricted and tied together by the free ends. Thus the whole of the base of the tumour is circumscribed, and strangulation takes place by the string passing round the base of the tumour. If the surgeon be not satisfied with the result of the strangulation, he can put another ligature round the base on the outside. If the skin be affected, the tumour is transfixed without any previous operation; but, if it be subcutaneous, and the skin comparatively unaffected, it may be saved by dissecting back four flaps, and the tumour may be transfixed as before. That, up till very recent times, has been the general plan of treatment, and it is often effective; but it always involves a certain amount of doubt as to the surgeon having got to the bottom of the tumour, and it also involves a long and troublesome process of sloughing and separation; consequently, of late years, we have begun to adopt—and I have seen very few cases in which it cannot be adopted—the method of excision; and it seems to me that we are coming to use this method of dealing with vascular tumours a great deal more freely than formerly. When I was a student, I used to be much afraid of a great number of things we do now with the utmost confidence. When I was a student, nobody would have ventured to have put a ligature on a vein, for fear of the vein becoming inflamed. Nowadays, we never allow a patient to leave the operating-table after amputation when any tendency to bleeding exists, without securing the veins, so that hæmorrhage may be completely arrested. Nævus was for a long time treated by ligature or consolidation, in consequence of the fear entertained of adopting incision upon these tumours; but I need not do more than refer you to the case brought before you the other day, in which I performed an operation, which I told you at the time looked almost appalling, but which, in consequence of the arrangement of which I am going to speak, was performed with comparatively little difficulty and very little hæmorrhage. These nævi, when circumscribed, are more or less incapsulated. This capsule consists of the very tissue which permeates throughout the interior. While there is no well defined capsule in which it lies during the progress of its growth, the tissue gradually becomes so condensed, that it forms itself into a capsule; hence, if you adopt the plan suggested by John Bell, which is the principle that must guide us in dealing with these tumours—namely, never to cut into it, but to cut it out—you can deal with almost any tumour. Apply the knife in such a way as to cut the tissue exterior to the tumour, and by your incision take out the tumour entire. Do not spare it; do not leave a single bit of it; cut on the exterior of it, and lift it out with its capsule, as you saw this one, which was removed about a week ago from the child I am going to show you, and you will be perfectly certain that you have got beyond the tumour, with no danger of bleeding. You thus remove the whole of the tumour, and the only thing you have got to do is to deal with the vessels entering into it from the outside; and the number of vessels entering into one of these tumours is not so great as you would expect; consequently, when you saw the tumour removed the other day, we had only to deal with the mouth of the facial vein and that of the facial artery and one or two small ones that exist in any child's face. As in the operation by ligature, it is of vast importance, for the sake of the appearance of the child afterwards, to save the skin. For this purpose, you must make the incision upon the surface of the tumour in such a way as to enable you to dissect off any portion of the unaffected skin. If the surface of the skin be entirely healthy—I mean if the integument over the subcutaneous tumour be altogether healthy—you may apply your cuts in such a way as is most suitable to the situation; but, in the case I had to deal with, and the result of which I shall show you, a portion of the skin was affected as well as the subcutaneous tissue. You must have been surprised to see the irregularity of the incision made over the surface of the tumour to save the pieces of the sound skin. And, when the operation was completed and the parts readjusted, it was matter of surprise to myself how the pieces of skin dissected back served the purpose of covering the wound upon the child's face after the enormous excision was made. When you save as much of the unaffected skin as possible, leave it comparatively loose, and, after granulation of the surface, the skin will gradually flap back into its place and unite in a way that will be perfectly surprising.

(Child brought in.) This child had an enormous nævus, extending from the edge of the eyelid down to the angle of the mouth, and protruding to a great extent. In the centre of the tumour, there was a cutaneous nævus about the size of a crown; and, at the inside next the nose, there was another cutaneous nævus about the size of a shilling. An incision was made, as you saw, in such a way as to save the skin covering the eyelid, and another so as to save the lower half of it. These flaps were turned back, and the whole cheek was exposed. This tumour (on the table), with the enclosed nævi, now blanched by being preserved in spirit, was cut out of the cheek, leaving those small flaps on the face. This was done three weeks ago, and we now find that, although there is a considerable amount of œdema, there is sufficient skin left to cover the surface. Within three weeks of an operation, of course it is impossible to speak as to the ultimate result; but, in the meantime, the child has recovered from the effects of the operation in a way that is very gratifying.

The whole front of the face between the eye and the mouth, which was exposed, is now healing up; cicatrisation has taken place at a certain point, and is rapidly proceeding at others. In the meantime, it appears to you swollen. That depends upon the œdema upon the eyelid, near the nose, which will very much diminish. I believe that the child will recover, and that the tumour will altogether disappear, with an amount of disfigurement in the face exceptionally small.

The operation must have appeared to you a very painful proceeding, and it was one which I undertook with a very great deal of anxiety, in consequence of the great extent of the incision to be made, and the amount of tissue to be removed; yet I did it with very great confidence, in consequence of an operation which I performed two or three years ago. I expected to have had the child here, but I have been disappointed, its parents having left the city for Fife. That tumour was greatly larger than the one now before you, and it was much more troublesome, as it involved not only the skin and the subcutaneous tissues, but the mucous membrane of the mouth. It extended from the angle of the eye down to the nostril and into the mouth; in fact, involving the whole of one side of the cheek, from the integument into the mucous membrane, and presenting a case almost intractable. The child was in great danger; otherwise it was a healthy child, and, on account of the disfigurement, it was impossible to deal with the case in any other way. I performed the operation accordingly, and removed the whole of the cheek by introducing the *écraseur* at the superior angle, and by putting pins through the cheek beyond the limits of the tumour on both sides, the whole cheek involving the affected tissue was removed by a sort of Λ-shaped section made by the *écraseur*, which I used instead of the knife, on account of the amount of hæmorrhage which I feared would take place. When the operation was completed, the gap was something frightful to look at; but, with a little stretching, we succeeded in bringing the two sides together. The operation being performed by the *écraseur*, it produced a rough edge rather than a clear incision. But the patient being a growing child, in which the circulation is active, adhesion took place, and it was dismissed from the infirmary when the edges of the wound united, although I must say its appearance was far from attractive. Last year, I had occasion to perform an operation upon a man in one of the suburbs of Glasgow, and, after it was completed, a person in the house said, "Do you know that child?" (pointing to a child about four years of age.) I said "No". I was then asked to look at it a little better. I did so, and said, "Some operation has been performed upon it; has it had a bad hare-lip?" The mother said, "No; that is the child from which you cut the tumour two years ago." From the growth of the child, the parts had become adapted to one another, and, every trace of the nævus being removed, the parts had accommodated themselves in such a way, that the deformity was almost entirely removed. There was little more mark upon the child's face than results from an extreme form of hare-lip. As this child you have just seen is only nine months old, if it recover, as it likely will, and be spared for two or three years, the probability is that, if you saw it again, you would find that the parts were nearly restored, and you would hardly be able to recognise it as the child on whom the fearful operation was performed.

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A SANITARY IMPROVEMENT UNPOPULAR.—Some time ago, choleraic diarrhœa raged severely in Buckhaven, and proved fatal in a large number of cases. Since then, fever has been particularly rife in the village. With a view to sanitary improvement, public water-closets are being erected; but, as yet, the workmen have been only able to get one completed. They were attacked by a mob and pelted with stones, dirty water, etc., and have not in consequence been able to erect the number intended.

# CLINICAL REMARKS
ON
# THE TREATMENT OF CANCER OF THE TONGUE:

### WITH A REPORT BY DR. M'KENDRICK ON THE CONDITION OF SPEECH AND TASTE AFTER REMOVAL OF THE ENTIRE ORGAN.

By THOMAS ANNANDALE, F.R.S.E.,
Surgeon to the Edinburgh Royal Infirmary, and Lecturer on Clinical Surgery.

FOUR patients suffering from cancer of the tongue have been treated in the wards during the last two months; and these cases, gentlemen, have afforded you an excellent opportunity of studying the symptoms and progress of this serious disease. I propose now to make a few observations in regard to the treatment of this affection.

The treatment of cancer of the tongue may be divided into two classes—1, palliative; 2, operative; and we are guided in our selection of these by the condition of the disease and general state of the health, and by the wishes of the patient. If the apparent disease admit of being entirely removed, if the patient's health will permit an operation, and if he or she be willing to submit to operative measures, I have no hesitation in decidedly advocating the latter treatment; but, if it be employed, it must be employed thoroughly. No half measures, such as nibbling away small portions of the organ, can benefit the patient. Except in a few cases, in which the disease is confined to the tip of the tongue, two operations only are advisable, in my opinion. The first is excision of one-half of the tongue, when the disease is limited to one side; the second is excision of the entire tongue, when the disease affects both sides of the body of the organ.

There can never be complete certainty that the cancer will not return sooner or later after an operation; but experience of the disease in this and other situations has surely proved that an early, complete, and successful removal of the affected parts gives the best chance of prolonging life and relieving suffering in the majority of cases.

In cases not suitable for operation, local and general sedatives, the division of one or both gustatory nerves when the pain is severe, and supporting the patient by nutrient fluids injected through an œsophageal tube or catheter, constitute the principles of the first or palliative treatment.

Let us now consider the best method of operating for the removal of a half of or the whole tongue. When the disease is confined to the tip, it is best removed by drawing the tongue well out, and applying the *écraseur* or galvano-cautery behind the disease, so as to take it and a good margin of healthy texture away; but, when the half or whole tongue is to be excised, a more complete exposure of the organ is required. Various external incisions have been suggested and practised in removal of the tongue. Incisions under the jaw, along the lower margin of the jaw, and through the cheeks, have all been practised; but the best method, undoubtedly, for thoroughly bringing into view the tongue in this operation, is that used by the late Mr. Syme. This plan consists in making an incision through the centre of the lower lip, chin, and upper part of the neck, as far as the hyoid bone, dividing the lower jaw through the symphysis, and drawing asunder the two halves of this bone, so as thoroughly to expose the tongue and its various connections to surrounding parts. Thus far I advocate Mr. Syme's proceeding; but, having well observed in his practice, in the practice of others, and in my own, the fatality of the operation when the tongue itself was severed with the knife, I no longer practise or advise the separation of the tongue by this method. Having had several opportunities of examining the causes of death after this operation when performed with the knife, I always found an unhealthy condition of the wound at the root of the tongue, with inflammation and suppuration of the veins connected with it, and also of the large veins of the neck, and too evident signs of pyæmia or blood-poisoning in other tissues and organs of the body. I was aware also that the separation of the tongue or portions of it by means of the *écraseur* or galvano-cautery had proved more successful in the hands of other surgeons.

In consequence of these facts, I have for the last four years entirely given up the use of the knife in these operations, except to expose the organ after Mr. Syme's plan; and have performed the separation of the tongue by means of the *écraseur*, in the way you have witnessed in several cases lately. Should the disease be confined to a half of the organ, I split it along the middle line, as practised by Dr. G. Buchanan of Glasgow; and then apply the *écraseur* round the base of the diseased half, and so separate it. When the whole organ requires to be removed, I practise the same proceeding, first splitting the tongue as before, and then removing with the *écraseur* each half separately. By performing the operation in this way, I believe that the diseased organ can be more accurately taken away, so as to ensure the entire removal of the disease; and that there is much less risk of dangerous absorption from the wound, owing to the drawing together of its surface, and consequent closure of the mouths of the divided veins by the action of the *écraseur*. It is generally necessary to cut across one or both anterior pillars of the fauces, so as to apply the chain of the *écraseur* as far back as possible. After the operation, the halves of the jaw are securely wired together: a proceeding which allows the patient to use his jaws to a certain extent in masticating, and tends much to his comfort in every way. Should the patient be feeble, or unable to swallow readily, a tube or elastic catheter must be passed two or three times a day; and nourishing fluids, of which one of the best is milk, injected by it into the stomach.

As you know, I have lately employed this method of operating in several cases of removal of half of the tongue with good success; and in one case the entire organ has been in this way successfully taken away, the patient making an excellent recovery. The following brief note of this patient's case will, I am sure, interest you, more especially as it includes a report kindly made for me by Dr. McKendrick in regard to the condition of the speech and taste since the removal of the entire organ.

D. N., aged 35, was admitted under my care on the 23rd of October last, suffering from well marked epithelial cancer of the tongue, which had commenced about nine months before. On admission, the disease was found to involve almost the entire right half of the tongue; and it had also passed beyond the middle line, and affected rather more than the anterior half of the left half. There was no detectable glandular enlargement, and the patient's general health was fair. He was suffering from constant pain in the organ and in the side of the face and head, and was willing to undergo any treatment which would give him relief. On November 2nd, the patient was put fully under the influence of chloroform, and an incision made through the centre of the lip and chin, so as to expose the symphysis of the lower jaw and floor of the mouth. The bone was then sawn through, its two halves separated, and the lateral muscular and mucous attachments of the tongue carefully divided beyond the disease. The tongue was now split from root to tip, keeping accurately in the middle line; and, the anterior pillars of the fauces having been divided, each half of the organ was separately removed by applying the *écraseur* round its base. When the tongue was removed, the lingual vessels were noticed to ooze a little, and they were therefore both seized and tied. The solution of chloride of zinc having been applied to the whole divided surfaces, the jaw was drilled, and its sawn ends wired together. The patient's progress after the operation was everything that could be desired. For the first twelve days, he was fed three times a day with the tube; but after this he swallowed perfectly, and the tube was discontinued. On December 22nd, the wire was removed from the jaw, and the bone was found to be united in part, and sufficiently strong to allow the mastication of soft substances. The internal and external wounds were soundly healed, except one little external point on the chin, from which the wire had protruded. On January 6th, the jaw was firmly united, and the patient perfectly well in every respect.

### REPORT BY JOHN G. M'KENDRICK, M.D.

I examined the mouth of D. N. with reference to (1) tactile sensibility, (2), sense of taste, (3), sense of flavours, and (4) vocalisation.

1. *Tactile Sensibility.*—This was determined by means of a small pair of compasses having sharp ivory points, the distance between which may be regulated to half a *millimètre* by means of a fine screw working transversely through the two limbs. Tactile sensibility was normal on the lips, cheeks, gums, and on the roof and floor of the mouth. Over the cicatrix indicating the position of the root of the tongue, tactile sensibility was increased. This was most marked a little to each side of the middle of the cicatrix. In this situation, the patient gave an involuntary start when the compasses were applied without his knowledge; but, when he was warned that the part was to be touched, he could bear the contact, and he could distinguish two points separated by a distance of 1½ *millimètres* (0.06 inch).

2. *Sense of Taste.*—This was tested by placing on the cicatrix and in its neighbourhood small quantities of various substances, and noting the time between the moment of contact and the moment of experiencing the sensation of taste. The substances were applied by means of tubes about 2 *millimètres* (0.08 inch) in calibre, so as to obtain

localised points of contact. It was found easy to blow out of the tube a small quantity, say of powdered salt or sugar, on any spot previously fixed on. The following varieties of taste were examined: (1) sweet, (2) bitter, (3) saline, (4) alkaline, (5) acid, (6) astringent, and (7) fiery. This classification is that adopted by Bain and other psychologists, and appears to include all known tastes. Each substance was tested three times, and between each application the mouth was rinsed out with water. The patient did not see the substances employed. The following table shows at a glance the general result.

| Variety of taste. | Substance. | Effect. |
|---|---|---|
| Sweet | Sugar. | Perceived almost instantly. |
| | Honey. | Perceived in about thirty seconds. |
| | Hyposulphite of silver. | Perceived instantly. |
| Bitter | Powdered colocynth. | Bitter taste, perceived in one minute and a-half; called it a bitter and sharp taste. |
| | Quinine sulphate. | Perceived almost instantly. |
| | Strychnine. | Perceived in ten seconds; persistent. |
| Saline | Chloride of sodium. | Very doubtful as to the taste. First called it sweet; then sharp. |
| | Sulphate of magnesia. | Spoke of it as bitter, and not like the last. |
| | Sulphate of soda. | Called it bitter and sharp. |
| Alkaline | Liquor potassæ. | Instantly perceived; called it sharp. |
| | Bicarbonate of potash. | Very doubtful about this; called it sweet, sour, and at last bitter. |
| Acid | Weak acetic acid. | Quickly perceived as sharp and painful. |
| | Weak nitro-hydrochloric acid. | Quickly perceived as sharp and painful. Did not think either of these was sour. |
| Astringent. | Alum. | Said it was sweet and "dry". |
| | Tannin. | No taste; called it "dry". |
| Fiery | Brandy. | Caused a burning sensation, like that produced by acids. |
| | Mustard. | Painful sharp sensation; could not call it taste. |
| | Curry powder. | Not perceived for one minute and a-half. Painful burning sensation. |

These observations show that the sense of taste was not much impaired. Readily soluble substances were sooner perceived than those not readily soluble, but in no instance was there loss of taste. In several instances, there was considerable hesitancy as to the exact kind of taste. For example, saline tastes were not quickly perceived, and common salt was declared on two occasions to have a sweetish taste. The sense of taste was more distinct at and beyond the margins of the cicatrix. In the centre of the cicatrix, tastes were feebly perceived, and the patient reflected for some time before giving an opinion as to the kind of taste. Acids, tannin, and fiery substances, such as alcohol and mustard, gave no sensation of taste, but sensations of burning pain or dryness. The sense of taste was located in an area which could be covered by a sixpence. Here, probably, the substances affected filaments of the glosso-pharyngeal nerves. After careful examination, I could detect no vestiges of circumvallate papillæ in the neighbourhood of the cicatrix.

3. *Sense of Flavours.*—Flavours, relishes, and disgusts were manifested by the patient in a normal manner.

4. *Vocalisation.*—Not having had an opportunity of examining the vocalisation of the patient previously to the removal of the tongue, I cannot offer any comparative observations. The present condition was investigated.

*a. Sounds of the Vowels.*—*A* (*ah*), *e* (*ā*), *o*, *u* (*ou*), were normal in sound, but strongly resonant. The vowel sound *i* (*ēē*) could not be pronounced; but a sound was uttered somewhat resembling *ou*, but deeper, more resonant, and with a grave accent. The loss of the tongue accounts for this peculiarity. In pronouncing *i* (*ee*), the dorsum of the tongue is elevated nearly to the roof of the mouth, just at the anterior border of the soft palate. In *ou*, the tongue is depressed, and there is a considerable interval between its dorsum and the palate. Accordingly, the loss of the tongue lowered the pitch of *u*, and also caused a sound resembling it to escape when the patient attempted to pronounce *i* (*ee*). The patient could pronounce nasal vowel sounds like the French *un*, *on*, etc., distinctly, as was to be expected.

*b. Sounds of the Consonants.*—The sounds of the consonants were affected by the slight malformation of the lower lip caused by the operation. In the examination of the consonant sounds, I took as a guide the lucid exposition of Professor Max Müller, given in his *Lectures on the Science of Language*, 7th ed., vol. ii, pp. 136-168. I found that all those sounds which do not involve in their production the use of the tongue were apparently normal, but deeper in tone than what is observed in ordinary voices. Those involving the use of the tongue to mould the oral cavity into a special shape were distinctly affected. The mediæ (soft or sonant letters), *b*, *d*, *g*, were pronounced *bū*, *ubdū*, *chŭ*. The tenues (hard letters), *p*, *k*, were given as *pŭ*, *kŭ*; but the remaining one, *t*, could not be pronounced at all. A sound was uttered resembling *hŭ* when the patient attempted to pronounce *t*. The word *loch* (Scotch) was not well given, but resembled *lŭŭgh*. *Ich* (German) could not be uttered. The word *hume*, given by Max Müller as an example of a sound in which "a barrier is formed by bringing the tongue in a more contracted state towards the point where the hard palate begins", was called *ōōme*. The word *huge* produced a sound not the least resembling it, as usually pronounced. The words *rise*, *rice*, were called *rithe*, *rithe*, with a slight hissing sound intermingling. The letters *r* and *l* could not be pronounced distinctly. The letter *r* had some resemblance to the usual sound, but *l* had no resemblance whatever; thus corroborating the opinion of Helmholtz that, "in pronouncing *r*, the stream of air is periodically interrupted by the trembling of the soft palate *or of the tip of the tongue*, the peculiar jarring quality of which is produced by these very intermissions. In pronouncing *l*, the moving soft lateral edges of the tongue produce, not entire interruptions, but oscillations in the force of the air." The sounds *ng*, *n*, called nasal checks by Max Müller, were very imperfectly pronounced. The letter *m* was normal. The letter *w* was called *bŭbo-ōō*.

*c. Musical Characters of the Voice.*—This was examined by two methods: (α) by tuning forks and resonators; and (β) by König's arrangement of manometric flames and revolving mirror, for resolving into its constituent tones any musical sound the fundamental tone of which is $do^2$ (128 complete vibrations per second).

(α). By tuning forks and resonators. König supplies five forks tuned to produce resonance when the cavity of the mouth has the shape assumed during the sounding of the vowels. It was found that resonance was very powerful with the forks *u* (*ōō*) and *o*, weak with *a* (*ah*) and *e* (*ā*), and entirely absent with *i* (*ee*). On the patient retaining the shape in which he placed the mouth on attempting to sound *i* (*ee*), the cavity was found to resonate with the fork *ou* (*u*). This observation exactly agrees with what has been detailed regarding the pronunciation of these sounds.

(β). By manometric flames and revolving mirror. This beautiful arrangement, devised and constructed by Dr. König for the analysis of vowel-sounds and other musical notes, is described by him in a paper on Manometric Flames in the *Philosophical Magazine* for January 1873. It serves for analysing sounds (p. 18) "by the visible dissection of sounds by manometric flames. To this end, I construct an apparatus with eight resonators tuned to the harmonic notes of *c*, each of which is connected with a manometric flame. These eight flames are placed in a slanting line one above another, and show, in the rotating mirror fixed in the same direction, eight parallel bands of light when in repose; and when in vibration, eight waved lines. Of course, in this case, each flame must be perfectly independent of the other, and each flame will vibrate only when its particular resonator is put in action by a note in unison; the notes *not* contained in the series of resonators must have no effect whatever on any of the flames." On singing the vowels before the resonators, and turning the mirror rapidly, the resonators analyse the sound; and, by each resonator affected acting on its own manometric flame, the decomposition is rendered visible to the eye by serrations appearing in certain bands of light. The resonators are $do_2$, $do_3$, $sol_3$, $do_4$, $mi_4$, $sol_5$, 7 (which is a tone having no name, but is twenty-one vibrations less than a minor sixth above $do_4$), and $do_5$. These, from $do_3$, are the harmonics of $do_2$. The quality of voices can by this apparatus be readily demonstrated. Those in which the fundamental tone is powerful, and the higher harmonics weak, affect the lower flames; while those having the higher harmonics affect the fundamental ($do_2$) and the upper set of flames. There are great variations observed in different individuals. In the present case, the higher harmonics were absent, or, at all events, so weak as to produce no appreciable effect on the upper resonators. The fundamental was powerful, and with every vowel showed deep serrations. It was particularly well marked with *u* (*oo*) and *o*. In most voices, with *a* (*ah*), all the flames are affected up the sixth ($sol_4$); the upper three powerfully ($do_4$, $mi_4$, $sol_4$). In the patient's voice, with all the intensity he could command, the fourth, fifth, and sixth harmonies were not represented. When he sang out *e* (*ā*) and *i* (*ēē*), the fundamental alone was affected. My own voice sounding these vowels shows the presence not only of the fundamental ($do_2$), but of the octave ($do_3$) and the twelfth ($sol_3$). The conclusion arrived at is, that the loss of the tongue has altered the quality of the voice, deepening the fundamental by enlarging the resonating cavity of the mouth, and removing the upper harmonics, which give the qualities of brilliancy or shrillness. For physiological reasons, it is a matter of regret that the musical quality of the man's voice was not ascertained previously to the operation.

# ABSTRACT OF A CLINICAL LECTURE
ON
# THE USE OF HAMMOCKS IN SURGICAL PRACTICE.

*Delivered June 12th*, 1875.

By RICHARD DAVY, F.R.C.S.,
Surgeon to the Westminster Hospital.

GENTLEMEN,—I introduce to your notice to-day Seydel's hammock, and wish to tell you the line of thought that has led me to employ it in surgical practice, and then to direct your attention to its more extended application. Two of these hammocks (a child's and an adult's) are now swung in this theatre; and the illustrated sheet gives you a general idea of their usefulness, as well as a description of their material, size, weight, price, etc. At the Surgical Aid Society, I have for the last year used hammocks for the treatment of spinal curvature, because it seemed to be a most excellent method of giving rest to the spinal column, and guarantees an immediate enforcement of hygienic conditions. Bad landlordism and good surgery are sworn enemies: how often are surgeons called to see a pitiable humpback crying in a dark corner of a squalid room, or sitting up, hands on knees, in some miserable tenement! Do not be misled by supposing that a steel machine can put this in order, but direct your attention particularly towards maintaining the spinal column at rest, adopt measures calculated to increase the patient's vigour, and pay not too much attention to the actual deformity. Now, think for a moment how Nature grants immunity from accident and rest to a spinal cord. Anatomy teaches us that the spinal cord affords an example of a suspended system of nerves resting on a fluid contained in a swung fibrous tube. Place, therefore, your patient on a water- or air-cushion in one of these hammocks, and sling your hammock as near the window as convenient; then whatever little fresh air, light, sunshine, and rest can be gained in a rookery will be utilised; and, should an instrument of support be considered supplementary, further deformity is prevented during the time for carrying out mechanical detail. The patient's friends constantly pester surgeons with remarks on the deformity. Truly it is an index to the extent of bone dilapidation; but it need not occupy your thought any more than telegraphic engineers repairing a subterranean cable would regard the necessary excavations.

For the easy removal of goods, the first and principal aim of the carrier is to sling them. Observers are struck by the facility and steadiness with which packages are removed from place to place by means of a crane; *e.g.*, in a ship's hold or at a railway goods-shed. I have lately introduced these hammocks to the profession for the transit of invalids by rail, because the conveyance of injured persons has been far too much left to chance, and no practical steps have been taken to remedy an inconvenience of daily occurrence. Let me direct your attention to this modified stretcher, on which is slung a small hammock. This apparatus is easily carried by two men, and is intended not only for exercising patients in the open air, but also for conveying invalids to or from a railway station, so that the patient does not quit the hammock, and consequently all changing is unnecessary. The three patients who have been conveyed from Westminster to Margate, Ringwood, and Bournemouth respectively, in hammocks by rail, have all expressed their great satisfaction; and I can personally bear witness to their testimony. With regard to the further use of hammocks, let me strongly urge that one, at any rate, should be kept at every railway station; collisions, accidents, and vivisection in various forms, are terms familiar as "household words" to railway directors; small provision is made by them for the transit of the wounded; in any grave accident, a telegram could thus shortly produce a sufficient supply of swing-beds.

In the North of Devon, I know of men with fractured legs and strangulated herniæ having been placed in a cart on a bundle of straw, and slowly conveyed sixteen miles to the Exeter Hospital. Surely this procedure is not calculated to ensure the recovery of the sufferer! Again, might not a mother's anxiety be lessened, and co-passengers' comfort be increased, by swinging babies and children during long journeys? My experience tends to prove that children very much enjoy a railway journey until fatigue sets in; their having no suitable means of reclining transforms them into intolerable bores. Are we not more to blame than the children in not anticipating the inevitable? In conclusion, there are some "travelling larders and wine-cellars" who tell surgeons that a good railway jolting is to be approved of, because it shakes up their liver; but there are also surgeons who answer that a horrid railway jolting is to be disapproved of, because it shakes up their nervous system. My sympathies are with the latter; for there is a daily increasing class of educated men who believe that repose in travel is not so much a question of luxury as of necessity.

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# FOURTH SERIES OF FIFTY CASES OF OVARIOTOMY.

By T. KEITH, F.R.C.S.,
Surgeon for Ovarian Disease to the Royal Infirmary, Edinburgh.

THE accompanying table gives a fourth series of fifty cases of ovariotomy. The first, second, and third series are reported in the *Lancet* of September 7th, 1867, August 20th, 1870, and November 16th, 1872. There have been fewer operations than in former years; but I have reason to believe, now that ovariotomy has become a comparatively common operation, that the more severe cases of the disease only come to me. During this period I have also been able to diagnose and cure by a single tapping four cases of serous cyst of the broad ligament. These tumours would some time ago have probably been removed by operation.

The arrangement of this table is the same as the others; only, following the example of Mr. Wells, there has been added the name of the medical attendant of the patient, or of the medical friend who sent me the case. This seems necessary to satisfy the doubts of such men as M. Louis Gallez, who, in his work on *Ovariotomy*, speaks of my former results in the following terms: "Cette mortalité si minime qu'elle paraît douteuse."

In the first series of fifty cases, there were 11 deaths.
In the second ,, ,, ,, 8 ,,
In the third ,, ,, ,, 8 ,,
In the fourth ,, ,, ,, 6 ,,

Not included in the above table is the case of the second patient on whom I performed ovariotomy in 1863. After ten years of perfect health, the disease returned in the other ovary. Thinking that she was now too old for operation—she was nearly seventy years of age—she concealed her condition till she could go on no longer. When I saw her last year with the late Dr. Thomson of Dalkeith, she was very infirm, and some relief was given by tapping the largest cyst, for there was much solid left. Soon after this, one of the cysts gave way, and she became very ill. As a matter of course, ovariotomy was again urged upon her, and willingly agreed to. She recovered perfectly, and is now quite well, though I have seldom had a more severe operation. There were extensive parietal, omental, and pelvic adhesions; and there was much adherent intestine. Large dilated veins in the remains of the old pedicle gave rise to troublesome hæmorrhage.

In two cases, ovariotomy was not completed. The first was that of a young lady whom I had seen so far back as 1866. The cyst was of moderate size, and its growth had been slow; but even then the opinion given to her friends was, that its connections in the pelvis were such that operation was impossible. She came to me always in December, on her way to Hastings, where she passed the winter. Every year added to the doubts as to the possibility of relief by operation. The cyst was looked upon as one of those that had adhered at an early stage, and in which the adhesions had grown with the growth of the tumour. Year after year, it was a relief when she was able to go South for the winter. Her health was now very good, and she enjoyed life as much as any one. The tumour became more consistent as it grew older, and nothing was to be gained by tapping. At length, the time came when the question of interference had to be definitely faced. The strength continued good, but she had to be carried up and down stairs. On her way home for the last time, I requested her, as I had often done before, to consult the authorities in London. There the opinions given were, that there were no unusual local difficulties, and that her case was a fair average one, or rather a favourable one, for operation. Fortified by this opinion, the operation was undertaken. The cyst was incorporated with the wall in front; it was opened freely, and carefully cleaned out of all its contents, which consisted of masses of old fibrine like damp earth. After two hours' deliberate dissection, ending in a tissue of cartilaginous hardness, all attempts to complete the operation failed; the portions of cyst-wall separated were cut away, and the wound left open for free suppuration. For this, but for the thickness of the almost cartilaginous adhesions, the case seemed a fair one. Care had been taken not to injure the bladder, which was known to be drawn upwards far above the pubes; and the abdominal cavity had not been opened into, except towards the end, to satisfy the doubts of some of my friends, when I made a small opening above the umbilicus, and then immediately closed it by catgut ligatures. In this case, I persevered to the uttermost, for I had succeeded in a precisely similar one (No. 175). They were both cases of inflamed cyst of the broad ligament, adherent at an early stage, and pushing before them the contents of the abdomen as they grew. Dissection was necessary in both, and in the successful case part of the peritoneal coat was here and there left; and, as the vessels of a cyst of the broad ligament lie between the layers, the troublesome hæmorrhage that happened in both during the dissection was easily accounted for. At a future time, I shall return to these cases, with others of inflamed broad ligament-cysts. The result of the attempt to cure this case by suppuration ended in a failure. For three weeks, everything promised well; and just as all felt sure of a favourable termination, and while the patient was laying plans for the future, sudden septicæmia came on, and proved fatal at the end of four weeks. Nearly the last fragments of the cyst had exfoliated, and many large sloughs had been removed during the last week. The surrounding old adhesions were in some places upwards of an inch in thickness, and the contents of the pelvis were so imbedded in this thickened tissue as to be scarcely recognisable.

*Table of Fifty Cases of Ovariotomy.*

| No. | Medical Attendant. | Date. | Age. | Adhesions, etc. | Result. |
|---|---|---|---|---|---|
| 151 | Dr. Logie, Kirkwall | October, 1872 | 31 | Parietal and omental adhesions; sarcomatous tumour; 26 lbs. | Recovered |
| 152 | Dr. Hardie | ,, ,, | 40 | Omental adhesions; 67 lbs. | Recovered |
| 153 | Dr. Stewart, Hexham | November ,, | 21 | Very extensive parietal and omental adhesions; 27 lbs. | Recovered |
| 154 | Dr. Gordon | December ,, | 67 | Intestinal and mesenteric solid tumour, 6 lbs; ascites | Recovered |
| 155 | Dr. Campbell, Montreal | ,, ,, | 20 | Acute suppurating cyst, 25 lbs; parietal, intestinal, and general pelvic | Recovered |
| 156 | Dr. Black | January, 1873 | 53 | Acute suppurating cyst, 29 lbs.; parietal, intestinal, and extensive to liver | Died |
| 157 | Dr. Simpson, Marykirk | February ,, | 29 | Very firm parietal and pelvic, semisolid, 19 lbs.; much dissection | Recovered |
| 158 | Dr. James Sidey | March ,, | 63 | General parietal adhesions | Recovered |
| 159 | Dr. Johnston, Stirling | ,, ,, | 24 | Parietal; solid malignant tumour; 14 lbs. | Died |
| 160 | Dr. Wallace, Parsonstown | April ,, | 20 | Omental and general parietal; 41 lbs.; both ovaries removed | Recovered |
| 161 | Mr. Tuthill | ,, ,, | 24 | No adhesions; 14 lbs. | Recovered |
| 162 | Dr. James Simson | ,, ,, | 24 | General parietal adhesions; 18 lbs. | Recovered |
| 163 | Dr. M. Duncan | May ,, | 45 | Extensive and firm parietal and omental; 16 lbs. | Recovered |
| 164 | Dr. Peddie | ,, ,, | 24 | Suppurating cyst, 24 lbs. | Recovered |
| 165 | Dr. Hemming, Kimbolton | June ,, | 24 | No adhesions; 21 lbs. | Recovered |
| 166 | Dr. Maclagan, Berwick | ,, ,, | 53 | Adhesions to uterus and vagina; ascites | Recovered |
| 167 | Dr. Howden, Haddington | August ,, | 57 | Intestinal, mesenteric, and pelvic adhesions; 30 lbs. | Recovered |
| 168 | Dr. Kidd, Alyth | September ,, | 36 | Acute suppurating cyst, 55 lbs.; very extensive adhesions | Recovered |
| 169 | Dr. Muir, Moniaive | ,, ,, | 24 | Omental, parietal, and pelvic adhesions; 35 lbs. | Recovered |
| 170 | Dr. G. Keith | October ,, | 27 | Burst suppurating cyst, 30 lbs.; adhesions universal | Recovered |
| 171 | Dr. Lyall, Leven | November ,, | 27 | Very firm and extensive parietal and omental adhesions; 27 lbs. | Recovered |
| 172 | Dr. McCulloch, Dumfries | December ,, | 24 | Extensive omental and pelvic; solid tumour of ovary; ascites | Recovered |
| 173 | Dr. Hoggan, Thornhill | January, 1874 | 23 | Adhesions universal; very firm pelvic adhesions; 43 lbs. | Died |
| 174 | Dr. Miller, Londonderry | February ,, | 26 | No adhesions; 20 lbs. | Recovered |
| 175 | Dr. George Balfour | March ,, | 26 | Adhesions universal; very firm in pelvis, 26 lbs.; no pedicle | Recovered |
| 176 | Dr. Dickson, Falkland | April ,, | 65 | General parietal adhesions; 43 lbs. | Recovered |
| 177 | Dr. Wilson | ,, ,, | 36 | Extensive parietal, omental, and pelvic; 26 lbs.; ascites | Recovered |
| 178 | Dr. M. Duncan | May ,, | 36 | Semisolid; no adhesions | Recovered |
| 179 | Dr. Menzies | ,, ,, | 51 | Extensive omental and intestinal; ascites | Recovered |
| 180 | Dr. McGillivray, Oban | July ,, | 46 | General and very firm parietal and pelvic adhesions; 38 lbs. | Recovered |
| 181 | Dr. Bernard, Londonderry | ,, ,, | 29 | Parietal and omental adhesions; 75 lbs. | Recovered |
| 182 | Dr. Young, Kirkcaldy | September ,, | 50 | No adhesions; 20 lbs. | Recovered |
| 183 | Dr. Filson, Portaferry | October ,, | 44 | Solid malignant tumour; ascites; cancer of peritoneum | Died |
| 184 | Dr. Charles Bell | ,, ,, | 25 | Parietal; both ovaries removed; 25 lbs. | Recovered |
| 185 | Dr. Barkus, Gateshead | ,, ,, | 31 | No adhesions | Recovered |
| 186 | Dr. Perry, Glasgow | November ,, | 52 | Ovary and fibro-cystic tumour of uterus | Recovered |
| 187 | Dr. Ziegler | ,, ,, | 60 | No adhesions; 16 lbs. | Recovered |
| 188 | Dr. Thorne, Newcastle | ,, ,, | 23 | No adhesion; five months' pregnancy | Recovered |
| 189 | Dr. M. Duncan | December ,, | 44 | Very firm and extensive; ovary and fibro-cystic tumour of uterus | Recovered |
| 190 | Dr. Dickson | January, 1875 | 34 | General parietal adhesions; 27 lbs. | Recovered |
| 191 | Dr. Strahan, Dollar | ,, ,, | 28 | Firm and extensive; parietal, intestinal, and omental; ascites | Recovered |
| 192 | Dr. Miller, Londonderry | February ,, | 40 | Both ovaries, cysts of broad ligament, and fibro-cystic tumour of uterus | Recovered |
| 193 | Dr. McFadyen, Alva | March ,, | 30 | No adhesions | Recovered |
| 194 | Dr. Mortimer, Turriff | April ,, | 30 | Very extensive mesenteric and pelvic adhesions; 30 lbs. | Died |
| 195 | Dr. Kidd, Dublin | ,, ,, | 22 | General pelvic adhesions to omentum, wall, and intestine | Recovered |
| 196 | Dr. Graham, Weir | May ,, | 50 | Burst suppurating cyst; extensive parietal, intestinal, and pelvic | Recovered |
| 197 | Dr. Barkus, Gateshead | ,, ,, | 34 | Parietal adhesions; 34 lbs. | Recovered |
| 198 | Dr. Pirrie, Dundee | ,, ,, | 36 | Very firm; parietal, omental, and in pelvis; 21 lbs. | Recovered |
| 199 | Dr. Perry, Glasgow | ,, ,, | 39 | No adhesions | Recovered |
| 200 | Dr. M. Duncan | ,, ,, | 22 | Parietal, omental, and intestinal adhesions; 15 lbs. | Died |

The second incomplete operation was that of a stout strong looking woman, 53 years of age, sent to me by Dr. Fiddes of Aberdeen. She had been tapped four or five times. The abdomen was rather large and tense when she came, and, though pelvic adhesions were expected, there seemed nothing in her general condition to forbid operation. In this she was as anxious as she was averse to another tapping. On opening the abdomen, a quantity of dark ascitic fluid escaped, and an ovarian tumour came into view, reaching to the umbilicus. Several cysts were punctured and emptied. It was then seen that adhesion all round to the brim of the pelvis was so intimate, that no attempt was made to do more, especially as the appearances of some folds of adherent intestine were suspicious. The collapsed cyst-walls were secured in the wound by Rochale's serre-nœud, and a drainage-tube was left in. She died three days afterwards, and every organ in the abdomen was found to be loaded with cancerous deposits. A preliminary tapping would certainly in this case have prevented any further interference.

In the six fatal cases, the cause of death was septicæmia. The first was a case of acute suppurating cyst with pyæmic fever. It seemed a hopeless undertaking, but equally hopeless like cases of suppurating cysts had recovered. In the second and fourth, the tumours were malignant. In both there was red serum in the abdomen, and both had fluid in the pleura at the time of operation. Of the other three cases, in two the operations were very severe, lasting nearly three hours in the one and upwards of two hours in the other. This latter was a badly constitutioned woman, and had suffered from acute kidney-affection, with convulsions. One was drained, the other was not. Earlier operation might have saved both. In the last fatal case, the patient was perfectly well till the sixth day, and recovery seemed sure. In a few hours, the temperature rose to 106 deg., the pulse to 170, and she died four days after.

Farther experience has satisfied me of the value of the actual cautery in the treatment of the pedicle, and I am coming to the conclusion that it is the best of all the intraperitoneal methods for securing the pedicle. At first, I was prejudiced against this method, and only used it in the worst cases, where the clamp could not be employed. It has had from me a very severe trial, and, when the numbers are larger, I shall publish the whole of the cases in detail. This method, as is well known, was introduced by the late Mr. Baker Brown, and, after trying all sorts of improved clamps, I have gone back to the simple rough tool so successfully used by him.

Sulphuric ether has been given in all the cases.

# ON THE ETIOLOGY OF HYSTERIA.*

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THIS subject is a difficult one, and one which I should have hesitated to take up, had it not been that I was led some time ago, by a sense of my own ignorance or doubt as to what hysteria really meant, to study the question more carefully for my own advantage; and if, under the impression of resolving or simplifying some of its difficulties, I have only added to their number, I look, as it well becomes me, to the present meeting to be set right in the matter.

The want of precision in the use of the term hysteria is a difficulty which meets us at the very outset, and I gladly avail myself of the observation of a distinguished metaphysician, that "there is no greater impediment to the advancement of knowledge than the ambiguity of words", as affording me a convenient and sufficient excuse for attempting at least to advocate a more restricted use of that word. If, as Dr. Reynolds remarks, "the employment of the term hysterical may sometimes be found indicative of the state of the mind of the practitioner rather than that of the patient's health", if hysteria be used occasionally to denote "a vague condition of disordered function which cannot be conveniently placed elsewhere" (Reynolds's *System of Medicine*, vol. ii, page 82), it is obviously desirable that the term be employed in a much more limited sense than it is.

Leaving out of consideration such an indefinite nomenclature as the above, we find that there are two very different kinds of affections included under the term hysteria. Dr. Handfield Jones notices this very pointedly, and gives cases illustrative of the distinction (*On Functional Nervous Disorders*, pp. 519, 520, and 521). The first, where the limbs of the patient could only be straightened under chloroform, and then easily, where she preferred to scald her mouth with boiling water rather than admit the deception she was practising, he would call genuine hysteria. Then of three cases with all the usual symptoms of globus, crying, choking, etc., he says "any practitioner would have called them hysterical, as indeed they called themselves; but it is plain they were not hysterical in the sense in which the first case was"; and these last he proposes not to consider hysteria. But why not rather exclude all cases where it is obviously the intention of the patient to deceive, not where she is deceived herself, really imagining that she feels pain, choking, etc., but those cases of intended deception where numerous plans are devised to simulate real disease? Is not the latter simply malingering: a term which, while it has been most unaccountably withheld from the female sex, has been applied to the very same affection in the male? It may often be difficult, sometimes impossible, to determine how far the patient is deceived herself, or intends to deceive: then let it be an open question between hysteria and malingering. Because we cannot invariably distinguish between two particular diseases, is no reason why they should always be included under one name. We try to diagnose between typhus and enteric fevers, although doubt as to the presence of either is often concealed by the term gastric fever; and so we ought to endeavour to distinguish between hysteria and malingering. There is no connection between the two in their nature, the latter requiring tact and cunning, the former being dependent, as we shall attempt to show, on rather a deficiency of mental power. Indeed, the only reason we can assign for the term hysteria being applied to both is that, under bad treatment, and sometimes under the best, the one leads into the other: the unintentional into the intentional form. There are cases certainly of what might be called real hysteria, where there is in addition a little feigning, in order to secure, perhaps, more attention to what the patient believes to be the real necessities of her case; these might be called "malingering hysteria".

There is yet another class of symptoms which I would propose to eliminate; viz., those characterised by extreme pain, and of which clavus hystericus may be taken as a type. As this is, however, merely a matter of opinion, I am for obvious reasons particularly glad to find that so distinguished an authority as the late Dr. Anstie considers that between clavus hystericus and hysteria there is no essential connection. In Reynolds's *System of Medicine*, art. Neuralgia, he says:—"The adjective hystericus is an improper and inadequate definition of the circumstances under which clavus arises. The truth is, that the subjects of it are usually females who are passing through the trying period of bodily development; but there is no evidence to show that uterine disorders give any special bias towards this complaint." Believing, then, that the above-mentioned symptoms may be profitably and naturally considered beyond the limits of hysteria, we find that we have, generally speaking, two distinct forms of the disease to consider: 1. The hysterical fit; and 2. The innumerable and varied sensations, usually described as painful, of which the hysterical patient complains. The latter we shall consider first.

But, before doing so, perhaps it is better at once to state the general view of hysteria which I take as the groundwork of the further observations I intend to make. I believe hysteria to be the result of a certain degree of mental incapacity—the manifestation of a mental weakness or derangement—and shall endeavour to refer the characters of the disease usually designated as nervous to that condition. This alone can, I think, account for the infinite variety of phases which the disease presents; while, if we admit that there is a perversion of the natural and healthy state of the mind, and this indicated by a nervous system preternaturally sensitive to external impressions, we have ample scope for all the whims, and latterly it may be the frauds, with which we are so familiar, the only one cause that will explain phenomena so characteristically protean as we have in hysteria.

Admitting, then, this mental condition for the present, we shall attempt to show how it leads to what is called an excited nervous sensibility by the following considerations. If we direct particular attention to any one part of the body, we are sensible of some impression there, which we might express as coldness, uneasiness, or even pain. For example, may not the very clothes we wear be felt as an incumbrance at any one part, if we only think of that part? or, conversely, do we not often observe that, if our attention be very much engrossed with anything, we may remain in a position, standing or sitting, as the case may be, which has been really painful to us, but of which we were for the time quite unconscious? And here we may remark, in passing, that on this very fact we act every day, when we endeavour to get the patient's mind engaged with something else, in order to discover how far pain is hysterical or not. But, again, suppose we prick our finger with a needle at a dissection or *post mortem* examination, is it not ten to one that we will imagine, perhaps after the day's work is over and *we have time to think about it*, that we feel an undoubted swelling of the axillary glands, and perhaps a suspicious numbness passing up the arm? It is evident, then, from these illustrations that there are continually impressions being made from without and sensations felt, which we do not recognise or at least retain in our memory, but which may become objects of our notice and consideration, should our attention be by some special circumstance directed to them.

Now, in hysteria with the mental condition which I have assumed as existing, the patient's attention is, as it were, morbidly excited, while judgment and reasoning are impaired; and so impressions, which usually pass by unheeded, are carefully caught up, brooded over, and magnified into all sorts of fancies, but to the patient real ailments or troubles: or, to put it in more scientific language, certain sensations which are to a healthy mind indifferent, *i.e.*, "which require attention to the operations of our mind to become conscious of their existence", become sensations disagreeable, because the necessary attention is given them. This we believe to be, in the main, the explanation of all truly hysterical sensations; but, besides this, there may be, I think, much more positive impressions produced from a purely mental source. Almost every one can testify to the fact that, in some way or other, mental impressions may cause very distinct physical impressions; and, as a means of helping us to admit that the most curious and, at the same time, positive hysterical sensations may have a mental origin, although we cannot understand or explain the process, we gladly avail ourselves, by way of comparison, of more everyday examples. The pain that a sudden start, grief, or disappointment occasions, referable usually to the heart, is well known. The cold creeping sensation that fear causes; the thrill, too, that one feels on witnessing, or even in hearing, of some brave or daring deed; these examples are trite enough, and we admit at once, and without wonder, that such things are; but, were they less common, we would as readily hesitate to believe that such impressions could be purely mental in their origin, as we are apt to doubt that many of the various hysterical phenomena may be similarly brought about.

Turning now to the first of the two classes of symptoms previously referred to, it may be asked how can this theory of mental derangement account for all the variety of spasmodic contractions which characterise the hysterical fit? In the consideration of this question, we find ourselves compelled to refer to the cerebral theory of mental disease, although a discussion of this theory is, we think, quite apart from the subject of this paper. Suffice it to say, that the opinion that all forms of mental derangement depend upon some remote molecular change in the brain-structure has been long entertained, and is now generally accepted by the most eminent writers on this subject both at home and on the Continent. If we believe, then, that there is some such morbid change in hysteria, I think we shall be able to find a parallel to the convulsive phenomena referred to in the symptoms of the diseases now to be mentioned.

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* Read before the Medico-Chirurgical Society of Glasgow.

Epilepsy, alcoholism, and chorea, may be taken as familiar examples of diseases which are believed on fairly tenable grounds to depend upon some nerve-lesion. Now these, like hysteria, are characterised by spasmodic movements, differing very considerably, however, in quality and degree in each of the three affections; and the first two at least are very generally admitted to predispose to, or to be associated with, both hysteria and other recognised mental affections; and all may, therefore, be considered closely allied to one another apart from any theory as to their origin. May it not be, then, that the healthy brain exerts a kind of inhibitory influence on such movements (reflex they may be) which in a diseased condition, as in the affections referred to, it is unable to do? We do know, indeed, that, if the communication between the brain and (*e.g.*) the lower limbs be interfered with or destroyed, as in paraplegia, we have reflex movements developed with the slightest stimulus, or with no appreciable stimulus at all, quite beyond the control of the patient. I once saw a paraplegic patient under Dr. Gairdner's care, in the Royal Infirmary, whose legs were continually getting over the edge of the bed, and he was utterly unable to prevent them, or to move them in the slightest. From these considerations, have we not good grounds for believing that all these spasmodic movements depend on the brain not exercising its normal influence on the nervous system: in the first-named affections, including hysteria, because it is diseased itself, and, in the last, the paraplegia, because its communication with other parts of the body is cut off? While we might infer from this alone that hysteria depends on some morbid change in the brain, we have at least shown how, admitting a mental derangement and adopting the cerebral theory, we may account for the convulsive movements which characterise the disease. And, as in the more permanent forms of mental disorder, there may be a diseased condition of the brain from which there is no recovery, the hysterical fit or paroxysm may depend on an exacerbation, if we may so speak, of the morbid change that soon passes away, however, just as we may suppose that the delirium of typhus fever is caused by a temporary, but none the less real change in the brain, which disappears when the specific poison is eliminated.

In the foregoing remarks, I have assumed that hysteria is a form of mental derangement; I shall now give my reasons for that opinion.

The fact that one hysterical patient may, by her example, set others into a similar condition points to a mental origin. The late Mr. Skey of London states that he has seen nine females so affected in a ward of twelve. One takes it, and then not the patient occupying the next bed, but perhaps another at the far end of the room, and here and there "in the order of their constitutional liability"; and then he declares his adherence to this theory in the following terms. "There can be no doubt, then, that a malady spreading by sympathy and cured by fear has its origin in the mind."

If hysteria depended on a morbid condition of any particular organ (we except, of course, the brain), or even on some remote change of structure in a nerve, as is believed to take place in what are still called functional nervous diseases, we should surely have a far more definite train of symptoms, and a more particular habit or condition of body, associated with, or the result of, the disease. The very reverse of this we know to be the case with regard to the symptoms; and, as for an hysterical diathesis, very opposite conditions have been given by different writers, simply because there is no special condition.

Again, if any such lesion were the cause, we should certainly expect that direct treatment would be serviceable. Now, we know that this, and notoriously local treatment, rather aggravates the disease. Handfield Jones brings this forward as an argument against the reflex theory of Romberg and others; but we think it only points to a particular mental condition as the primary cause, without proving that the exciting cause may not be of a reflex nature.

The influence that education—that is to say, mental training—has on hysteria is so paramount, that I think it may fairly be adduced as evidence of the disease itself being a mental one. Hysterical patients usually have been what are called "spoiled children", and the comparative want of the exercise of self-denial and self-control is a condition naturally affecting the mind, at least in the first instance. With regard to occupation, too, which ranks almost as high as a secondary cause, we know it is not so much overwork which predisposes to hysteria, as we should rather expect if the disease were dependent on some physical lesion, but the want of work, the want of mental employment. But, on the other hand, if hysteria depended essentially on some uterine affection, we should surely be able to make out the lesion in most instances, or, given the lesion, find hysteria a more usual symptom; but we know that this is not the case, and, for my own part, I have rather been struck with the total absence of anything like hysteria in genuine uterine complaints, and in the majority of hysterical cases with the complete absence of any disorder of the generative organs. Dr. Thomas K. Chambers states that, of two women he has examined without any uterus, one was hysterical (*Renewal of Life*, 2nd edition, page 245).

If this kind of affection were a primary cause, would we not expect to find it exerting something like an hereditary influence? But who would ever dream of saying that "Mrs. So-and-so is hysterical, but it is in the family; her mother and aunt were the subjects of prolapsus uteri and dysmenorrhœa respectively"? yet we would not be surprised to hear that one suffered from epilepsy and the other from occasional attacks of mania.

Further, it is said that at puberty the liability to hysteria begins; but this is no proof of its being of uterine origin. With the exception of idiocy, we can say almost as much of any form of mental disorder. It is simply because the mind, no longer undeveloped or immature, begins then to assume its distinctive characters, and, in the female sex, that peculiar susceptibility which is so favourable to hysteria. And, while in a child we want the mental conditions favourable to the development of hysteria, we have such conditions as are actually incompatible with its complete development. A child is easily amused; its mind is readily occupied with any trifle that comes in its way, and, if it have any cares, they are only for the moment. At the same time, I think we have in children the counterpart of hysteria, what would be styled hysterical in the adult: I refer to the long-drawn sob or continued sighing observed in nervous sensitive children after being reprimanded or chastised. I have before my mind more than one case where this has, in girls, developed into true hysteria after puberty, and in boys has quite disappeared. An abrupt hesitating way of speaking, also one of the occasional symptoms of hysteria, and a peculiar blinking or spasmodic closure of the eyelids, are conditions that I have observed both in hysterical patients and in children such as I have described.

Two children of one family with which I am acquainted, both girls, were at different times brought home in a state of great nervous excitement after prolonged and active exercise at some kind of game. In the first case, which I saw myself, there was great flushing of the face, the direct effect of the exercise, followed by severe headache, great agitation, and the most marked paroxysms of crying; in the other, by an inability to speak coherently, a peculiarity of manner and expression; the latter described by the mother as a "vacant look", and some tendency to crying also. It is several years since this happened, and there has been no recurrence of the attacks, nor is there anything in the habits or temperament of either that could at all be considered as pointing to an hysterical tendency. Many will question if this could be considered even the counterpart of hysteria; but, in view of what I have stated, I think it as near an approach to adult hysteria as we could possibly have in a child.

While claiming for the hysterical paroxysm, and all the various sensations peculiar to hysteria, a mental derangement, and that alone, as a primary cause, there is no doubt, on the other hand, that the exciting causes of either are practically innumerable. Any shock to the nervous system, the sudden recollection of some incident that powerfully excites the feelings, or a comparatively trifling disorder of some of the internal viscera, may be the exciting cause of the most violent hysterical seizure. Accidental changes in any organ of the body may form the basis of all the numerous painful sensations which characterise hysteria; for the patient will only fancy something wrong in the absence of any real abnormality. Sir Benjamin Brodie mentions the case of a gentleman, in whom acidity of the stomach was associated with severe pain in the foot (*Works*, vol. iii, p. 140). In an hysterical lady, this would have been a rare opportunity of inaugurating a new train of symptoms, which would not have been arrested, as in the case referred to, by the administration of some alkaline medicine. We know, too, that any functional disorder of the more important viscera may in its turn react powerfully on the mind. Dr. William Murray gives several interesting examples of great mental anxiety and depression being entirely dependent on gastric derangement, which a mild aperient invariably removed (*On Emotional Disorders*, etc., pp. 60, 61).

It is in this way, then, that disorders of the uterus and sexual system generally may become a most powerful exciting cause of hysteria; for the patient will find in the all-engrossing uterine complaint a ready object on which to build her fancies or multiply her fears. But to give this kind of affection a place, above all others, as the essential cause, I have endeavoured to prove to be unwarrantable. How far I have succeeded, or if at all, I leave with all deference for you to determine.

# ON CONJOINED EPITHELIUM.

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It does not appear that much attention has been given by English observers to the so-called "prickle and ridge" cells (*Stachel- und Riffzellen*). At all events, they have scarcely found their way into our most recent books on pathology; while the drawing in our newest text-book on minute anatomy is almost, if not quite, identical with the earliest sketch in Virchow's *Archiv*.

It is, nevertheless, twelve years since these cells were first discovered and named by Professor Max Schultze; and their distribution in fishes and amphibia has been fully described (1867) by his brother, Professor Franz Schultze. They have been subsequently noticed by Kölliker, Frey, Rindfleisch, Stricker, Cornil and Ranvier, Rollett, and others. They have been called "spinous cells", "echinate cells", "cellules dentelées", "ribbed" and "spiny and furrowed" cells; but no observer seems to have added any careful researches to the original description of Max Schultze, by whom the name was given to them of "prickle and ridge" cells. And yet there is a certain beauty and interest attaching to these structures which seem to entitle them to more detailed notice; and, while they offer problems in histogenesis of great interest to the anatomist and physiologist, they cannot but do so also in some degree to the pathologist. It is a good illustration of the old story of "eyes and no eyes", that a very remarkable structure, and not a difficult one either, in so thoroughly common a place as the borders of an epithelial cell, should have been persistently overlooked for many years, and long after high microscopic object-glasses had been brought to great perfection. No one need despair of seeing something new and important by looking with extra carefulness at what is, so to speak, straight before his face, after this fact, that the mere form of the simplest of all animal cells actually remained unnoticed until a dozen years ago.

The discovery of Max Schultze, then, was this: that in the epithelium of the mouth and conjunctiva firstly, and then in the epidermis of the skin, and indeed wherever there is true pavement or scaly epithelium in many layers, the second series upwards of cells have this peculiar character. Their surface is furnished with short projections, which are apt to appear as prickles; while sometimes there are ridges (reefs) marking portions of the cell with parallel groovings (see drawing). The lowest layer of epidermic cells consists of elongated vertical palisading-like elements, between and underneath which lie germinal masses of indeterminate form. Next above, and completing what was called "rete mucosum", is a succession of layers of spheroidal cells, becoming more and more flattened until they cohere under the form of mere scales into cuticle on the skin, or in a less firm manner in transitional situations like the mouth, conjunctiva, etc. It is these latter layers which are mostly spinous. There is some difficulty in seeing this well in thick skin. It was already noticed by Max Schulze, that the diseases involving the true skin showed the prickle-cells well; and other observers, especially Cornil and Ranvier, have followed in the same line (Fig. 1).

The anatomical structure, then, has been described thus: the cells are covered more or less with spines, which, when the cells are isolated, show as marginal prickles; and if the covering pressure chance to be *nil*, as besetting the surface. The spines are sharp-pointed, with a broadish base; and all observers, I believe, describe them as interlocking with the teeth of the next cells, thus giving the characteristic cohesion. Max Schultze compares this to the intermingled bristles of two brushes put together. Ranvier speaks of the cells as soldered by the interlocking teeth ("les dentelures au moyen desquelles elles sont engrenées et soudées"). Stricker uses the same phrase, and Rindfleisch compares their union to "a suture"; and I learn that the well known Edinburgh *preparateur* Mr. Stirling, discovering them nine years ago, thought them like "watch-wheels" (see Fig. 1).

At first sight, this all seems satisfactory enough; but it is just as to the simple nature and plan of these processes that I venture to join issue with all observers to whose works I have been able to obtain access. So long, namely, as I looked at the contact between any two of these cells as that of toothed wheels, they really seemed to interlock. I confess, however, to a rooted distrust of real processes of definite form as being projected from a cell-wall of formed material, this having no analogy with the many changes of form in germinal or bioplastic matter. As far back as 1860, when the language of, I believe, all the books was of processes sent out by cells, I ventured to dissent from such views, and, in a paper on Connective Tissue published in Beale's *Archives*, described cell-processes as being "spun out" by a receding body. This view is now generally accepted. It seemed, therefore, to me worth inquiry, whether these prickles were really processes which interlock, or whether they were really continuous delicate bands uniting cell to cell. In an epithelioma of the lip, and in a section of a hard preputial chancre, I found instances of a rich development of the prickle-cell. Probably, just as on a nasal polypus the ciliated epithelium often becomes monstrous, many fine examples of these cells may be encountered where there is unusual setting free of formative force.

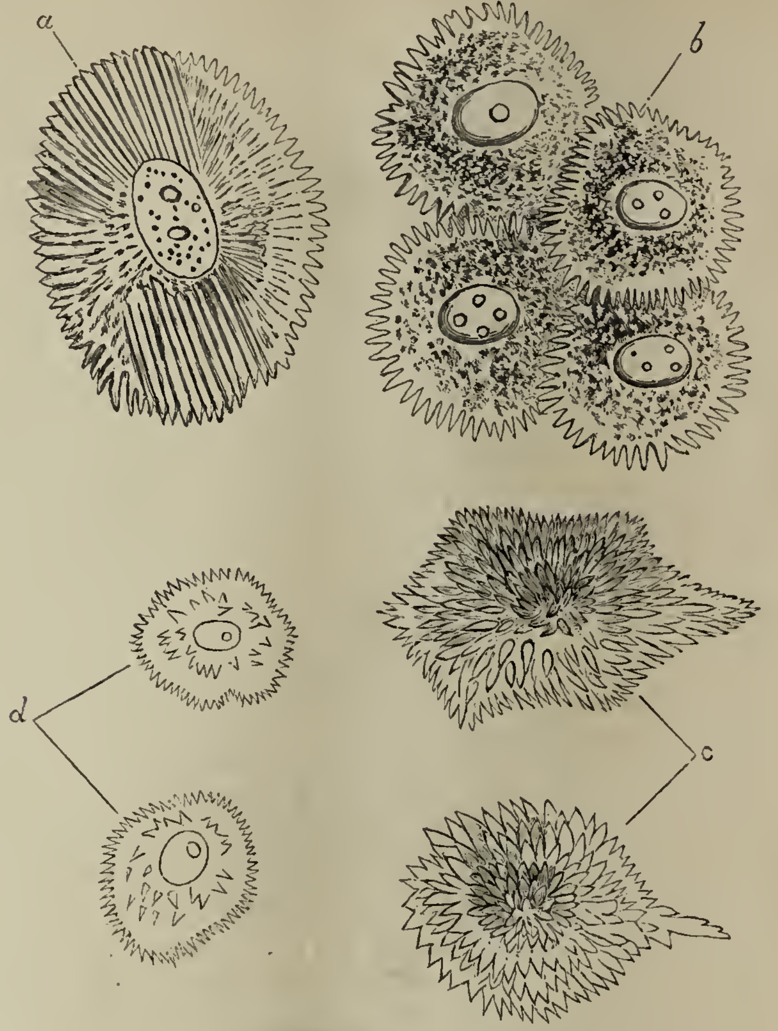

Fig. 1.—Epidermic "Prickle and Ridge" Cells: or "Spinous", "Furrowed", or "Echinate".—*a.* Papillary Tumour of Tongue. *b.* Human Epidermis (Max Schultze). *c.* Ext. Layer, Middle Cells—Cornea of Pig: Stricker and Rollett. *d.* Cellules dentelées of Cylindroma: Cornil and Ranvier (1869).

In the example (Fig. 2), the cell (*a*) is incontestably united by bands to its neighbours, and the decisive experiment has been made; for, where these bands have broken across, the remaining stumps have become prickles; but where (two cells touching) the teeth seem to have strongly dark ends (Fig. 2, *b*), I believe this effect is universally an optical illusion, and that the dark spot is the cavern between bands (*b*). On the other hand, where (two cells touching) the ordinary *light* spines seem to be so truncated, a very careful view will show that the light track may be followed from one cell to the next, if I may use the illustration, like walking across on a plank. In some cases, however, pointed teeth may be seen at touching cell-margins, as in Max Schultze's original plate. But it is an illusion, in my opinion, to see in this appearance a true second set of interlocking teeth, the outlines of which correspond precisely with the first. Rather let it be granted that prickles are broken bands of union in all cases, as we know they are in (*e. g.*, *a*, Fig. 2), and then the whole thing becomes intelligible. In a microscopic preparation thin enough to be seen well with 1,000 diameters, most cells are partly isolated, and, consequently, broken bands, *i. e.*, prickles, abound, and those near the outer margin of the cells lie as detached teeth touching from each cell-wall, or even interlocking in some instances. Meanwhile, the cell-margins of real contact deeper down are united by unbroken bands.

So much for the prickles; and next as to the "furrows", "reefs", "ribs", or "ridges" (see Fig. 1, *a*, and Fig. 2, *c*). I confess that at present the only explanation which occurs to me is founded on an insufficient number of observations. As a conjecture supported by some instances, I would suggest that these are *stretched bands* often broken off at one end, and lying parallel on the cell-wall. They are beautifully seen with careful oblique illumination under high powers.

This peculiar cell-structure which we have been describing may, then, be supposed to originate in this sort of way. In the lowest cell-layer of epithelium, there are found the newly grown, long, vertically placed cells, side by side in contact. When these have a somewhat permanent character, as in many fishes, the next layer of cells consists of spheroidal cell-forms which have resulted from division or budding, and consequent "fissiparous" multiplication or budding of a *new* progeny. In all this there is a tendency of dividing cells to remain, at points, united by threads of formed material of hard cell-wall; *e. g.*, amongst these very layers are often found large and branched pigment-cells united by long delicate threads. Thus I imagine the cells of rete mucosum, in multiplying originally by subdivision, retain numerous points of incomplete severance, and these points of cohesion are dragged out and become the uniting bands. These, when severed by any accident, assume the characteristic form of "prickles". In the normal ascending series, these cells, becoming older and flatter, lose all surface-connection, and in the cuticle are simple polyhedral horny blocks. The uniting agency of these cells is a firm one; for in a scraping from a tumour-section, as noticed by Ranvier, they almost always hold together strongly in groups. It is a firmer union than I should expect from any interlocking teeth, but of course one which would naturally result from uniting bands.

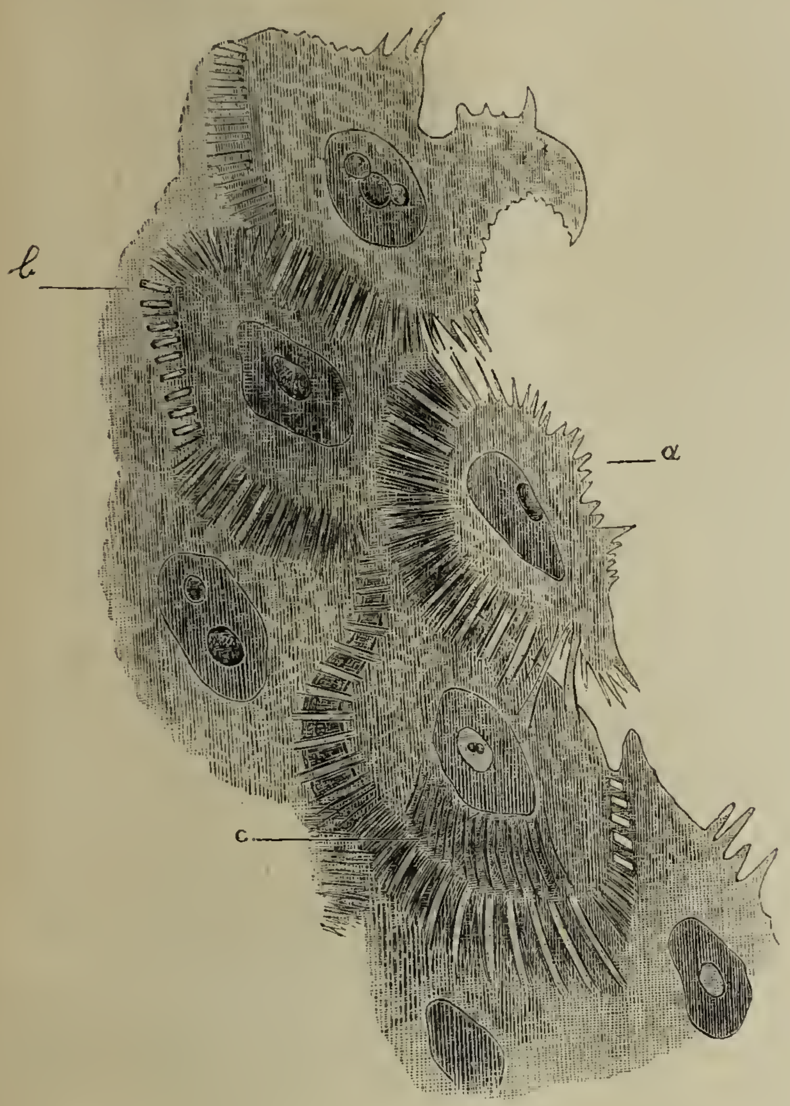

Fig. 2. —Conjoined Epithelium.—1,000 Diameters.

Lastly, as to the pathological anatomy. The primary meaning of the presence of these cells is an abnormal formative activity of the lower cells in the rete mucosum; and the occurrence of rib and prickle cells may be taken as indicative of this structure having become involved. In epithelioma occurring in connection with *flattened* epithelium, both lobular and tubular, they mostly occur. Their development seems to be in direct ratio to the vigour of growth present, and accordingly they were very large in granulations snipped from a perineal fistula. Papilloma and rodent ulcer afford fine specimens; and probably always the best occur in diseases of the transitional epithelium extending from the lips to the cardiac orifice, and on the conjunctival, anal, or preputial epidermis. I have found them unusually fine in a section of preputial chancre. I believe it to be the opinion of Professor Lister, who discovered these cells independently, and named them "echinate", that rodent ulcer, when they are present in it, should be considered as allied to, if not identical with, epithelioma. The presence of prickle-cells in cylindroma leads me strongly to doubt the origin of that form of cancer from the sudariparous glands, according to the received notion. But, as I indicated at first, the real meaning, for medicine and surgery, of these curious cells, remains to be investigated; and it is necessary that some one should do that for their origin, varied forms, monstrosities, and pathological distribution which has been so laboriously accomplished for their anatomy in fishes and amphibia by Professor F. Schultze. My present attempt has been, so far, merely to see more of the true character of their intimate structure, and, if possible, to determine the true mode in which they are united together.*

## ON THE STRUCTURE OF THE OVARY IN RELATION TO CERTAIN FORMS OF DISEASE OF THE ORGAN.†

By JAMES FOULIS, M.D., Edinburgh.

IN 1872, Waldeyer published at Leipsic his beautiful work on the development of the ovary. Waldeyer described the ovary as arising in connection with the Wolffian body on its median side. He showed that the Wolffian body at an early stage of its development is invested by a layer of columnar epithelium. Very soon there appears a thickening of this columnar epithelium on the median side of the Wolffian body, and in a short time a small outgrowth rich in cells projects from the interstitial tissue of the Wolffian body beneath the thickened epithelium. The thickened epithelium investing this outgrowth gradually forms the rudiments of the Graafian follicles and ova, and of the subsequently appearing epithelium of the ovary, whilst the outgrowth itself is destined to furnish the vascular stroma of the ovary.

The thickened epithelium he called the *germ-epithelium.*

According to Waldeyer, the further development of the ovary depends upon a peculiar mode of growth of the germ-epithelium on the one hand, and of the subjacent vascularised stroma on the other. Certain more or less delicate processes of connective tissue from the stroma now shoot forth, whilst at the same time the epithelium increases by the continued production of new cells. The processes then penetrate between the epithelial cells, enclosing a variable number of them, which thus by degrees come to be more and more embedded in the vascular stroma. The connective tissue stroma between the embedded masses of epithelial cells constantly undergoes increase. As to the development of the ova and Graafian follicles, Waldeyer goes on to state: "Some, and sometimes very many, among the embedded cells become conspicuous by their size and the size of their nuclei, while other cells remain of small size, and surround the larger cells as a kind of epithelium. Connective tissue of the stroma then grows in between the larger egg-cells, enclosing them with their epithelial investment in separate capsules or meshes of the stroma. In this manner, each mass or ball of the embedded germ epithelial cells is divided by these ingrowing processes of vascular stroma into as many follicles as it contains large egg-cells. These last formed meshes are the primordial Graafian follicles." In describing the development of Graafian follicles from the Valentin-Pflüger tubes, Waldeyer remarks, "in the case of new-born children, one sees long branching structures in the form of tubes anastomosing with each other, as Valentin first described, and lying separate from each other at considerable distances. Upwards they pass with narrow mouth openings into the germ-epithelium, and appear as direct tubular gland-like processes of it".

"Follicles are formed from the tubes directly through the growth of interstitial tissue. At the lower end of the tubes, interstitial tissue grows, as may be well explained from the absence of a membrana propria in the tube, into the epithelial groups in the tubes, and encloses individual egg-cells along with a portion of the not fully developed epithelial cells which surround them as a kind of epithelium; and in this way primordial follicles are produced."

In concluding his remarks on the development of the ovary and ova,

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* Four situations may be recommended specially to those who wish to study these cells. 1. The lip of the sturgeon. 2. The cornea of the pig. 3. Preputial chancre. 4. Epithelioma of the lip.

† Read before the Medico-Chirurgical Society of Edinburgh on the 3rd February, 1875.

Waldeyer thus summarises: "As the chief result of my investigations, it must be stated that both the ova and epithelial cells of the Graafian follicles are derived directly from the germ-epithelium. There is a reciprocal growth of vascular stroma and germ-epithelium, in consequence of which, large and small roundish masses of the latter become embedded in the stroma of the ovary. The embedded cells present a variety, some of them by simple increase in size grow into eggs, viz., primordial eggs, while others keep to their original size, and by numerous divisions, at least as it appears to me, produce still smaller cells, viz., the follicular epithelium-cells. *A genetical distinction between primordial eggs and follicular epithelium-cells has consequently no existence; the germ-epithelium is the common source of both.*"

I have thus tried as shortly as possible to place before you the main points in Waldeyer's description of the development of the ova, Graafian follicles, and follicular epithelium; and I do so, because his views during the last few years have been taught in most of the schools on the Continent and in this country; and I shall now very shortly lay before you the result of my own investigations on the development of the ovary and Graafian follicles.*

I have been able to trace that, by the growth of vascular processes of connective tissue from the stroma, between the germ epithelial corpuscles which invest the fœtal ovary, round and oval-shaped masses of the germ epithelial corpuscles become embedded in the stroma in the manner described by Waldeyer; but I hold that every embedded germ-epithelial corpuscle is potentially an ovum, although many never reach that stage of development. For the formation of the membrana granulosa or epithelial lining of the Graafian follicles, we must look to the stroma of the ovary. My investigations show that the *follicular epithelium-cells are formed from the connective tissue corpuscles in the stroma of the ovary*, and not from the germ-epithelial cells, as Waldeyer stated.

The stroma of a fœtal ovary of seven months consists almost entirely of well developed connective tissue corpuscles, intermingled with which are delicate fibres. Such a young ovary is extremely vascular, the walls of the smaller blood-vessels appearing to consist of fusiform connective tissue corpuscles. As soon as the masses of germ epithelial corpuscles become embedded in the stroma as above described, delicate processes of the young stroma grow in between and around individuals of the mass. As the vascular processes gradually thicken between the embedded germ-epithelial corpuscles, these become separated from each other, and at last included in separate meshes of the stroma; these last formed meshes are the primordial follicles. Each germ-epithelial corpuscle, when first embedded, consists of a nucleus surrounded by a small quantity of protoplasm. During its development in the stroma, the nucleus of the germ-epithelial corpuscle becomes distinctly vesicular, and within it is seen one or two germinal spots, and around it, in close contact with its membranous wall, is gradually produced that protoplasm which later constitutes the yelk of the ovum. As the processes of stroma grow in between the young developing germ-epithelial corpuscles to shut them in separate meshes, it can always be seen that fusiform connective tissue corpuscles, parts of the stroma, lie in contact with, and often indent, the yelk or protoplasm, which is being produced round the nucleus or germinal vesicle of each young ovum. In all parts of the ovary this remarkable sight can be seen. Wherever protoplasm or yelk is being produced round the nucleus or germinal vesicle of the young ovum, connective tissue corpuscles are found in contact with the protoplasm or yelk in each case; and in the primordial follicles, when first formed, the included ova are found filling up the whole cavity, no space existing between the young ovum and the wall of the follicle. In the development of the membrana granulosa, the connective tissue corpuscles which lie in contact with and indent the yelk of the young ova swell up, and the nucleus of each undergoes division, and at last a perfect capsule of connective tissue corpuscles surrounds the ovum. The nucleus of each connective tissue corpuscle becomes distinctly vesicular, and is surrounded by a small quantity of protoplasm. The membrana granulosa when first formed thus consists of a capsule made up of little vesicles, each having round it a small quantity of protoplasm which holds them together in the form of a membrane. Immediately outside this capsule the wall of the Graafian follicle becomes fibrous in its structure.

From the above description, it will be seen that, while all the ova are developed from the germ-epithelium on the surface of the ovary, the Graafian follicles and follicular epithelial cells are part of the stroma of the ovary. The Graafian follicles are simply egg-containing meshes in the stroma, and the follicular epithelial cells are formed from connective tissue corpuscles, which are parts of the stroma, and lie in contact with the yelk of each young developing ovum.

With regard to the Valentin-Pflüger tubes, I may state that I have examined carefully the ovaries of most domestic animals, such as cats, dogs, sheep, calves, rabbits, and the human child, but I have failed to see the formation of Graafian follicles from such structures in the manner described by Waldeyer.

In most of the above-mentioned animals, when thin sections are made through the fœtal ovary, round and oval groups of partly imbedded germ-epithelial corpuscles may be seen still communicating superiorly with the germ-epithelium on the surface of the ovary. Such appearances are like blind tubes of the germ-epithelium passing downwards into the stroma of the ovary; but careful examination of such structures, not in the ovary of one animal, but in many, shows them to be appearances of tube-like structures made by the knife passing down through round and oval-shaped groups of the germ-epithelial corpuscles which are partly imbedded in the stroma of the ovary, but not yet completely shut off from the germ-epithelial layer superiorly. In the human fœtal ovary, similar appearances are seen, and also long tubular structures are observed, passing down into the substance of the ovary, which are lined with germ-epithelial corpuscles. These latter are appearances produced in sections made when the knife has passed vertically downwards through furrows and depressions which lie between the prominences so numerous on the surface of the human fœtal ovary; the prominences themselves are produced by the expansion outwards, under the germ-epithelium, of the masses of imbedded germ-epithelial corpuscles. Between two or more neighbouring expanding groups of germ-epithelial corpuscles, furrows and depressions are produced, such as lie between the convolutions of a brain; sections through these give the appearance of tubes. All through my investigations on the development of the ovary, I have failed to discover any real tubular structures from which Graafian follicles are produced.

At birth, the human ovary contains not fewer than 30,000 eggs, and around each of these the membrana granulosa is produced in the manner I have described. As development goes on, the membrana granulosa thickens by the multiplication of its cells; these increase rapidly by division; and, at last, the follicular space is formed by a breaking down and solution of certain of the cells. When the secretion from the follicular epithelium cells becomes excessive, then the Graafian follicle becomes a pathological cyst.

The observations which I have made during the past three years on the growth of cystic tumours of the ovary, lead me to conclude that, in most cases, over-distension of the Graafian follicles is the starting point of the disease, but that, when the disease has once begun, there is a production of new cystic formations which may go on to an unlimited extent. In almost every multilocular tumour, if sections be made through the walls which separate the larger cysts, numerous minute cysts are seen in the substance of those walls; such little cysts may be found in all stages of development.

The minutest cysts first appear as little aggregations of small corpuscles very similar to the little heaps of corpuscles seen in the human fœtal ovary, which are undoubtedly produced by local proliferation of connective tissue corpuscles. In the midst of these little heaps of cells, a cavity soon appears, and into this the secretion from the cells is poured; the little cells increase rapidly by division and budding, and a cell-wall rises off the surface of the nucleus in each case. In the small cysts, the epithelial cells appear columnar in form, but, as the cysts expand, the epithelial cells become flattened out, and present a beautiful pavemented appearance. Many little cysts in the walls of parent cysts can be traced in their development in this way. After a careful examination of the development of the minutest cysts, I am led to the conclusion that the epithelium of such cysts is derived from connective tissue corpuscles in the stroma of the ovary, in a manner very similar to that in which the epithelium of the healthy Graafian follicles is produced. I do not intend in this paper to discuss the whole question of the origin of new cystic formations in the ovary. All I wish at present to insist on is, *that in the diseased as well as in the healthy ovary, the epithelium lining the cystic formations is derived from the connective tissue corpuscles in the stroma.*

Now, the epithelium lining of the cysts, as well as the connective tissue corpuscles in the stroma, may, by excessive proliferation, give rise to sarcomatous growths, which in the ovary must certainly be classed as malignant forms of disease; and I shall now read the histories of two cases of such growths, to show how important a part is played by the epithelium and the stroma itself in the production of these forms of malignant ovarian disease.

CASE I. In the beginning of last October, an Irish lady consulted Dr. Keith about a tumour in her abdomen. On examination, Dr. Keith discovered a tumour of a semisolid nature, occupying the lower part of the cavity of the belly; surrounding the tumour was a large quantity of ascitic fluid. A few days after this, Dr. Keith tapped the abdomen, and drew off a large quantity of ascitic fluid. This was allowed to stand for some hours, and the deposit was carefully examined with the microscope. It contained a number of red blood-corpuscles, and numerous large round cells with bright sharply defined oval nuclei with nucleoli. On placing a drop of the thicker part of the sediment on a glass slip for examination, I saw with my naked eye many small white bodies varying in size from a pin's head to mere specks. These, under a power of four hundred diameters, were found to consist of groups of cells in all stages of development. Each little body was a mass of cells, proliferating in an extraordinary manner. At the margin of each mass, large cells with bright nuclei were seen projecting, and were exactly similar to the large free cells which I noticed first in the sediment. From a minute solid-like nucleus invested with protoplasm, up to the large free nucleated cells, all stages of cell-development could be seen in each mass. Once seen, such an appearance could not be easily forgotten. Having often examined the youngest cysts in an ordinary cystic tumour of the ovary, and having traced the development of the epithelial cells, I could not help observing how very similar were the appearances presented by these little masses of cells to the growing epithelium in the young cysts; and I at once concluded that the cellular masses consisted of fragments of developing epithelium derived from burst cysts, which fragments, floating free in ascitic fluid, were sprouting in an extraordinary manner. I accordingly sent in the following diagnosis to Dr. Keith. "Ovarian tumour, some of the cysts burst, epithelial cells and fluid from burst cysts free in abdominal cavity, setting up peritoneal irritation." On the strength of this diagnosis, and as the patient had greatly improved in health, Dr. Keith determined to operate. When the abdomen was opened, what appeared to be a semisolid tumour surrounded by ascitic fluid was exposed. Owing to numerous adhesions in the pelvis, the tumour was much broken down in its removal, and when the ascitic fluid was all removed, a large fungous mass of the size of a hen's egg was found growing to the right wall of the pelvis; and, on looking at the peritoneum, mesentery, etc., many minute white nodules were seen studding these structures. An examination of the tumour showed that it was a large vascular, fleshy-like mass, very friable, and on its surface several small burst cysts were found, and in these were numerous large nucleated cells. A portion of the tumour contained a number of small cysts, but more than two-thirds of it was of a solid fleshy consistence. Under the microscope, its structure was found to consist of connective tissue corpuscles, and small round cells in a state of excessive proliferation. The whole tumour was larger than an adult head. The small nodules on the peritoneum were sarcomatous in structure. The patient died sixty hours after operation. (Careful drawings of the little masses of proliferating cells found in the ascitic fluid were shown to members of the Medico-Chirurgical Society at the meeting.)

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* Graduation Thesis, 1872; and paper "On the Development of the Ova and Structure of the Ovary in Man and other Mammalia", communicated to the Royal Society of Edinburgh by Professor Turner in November 1874.

CASE II.—A woman about thirty years of age, on the 4th of September last, consulted Dr. Keith about a tumour of the abdomen. Her belly was greatly distended, and Dr. Keith discovered a large multilocular tumour surrounded by much ascitic fluid. As the patient was suffering from breathlessness, Dr. Keith tapped the belly and drew off three gallons of ascitic fluid, and he then discovered that the right pleural cavity was full of fluid; three days after this, he tapped the right chest, and drew off a hundred and twenty-seven ounces of serum. This greatly relieved the patient, and from that moment she began to improve in health.

I examined carefully the sediment from the abdominal fluid, and discovered in it a number of cells which, from previous experience, I knew to be of ovarian origin, and I accordingly diagnosed: "Burst ovarian cyst. Fluid and cells from cyst in the peritoneum setting up irritation." On the 3rd of October, Dr. Keith again drew off from the belly thirty pounds of fluid. The sediment from this was carefully examined, and, on placing a drop of it on a glass slip, for microscopic examination, I saw with my naked eye many small white bodies, which I have already described as having, a few days later, found in the ascitic fluid in the Irish lady's case. At this time, viz., October 3rd, the Irish lady had not appeared, but, in the course of the next three weeks, her case had been well considered, and after operation and death, copious notes of *post mortem* appearances had been made. On October 28th, Dr. Keith again tapped the patient's belly, and drew off thirty pounds of fluid; and, also during October, the chest was again tapped and eighty-seven ounces of fluid removed from it.

I examined the fluid last removed from the abdomen, and discovered in it a great quantity of the little masses of proliferating epithelium. After this tapping, the patient improved so much in health, that Dr. Keith began to think of operating in spite of the presence of the proliferating epithelial masses in the abdomen. I had an opportunity of showing these epithelial masses to Dr. Matthews Duncan and Professor Sanders, who both took a grave view of the case. At this time—viz., the end of October—the patient was so well that, whenever she was asked as to the state of her health, she always replied, "Oh, I feel quite well now". But in the beginning of November she began to suffer much from irritation of the bladder, having frequently to rise as often as a dozen times during the night.

There was no enlargement of the glands in the groin, and she did not show externally any signs of internal malignant disease. On November 27th, her abdomen was again tapped, and the fluid emptied into a large foot-pan. In the course of a couple of hours, the deposit was an inch thick. Some of this I took home and examined. Now, here is the remarkable point in the whole of these observations: the little masses of sprouting epithelium had increased so enormously in quantity, that half the deposit in the footpan consisted of them. I may safely say, without exaggeration, there were thousands of such little masses.

Dr. Keith now felt convinced this was not a case for operation, notwithstanding the cheerful condition of the patient; and, soon having to proceed to Italy, he informed the patient to that effect. The poor woman was much affected, and made up her mind to go to Perth, where her mother lived. On December 28th, I received a telegram from Dr. Absolon, stating that our patient had died suddenly that morning. Dr. Absolon made a careful examination of the body, and very kindly sent me the whole tumour, in addition to notes taken at the *sectio cadaveris*.

The whole peritoneum was everywhere studded with white nodular growths, some of the size of a pigeon's egg. The tumour was adherent in the pelvis, and large masses of soft friable material were broken through in removing it. The tumour itself was of the right ovary. The right Fallopian tube was drawn out to the extent of twelve inches along its right side. The whole mass weighed about twelve pounds. It was made up of a number of cystic growths, varying in size from a marble to a child's head, all held together and united by a material of a semisolid nature. The cysts were hard and resistant; and, on cutting into them, their walls were found enormously thickened, and the internal surface of each was rough from cauliflower-growths. In the centre of the tumour was a semisolid mass of the size of a seven months' fœtal head. An examination under the microscope showed the tumour to be of a sarcomatous structure. It may be said that this patient's belly was full of such sarcomatous growths. Besides the tumour itself, there were thousands of little masses of proliferating epithelium floating free in the ascitic fluid, settling down everywhere on the peritoneal surface, taking root, and giving rise to little nodules of sarcomatous growth; and yet this patient had no external signs of such extensive disease existing internally.

I have given these two cases somewhat in detail, because I wish to direct attention to these little masses of proliferating epithelium in ascitic fluid as a means of diagnosing malignant peritonitis and malignant ovarian disease. (Since this paper was read, I have discovered them in two additional cases; and, although I have not seen either of the women personally, I have no hesitation in saying that malignant peritonitis and malignant ovarian disease exists in both. The two cases are being carefully watched, and the results will be faithfully recorded.)

On reading over the list of cases operated on by Mr. Spencer Wells, Dr. Keith, Dr. Atlee, and others, for the removal of ovarian tumours, one cannot help remarking how common so-called cancer of the ovary is; and it appears to be a fact that, of patients who have recovered after the operation for the removal of an ovarian tumour, some, it may be in the course of weeks, months, or years, return affected by malignant peritonitis. Have we not an explanation of this in the peculiar anatomical structure of the ovary, and in its liability to take on disease by excessive proliferation of its structural elements; and in the fact that, in many forms of ovarian disease, these structural elements, escaping from the diseased ovary and lodging in the peritoneal cavity, take root, and sooner or later give rise to exhaustive peritonitis?

It is well known, as a pathological fact, that the cysts of an ovarian tumour frequently burst and liberate their contents into the abdominal cavity. Ascitic fluid is then generally poured out; and the intestines and peritoneum in such cases frequently present a marked granular appearance.

If it should happen that epithelial elements have been derived from the epithelium of cysts which is in a thickened and villous condition, then it is very likely that such epithelial elements will proliferate and produce nodules of a sarcomatous nature on the surface of the peritoneum at a future date. The whole tumour may be removed, apparently; but the seeds have been left behind, and time only is necessary for their growth into nodular masses on the peritoneum, which, by constant irritation, will ultimately exhaust the patient.

I have seen cases in which, on examination of the tumour after removal, I discovered the epithelium of the cysts in a thickened and villous condition. If the cysts of such a tumour have remained whole, and there has been no escape of epithelial elements from it into the peritoneum, then there need be little fear of malignant peritonitis arising in that patient in the manner we have described.

We make it a rule now to examine very carefully the sediment obtained from ascitic fluids, never mind what the nature of the tumour may be. Malignant ovarian tumours are in most cases surrounded by ascitic fluid; and if, in ascitic fluids, such little masses of proliferating epithelium as I have described are found, then in these cases we may, I hold, with certainty diagnose malignant peritonitis.

Dr. Keith long ago arrived at the conclusion that a burst ovarian cystic tumour should be removed as quickly as possible; and, as the result of pathological inquiry, it would seem that such procedure is to be strongly recommended.

## INTRATHORACIC TUMOURS.*

By J. W. F. SMITH-SHAND, M.D.,
Physician to the Aberdeen Royal Infirmary, etc.

### I.—PRIMARY CANCER OF THE LUNGS.

I GIVE the following cases as a contribution to the history and diagnosis of intrathoracic tumours. Notwithstanding all that has been written about them, they still too frequently baffle the diagnostic skill of the physician, and often the exact nature of the malady is only first revealed at the *post mortem* examination. But, as observations of these cases are multiplied, the difficulties connected with them will disappear. As Dr. Graves, in his Clinical Lectures, observes about a case of cancer of the lungs, which during life was a mystery and puzzle to himself and Dr. Stokes, "rare cases should not be looked upon as mere matters of curiosity, but should be attentively studied, with the view of enabling us to recognise the true nature of similar cases when they again occur. Were the history of diseases at present reputed to be extremely uncommon published by all those who meet with them, facts now apparently single and insulated would serve as nuclei round which future experience and observation might cluster together similar facts in groups sufficiently numerous to illustrate and explain each other." It is with this object that I record the following cases; and I take this opportunity of expressing the great pleasure and instruction I derived from the perusal of Dr. Risdon Bennett's Lumleian lectures on the Natural History and Diagnosis of Intrathoracic Cancer, as published in the BRITISH MEDICAL JOURNAL for 1870.

CASE I.—The first case that I shall lay before you is that of Anne Mackie, domestic servant, aged 36, who was admitted into the Aberdeen Royal Infirmary on May 18th, 1869, complaining of cough and loss of power in the right leg.

*Previous History.*—The patient stated that, having previously enjoyed good health, she had for the last six months been troubled with a cough, with slight expectoration, which had on two or three occasions contained small streaks of blood. Any pain that she occasionally felt in her chest was easily removed by the application of a mustard poultice. About five weeks previously to admission, on coming downstairs one morning, she felt her right foot slip out behind her, but she did not fall; and since then the loss of power in the leg had increased. She was treated with cough mixtures, and a liniment for the supposed sprain, but without benefit.

*Condition on Admission.*—The patient was of spare habit of body, with dark hair and muddy complexion, and an anxious expression of countenance. When walking, she dragged her right foot behind her, with the toes touching the ground, and, on examining the leg, it was found that she had no power of moving in any way the toes or ankle. Sensation was not much affected, except to a slight degree over the dorsum of the foot. Her voice was weak and husky, and had altered in character since her illness commenced; but she said that she had not lately had any sore-throat. On examining the chest, the superficial veins of the left side were seen to be enlarged. The left thorax looked fuller and more rounded than the right, with entire absence of movements of expansion or elevation on that side. Percussion, dull all over the left side, was normal on the right. On auscultation, there was entire absence of respiratory murmur over the left lung, except behind, on a level with the spine of the scapula, where tubular breathing was heard over a very limited space. Vocal resonance was diminished, and vocal fremitus was absent on the left side. The breath-sounds over the right lung were puerile. The patient had a rather frequent dry hollow cough, with scanty frothy expectoration. She complained of no pain in the chest, and could lie on either side. There seemed a general impulse or heave over the cardiac region, but no apex-beat could be felt. A soft systolic murmur was heard in the region of the aorta, loudest behind and over the first bone of the sternum in front. Pulse 104, small. No palpitation was complained of. The tongue was furred; the appetite fair; but there was dysphagia. Bowels regular. The urine was acid, of specific gravity 1030, with a slight trace of albumen. Menstruation was regular, but the last period was missed; and she had been troubled with headaches since that time.

*Treatment and Progress of Case.*—May 19th. She was ordered five grains of iodide of potassium, in a mixture, three times a day.—May 25th. The patient reported herself much the same; but, on careful examination, it was found that the symptoms of hemiplegia had increased, as the tongue was protruded to the right side, the right orbicularis palpebrarum was affected, and there was loss of power in the right hand. The pupils were movable under the influence of light, but the left pupil was more contracted than the right.—June 3rd. Pain was to-day complained of in the right side, and the existence of pleuritis was ascertained by the usual physical signs. Under this fresh attack of illness, she rapidly sank, and died on June 6th.

*Post Mortem Examination.*—I am indebted in great part to Dr. J. M. Bruce, house-physician at that time, and now of the Charing Cross Hospital, London, for the following observations. A large soft cancerous tumour was found on the left side of the chest, consisting of the lung of that side. It was adherent to the pericardium, completely surrounded the great vessels at the root of the neck, and compressed the left vagus and recurrent laryngeal nerves. The lung, weighing 78 ounces, was perfectly full of soft cancer, and the bronchus was plugged with an encephaloid mass growing into it. In the right pleura, there were found recent pleuritic adhesions and 20 ounces of effusion. The right lung weighed 22 ounces. The heart was normal; there was no valvular disease. There was slight atheroma in the aorta. The liver weighed 53 ounces, and was fatty. Both kidneys were fatty; the right weighed 5½ ounces, the left 6 ounces. The spleen weighed 6 ounces, and was healthy. The brain weighed 43 ounces, and contained deposits of soft cancer in several places: 1. On the inner surface of the left processus a cerebello ad testes; 2. On the left pes hippocampi; 3. On the right hippocampus minor; 4. On the right Sylvian fissure. The optic thalami and corpora striata were healthy. A few more spots of soft cancer were scattered through the cerebrum, especially in the posterior lobes, one side not seeming to be more diseased than the other.

REMARKS.—This is a good example of that rare disease, primary cancer of the lung. As a secondary affection, it is more common, and, in that case, a diagnosis may often be formed with absolute certainty; but the primary form, as Dr. Biegel says in the article on Cancer of the Lung in Reynolds's *System of Medicine*, in the majority of cases, admits of no diagnosis.

On examining the patient, it was evident to me that I had not to deal with an ordinary case of chest-disease. The full and more rounded appearance of the left thorax, together with the enlargement of the superficial veins and the absolute dulness on percussion, led me to conclude that there was pleuritic effusion, and also intrathoracic tumour. At the same time, the presence of paralysis, the history of sore-throat, the husky voice, and the general appearance of the patient, made me ascribe a syphilitic origin to these symptoms, and accordingly I treated her with the iodide of potassium. Impressed with this idea, the probability of carcinoma, I must confess, did not enter my mind.

There are many points of clinical interest about this case. The heaving impulse over the cardiac region, and the aortic murmur (which was probably caused by pressure, as there was no valvular disease), and the contracted pupil, might have given rise to a suspicion of aneurismal complication. It is difficult to say why, with such a large mass occupying the left thorax, the heart did not appear displaced to the right side. It may have been on account of the intimate adhesions between the pericardium and the cancerous mass which surrounded it. But, if it had been, it would have been almost impossible to doubt the existence of a large pleuritic effusion. Dr. Risdon Bennett, in his Lumleian lectures, mentions a case which occurred in the practice of his colleague Dr. Sutton, where there was great dyspnœa and lividity of countenance, with the left side of the chest bulged, absolutely dull before and behind, respiration inaudible and heart displaced. The patient, aged 11, was repeatedly examined by Dr. Herbert Davies and others, and all decided that the chest was full of fluid. Thoracentesis was twice performed, but nothing issued, except a little dark blood. The patient died some time afterwards, and the left side was found to be entirely occupied by a mass of medullary cancer, the left lung being collapsed and pushed backwards. The dysphagia complained of by Mackie was doubtless the result of the compression of the vagus nerve; but it was singular that there was no dyspnœa or distress until the pleuritic attack took place on the right side, when we consider the pressure, if not destruction, to which the recurrent laryngeal nerve was exposed. Dr. Risdon Bennett expresses his belief that, if there be any considerable degree of pressure or irritation of the recurrent laryngeal nerves, there will invariably be a great amount of both dyspnœa and distress: at the same time, he observes that it is somewhat remarkable that symptomatic vomiting or other disturbance of the stomach is not more frequently met with when there is destruction of continuity of one pneumogastric nerve. The experience of this case, then, shows that, even when the recurrent laryngeal nerve is involved, as indicated by the changed and husky voice, dyspnœa and distress may not necessarily be produced.

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* Read before the Aberdeen, Banff, and Kincardine Branch.

The normal temperature observed corresponds with the experience of Wunderlich, who says that it is a peculiarity of cancer cases that elevated temperatures are comparatively rare. The absence of pain also corresponds with what has been observed in the majority of cases of cancer of the lung.

I regret I was not at the time acquainted with the valuable sign of tumour in the neck first pointed out by the late Dr. Kilgour of this city, with whose acute powers of observation and diagnostic skill many of us are well acquainted. I cannot, therefore, say whether the glands were affected or not; but I think, if they had been to any extent, it would have been noticed.

Dr. Cockle, in his able and learned work on *Intrathoracic Cancers*, lays great stress upon the importance of external tumour; but one of his cases, in which the diagnosis was difficult, illustrates also the necessity of ascertaining the *duration* of the tumour when present, as the patient in question had had three sebaceous tumours on his neck for many years, while other tumours, cancerous in nature, appeared on the abdomen only shortly before death. Primary cancer of the lungs is said by Walshe to give rise very seldom to secondary deposits elsewhere, although the lungs themselves are frequently affected as a sequel of disease in other organs. The case of Mackie is, therefore, interesting, on account of the secondary cerebral complication connected with it.

(*To be continued.*)

## REMOVAL OF THIRD METATARSAL BONE: ANÆSTHESIA BY CHLORAL-HYDRATE.

By G. J. S. NAIRNE, Surgeon, and ALEX. NAIRNE, Physician, Glasgow.

On April 1st, 1875, Christina D., aged 3½, a delicate looking girl, was put under the influence of chloral, and had the third metatarsal bone of her left foot removed for disease. The operation had nothing special to note, but the narration of the administration of the chloral may be interesting.

An aqueous solution was prepared, of the strength of twelve grains to twenty minims. A solution of strychnine (two grains to the ounce), was also prepared. At 10.30 A.M., ten minims of the chloral solution were injected subcutaneously into the right lower leg. At 10.38, there was no perceptible effect; the child cried continuously. At 10.40, ten minims more were injected subcutaneously into the lower part of the left leg, and the child was given to its mother to carry about. At 10.45, the patient was drowsy, but easily roused; she started and cried whenever the mother would lay her down. At 10.55, ten minims more were injected; at 11, she was sleeping apparently soundly. There was no flushed face, but the pulse was rather quick. She awoke and cried. At 11.5, ten minims were administered by the mouth. She dropped off to sleep in a few seconds, and began to snore. Pinching made her cry, but she fell asleep immediately. At 11.18, ten minims more were administered by the mouth. At 11.20, she was in a deep sleep.

The operation was now performed. During its performance she began to cry, but made no struggling to speak of; the eyes remained nearly shut, and the crying seemed that of a dreaming child. Immediately she fell asleep again as sound as ever. Strong tea was prepared, of which she was made to drink a cupful. Her pulse was quick but firm, so we let her alone. She slept deeply for over two hours. More strong tea and milk were then given her, and, in another three-quarters of an hour, she sat up dazed, looking quite unterrified, and apparently oblivious to any pain. Next morning, she took her porridge and milk with quite a good appetite.

Altogether, the administration of chloral seemed better than that of chloroform—in this instance, at least. There was no convulsion, nor apoplectic appearance, and no unnatural disturbance of the breathing. There was no subsequent sickness nor any apparent ill effects. We conceive that chloralism would be much safer and better than chloroforming in ophthalmic operations.

We were glad we had no cause to use the strychnine, but would not have hesitated to inject it subcutaneously if there had appeared any necessity. We have administered strychnine frequently after chloroforming, and generally found an immediate good effect in brightening up the patient and preventing sickness. Subcutaneous injection would, therefore, very likely be successful in restoring animation in cases of chloroform poisoning.

Next time we use chloral we intend to have a much more dilute solution, and a larger syringe, and to inject it into a vein. By these means, we hope to avoid the pain caused by the injection, provide as far as possible against phlebitis, prevent the formation of painful swellings or ecchymoses, and secure the more immediate introduction of the fluid into the circulation. Total unconsciousness does not seem at all necessary to produce anæsthesia, as, although the girl woke up and cried during the operation, she made no struggling, and was asleep before her cry was finished.

# CLINICAL MEMORANDA.

## RAPID PULSE.

I have read an article in the Journal of this date (June 12th) by Dr. Robert Farquharson of St. Mary's Hospital, on Rapid Cardiac Pulse, and I feel particular interest in the cases which he has recorded, having at the present time a patient under my care whose pulse at the wrist it was difficult to count. I happened to be called to this gentleman, a foreigner, aged 65 to 70, fond of alcoholic drinks, and of bilious temperament. I found him at two o'clock in the morning scarcely able to breathe, and sitting on the side of his bed, surrounded by his relatives, who were in the greatest alarm. The pulse at the wrist was irregular, and 140. There was the same rapid irregular "to-and-fro" action of the heart, apparently caused by aortic insufficiency; but, as in Dr. Farquharson's case, no *bruit* could be detected. As it turned out afterwards, it was the beginning of an attack of bronchitis, and, when free expectoration took place, there was a marked improvement in the circulation, the pulse coming down to 130, then to 120, where it has remained. The urine was scanty, high coloured, acid, and of specific gravity 1010. No albumen could be detected by the heat and nitric acid test. The patient is still under treatment, and relieved as regards the bronchial attack, though still suffering from what would be considered a very rapid pulse (120 to 130), yet not coming up to the abnormally rapid pulse recorded by Dr. Farquharson.

J. D. Cronin, M.D., F.R.C.S.E., Fleet-Surgeon R.N. Retired,
Queenstown, Ireland.

## NOTES ON A CASE OF INSANITY INDIRECTLY CAUSED BY PHIMOSIS.

A. J. K., aged 26, had been formerly a schoolmaster, but now devoted himself exclusively to the study of music, practising on the piano or organ eight hours daily. On inquiry, it was found that he was obliged to give up the school, as he found he could not exercise sufficient authority or control over the boys. There was a slight loss of memory, and he had some difficulty in remembering his age. He stated that the symptoms first noticed were pains in the back, but was unable to say when they commenced. He had lately suffered from a sensation in the occipital region as if the skull were being depressed. He was a seven months' child, and did not walk until he was three years old. When an infant, he suffered from constant diarrhœa and prolapsus ani. He was always very excitable, but his excessive mental and bodily weakness prevented his following any regular occupation. He is passionately fond of music, and has overtaxed his strength by his studies. He had for the last six months been under the delusion that certain people had been following him about and making indecent gestures at him. He could not speak of these facts without bursting into tears and becoming hysterical. He believed that these people had done their best to prevent his getting a living. On inquiry, it was found that he was addicted to masturbation. This habit he attributed entirely to a state of irritation and itching which were constantly present in the penis. On examination, it was found that there was a condition of congenital phimosis, the secretion from the glandulæ Tysonii never having been cleared away. The case was treated temporarily with bromide of potassium and aperients, and partial circumcision was recommended. The operation was successfully performed; and, from a letter subsequently received, it appears that the habit has not been resumed, and that the mental symptoms are decidedly improved.

Cases in which irritation and masturbation have been caused by a condition of congenital phimosis are common enough in surgical and in general practice; but it is not usual in such cases for the habit to proceed so far as to produce distinct mental symptoms. In this case, there was undoubtedly a bad previous history; and predisposition, although no hereditary taint of insanity existed. But the exciting cause of the intellectual disturbance may fairly be attributed to the habit to which the patient was addicted, and this doubtless owed its origin to the condition of congenital phimosis which was found to exist. H. SUTHERLAND, M.D.

## SURGICAL MEMORANDA.

### ANEURISM OF THE ORBIT.

I WAS glad to see Mr. Rivington's remarks on my case of varicose aneurism in the orbit, which could hardly be compared in its severity with his case, inasmuch as the only points in similarity were the turgid condition of the veins of the orbit and the exophthalmos, "which was about half an inch in extent". The *bruit*, "which was continuous", was only heard over the pulsating sac at the inner angle of the orbit; and this was stopped by pressure of the carotid. When Messrs. Bader and Higgins first saw the case, the aneurism was not discernible; there was a fulness at the part, which gave one the impression that a clot had formed there, which, by its pressure on the neighbouring veins, was the cause of the venous turgescence; but this would hardly account for the dilated retinal veins. That the diagnosis was correct, is proved by the result of the treatment. At the present time, just two years since the accident, the eye is perfectly natural, which would scarcely be the case if a foreign body were still in the orbit, or if the carotid were wounded. There was no doubt the sac was aneurismal; for, when exposed, it was white and glistening, as large as a good sized pea, and the pulsation ceased as soon as the artery was tied. There were no symptoms of intracranial aneurism beyond the exophthalmos and tortuous veins, or I should have mentioned them in my brief extract of the case. Difficult as it was to account for this condition before the operation, there can now be no doubt that the arterial communication distended more or less all the branches of the ophthalmic vein. This being arrested, the veins quickly subsided to their normal state, the ophthalmoscope demonstrating that the retinal veins have also resumed their natural appearance. I am glad to hear that the results of ligature of the carotid are so favourable. I was under the impression that the mortality after this operation was much greater.

F. POOLE LANSDOWN, Bristol.

## REPORTS
OF
## MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

### ROYAL INFIRMARY, EDINBURGH.

CASE OF RHEUMATIC FEVER, FOLLOWED BY PNEUMONIA, AND TERMINATING IN ULCERATIVE ENDOCARDITIS, MYOCARDITIS, AND PERICARDITIS WITH EFFUSION.

(Under the care of Dr. GRAINGER STEWART.)

FOR the following interesting notes we are indebted to Dr. A. M. Cash, Resident Physician.

J. S., aged 25, ironmonger, was admitted into Ward 7, Medical, Royal Infirmary, Edinburgh, under the care of Dr. Grainger Stewart, on March 22nd, complaining of dyspnœa, with swelling of the legs and abdomen. He gave the following history. About the middle of December last, he was in the Infirmary for a crushed finger, and, before leaving, had an attack of rheumatic fever, which obliged him to remain under treatment for about two months. He did not seem to have made a good recovery from this; for three weeks ago, when his present illness began, he was still suffering from its effects. At that time, he says, he got a severe cold, and shortly had a rigor, pain in the left side, cough, and shortness of breath, with a slight dark-coloured expectoration. Soon afterwards, his feet and abdomen began to swell; and the difficulty of breathing increased so that he could not lie down, but had to be propped up in bed. He was readmitted into the Infirmary.

On admission, the patient was a powerful well-made young man. His expression was anxious; his face pale, dusky, and covered with a clammy perspiration. He had orthopnœa. The temperature in the axilla was 100.7 deg. Fahr. About the mouth were traces of a slight herpetic eruption. Palpation and percussion of the abdomen revealed considerable ascites. He suffered from pain and uneasiness in the region of the heart. Distinct though slight bulging was visible over the præcordia. No apex-beat could be seen or felt. There was an area of absolute dulness over the heart, somewhat square in form, extending downwards from the third rib on the left side for a distance of five inches, and having a transverse diameter in the intermaxillary line of seven inches. Auscultation simply showed the cardiac sounds to be muffled and indistinct. No murmur could be detected. The pulse was full, strong in its impulse, but suddenly collapsing under the finger; it was irregular and somewhat compressible, and about 120 per minute. There was distinct evidence of the pneumonic condition at the base of the left lung. He had frequent paroxysms of a hard dry cough, which gave him great pain and distress. The urine passed was somewhat reduced below the normal daily average amount. It contained a very large amount of amorphous urates, but no albumen. The chlorides were not diminished.

He was treated in the usual way by expectorants, diuretics, stimulants, and counterirritation to the chest by means of mustard and fly blisters, with the result of slight improvement in his general condition, though the physical signs remained the same. The possibility of paracentesis of the pericardium becoming necessary was kept in view; and I had instructions from Dr. Stewart to resort to this, should the dyspnœa become greatly increased.

On the morning of the 26th (the fourth day after admission), after sleeping quietly for a short time, he suddenly awoke in extreme distress from his breathing. The dyspnœa became rapidly worse; he fell back, and, death being imminent, I introduced the finest needle of a Mathieu's aspirator through the fourth left intercostal space close to the sternum, and drew off fourteen ounces of serum containing large flakes of lymph, a little blood, and a considerable quantity of pus. He was much relieved for the time, and was able to sit up and speak. There was now comparative resonance over a good part of the area which was absolutely dull before. The dyspnœa, however, which had never entirely been got rid of, gradually increased, and he sank a few hours later.

*Necropsy*, twenty-four hours after death.—The body was well nourished. There were some purpuric spots scattered over the surface, chiefly on the abdomen. On opening the thorax, the pericardium was found to be thickened and very vascular. Its surface was covered with lymph, and in its cavity were contained a few ounces of fluid. The surface of the heart was in a similar condition. Its walls were thin, soft, and friable; and the microscope revealed numerous fine fatty granules amongst the striæ of its muscular fibres. The cusps of the mitral valve were thickened. The aortic valve bore evidence of severe suppurative endocarditis. The corpora Arantii were thickened. The segments of the valve were eroded, torn, and ulcerated; and, at the base of one of them, the septum ventriculorum was expanded into an aneurismal pouch of irregular shape, into which the probe could be passed for the distance of an inch. The valves were utterly incompetent. The lungs were congested, and the left at its base was consolidated and hepatised. The liver was "hob-nailed", and weighed 6½ lbs. The kidneys and spleen were congested and enlarged.

REMARKS.—It would seem that the attack of rheumatic fever from which this man had suffered developed certain cardiac lesions; and, these being followed by a pneumonia, brought him into the extremely reduced state he was in on admission. How long he had laboured under effusion into the pericardium we have no means of knowing, as he was away from notice at the time when it probably came on. Its presence, dulling and muffling the heart-sounds, made it impossible to distinguish whether these were pure, or if any murmurs were present. That some endocardial lesion of a serious nature existed, was inferred—1, from the fact that the dyspnœa and distress were out of proportion to the amount of effusion, which was not nearly as great as is often seen in cases where the embarrassment of breathing is far less; and 2, from the character and condition of the pulse. This had the peculiar feel met with in a pulse of aortic incompetence and regurgitation. The diseased valves and weak fatty muscular walls fully accounted for the comparatively slightly relieved state of the patient after the tapping; for, though the mechanical impediment of pressure on the heart by the fluid from without (which must have been very great) was removed, still the exhausted organ could not stand longer exertion, and its function quickly failed.

I may remark, in conclusion, that this case exhibited strongly the great value of the aspirator when paracentesis of the pericardium is necessary. The shreds of lymph were of great size, and could be spread out to cover a shilling or a florin; and yet they all came away through a capillary tube of the finest calibre. This could only be accomplished by very powerful suction; and the instrument made by Mathieu of Paris is all that can be desired in this respect.

## GLASGOW WESTERN INFIRMARY.

### CASE OF ACUTE YELLOW ATROPHY OF THE LIVER: DEATH.

By JOSEPH COATS, M.D., Pathologist and Dispensing Physician.

THE following case is chiefly interesting in its pathological bearings, as the patient was only twelve hours under observation before death. The clinical notes are furnished by Mr. Edward J. Wallace, M.B., the resident physician.

Mrs. L., aged 26, married, was admitted to the Western Infirmary on the evening of June 2nd, 1875, but died in twelve hours, so that the notes are necessarily imperfect. No distinct account could be got from her husband as to the onset and course of the disease, except the following general facts. Six months ago, she had an attack of jaundice, from which she entirely recovered. This was in the seventh or eighth month of pregnancy, and, before her confinement, the skin had already returned to its natural colour. The present illness began two weeks before admission, with distinct shivering fits, followed in about two days by jaundice. At this latter date, she was well enough to walk to the consulting-room of a medical man. About eight or nine days after the onset of the disease, she became insensible, and continued so till admission, with occasional delirium. The bowels were constipated throughout. On admission, she was violently delirious, and apparently unconscious. The pupils did not respond to light. The skin was intensely jaundiced. Temperature in axilla 101.2 degs., pulse 145, respirations 34. The hepatic dulness in the line of the axilla measured two inches and a half. A catheter was introduced into the bladder, but no urine was found. Jalap and calomel were given. The patient gradually became comatose, and died on the morning of June 3rd, without convulsions.

*Sectio Cadaveris*, about thirty hours after death. The general surface of the body had a deeply jaundiced hue. The body generally was well nourished, and the subcutaneous fat tolerably thick. The heart was very flabby, and the muscular fibre pale, with a tinge of yellow. Both auriculo-ventricular orifices were dilated, the left admitting three fingers easily, and the right five. The valvular structures were normal. The heart weighed nine ounces. The left lung was non-adherent, and the right very slightly so, the latter presented a slight degree of hypostatic engorgement. The mucous membrane of the stomach was slightly thickened towards the pylorus, and presented the irregular surface of chronic catarrh. On opening the abdomen, the liver was not visible beneath the costal margin, but was detectable with the finger one or two inches above this. It was, however, nearly normal in size, weighing forty-four ounces and a half, and seemed to have fallen away from the ribs by reason of the flabbiness of its tissue. There were one or two enlarged glands in the neighbourhood of the porta of the liver, but, on careful examination, no obstruction of either cystic or hepatic duct was discovered, and there was no distension of any of the ducts. The liver was exceedingly soft, and when laid on its under surface, it felt flat; the capsule also appeared as if loose on the surface. On section, the liver-tissue had generally a light brown colour, but at parts a dark red, almost hæmorrhagic appearance, mingled with the pale tint; this existed chiefly towards the upper surface. Although the tissue was soft and flabby, yet it was not friable or diffluent. There was no obvious distension of the hepatic ducts within the liver. The gall-bladder was slightly distended with a rather fluid pale bile. The kidneys were enlarged, weighing together fifteen ounces; they were rather flabby, and the surface showed considerable venous engorgement. There was no urine in the bladder. The spleen was also enlarged, weighing eight ounces and a half; it was soft, and there was general enlargement of the Malpighian bodies. The cavity of the uterus was slightly enlarged, but this organ was otherwise normal.

*Microscopic Examination.*—The organs were examined microscopically in the fresh state, with the following results. In the liver, the hepatic cells were no longer distinguishable either in parts scraped from the cut surface, or in sections made with the razor. All that appeared was fat, *débris*, and pigment, with an indefinite stroma occasionally. The fat was in great part in the form of rather large drops, but also minutely granular to some extent. Bile-pigment stained the fat and *débris* of a bright yellow colour. There were also distinct but small rhombic crystals having exactly the shape of the crystals of hæmatoidin, met with in old apoplectic clots, but perhaps with a colour more nearly approaching yellow, and considerably smaller. No bacteria were seen, although a careful search was made. In the kidneys, the renal epithelium, both of the cortical and pyramidal substance, was generally fatty, the fat here also being to a great extent in large drops. The muscular fibre of the heart presented a general fatty condition, which was not localised in patches, as we find in ordinary fatty degeneration, but was almost homogeneously diffused. Nor were the fat-granules aggregated around the nuclei, but dotted all over the fibre, often following the individual fibrillæ. A similar condition was found in a portion of voluntary muscle taken quite at random from the thigh. The fibres were pale and the transverse striæ obscured, and there were abundant minute fatty granules, usually in beaded rows. This condition was here also generally diffused, but not so advanced as in the heart.

REMARKS.—This case is worthy of note, chiefly from the fact that, although the nature of the case is evident enough, the liver itself was very little smaller than normal. If the normal weight of the liver be set down at about fifty to sixty ounces, then here the diminution is very slight as compared with what is usually the case in this disease. Although the liver nearly came up to the normal size, yet the flabbiness of its structure allowing of it falling back towards the vertebral column, gave rise to a very much diminished hepatic dulness, and during life this led to the erroneous impression that there was great diminution in the size of the organ. The existence in this case of red as well as yellow substance in the liver is also worthy of remark; the red substance, according to Zenker, is nearly always present, and is considered by him evidence of a further stage of the affection. I have also to call attention to the large number of pigment-crystals present in the liver in this case. A considerable number of them were found on examining small portions of the tissue in the fresh state; but, in sections made after hardening portions of the liver in chromic acid solution, they are seen to be exceedingly abundant and scattered through every part of the tissue, but everywhere small. The existence of these in such numbers, and in such general distribution, may be taken as evidence that they do not originate from effused blood, but rather from the colouring matter of the bile. No crystals of leucine or tyrosine were discovered in the hepatic tissue, and, as noted above, there was no urine in the bladder.

When we consider the conditions found in this case as well as in others, apart from those met with in the liver, it comes to be a question whether it is altogether correct to attach such a preponderating importance to the hepatic affection. We find in the kidneys and muscles an alteration quite analogous to that in the liver itself, though not so advanced. It is not probable that these changes are secondary to those in the liver, because they are apparently of essentially the same nature, and presumably due to the same cause. It seems more likely that the disease consists of some general constitutional affection, whose efforts are manifested in fatty metamorphosis and other changes of various organs, but chiefly of the liver. There is not here much evidence for supposing that the disease is primarily an acute parenchymatous inflammation of the liver, as Förster considered it. Looking to the lesions in other parts, we would need, to make this view consistent, to generalise the statement, and call it an inflammation of liver, kidneys, and muscles. At the same time, in examining sections of the liver, I have found occasional aggregations of round cells in the neighbourhood of the branches of the portal vessels, which may be taken as indicative of an irritation of the connective tissue which accompanies these vessels.

I do not think that much is to be made of the connection of this case with pregnancy. The history of jaundice in the seventh or eighth month of pregnancy is rather indefinite, and it was very soon recovered from. The present illness did not come on till four months after a perfectly natural delivery, and was apparently unconnected with the former one. It is of course possible that the first attack of jaundice may have been the beginning of the acute yellow atrophy, and that there was a partial recovery. Had this been the case, however, we should have expected a much greater reduction in the size of the liver.

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THE Dover Board of Guardians have granted to Mr. John Walter, on his retirement from the office of Poor-law medical officer and surgeon to the Dover Union, a pension of £130 *per annum*. Mr. Walter was in the Poor-law Medical Service for forty years, and held his appointment in the Dover Union for about fifteen years. The Board of Guardians showed their appreciation of the length and efficiency of his services by granting the pension without a dissentient voice; and the Chairman availed himself of the opportunity to make some very complimentary remarks in the same sense.

# GENERAL COUNCIL
OF
# MEDICAL EDUCATION AND REGISTRATION.

## *SESSION*, 1875.

*Thursday, June 17th*, 1875.

DR. ACLAND, President, took the chair at 2 P.M.

*New Member of Council.*—Dr. Rolleston, the new representative of the University of Oxford in the room of Dr. Acland, was introduced and took his seat.

*President's Address.*—The PRESIDENT delivered an address, which was published at page 799 of last week's JOURNAL. At its conclusion, Dr. ANDREW WOOD moved, Dr. RISDON BENNETT seconded, and it was unanimously resolved, that the address be entered on the minutes.

*Committees.*—The Business Committee was appointed to consist of Dr. Andrew Wood (Chairman), Dr. A. Smith, Dr. Leet, Dr. Haldane, and Dr. Pyle; the Finance Committee of Dr. Quain (Chairman), Dr. Bennett, Dr. Sharpey, Dr. A. Smith, Dr. Fleming, and Mr. Quain.

*Correspondence with Government Departments.*—Dr. ANDREW WOOD moved, Dr. RISDON BENNETT seconded, and it was resolved.

"That the following communications made by the Executive Committee to the Registrar-General, to the office of the Secretary of State for the Home Department, and to the Local Government Board, be entered on the minutes."

The first of these communications was a letter to the President from the Registrar-General, dated October 14th, 1874, submitting for consideration the new form of certificate of cause of death which it was proposed to issue, and Dr. Acland's reply thereto. In the latter, the attention of the Registrar-General was, after consultation with the members of the Council, drawn to the following particulars.

"1. It is objectionable that medical men should be required by law to give information which they do not possess from personal knowledge. 2. The words '*as I am informed*' should be printed in the body of the certificate after the word '*died*'. The marginal note should then stand thus:—Should the medical attendant feel justified in taking upon himself the responsibility of certifying the fact of death, he may strike out the words 'as I am informed'. 3. The medical attendant ought not to have the duty imposed upon him of sending to the Registrar or to anyone else. The Registrar should apply to him. 4. In Scotland, the Registrar forwards to the medical attendant a certificate, with the blanks filled up as far as possible, with a stamped envelope addressed to himself (the Registrar), if the certificate has not been forwarded by the attendant within ten days. This plan works admirably. 5. In the form of death-certificate, the words '*whose apparent age was*' should be substituted for '*whose age was stated to be*'. 6. In case of alleged irregularities or frauds in respect of certificates, the Registrar-General or the magistrates, and not the Medical Council, should be prosecutors. 7. In the column 'the duration of disease', there should be four divisions, for years, months, days, and hours, as in the Scotch certificate. 8. The Registrar-General's abstracts should be gratuitously sent, as formerly was the case, to many registered medical practitioners—to all, indeed, who annually apply for them. Every health-officer, at the least, should have them officially. They should be kept at the office of every sanitary authority. Nor is there any reasonable doubt that statistical and sanitary science, as well as the progress of accurate medical knowledge, would be thus greatly promoted at a comparatively trifling cost to the public funds. The services of those who supply the basis of the Registration Returns would also be gracefully acknowledged. A precedent may be found in Scotland and Ireland and, formerly, in England."

The next communication was a letter from the President of Council to the Secretary of State for the Home Department on the subject of the conduct of prosecutions by the Medical Council. In it, Dr. Acland said:

"The question of the General Medical Council undertaking to prosecute in the case of offences under the Medical Act of 1858, was brought before the Council in 1859, on a complaint made to the then Secretary of State. The subject was fully considered, and the opinion which the Council then formed was to the following effect, viz.: 'That it is legally no part of the functions of the Council, according to the Medical Act, to institute proceedings at large for offences against the Act'. 'That the funds at the disposal of the Council were quite inadequate for the purpose'. Experience since 1859 has shown that these offences, unfortunately, are not infrequent, and that they occur in all parts of the United Kingdom. It is obvious, even if it were otherwise desirable, that it would occasion very serious expense if the Council were to act as public prosecutors, and to employ solicitors in every locality where an offence occurred, to get up the evidence for the prosecution; and that, in any case, the funds raised by the Council entirely from the medical profession, could not in fairness be applied to purposes strictly within the province of public justice. In Scotland, and in Ireland, the difficulty has been supposed to be met. But, in point of fact, though there is a public prosecutor in each of these branches of the Kingdom, there has been found practically to be as great a difficulty as in England. In the case of many offences under the Medical Act, they are rather offences against the Commonwealth than against individuals; as, for instance, in the case of fraudulent death certificates, and, indeed, in the case brought before you by the Coroner of Ellesmere, it is obvious that the offender ought to be prosecuted for forgery—his offence under the Medical Act being merely punishable by fine. There is, however, another reason why the Council should not be required to undertake duties of this kind, viz., the time of the Medical Council is, by its constitution, very valuable, its members being summoned at considerable expense from various parts of the United Kingdom. Any criminal investigation or procedure would be attended with much difficulty, and distract the Council from other important duties assigned by the Act. Under these circumstances, I am justified, I hope, in requesting you to take into your consideration this subject, which the Council considers one of great public importance, adding the assurance that the Council will be ready to give the utmost consideration to any further point which you may do them the honour to bring before them."

The last communication referred to in the resolution was a letter from Dr. Acland to the President of the Local Government Board, on the subject of the Qualifications of Poor-law Medical Officers. It was as follows (date November 13th, 1874).

"Sir,—I have been requested, as President of the General Council of Medical Education and Registration of the United Kingdom, to draw your attention to the subject adverted to in a letter, of the 19th August last, addressed to the Registrar of the Medical Council by the Secretary of the Local Government Board. In that letter, it was stated that, whenever the Board revised the Consolidated Order, which they will probably do before long, they will take care that the point raised by the Registrar of the Medical Council, in his letter of the 1st of August, shall be duly considered. With a view to that consideration, I would take leave to point out that the policy of the Medical Act (1858) was to abolish any distinction between qualified and registered practitioners within Her Majesty's dominions; and accordingly, by Section 31, 'Every person registered under this Act shall be entitled, according to his qualification or qualifications, to practise medicine or surgery, or medicine and surgery, as the case may be, in any part of Her Majesty's dominions'. It seems, therefore, contrary to the spirit of the Act to prescribe that certificates, required by Article 178 of the General Consolidated Order, should be received only from members of the Royal College of Surgeons of England. On these grounds, I would venture to urge that the Consolidated Order should be amended so as to include all registered practitioners. In every case, a medical officer under the Local Government Board should make such selection of a registered practitioner for consultation as he judges to be best. But the central authority can only, by an oversight, seek to impose a restriction on their selection, which it was part of the intention of the Medical Act (1858) to remove, and which it is the special province of the Medical Council, by constant labour, to make unnecessary, viz., the preference of one legal qualification before another on account of more or less supposed value in such qualifications."

*Table of Results of Examinations.*—A table of results of professional examinations for degrees, diplomas, and licenses, granted in 1874 by the Bodies in Schedule (A) to the Medical Act, was presented; and, on the motion of Dr. ANDREW WOOD, seconded by Mr. QUAIN, was ordered to be received and entered on the minutes.

*Mode of making Entries in the Medical Register.*—A case submitted to Mr. Bowen, and his opinion thereon, as to the mode of making entries in the *Register*, was read, and ordered to be entered on the minutes. The question raised was whether additions to registered names, such as change of residence, or of additional qualifications, or alterations, such as striking out the name of any person deceased, could be made by the General Registrar at once in the General *Register*, or whether such additions or alterations must be first made in the Local *Register* in which the person was first registered, and thence transferred to the General *Register*. The opinion of Mr. Bowen was, that the application to amend the *Register* by the insertion of subsequent qualifications might be made either to the Branch or to the General Registrar, and that either of them to whom such application was made would discharge his duty by complying with it.

*The Case of Matthew Bass Smith.*—A letter from Matthew Bass Smith, whose name was erased from the *Register* some years ago, in which he applied to be again registered, was read; also a letter on the subject from Mr. Ouvry, the Solicitor to the Council. It was resolved, on the motion of Dr. ANDREW WOOD, seconded by Sir DOMINIC CORRIGAN, that the Council decline to restore the name to the *Register.*

*Erasure of Names from Register.*—It was resolved that the names of James Meehan, M.D., and Michael M. Sheedy, be removed from the *Register*, evidence having been furnished of their conviction at the Limerick assizes of conspiracy to defraud an Insurance Company.

*Revision of Medical Acts.*—A letter was read from Mr. George M. Rickards, Counsel to the Speaker of the House of Commons, asking the opinion of the Council as to the repeal of certain portions of the Medical Acts in the revision of statutes now in hand. It was moved by Dr. STORRAR, seconded by Sir DOMINIC CORRIGAN, and agreed to: "That it be referred to a Committee to report on Mr. Rickards' letter, and that the Committee be authorised to have the assistance of Mr. Ouvry in preparing their report." The Committee to consist of Sir Dominic Corrigan, Dr. Haldane, and Dr. Storrar.

*Recommendations of the Council.*—It was moved by Dr. ANDREW WOOD, seconded by Dr. HALDANE, and resolved: "That a Committee be appointed to consider the recommendations with regard to Education and Examination which have been issued from time to time by the General Medical Council, to inquire into their practical working, and to report as to the expediency of modifying or amending them." The Committee to consist of Dr. Andrew Wood (Chairman), Dr. Fleming, Sir Dominic Corrigan, Dr. Apjohn, Mr. Quain, Dr. Humphry, Dr. Parkes, and Dr. Thomson.

*Admission of Women to the Practice of Medicine*—The following letter, written by direction of the Lord President of the Privy Council, by Mr. Simon, was read.

"Medical Department, Privy Council Office, 8th June, 1875.

"Sir,—I am directed by the Lord President to request that, at the meeting now shortly to be held of the General Medical Council, you will have the goodness to bring under the consideration of that body the Bill which has been introduced in the House of Commons by Mr. Cowper-Temple 'to amend the Medical Act, 1858, so far as relates to the Registration of Women who have taken the degree of Doctor of Medicine in a Foreign University', and that you will move the Medical Council to favour His Grace with their observations upon it. It appears to the Lord President that Mr. Cowper-Temple's Bill, though very limited in its direct scope, can hardly fail to raise in Parliament the general question whether women ought to be able to look to medical practice, or certain branches of it, as open to them equally with men as a profession and means of livelihood. And I am to say that, as Government may have to express an opinion on this general question, with regard, on the one hand, to women who desire to obtain legal status as medical practitioners in this country, and, on the other hand, to the examination rules, or conditions, which prevent them from accomplishing their wish, His Grace would be glad that the observations with which the Medical Council may favour him should not be restricted to the particular proposal of Mr. Cowper-Temple's Bill, but should discuss, as fully as the Medical Council may see fit, the object to which that proposal would contribute.—I am, sir, your obedient servant, (Signed) "JOHN SIMON."

Mr. TURNER moved, Dr. ANDREW WOOD seconded, and it was resolved:

"That Mr. Simon's letter to the President of the General Medical Council, relative to the proposal contained in Mr. Cowper-Temple's Bill, and to the general question of the admission of women to the profession and practice of medicine, be referred to a Committee to report on the whole subject to an early meeting of the Council."

The Committee to consist of Mr. Turner (Chairman), Sir William Gull, Sir Dominic Corrigan, Mr. Quain, Dr. Humphry, Dr. Andrew Wood, and Dr. Rolleston.

*The Midwifery License of the King and Queen's College of Physicians in Ireland.*—A letter from Miss Ellen M. Greenstreet was read, in which she asked that a license, which she had obtained from the King and Queen's College of Physicians in Ireland, might be registered as a license in midwifery; also documents relative thereto furnished by the King and Queen's College of Physicians. It was moved by Dr. ANDREW WOOD, seconded by Sir DOMINIC CORRIGAN, and resolved: "That the documents in the case of Miss Ellen M. Greenstreet be sent at once to Mr. Ouvry, the Solicitor of the Council, for his opinion as to whether the license granted by the King and Queen's College of Physicians in Ireland to Miss Greenstreet is entitled to be placed on the *Medical Register*; and that Mr. Ouvry be authorised to take Counsel's opinion thereon, if he sees fit."

*Remarks of Licensing Bodies on Reports of Visitors of Examinations.*—It was moved by Dr. ANDREW WOOD, seconded by Dr. BENNETT, and resolved:

"That the remarks of the licensing bodies on the reports of the visitors of examinations, 1874, be appended to the reports in the volume of minutes."

The remarks on the reports of the visitors of the examinations of the licensing bodies which were visited in last year, were submitted to the Council, and taken as read, viz.: the Society of Apothecaries, London; the Royal College of Physicians of Edinburgh; the Royal College of Surgeons of Edinburgh; the Faculty of Physicians and Surgeons, Glasgow; the University of Glasgow; the Royal College of Surgeons in Ireland; and the Queen's University in Ireland.

It was moved by Dr. ANDREW WOOD, and seconded by Dr. APJOHN: "That the remarks of the licensing bodies on the reports of the visitors of the examinations be taken into consideration *seriatim.*"

To this an amendment was moved by Dr. PARKES, and seconded by Mr. QUAIN: "That a Committee be appointed to whom shall be referred all the reports of visitations of examinations and the remarks of the licensing bodies upon them, and that this Committee shall draw up for the meeting of Council in 1876 a short digest of the whole, which may serve as a record of the visitations made by the Council in 1873, 1874, and 1875."

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### *Friday, June 18th.*

Dr. ACLAND, President, took the chair at 2 P.M.; and the minutes of the last meeting were read and confirmed.

*Remarks of Licensing Bodies on the Reports of the Visitors of Examinations.*—The discussion on Dr. Andrew Wood's motion on this subject was resumed.

Dr. ANDREW WOOD suggested that Dr. Parkes's proposed amendment was not an amendment on his motion, as the reports of the visitors were not then before the Council.

The PRESIDENT said that Dr. Parkes's proposal might be treated as a substantive motion, after that proposed by Dr. Wood had been disposed of.

Dr. PARKES expressed his assent to this course.

Dr. ANDREW WOOD said that it was desirable that the remarks of the licensing bodies should be dealt with in the same way as the reports themselves were last year. The remarks contained several suggestions which should each be brought under the special notice of the Council.

After a few remarks from Dr. APJOHN and Dr. QUAIN,

Sir DOMINIC CORRIGAN opposed the motion. What was the Council to do when they had the remarks before them and examined them *seriatim?* Consideration of the remarks meant nothing unless something were done with them. The matter would resolve itself into a trial between two parties holding opposite views. The Council would have to decide between the licensing bodies and the visitors; and this would bring an apple of discord into the Council such as was never before known. The Council must either ignore the remarks of the licensing bodies; or it must throw a slight on the visitors; and, if this were done, no independent man in the profession would undertake the duty of visitation. He moved as an amendment, "That the Council proceed with the next business on the programme."

Mr. MACNAMARA seconded the amendment. The course proposed would give rise to repeated discussion between the Council and the licensing bodies. The more dignified course would be to accept the remarks as read, and avoid unpleasant discussion.

Dr. AQUILLA SMITH was in favour of merely taking the remarks as read.

Dr. RISDON BENNETT thought the remarks should be considered along with the reports, but that it was not desirable to delay this so long as was suggested by Dr. Parkes. He opposed the amendment.

Dr. HUMPHRY said that it would not be proper or courteous to the licensing bodies to take no notice of their remarks, after the Council had asked for them. He thought that the best plan, and one which would save the time of the Council, would be to refer them to a special Committee, to report on them during the present meeting.

Dr. QUAIN thought that the consideration of the reports should not be delayed. Some of them were already two years old, and would soon become mere matters of history.

Dr. PARKES had drawn up his proposal in its present form, because of the great difficulty in doing the work during a session of the Council.

Dr. ANDREW WOOD said it would be uncourteous and unjust not to take any notice of the remarks. If they were examined, it would be found that very good results had been produced by the visitations, and it would be seen by the public and the profession that the Council was really doing work.

Sir Dominic Corrigan's amendment was then put to the vote and lost.

Dr. Andrew Wood, with the permission of the Council, withdrew his motion.

Dr. Parkes moved, Dr. Quain seconded, and it was resolved:

"That a Committee be appointed to consider the reports of the visitations which have been submitted to the Council, and sent down to the licensing bodies, and of the remarks of the licensing bodies upon them, and to draw up a report for the present meeting of the Council."

The Committee was appointed to consist of Dr. Parkes (Chairman), Mr. Quain, Dr. Apjohn, Dr. Humphry, Mr. Bradford, Dr. Begbie, Dr. Quain, and Dr. Rolleston.

*Practice by Unqualified Persons.*—A letter was read from Mr. Ouvry, solicitor to the Council, respecting a charge made at the last session of the Council by Dr. Mackern against a registered practitioner, for allowing brass plates, with his name, to be affixed to houses occupied by two unqualified persons, under colour of which plates they practised as surgeons. Mr. Ouvry reported that a long correspondence had taken place between him and the practitioner in question; and that it ended in a letter from that gentleman's solicitor, stating that, while denying any legal offence, he had advised his client, in order to avoid conflict with the Council or with his professional brethren, to remove the objectionable plates, which had been done. Under these circumstances, Mr. Ouvry did not think that the Council should take action under section 29 of the Medical Act; but he suggested that a copy of the report should be forwarded to Dr. Mackern, that he might be able to inform the Council if the offence were repeated.

Dr. Storrar moved, Dr. Allen Thomson seconded, and it was resolved:

"That the course recommended by the solicitor to the Council be adopted."

*Reports of Visitors of Examinations.*—Dr. Andrew Wood moved, Dr. Bennett seconded, and it was resolved:

"That the Council resolve itself into a Committee of the whole Council, for the consideration of the reports of visitations of examinations, and that they be taken as read."

Dr. Andrew Wood moved, Dr. Pyle seconded, and it was resolved:

"That a copy of the reports of the visitations of examinations be placed in the hands of the reporters for the press now present at the meeting of the General Medical Council."

*University of Oxford.*—The report on the first examination for the degree of M.B. was made by Dr. Risdon Bennett, member of the Council, and Mr. Henry Power, visitor appointed by the Council; and that on the second and final examination by Dr. Aquilla Smith, member of Council, and Dr. Patrick Heron Watson, visitor appointed by the Council.

Mr. Turner moved, and Dr. Fleming seconded:

"That a copy of the report of the visitors of the examinations of the University of Oxford be forwarded to that University for their consideration and remarks."

Dr. Rolleston called attention to a remark of the visitors of the first examination, that "no regular dissection of a special region was required". If a special dissection were required from each candidate, there would not be a sufficient supply of subjects, and the time occupied would be great. He had been told that it was done in Ireland, and that two hundred candidates had been each provided with a part for dissection. In England, it would be very difficult to do this. What was required was, that a candidate should show that he knew the objects before him; and if he were able to make sections and use the microscope, his manual dexterity was vouched for. The object of examinations in anatomy was not to find out whether the candidates could dissect well enough to be demonstrators, but whether they knew the parts; to find out, not whether they could make specimens, but whether they could recognise and describe specimens. The visitors had also said that, "in comparative anatomy, the questions were limited to elementary facts"; apparently forgetting the recommendation of the Council that the examinations in such subjects should be "limited and defined". The word "elementary" might have an invidious meaning; which, however, was scarcely consistent with the statement in the next sentence of the report, that "specimens of Tænia mediocanellata and Tænia echinococcus, in their cystic and cestoid forms, were shown". The object was to see whether the candidates recognised the objects as described in books. It was not advisable to insist on comparative anatomy except so far as it had a bearing on medicine. It was not necessary, for a pass examination for a practitioner, that there should be questions on such things as Sertulariæ, Campanulariæ, etc.

Mr. Turner said that it would be a great waste of time and labour to require every candidate at an examination to dissect. Dissection, however, should be carried out in examinations where there was any doubt as to the knowledge of anatomy possessed by a candidate. An elementary knowledge of comparative anatomy should alone be required. It was unnecessary to expect more than a general acquaintance with so vast a subject, and perhaps a special acquaintance with points having a direct bearing on medical practice.

Dr. Allen Thomson said that examinations would be rendered very cumbersome if all candidates were required to dissect. And it was not necessary; for an experienced examiner would readily find whether a candidate were a practical anatomist or not, from the manner in which he held his scalpel. The information derived from teachers and schools might be made useful; but the Council had always been very chary of this. He agreed with Mr. Turner that dissection should be received as a test in certain cases. With regard to comparative anatomy, a knowledge of elementary principles was sufficient. It was not the actual range of knowledge that examiners had to consider, so much as the way of treating the facts.

Dr. Humphry said that it was very important that candidates should show that they were in the habit of dissecting. When he visited the Queen's University in Ireland, he was struck with the excellence of the examination in anatomy. There were sixty-seven candidates, each of whom was required to dissect; and not a very large number of bodies was required for this. He was so impressed with the value of the system, that on his return to Cambridge he had urged that it should be carried out there if possible, and it had since been done. He was not, however, prepared to insist that dissection should be a *sine quâ non*, since there might be difficulty in some instances.

Dr. Storrar said that dissection had for several years formed part of the examination at the University of London.

Dr. Andrew Wood thought that the Council should not issue recommendations which would not be carried into effect. At Edinburgh, where the population was comparatively small, and the number of medical students very large, the plan of requiring all candidates to dissect would not be practicable. As inspector of anatomy for Scotland, he was certain that it could not be possible to supply the bodies required. There was no reason, however, why dissection should not be demanded when occasion required. Students would take care to pay attention to anatomy, if they knew that they might be called on to dissect during their examinations.

Mr. Macnamara called attention to the fact that the subject now under discussion was also the subject of a resolution of which he had given notice.

Dr. Risdon Bennett had no complaint to make of Dr. Rolleston's criticisms. A report so colourless as not to be capable of criticism would not be worth much. The visitors had intended to imply that the examination was on the whole a good one. There was, however, apparently not much provision for practical dissection. He called attention to the following paragraph in the report: "We are well aware that the majority of those who obtain a Degree in Medicine in this University are destined to practise strictly as physicians; but we are not the less disposed to think that, at this stage of education of the candidates, it is of great importance that their knowledge of anatomy, and especially of visceral anatomy, should be tested by an adequate examination on the subject." There could not be much difference of opinion as to the importance of testing a candidate's knowledge of visceral anatomy.

The motion was carried.

*University of Cambridge.*—The report was made by Dr. Aquilla Smith and Dr. P. H. Watson.

Dr. Storrar moved, and Dr. Allen Thomson seconded:

"That a copy of the report of the visitors of the examinations of the University of Cambridge be forwarded to that university for their consideration and remarks."

Dr. Quain thought the visitors should have called attention to the fact that there was no examination in surgery at Cambridge.

The President said the case was very much the same at Oxford, the subject having been deferred till the question of a conjoint examination was settled.

The resolution was carried.

*University of Aberdeen.*—The visitation of this university was made by Dr. Humphry and Dr. Barclay.

It was resolved:

"That a copy of the report of the visitors of the examinations of the University of Aberdeen be forwarded to that University for their consideration and remarks."

Mr. Turner said, on the whole, the report was satisfactory. The visitors stated that "a candidate who fails to obtain fifty per cent. of marks in each subject is rejected, but occasionally failure in one subject is allowed to be compensated for by excellence in others." He had been assured by the Dean that there was some misapprehension in that respect, and that no one was allowed to pass who failed to obtain fifty per cent. of marks in each subject. The ghost had again been raised of the examination of candidates by their own teachers. He thought that a teacher who had repeated opportunities of watching the course of his students was better able to judge of their merits than a stranger before whom they came simply as a series of unknown quantities, and who had only a limited time to ascertain the extent of their information. The Universities of Aberdeen and Glasgow, however, were about to adopt the plan adopted last year by Edinburgh, of adding a non-professorial element to the Board of Examiners, and all they now wanted for that purpose was the sanction of the Privy Council.

Sir W. GULL said that the examination of students by their own teachers had many disadvantages, but no doubt, on the whole, it was very desirable to call in outsiders.

Dr. ROLLESTON had often heard the practice of teachers examining their own pupils compared to men auditing their own accounts. He thought there should always be a sufficient infusion of the extraneous element to prevent anything like corruption.

Dr. STORRAR, while admitting that efficient teachers made by far the best examiners, thought that the practice of a man examining his own pupils ought to be avoided. He suggested that there should always be two examiners; and that, in the event of one examiner having his own pupil before him, the examination should be conducted by the other examiner in his presence.

Mr. MACNAMARA pointed out that the Council had already recommended that in no case should a teacher wholly or in great part conduct the examination of his own pupil.

Dr. WOOD said the system of examination at the Scotch universities would be placed on a satisfactory footing, and independent examiners would be appointed, who would have an equal vote with the teachers themselves.

Dr. HUMPHRY, as one of the visitors, referred to the hearty and cheerful manner in which they had been received by the Board of Examiners. He attributed the introduction of the new system of appointing additional examiners in the Scotch Universities to the action of the Medical Council; but said the difficulty was in giving the additional examiners their due place and influence in the examinations, there being a natural tendency to let the teacher take the lion's share of the work.

The motion was carried.

*Saturday, June 19th.*

Dr. ACLAND, President, took the chair at 1 P.M. The minutes of the last meeting were read and confirmed.

*Visitation of Examinations.*—The Council resolved itself into a committee for the consideration of the reports of the visitors.

*University of Edinburgh.*—The reports were made by Dr. Humphry and Dr. Barclay, also by Dr. Humphry and Dr. A. Wynne Foot. It was moved by Dr. ANDREW WOOD, seconded by Dr. BENNETT,

"That a copy of the report of the visitors of the examinations of the University of Edinburgh be forwarded to that university for their consideration and remarks."

*University of Edinburgh.*—Mr. TURNER said that the word "assessor" used in one of the reports was erroneous; there were no assessors, but the coexaminers were examiners in every sense of the word. The questions were set partly by the professor and partly by the coexaminer. The visitors appeared to regard the principle of having non-professorial examiners as being carried out in a fair and satisfactory manner. Referring to the practice in other universities, as shown in the reports, he found that in Oxford three of the four examiners at an examinaton were professors in the university; but he did not doubt that they carried out a good and efficient examination. In Cambridge, the non-professorial element was introduced to a great extent, but the professorial element was very prominent. In Durham, all the examiners mentioned in the report were teachers in the Medical College at Newcastle-on-Tyne.

Dr. PYLE said that this case was exceptional. The University of Durham had in all other years selected strangers as examiners.

Mr. TURNER said that in the examinations at Trinity College, Dublin, there were one university and one extern examiner in each of the subjects of physics, botany, chemistry, and materia medica; while in anatomy all the three examiners belonged to the university. Thus, in the universities, the professorial element was largely represented in the examinations. No report on the University of London was before the Council; but the teaching element was well represented there, and it did not follow—at least when he was an examiner there—that a teacher might not examine his own pupils. In the oral examination, this could not be done; but each of the two examiners set a paper for the written examination, and each consequently examined the papers of all the candidates. He then referred to a paragraph in one of the reports, in which the visitors said: "The clinical examination, so far as it went, was well conducted, and calculated to give a good estimate of the practical knowledge of the candidates. We think, however, that it would be an important improvement if each candidate were required to investigate, in presence of the examiners, some one or more cases in addition to that of which he writes the report. The investigation of one case can scarcely be considered to afford sufficient test of clinical knowledge." It showed to him (Mr. Turner) that what was required was, that the candidate should show that he knew how to examine a patient; and this could be done as well by one well selected case as by several cases. He was happy to find that the visitors expressed a general approval of the examination.

Dr. ANDREW WOOD called attention to a statement in one of the reports, that the examination in midwifery was conducted entirely by Professor Simpson. If an additional examiner were present, and took no part in the examination, the principle was not carried out.

Dr. HUMPHRY said that a coexaminer was present.

Dr. ROLLESTON said that at Oxford continuity of examination was secured by having the Regius Professor of Medicine as supervisor; but there were no other *ex officio* examiners. The University had repeatedly appointed examiners *ab extra*. In this way, they prevented things from falling into a groove in such a way that it might be possible for anyone to publish a little work of questions for the guidance of students, as was done on the other side of the English Channel.

Dr. SHARPEY said that for some time the papers at the University of London had not been signed with the names of the candidates, but with numbers, so that a teacher did not know when he was examining the answers of his own pupil. He thought that the selection of co-examiners in Edinburgh was a very good one.

Dr. STORRAR remarked that the University of London was not a teaching but an examining body. It would be impossible to find examiners without appointing some who might have to examine their own pupils.

Mr. QUAIN said that, where there was a small number to be examined, as in London and Durham, the selection of examiners was not a matter of so much consequence as in a large school, such as Edinburgh.

Dr. HUMPHRY said that, when he was present at the examination in Edinburgh, there was a co-examiner, who took notes, and conferred afterwards with Professor Simpson. Referring to the report on the University of Cambridge, he said that the term "assisted" was not correct in reference to the coexaminer, who was intended to be as much an examiner as the Regius Professor. As in Oxford, continuity was secured by means of the Regius Professor; but the professorial element was reduced to a minimum in the examinations, perhaps even the principle was carried to an extreme. Although he had been professor of anatomy several years, he had only once been an examiner. He had no voice as a professor in the examinations, though he sometimes attended them.

After some remarks from Mr. MACNAMARA, Dr. FLEMING, Dr. BENNETT, and Dr. SMITH, the motion was carried.

*University of St. Andrew's.*—The report on this University was signed by Dr. Humphry, Member of Council, and Dr. A. W. Barclay, additional visitor.

Dr. ALLEN THOMSON moved:

"That a copy of the report of the visitors of the examinations of the University of St. Andrews be forwarded to that University for their consideration and remarks."

Dr. THOMSON called attention to the following paragraph in the report, and expressed his concurrence with it.

"On the whole, we must confess that the manner in which the privilege of granting ten M.D. degrees annually to practitioners is exercised by this University does not appear to us satisfactory. We cannot think that the conferring of the highest degree in medicine in consequence of the candidates having presented testimonials and passed such an examination as we witnessed can be fraught with any real benefit to the profession or the public, or even to those who seek and obtain the degree. The stimulus it fails to develope is not sufficient to induce the candidates to take pains in making preparation, or maintain that higher culture which such a degree should indicate. This is the more to be regretted because we cannot but feel that a very beneficial influence might be exerted by a judicious mode of exercising this privilege, and giving to practitioners, who really merited the distinction, an opportunity of obtaining the doctorate of medicine which they could in no other way reach, and of connecting themselves with an institution of much antiquity and interest. This end would probably be—to some extent at any rate—effected, if, instead of sending for ten practitioners only to come up, and so limiting the candidates at the examination to the number of degrees to be conferred, a large number were admitted, and a selection made upon well defined grounds of professional distinction, and the possession of such superior knowledge as may be indicated by an examination of a higher order."

Sir DOMINIC CORRIGAN said that there was no medical school in the University.

Dr. FLEMING supported Dr. Allen Thomson's remarks. There were a number of men in the profession who at first, from various causes, had not an opportunity of obtaining an University degree; and it would be very hard if they could not have an opportunity of obtaining a degree afterwards without going through a curriculum.

Dr. SHARPEY questioned whether there was any use in visiting the University of St. Andrew's, as the candidates had already undergone examinations elsewhere, and received license to practise.

Dr. HUMPHRY said that the University of St. Andrews also held examinations for the admission of candidates to the *Medical Register*. It was a medical school; an *annus medicus* had to be kept there. The visitors had felt that the privilege of admitting men in practice to the degree of the University was one which, if judiciously exercised, might be of benefit to the profession; but they did not think that at present it was beneficial. They had expressed their views plainly and freely to the examiners at the University, who had promised to take the case into careful consideration.

Mr. TURNER said that it was quite possible to make an *annus medicus* without an infirmary, a dissecting-room, or a laboratory for practical chemistry—none of which, the visitors stated, existed at St. Andrews. A student could attend there a course of natural history; there was an admirable course of chemistry given by Professor Heddle; and a course of physiology could also be attended in the University. The University of St. Andrew's might have an increased power of granting degrees to men long absent from the schools; but the examinations should be thoroughly testing in all the practical branches of the profession.

Dr. RISDON BENNETT said that the manner in which the degrees were conferred was an important matter for consideration. Any one who had a good knowledge of his profession ought not to be afraid of examination; but at present the examination was not quite what it ought to be. He hoped the examiners at St. Andrew's would act on the suggestions made. At present, much mischief was done; two or three men in a district sent in their names, but frequently only one got a degree. This excited a good deal of ill-feeling.

The motion was carried.

*Royal College of Physicians of London.*—The reports on the Pass Examination for the License and on the Primary Professional Examination for the Membership were made by Dr. Fleming, member of Council, and Dr. J. K. Barton, visitor appointed by the Council; and that on the Pass Examination for the Membership by Dr. Humphry, member of Council, and Dr. Douglas Maclagan, additional visitor.

Dr. ANDREW WOOD moved, and Mr. QUAIN seconded:

"That a copy of the report of the visitors of the examinations of the Royal College of Physicians of London be forwarded to that College for their consideration and remarks."

Dr. RISDON BENNETT remarked that the fact alluded to in one of the reports of only one clinical examiner being present, was accidental.

Sir WILLIAM GULL thought that it indicated a great defect. It showed that the clinical examination was not carried on so carefully as it ought to be. Two examiners ought always to be present. He moved as an addition to the resolution, and Dr. ROLLESTON seconded:

"And that special consideration be requested to be given to such part as refers to the clinical examination for the licentiates, and to the deficiencies in the department of Medical Jurisprudence."

A discussion followed, in which Mr. Macnamara, Dr. Quain, Dr. Thomson, and others, urged Sir William Gull to withdraw his proposal, expressing their confidence that the representative of the College would take care to call attention to the subject.

Dr. Andrew Wood, Sir Dominic Corrigan, and Dr. Smith, supported Sir William Gull's proposal.

Dr. RISDON BENNETT referred to a statement made by Sir William Gull, that he had no confidence that the report would be brought before the College. For what purpose was the representative of the College present in the Council? At the first meeting of the College, a report of the proceedings would be laid before the Fellows. In fact, he had already anticipated this by calling the attention of the Registrar of the College to the criticisms of the visitors, in order that he might take the first opportunity of carrying out improvements.

Sir WILLIAM GULL had no intention of making a personal insinuation against Dr. Bennett.

After some further remarks, the motion, with Sir William Gull's addition, was carried; 11 voting for and 10 against it. Dr. BENNETT required that the names of those voting should be taken down. There were—*for*, Dr. Rolleston, Dr. Haldane, Dr. A. Wood, Dr. A. Smith, Dr. Leet, Dr. Apjohn, Sir Dominic Corrigan, Dr. Sharpey, Dr. Parkes, Sir W. Gull, and Dr. Stokes; *against*, Dr. Bennett, Mr. Quain, Dr. Humphry, Dr. Pyle, Dr. Storrar, Dr. Fleming, Dr. Thomson, Mr. Macnamara, Dr. Quain, and Dr. Begbie. The President and Mr. Turner did not vote.

*Royal College of Surgeons of England.*—The report on the Primary Professional Examination for the Membership was made by Dr. Fleming and Dr. J. K. Barton; and that on the Second or Pass Examination by Dr. Parkes, with Dr. Struthers as an additional visitor.

Dr. STORRAR moved, and Dr. HUMPHRY seconded:

"That a copy of the report of the visitors of the examinations of the Royal College of Surgeons of England be forwarded to that College for their consideration and remarks."

Mr. QUAIN offered some explanations with reference to subjects mentioned in the reports. The College of Surgeons did not give its diploma to any one who was not examined also in Medicine. It did not examine in Chemistry; but students were recommended to pass an examination in elementary chemistry before commencing their medical studies; and a course of instruction in practical chemistry was required afterwards. He agreed with the visitors that the amount of examination in Physiology was not sufficient, and had communicated with the President of the College on the subject. Any change in this respect had been delayed in consequence of the discussion of the proposed conjoint scheme. No doubt the recommendation of the visitors would be carried out. The College had never examined in Materia Medica, because it was expected that candidates would undergo an examination in this subject elsewhere; but in the examination in Medicine held by the College there was an examination in drugs and in writing prescriptions. Many of those who passed the College examination in Medicine afterwards went elsewhere to obtain medical licenses. The examination at the College was intended only to ascertain whether the candidate knew so much of medicine as a surgeon ought to possess—not to give him a double qualification. He referred also to the fact that instruction in elementary chemistry was given in the public schools.

Sir WILLIAM GULL asked why chemistry and materia medica were put in the programme when candidates were not examined in them. Certificates of attendance on these subjects were worth very little.

Dr. STORRAR thought that a bad effect of the examination in Medicine by the College was, that a man could say that he had undergone an examination in Medicine. He considered the instruction in chemistry given in schools as imperfect, as it did not go beyond the non-metallic elements.

The discussion was adjourned.

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### *Monday, June 21st.*

*The Local Government Board and Medical Consultations.*—The following communication from the Secretary to the Local Government Board was read.

Local Government Board, Whitehall, S.W., June 11th, 1875.

I am directed by the Local Government Board to forward to you the accompanying copy of a general order which they have issued, amending the provisions contained in the orders in force in unions and separate parishes with respect to the qualification of the medical practitioner by whom a certificate is required to be given to entitle a district medical officer to a fee for amputation performed in the case of any pauper. The regulation hitherto in force required that the certificate in any such case should be that of some Member of the Royal College of Surgeons of London, or of some Fellow or Licentiate of the Royal College of Physicians of London. Having regard, however, to the Medical Act, 1858, which was passed long subsequent to the general orders containing the regulation referred to, the Board are of opinion that the restriction imposed should be removed, and that the qualification should be extended in accordance with the principle of that Act. Hence the order now issued substitutes for the proviso on the subject in the previous general and other orders, one which makes the qualification the same as that prescribed with reference to the appointment of medical officers by the orders in force in that behalf. The copies of the order intended for the district medical officers will be sent to the clerk to the guardians, in each case, for distribution amongst those officers.—I am, sir, your obedient servant,

H. FLEMING, *Secretary*.

A copy of the order accompanied the letter.

Dr. STORRAR moved, Dr. ANDREW WOOD seconded, and it was resolved:

"That the communication from the Local Government Board be entered on the Minutes."

*Visitation of Examinations.*—The Council resolved itself into committee for the consideration of the reports of the visitors of examinations.

*Royal College of Surgeons of England.*—The discussion of the report on this body was resumed.

Dr. STORRAR said that on Saturday he was referring to the insufficiency as regarded the medical profession of the instruction in chemistry given in schools. The College of Surgeons required elementary facts only. The College of Surgeons had never professed to do more than give a qualification in surgery, examining in anatomy, physiology, and surgery. There had always been a tacit understanding between the College and the Apothecaries' Hall, the latter not examining in surgery, and merely in visceral anatomy. The Act of 1858 gave Members of the College of Surgeons, after registration, the right of practising medicine. This was not the fault of the College, but arose from the bad construction of the Act. If the Bill now before Parliament should pass, it would enable the College to remedy the defect by taking part in the formation of a conjoint examining board. The visitors had spoken with less approbation of the examination in physiology than of those in anatomy and surgery. He believed that all examinations should be conducted by persons skilled in the several subjects. Complaints had been made from time to time that eminent surgeons had not shown so great capacity of examining in anatomy as in surgery. He was much pleased to see an improvement in this respect, and he hoped to see the arrangements for examination in physiology also improved. Whether the hierarchy of the College could furnish a sufficient number of gentlemen competent to examine in physiology, he could not say; but he believed that competent examiners could be found. He felt great satisfaction at the honourable course which the College of Surgeons was following. In former years, he had had occasion to speak of the College in strong terms of censure; but he earnestly hoped that the College would come to be looked on as one of the most advanced of the medical corporate bodies.

Sir WILLIAM GULL did not think that the clinical examination of the College of Surgeons was carried on in the right way. The candidates ought to be taken to a hospital and asked to examine cases.

Mr. QUAIN said that the practice of surgery in England was principally in the hands of the Fellows of the College of Surgeons. Two diplomas were granted by the College, that of Fellow and that of Member; the two being quite distinct, and the diploma of Member not being necessary in order to become a Fellow. The candidates for the fellowship were examined on patients in the hospitals, and more extensively in other subjects than the Members. Candidates were examined in materia medica and chemistry by other boards; but the College required instruction in practical chemistry, because of its connection with physiology and other subjects. He had, on the whole, been pleased with the report of the visitors. Other recommendations which they had made, besides that relating to physiology, would no doubt be attended to. As yet, candidates for membership were not clinically examined in the hospitals.

Mr. MACNAMARA asked if a Member of the Royal College of Surgeons of England was entitled to take charge of patients in a hospital, or to hold a commission in the army.

Mr. QUAIN said that the hospitals in England were supported by voluntary subscriptions, and made their own regulations. Candidates for admission into the army had to undergo a course of instruction in the Army Medical School.

Dr. ALLEN THOMSON said that the remarks made by Mr. Quain seemed to show that a body might hold examinations and grant licenses on qualifications less perfect than those laid down by the Council. All the efforts of the Council had been to render qualifications uniform—or, to speak more correctly, complete. As he understood, the diploma of the College of Surgeons might be obtained without complete education. He did not see how any distinction could be made between the bodies. A knowledge of surgery and of anatomy was no doubt most important to the surgeon; but this was no reason why any body should make exceptions to a recommendation of the Council. It had been said that the examinations of the College might be supplemented by examinations elsewhere: this might be carried out when a conjoint board was formed, but there was no security for it at present.

Dr. HUMPHRY said that last year only eleven gentlemen obtained the fellowship of the College. He had been told that there was difficulty, even in London, to get Fellows to fill appointments; and this arose from the fact that the great mass of surgeons in England were precluded by the College regulations from becoming candidates for the fellowship. He hoped that such alterations would be made as would admit Members more freely to the fellowship. He had no doubt that the representative of the College in the Council would draw the attention of the Council of the College to the amendments required.

Sir WILLIAM GULL said that Members of the College showed a great deal of skill and ability in practice, and they ought to have every opportunity of obtaining knowledge. He understood Mr. Quain to say that surgery was in the hands of the Fellows of the College. He thought they should be specially occupied in the higher branches of the science and in the advancement of the profession. As to the verbal examination in medicine at the College, of what use was it? The candidates should be examined clinically.

Dr. PARKES said that it must not be supposed that there was not a practical examination of patients at the College of Surgeons. Patients were brought to the College, and each candidate for the membership was required to examine them. The visitors considered this a very fair practical examination, and not at all deficient.

Dr. ANDREW WOOD said that the great object of clinical examination was to direct the attention of students to the importance of attending to cases in hospital.

Dr. ROLLESTON said that no examining board ought to accept the statement of another, but should examine for itself. A man ought to be able to retain his knowledge of chemistry, for instance, sufficiently well to undergo examination at more than one board.

After some remarks from Mr. Macnamara and Dr. Fleming, the motion was put to the vote and carried.

Sir WILLIAM GULL moved, and Dr. ANDREW WOOD seconded:

"That attention be drawn to the incompleteness of the physiological part of the examinations, and deficiency of the clinical examinations for the membership; also to the total want of any examination in chemistry and materia medica, though these subjects are in the curriculum."

Mr. QUAIN wished to know what was his duty as representative of the Royal College of Surgeons. He supposed that it was to communicate to his College any representations made by the Council; and to affirm Sir William Gull's recommendation would be to say that he was not competent to do his duty. The College of Surgeons insisted on two years of instruction in the out-patient department of hospitals, under assistant-physicians and assistant-surgeons; after which, the students were to attend clinical lectures in the ordinary way. It was not necessary that patients should always be in bed to be examined (*e. g.*, in a case of harelip). As to physiology, he did not admit that the written examination was an insufficient test; but there should also be an oral examination.

Sir WILLIAM GULL said that the members were not sent to the Council as mere advocates for the licensing bodies.

Dr. AQUILLA SMITH supported Sir W. Gull's motion.

Dr. PARKES could not support Sir William Gull. The examination in physiology would be improved; this had been virtually decided by the College. As to the clinical examination, he thought it quite fair; it was quite different from that at the College of Physicians, which was defective in method. As to materia medica and chemistry, it was scarcely worth while urging that there was a deficiency in these subjects, now that the conjoint scheme was likely to be carried out.

Dr. SHARPEY said that the questions in physiology, if well answered, were a very fair test of knowledge; but it was no doubt objectionable that only one question should be answered. When he visited the College examinations eleven years ago with Dr. Parkes, he had noticed that the examination in physiology was deficient, but since then matters had improved. He could not agree with Dr. Rolleston's suggestion that each licensing body should examine in all subjects in which examination had already been undergone. It was an advantage to students to be released from the necessity of bearing in their minds a number of particulars. Some years ago, he had attended a course of practical chemistry in the laboratory of University College; and while he was keeping the details in his memory, he would have found it difficult to answer questions on the subject which he taught—physiology.

Dr. BEGBIE would not regard any deficiency with indifference; but the presence of Mr. Quain in the Council was a sufficient guarantee that the report of the visitors would be laid before the Council of the College.

Dr. THOMSON and Dr. HUMPHRY made some remarks. Sir William Gull's motion was then put to the vote and lost, 8 voting for and 12 against it.

*King and Queen's College of Physicians in Ireland.*—The report on the examinations of this body was made by Dr. Risdon Bennett, member of Council, and Mr. William Stokes, visitor appointed by the Council.

Dr. BENNETT moved, Dr. QUAIN seconded, and it was resolved:

"That a copy of the report of the visitors of the examinations of the

King and Queen's College of Physicians in Ireland be forwarded to that College for their consideration and remarks."

The motion was carried.

*Apothecaries' Hall of Ireland.*—The visitors of the examinations were Dr. Risdon Bennett and Mr. William Stokes.

Dr. STORRAR moved, and Dr. PYLE seconded:

"That a copy of the report of the visitors of the examinations of the Apothecaries' Hall, Dublin, be forwarded to the governor and company for their consideration and remarks."

Dr. LEET commented on some of the remarks made by the visitors, saying that certain of their recommendations, as to the extension of time occupied in examination, etc., would be attended to.

Dr. ANDREW WOOD thought that the examination could not be a bad one. He was gratified to hear that Dr. Leet would point out the defects to the authorities of the Apothecaries' Hall.

Sir DOMINIC CORRIGAN said that the examination in clinical medicine (which had been commented on by the visitors) could not be otherwise than defective, since no one could be an examiner who had not bought a share in the company.

Dr. AQUILLA SMITH said that the only additional privilege of licentiates of the Apothecaries' Hall of Ireland was that of compounding the prescriptions of other practitioners.

Dr. LEET said that no one could obtain a share who was not a licentiate. The examiners must be registered practitioners, and they were all men of high qualifications.

Dr. QUAIN said that the clinical examinations were at first held by very few boards, but had become much improved. It could not be expected that they would be made perfect all at once.

Sir WILLIAM GULL proposed as an addition to the resolution, and Dr. ROLLESTON seconded:

"That attention is especially desired to the defects in the anatomical and physiological parts of the examination, and also to important deficiencies in the clinical examination."

Mr. MACNAMARA thought that these reports should be simply sent to the general bodies, and if they did not pay attention to them before next year, then would be the time for considering such a proposal as that of Sir W. Gull, and, if necessary, reporting the offending body to the Privy Council. There should be no sting in the resolutions of the Council.

The proposed addition to the motion was lost, 9 voting for and 12 against it. The original motion was carried.

The Council then resumed.

*Visitation of Examinations.*—Dr. HUMPHRY moved:

"That the visitations of examinations be continued so as to effect the visitation of the examinations, in part or in whole, of some of the licensing bodies in each year; and that it be referred to the Executive Committee to consider in what manner this may be best done, and to report to the next meeting of the Council."

He said that much good work had been done by the visitation of examinations. A great deal of information had been collected, and the Council could judge how the examinations were conducted. Many of the examining bodies had modified their examinations in accordance with the recommendations of the visitors, and others were contemplating improvements; so that no doubt all would be more or less improved. The work of visitation had been expensive, though carried out with as much economy as possible. The success of the visitations had been due to the admirable arrangements made by the Executive Committee and the labours of the members of the Council as visitors, and also to the cordial co-operation of the additional visitors by the Council. Moreover, the work could not have been done without the good will and support of the examining bodies themselves. At first, he had had some apprehension on this point; but he had found that the visitors were received, not as hostile critics, but as friends—and this not in one case, but in all. It would be a great pity to give up the visitations altogether, but a few of the bodies might be visited in the year.

Mr. MACNAMARA seconded the motion. The visitation of examinations was a most important duty of the Council. By continuing the visitation, the Council would ensure a high standard of examination, and therefore of education. He had on the programme a notice of motion—"That it be a direction to the Executive Committee, in their future selection of visitors of examinations, so far as practicable to arrange it so, that visitors shall not be called upon to report upon examinations held in that division of the kingdom in which the visitors themselves may be resident." He would be quite willing to leave this to the consideration of the Committee. The members knew what was being done in their own divisions of the kingdom, but not what was done elsewhere. If his proposal were carried out, they would be in a position to compare their observations and suggest improvements.

Dr. SHARPEY suggested that it would be advantageous not to lose sight of the examinations which were not visited.

After some remarks from Dr. A. Smith, Dr. A. Wood, Dr. Risdon Bennett, Dr. Quain, and Mr. Quain, the motion was carried.

Dr. SHARPEY moved, Dr. ROLLESTON seconded, and it was resolved—

"That the following be referred to the Executive Committee for their consideration and report:

"That, in the case of examinations not visited in any given year, the respective licensing bodies be requested to furnish the Council with returns to the following effect. (*a*) The names of the examiners. (*b*) Copies of the written or printed questions; the time allowed for answering them; and the judgment passed on the answers. (*c*) The time devoted to the oral and practical examinations; the plan followed in conducting them; the nature of the specimens, preparations, and other appliances made use of; and the practical exercises the candidates were called on to perform. (*d*) An account of any changes introduced since the date of the last information received by the Council."

On the proposal of Mr. MACNAMARA, seconded by Dr. PYLE, the motion above referred to, of which notice had been given by Mr. Macnamara, was also referred to the Executive Committee.

### *Tuesday, June 22nd.*

Dr. ACLAND, President, took the chair at 2 P.M.

*Returns from the Medical Department of the Army.*—The returns from the Director-General of the Army Medical Department, of the Degrees, Diplomas, and Licenses of candidates for commissions in the Medical Department of Her Majesty's Army, examined on August 10th, 1874, and February 15th, 1875, were presented. The following is a summary. August, 1874: Total number of candidates, 23; succeeded in obtaining appointments, 17; succeeded in examination, but not in obtaining appointments (there being only 17 vacancies), 5; rejected, 1. February, 1875: Total number of candidates, 11; succeeded in obtaining appointments, 8; succeeded in examination, but not in obtaining appointments (there being only eight vacancies), 2; failed in examination, 1.

*Examinations in Anatomy and Surgery.*—Mr. MACNAMARA moved:

"That, in the opinion of this Council, all examinations on anatomy should, as far as practicable, include the performance by each candidate of actual dissections; and that all those on surgery should include the performance by each candidate of two or more operations on the dead subject."

He thought that the terms of the motion were such as would render it acceptable to the Council. He had been astounded at the incidental remarks on the subject in a discussion on a previous day of the meeting, especially from gentlemen from whom he would have expected support. One of these was Dr. Allen Thomson, who, however, he hoped would agree with him. He would discuss first the desirability, and then the practicability, of his proposal. He believed that dissecting was a most valuable means of testing the amount of knowledge possessed by students of anatomy. Several of the reports of visitors showed that a candidate might give very flippant answers without having any knowledge of dissection. It was, he believed, more important that a student should be well grounded in anatomy than in any other department. There was scarcely another branch of medical education in which a man might not educate himself afterwards. Materia medica, of which he was a teacher, was a most important subject; but he could understand that a candidate might be admitted—if such a thing were possible—by a licensing board with very little knowledge of materia medica, and might afterwards make himself an accomplished therapeutist. He could always get at the necessary material. And every medical and surgical practitioner would acknowledge himself to be always a student. The practical teaching of anatomy had been enforced in many institutions. He had endeavoured to ascertain the effect on the students as regarded their attendance in the dissecting-room. He read a letter from Dr. Ledwich, in which it was stated that the attendance had greatly improved in consequence of the practical examinations in anatomy in Dublin. Dr. Ledwich said that "no enactment of the Council was ever attended with more beneficial results". The attendance of the anatomical students in the school of the Royal College of Surgeons of Ireland was also greatly improved. As to the practicability of the proposal, he thought it not impossible to carry it out. He had received a letter from the secretary of the Queen's University in Ireland, stating that 120 candidates were last year examined in anatomy; and similar information was obtained from Trinity College and from the Royal College of Surgeons in Ireland. He did not propose that the Council should absolutely enact that dissections should be made—only "so far as practicable". With regard to the part of his motion which referred to surgery, he could not understand any objection to it. Before a candidate was certified as capable of practising as a surgeon, it ought to be ascertained whether he could perform operations.

Dr. Pyle seconded the motion.

Dr. Rolleston agreed with Mr. Macnamara in principle. The members of the Council were at one as to the importance of practical examination. He would suggest, however, that candidates should understand that they would be liable to be called on to dissect and perform operations. He moved as an amendment, and Dr. Thomson seconded:

"That it is desirable that candidates in examinations in anatomy should understand that they may be called upon to perform actual dissections, and that candidates in examinations in surgery should understand that they may be called upon to perform one or more operations on the dead subject."

The amendment was carried *nem. con.*, Mr. Macnamara having expressed his approval of it.

*Recommendations of the Council.*—Dr. Parkes moved:

"That the registrar be directed to write to the several licensing bodies, and to inquire what steps have been taken to carry out the 17th, 18th, and 21st Recommendations of the Council in Section 5 (professional examination) of the 'recommendations and opinions of the General Medical Council, 1874'."

The recommendations referred to (17) class examinations; (18) the limitation and definition of the area of examinations on botany, zoology, chemistry, and materia medica; (21) the use of the microscope at examinations.

Dr. Apjohn seconded the proposal.

A discussion of a rather desultory nature followed, in which Sir Dominic Corrigan, Mr. Turner, Dr. Sharpey, Dr. Allen Thomson, Dr. A. Wood, Dr. Bennett, Mr. Macnamara, Mr. Quain, Dr. A. Smith, and other members, took part. Ultimately, the following amendment, proposed by Sir William Gull, and seconded by Dr. Storrar, was carried.

"That a letter be addressed by the Registrar to the several examining bodies, to inquire if they have any observations to offer to the Council on their recommendations respecting professional examinations, and to inquire how far they have been able to carry into practice such recommendations."

*Charge against the President of the Royal College of Surgeons of Ireland.*—A letter was read from Mr. R. Vandeleur Kelly of Mullingar, charging the President of the Royal College of Surgeons in Ireland (Mr. Joliffe Tufnell) with having furnished a Fellow of the College, who was an opponent of his (Mr. Kelly) in a contest for a public appointment, with information that Mr. Kelly had been unsuccessful at an examination before the College. The letter was accompanied by copies of correspondence on the subject. It was explained, in one of the letters, that the Fellows of the College had a right to be furnished with information of the proceedings of the Council.

Mr. Macnamara confirmed the statement, and said that the information furnished was such as could be demanded of right.

It was decided that the subject was one with which the Council could not deal.

*Examinations in State Medicine.*—The following letter was read, and, on the motion of Dr. Rolleston, seconded by Dr. Quain, was ordered to be entered on the minutes.

Anatomical Department, Museum, Oxford, Feb. 9th, 1875.

Sir,—I have been requested, as the representative of the University in the Medical Council, to lay the following resolutions before the Medical Council.

"*Extract from Report of Committee on Medical Education of the Hebdomadal Council of the University of Oxford.*—That it is expedient to provide, or to assist in providing, an examination in the subject called State Medicine, or Sanitary Science. That it is thought best that such a qualification should not be granted severally by different licensing bodies, but, like the qualification for general practice, should depend on an examination authorised by all, or as many as possible, of the licensing bodies acting conjointly."

"*Resolution of the Hebdomadal Council thereupon.*—That the Medical representatives of the University be authorised to inform the Medical Committee of Reference, and the Medical Council, that the Council has adopted the recommendations of the Committee, and is prepared to recommend corresponding action to the University when the proper time arrives."

I am, sir, yours faithfully, Geo. Rolleston,
Representative of the University of Oxford in the Medical Council.
To the President of the Medical Council.

*The Midwifery Science of the King and Queen's College of Physicians in Ireland.*—A letter from Mr. Ouvry, solicitor to the Council, on Miss Greenstreet's application to be registered, was read. It expressed an opinion adverse to her application.

Dr. Aquilla Smith moved, Dr. Allen Thomson seconded, and it was resolved:

"That the Medical Council, acting under legal advice, decline to register Miss Greenstreet."

*Report of the Finance Committee.*—The report of the Finance Committee was read, and on the motion of Dr. Rolleston, seconded by Mr. Bradford, was adopted.

The Committee stated that the income of the Council during 1874 had been £6,004 6s. 2d., a sum which exceeded the income of 1873 by £666 5s. 7d. The expenditure of the Council during the same period was £6,882 16s. 9d., a sum which exceeded the expenditure of 1873 by £1,757 13s. 8d. The expenditure of the year 1874 has exceeded the income of the year by the sum of £878 10s. 7d. A table was given showing the expenditure of the General Council during the years 1873 and 1874 under each head of expenditure, and also the increase and decrease under each item during 1874 as compared with 1873. The increase of expenditure during the year in certain items was £1,336 1s. 2d. Of this sum, £688 18s. 6d. was spent in reprinting the *Pharmacopœia* and *Additions*, an outlay which is in course of reimbursement. A second large item of expenditure was for house expenses, incident to coming into possession of the new premises. On the other hand, the table showed a decrease in certain items of expenditure to the amount of £262 7s., leaving a nett increase of expenditure, by the General Council, during the year 1874, as compared with 1873, of £1,073 14s. 2d.

*Index of the Minutes of Council.*—Mr. Turner moved, Dr. Aquilla Smith seconded, and it was resolved:

"That it be referred to the Executive Committee to employ an expert for the preparation of a general index of the first ten volumes of the *Minutes* of the General Medical Council, to be printed before the meeting of Council in 1876."

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### *Wednesday, June 23rd.*

A great part of the time of the meeting was occupied on this day with the discussion, in committee, of the reports of the visitors on the Universities of Dublin and of Durham, regarding both of which the ordinary resolutions were passed.

The Council having resumed, the adoption of the proceedings of the Committee was proposed and carried; an amendment moved by Dr. Allen Thomson, to withhold approval from the resolution calling the attention of the Royal College of Physicians of London to certain defects, being lost.

Letters were read from Miss Jex-Blake and two other ladies, on the subject of the admission of women to the medical profession; from Mr. A. T. Norton, regarding the medical school for women in London; and from Dr. G. E. Shuttleworth, advocating the registration of foreign degrees obtained by practitioners already registered.

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### *Thursday, June 24th.*

*Admission of Women to the Medical Profession.*—The Council commenced the discussion of the Report of the Committee on Mr. Simon's letter (see page 849). The following report was presented.

The Committee, having taken Mr. Simon's letter into consideration, recommend the General Medical Council to adopt the following as the reply to be sent to the Lord President of the Privy Council.

*a.* In reply to the communication addressed to them by the Lord President of the Privy Council, the Medical Council have to state that, being thus directly appealed to, they have felt bound to consider the question of the admission of women to the medical profession.

*b.* After deliberation, the Medical Council have to express their opinion that the study and practice of medicine and surgery, instead of affording a field of exertion well fitted for women, do, on the contrary, present special difficulties which cannot be safely ignored, and some of which cannot be obviated.

*c.* Instead of medicine offering more facilities and less difficulties for women than other professions, the Medical Council believe, that as the whole question is looked into, there will be found peculiar hindrances, moral and physical, to the successful pursuit of medicine by women. Moreover, they desire to add that if it be admitted that women should enter the medical profession, the existence of an equal fitness in women for other learned professions must be assumed.

*d.* If, notwithstanding such objections, it should appear to the Government and the Legislature expedient that women, who desire to obtain the legal status as medical practitioners in this country, should not be debarred from obtaining that status, the Council recommend that it should be under some such conditions as the following :

1. That in the interests of public order the education and examinations of female students of medicine should be conducted entirely apart from those of males.

2. That, with regard to the examination rules, or conditions, which prevent women from obtaining a legal status as medical practitioners in this country, it would be sufficient if an Act of Parliament were passed which should enable the Medical Council to recognise the examinations of the licensing bodies under schedule (A) of the Medical Act, separately or conjointly, or such other examination or examinations as the Medical Council may, from time to time, deem sufficient, for the purpose of granting admission of women to the medical register.

3. That the examinations of female candidates for a license entitling their names to be placed on the register, should be of the same character as those of males.

4. That the education and examinations for these licenses should be under the supervision of the Medical Council in the same way as is required for the other licenses of this country.

*e.* As to other than mere legal difficulties which prevent women from accomplishing their wish to engage in the practice of medicine and surgery, the Council are of opinion that such difficulties must be overcome by private exertions, and that no special legislation is called for except, perhaps, in the case of midwifery. Moreover, the Council are of opinion that any course of legislation which would interfere with the free action of the universities and corporations mentioned in schedule (A), in respect of the medical education of women, is undesirable.

*f.* It is understood that there are women who would prefer to have a special qualification, and to be entered on a special register, recognising their competency to practise midwifery. The Council believe that the education and examination of persons with such views will not be found to differ greatly, upon the whole, from those required of candidates for ordinary licenses to practise. Nevertheless, women might be fit for registration on a special register, without passing examination, in various parts of surgery and, indeed, of medicine. The decision of this question of a special register does not affect the question of admission of women to the general register, but would require an alteration in schedule (D) of the Medical Act.

*g.* In regard to Mr. Cowper-Temple's Bill, the Council cannot approve of a measure intended to confer on women the privilege of registering certain foreign degrees, from which, under Clause XLVI of the Medical Act, men are debarred, and over the education and examination for which the Medical Council have no means of exercising that supervision and control to which all the licensing bodies of this country, whether universities or medical corporations, are subjected.

It is right to observe that the Committee were not unanimous on some of the propositions in this report.

WM. TURNER, *Chairman.*

Sir DOMINIC CORRIGAN, a member of the Committee, presented the following as the answer proposed by him to be sent to Mr. Simon.

SIR,—The first part of the letter expresses a desire that His Grace the Lord President of the Council should be favoured with the views of the Medical Council on a Bill introduced by Mr. Cowper-Temple "to amend the Medical Act of 1858 so far as it relates to the Registration of Women who have taken the Degree of Doctor of Medicine in a Foreign University".

In reply thereto, I am directed to observe that the Council cannot approve the Bill, seeing that it would propose to confer on women the privilege of registering foreign degrees, from which privilege men under the Medical Act, 1858, are excluded, and in the opinion of the Medical Council properly excluded, for this reason, that the Medical Council has no means of exercising over foreign degrees and their holders the supervision and control to which all the licensing bodies of this country, universities, and corporations, and the holders of their degrees and licenses, are subject under the Act of 1858, which supervision and control are most necessary on social, moral, and professional grounds.

The second part of your letter resolves itself into two questions. Firstly, "Whether women ought to be able to look to medical practice, or certain branches of it, as open to them equally with men as a profession and means of livelihood". The branches are not enumerated, but the question as to women "looking to certain branches of medical practice as open to them equally with men", may be considered, the Council suppose, as specially referring to midwifery. On this, the Council have to observe that, by established usage, women from the earliest times have practised midwifery ; that in Ireland the Local Government Board recognises the right of women to practise midwifery, and pays them out of the poor-rates ; that they are recognised as most useful officers, and that the Poor-law medical officers throughout the country are very generally most desirous for their continuance. It may then be taken as admitted that this branch of the profession should be open to women as at present, but the Medical Council are of opinion that certificates of competency, or license to practise this branch of medical practice should be only issued after examination by Colleges of Physicians or of Surgeons or Universities, and not received, as at present, too generally from other sources.

The second point is, that the Council should discuss as fully as possible the general question of admission of women "who desire to obtain legal status as medical practitioners in this country", and favour His Grace with their observations upon it, as well as upon the examination rules, and conditions which prevent them accomplishing their wish.

These are very wide questions. The Medical Council was appointed under the Medical Act of 1858, and the members of it, with the exception of those nominated by the Crown, were appointed to carry out the provisions of that Act. The questions now put in the letter have not been considered by the Council. In 1873, a report was drawn up on special education of women, but the Medical Council took no action in it. It appears to have been allowed to drop by common consent. The members of the Council do not, therefore, feel authorised in expressing a decided opinion without first submitting the matter to the consideration of the several licensing bodies whose representatives they are ; and if it seem fit to the Lord President that the members of the Medical Council should obtain the views of the licensing bodies whom they represent, they will, as soon as possible, obtain the information for the Lord President.

The Council may, in the meantime, append these observations.

1. They are aware that there exists a diversity of opinion in the profession, and among the licensing universities and corporations, as to the admissibility of women to general medical practice.

2. There appear to exist very great difficulties with regard to the details of education and examination of women desirous of entering the medical profession, on social, moral, and professional grounds ; and it does not appear that the Council can at present do more than bring the whole subject under the consideration of the licensing bodies of the United Kingdom, and obtain their views as to the admission of women "who may desire to obtain legal status as medical practitioners", or to practise certain branches, and also the information desired by the Lord President as to "the examination rules or conditions which prevent them from accomplishing their wish", and then forward the communications to the Lord President with such observations as the Council may deem it necessary to add.—I am, sir, etc.

Dr. ANDREW WOOD also proposed a reply to Mr. Simon, which agreed mainly with the report of the Committee, but contained some additional paragraphs and omitted one or two of those in the report.

Dr. RISDON BENNETT also laid on the table a letter which he proposed as a substitute for that of the Committee.

Mr. TURNER moved, "That the report of the Committee be received and entered on the minutes". He said that the Committee had arrived at the conclusions under a deep sense of the responsibility of the task imposed on it, and not hastily. Two important questions were brought before it in Mr. Simon's letter. First, there was Mr. Cowper-Temple's Bill. There was no doubt that the consideration of this fell within the legitimate province of the Council. The Committee had no difficulty as to considering this, and in arriving at a conclusion on it unanimously. Secondly, there was the general question of the admission of women to the medical profession. As to this, there was naturally room for greater difference of opinion. The opinion was expressed in the Committee, and was held by Dr. Storrar, that the matter did not come within the province of the Council. No doubt this was technically correct; but the question was whether, notwithstanding the mere technicality of the Act, they should not take into consideration a question directly submitted by a department of Government, and whether it would not be a breach of courtesy to decline. If they declined this, they were not likely to be called on again to give an opinion. The Committee then thought themselves bound to say something on the subject. Another preliminary question arose, which had been embodied in a motion by Sir Dominic Corrigan, that the subject should be referred to the various licensing bodies The Committee thought that this would be practically shelving this question for a year. The Lord President did not ask for the opinion of the licensing bodies, but for the opinion of the Council. Having decided on taking up the question, the next point was the question, Should women be admissible to the profession? This was much discussed ; and it was decided to recommend the paragraphs commencing "After due deliberation", and ending "must be assumed". He would give one or two reasons of his own for approving of these paragraphs. He would not say a word to offend or to depreciate the opposite sex ;

but some general facts had been too much ignored in discussing this question. He had heard it stated that man and woman were alike, and that they had no special spheres. All this he regarded as idle talk. No specious reasoning would break down physiological distinctions. Each sex had its excellencies, and each was the complement of the other. The physical framework of woman was less strong than the framework of man. The average difference in weight of the brain in the sexes was ten per cent. in favour of the male, and this implied less capacity for concentration of thought and prolonged exertion. Moreover, in woman the emotional feelings preponderated; and this was one of her most valuable characteristics, and made her such an excellent helpmate. But these unfitted her for the performance of the duties of the medical profession, which required the exercise of logical faculties. He was not aware of the name of one woman in connection with any scientific discovery. It might be said that all men did not possess the logical faculty, but limited themselves to facts. He admitted that there were many such men in the medical profession; but he doubted whether the introduction of a new element in which this faculty was not proved to exist would be for the advantage of the profession. It seemed to the Committee that the medical profession was rather unfairly made the battlefield on which the question of the equality of the sexes should be fought out. Such were the objections; but, if the Government should decide on admitting women, it would be for the Council to recommend in what way it should be carried out. As to the proposal of separate education from males, he need scarcely urge anything in its favour. As to the second recommendation, it was a very difficult and important question whether women should be admitted to the ordinary degrees and diplomas, or registered, under special titles. To allow them ordinary degrees and diplomas would give them rights which it was beyond the province of the Council to deal with. The recommendation *c* was inserted, as the majority of the Committee thought that there should be a security against admitting imperfectly qualified persons. As to the other questions—the provision of schools, teachers, etc.—the Council felt that, as in other cases, these should be left to private exertion. Referring to the paragraph referring to the Universities, he said this was felt to be very important. The paragraph relating to the registration of midwives, agreed closely with the report of a Committee in 1873. The proposal for the reception of the report was seconded by Mr. Quain, and carried. Mr. Turner then moved, and Sir W. Gull seconded, that the Council resolve itself into committee for the consideration of the report. Dr. Storrar moved an amendment, to the effect that the discussion of the question was beyond the functions of the Council. He did not differ essentially from Mr. Turner, but differed as to the expediency of taking up the matter at all. The Medical Council was appointed for purposes defined by the Medical Act. He held that the Council had no authority to discuss any question outside registration and education, and the formation of the *British Pharmacopœia*. He did not think that it should be regarded as a compliment to the Medical Council that the matter was referred to them. It was rather a bone of contention. If the Council got entangled in the question, it would probably be at loggerheads with the examining boards. If the Council decided on letting women into the profession, they would give offence; and if they decided against them, they would be accused of trades-unionism. The Council had never declined to register women. Dr. Storrar's amendment was seconded by Dr. Allen Thomson. He thought that, if the licensing bodies could not settle the question, it should be settled by the legislature. Dr. Rolleston said that the licensing bodies had taken no step between 1858 and 1875, during which time great writers had been forcing the subject on the public and on the legislature. The legislature was going to act, and had acted with wisdom in coming to this Council for advice. He held it to be the duty of the Council to consider the question. He urged the members not to run away from their duty. Sir William Gull opposed the amendment, and considered that Dr. Storrar took too narrow a view of his duties as a representative. The Council was called on not only to make the *Register*, but to determine what it should be; and this took in the whole question of the admission of women. If the public wished to consult women, the Council were bound to consider in what way this could be done most safely. The Lord President of the Privy Council had himself told Sir William this morning that he was much interested in the matter, and would be happy to consult with the Medical Council on it. The question was not one for the corporations merely. Dr. Quain thought that Dr. Storrar was right that in law the matter was beyond the Council; but it was a question of expediency that an answer should be sent to the Lord President's letter. He would, therefore, vote against Dr. Storrar's amendment. Dr. Andrew Wood differed from Dr. Storrar altogether. He was not a delegate, but had perfect liberty to deliberate on all matters. He thought that the Government had treated the Council with more deference than previous ones had done; and should the Council decline to give the advice asked, merely because the question was not strictly within the province of the Medical Council? Sir Dominic Corrigan approved of the first part of Dr. Storrar's amendment, but did not think the Council should altogether preclude itself from considering the question. He would have it first referred to the licensing bodies. Mr. Macnamara thought that clause 18 of the Act gave power to the Council to consider the question. Dr. Sharpey would vote against the amendment. The functions of the Council was not restricted to carrying out the Act; for the Council could propose amendments of the Act, and had already done so. The amendment was lost by a large majority. On the motion of going into committee being put from the chair, Sir Dominic Corrigan moved his report as an amendment. As to Mr. Cowper-Temple's Bill, the Committee had been unanimous in disapproving it. He thought that the question whether women should be admitted to certain parts of medical practice had not been sufficiently noticed by the Committee. Had the Committee sufficiently answered the question as to the conditions which prevented women from accomplishing their wish to enter the profession? Instead of this, the Committee laid down a series of rules for which they had not been asked. He was bound to consider the question, but not on a short notice. He urged that the matter should be referred to the several licensing bodies. He thought that the Committee had come too suddenly to an opinion as to the difficulties in the way of the practice of medicine by women. He thought that, instead of making recommendations as to the mode of admitting women to the medical profession, the proper duty of the Council would be to say that they could not be a party to agree to any measure having that object. He did not think the report of the Committee worthy of the Council, nor that it could be amended. There was no necessity for any extraordinary hurry for taking up the question at this time. He did not think that delay for the purpose of communicating with the licensing bodies was disrespectful to the Privy Council. Dr. Aquilla Smith seconded Sir Dominic Corrigan's motion, and criticised the report of the Committee as containing contradictions. As to the third recommendation, would one examine females in syphilis? Dr. Andrew Wood reminded the Council of the question actually before them, and thought that some of the speakers were wandering from the subject. It would be absurd to say there had not been time to consider the subject, which had been under public discussion for years. Sir W. Gull said that the question was not one affecting the universities and corporations, none of which might take it up unless they pleased. But the Council had to do with it. Sir Dominic Corrigan's amendment was lost by a large majority. Dr. Andrew Wood said that he should bring forward his proposal in the form of amendments on the several paragraphs of the report. Dr. Risdon Bennett read a form of reply prepared by him. The Council then resolved itself into Committee; and Mr. Turner moved, and Sir William Gull seconded, the adoption of the first three paragraphs, *a*, *b*, and *c*. Dr. Parkes moved their omission; he objected to paragraphs *b* and *c*, as expressing either too much or too little. As to the difficulties mentioned in paragraph *b*, there were women in practice, and the Government would have to refer it back to the Council, to know what was meant. Besides, he did not know what the special difficulties were; and in some departments of practice, women were superior to men. As to paragraph *c*, he objected strongly to it. It was a *non sequitur* to say that there were hindrances in the way of women entering the medical profession, and at the same time to intimate their fitness for other professions. Dr. Bennett seconded the amendment. Dr. Humphry agreed that the report should not enter on the physical disabilities of women. Sir William Gull hoped the paragraphs would not be obliterated, but amended. Dr. Andrew Wood supported the retention of the paragraphs. Mr. Quain believed that the subsequent proposals would not be accepted, unless with the preamble contained in the report. Dr. Rolleston opposed the amendment, and intimated his intention of moving that the paragraphs be remitted for consideration. The proposal for the omission of the paragraphs was carried by a majority of 16 to 5, and was put as a substantive motion. On this, Dr. Macnamara moved that Dr. Bennett's letter be considered in place of the report of the Committee. Dr. Storrar suggested that this was an amendment that could not be entertained, and was supported by the President. Dr. Rolleston proposed that the report be remitted, and reconsidered with reference to Dr. Bennett's letter. Mr. Turner said there would be great difficulty in accepting the remaining portion of the report. The report was remitted to the Committee, to which Dr. Bennett was added.

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DONATIONS.—The building fund of the City of Dublin Hospital has received £50 each from Mr. John Robinson, Mr. Archibald McComas, and Mr. Hogg.

## BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1875.

SUBSCRIPTIONS to the Association for 1875 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, JUNE 26TH, 1875.

## THE EDINBURGH MEETING IN AUGUST.

WE print this week in another column the programme of the approaching forty-third annual meeting of the British Medical Association in Edinburgh, which will take place in the first week in August, under the presidency of Sir Robert Christison. It is now seventeen years since the Association met in Scotland under the presidency of Dr. W. P. Alison. It comes back fourfold more numerous; numbering, indeed, a full third of the profession in the three kingdoms, and with a roll illustrated by the names of the great majority of the leading practitioners of the three kingdoms. Its organisation has been amply tried by time; and from that truest and most severe of tests, it has emerged vigorous, earnest, and with constantly growing power and popularity. Deeply rooted in the representative principle, and drawing its powers and usefulness from the spontaneous growth of local professional adhesions, it is not so much a body added to the profession, as itself an organisation of the previously scattered and disunited forces of the profession. It aims at the elevation of the standing of the profession, at the diffusion of knowledge by small local meetings in districts; by larger occasional meetings of Branches in united organisation, and by annual meetings at which the delegates of the local bodies can meet for certain combined administrative purposes, for the discussion of questions previously matured in branches and committees, which require the decision of the whole, for the celebration of a sort of annual festival of friendly intercourse and good fellowship; for the purpose of listening to annual addresses by men of eminence on the progress of the medical sciences, and for the debate in sections, of papers discussing things old and new in medicine and its collateral departments.

Of the strength that lies in union it is hardly necessary to speak; nor of the universal agreement by which the tendency of men to act in concert, and to seek inspiration, force, and direction for their work and thought by mutual conference, has in our time led to the multiplication of congresses. The British Medical Association, which is one of the oldest, is now also, perhaps, the most conspicuous example of success in professional association. Scientifically, professionally, and financially, it rests upon a broad and assured basis. Its success, however, has been most remarkable during the last decade; and we have every reason to anticipate that this Scottish meeting will maintain and add to that steady and successful growth of the Association in usefulness and numerical strength which the last few years have seen.

The presidency of the Chieftain of Scottish Medicine is in itself an augury of success. The addresses of Dr. Warburton Begbie, Mr. Spence, and Dr. Rutherford, will be looked for with great interest, and the certainty of their intrinsic value. Dr. Lyon Playfair, Dr. Quain, Professor Lister, Dr. Matthews Duncan, Dr. Lowe, Dr. Burdon Sanderson, as presidents of sections, have already before them the prospect of excellent material for sectional work in the unusually good list of papers sent in to the secretaries at this early date. The letter of our Edinburgh correspondent speaks of some further attractive features of the programme. Arrangements are being made for making the special scientific work of the Edinburgh School available for demonstration; the *conversazioni, fêtes*, and excursions, which are always anxiously scanned by a good many, to whom a congress is partly a holiday, need cause no anxiety in Edinburgh. The official arrangements include a full list of entertainments for the available hours of play. The beauties of the spot and its surroundings, and the intrinsic attractions of the modern Athens, are widely known. It should be mentioned that the 1st of August is Graduation day at the University; and although the annual meeting does not begin before the 3rd of August, no doubt a great many old graduates will anticipate their visit a little, so as to be present at what is always one of the most interesting ceremonies in the calendar of their Alma Mater.

It may be well to remind some of our readers that only members of the British Medical Association are admitted to its annual and other meetings; and that, as the process of election implies always a certain delay, it is desirable that as many as possible of those who propose to introduce members, or of those who, not being members at present, desire to become so before the annual meeting, should at once forward their applications at the present half yearly term. Some trouble is caused by the delay of new members who desire to attend the annual meetings, and occasionally they delay so long as to render it impossible to arrange the proper papers for their enrolment before the commencement of the meeting.

Seeing the pressure which the meeting this week of the Medical Council and other matters put upon our space, we must defer or omit the sort of brief review which we generally give at this date of progress during the past year. The Association now numbers nearly seven thousand members. The weekly circulation of the JOURNAL very considerably exceeds that of any other medical paper published in Great Britain; it is posted to all members for the annual subscription of a guinea, notwithstanding that it has this year again been permanently enlarged by an extra four pages to meet the constantly growing demands on space of an ever-widening constituency. The formation of Branches in Scotland of late years, and the steady increase in the number of our Scotch members, have led us for the last two years to devote space, such as no other weekly journal attempts to give, to the regular report of the valuable proceedings of the Medical Societies of Edinburgh and Glasgow, as well as the collection of Scottish medical news; while our own Branches in Scotland, and our distinguished members there, have largely supplied our pages with valuable records of Scotch practice and scientific research. We shall of course persevere in the endeavour to represent not less faithfully now than heretofore the scientific and clinical activity and the social and professional interests of our Scottish members. During the last few months, they have been increased in numbers by several hundreds, and in the course of the next few weeks we shall probably welcome as many more. The steady progress of the Association has, indeed, been such as to warrant the hope that at no distant time the whole working profession will practically be bound in ties of friendship and co-operation through the influence of the local and general organisation of this great Association; and it will be the realisation of our proudest wish when it can be said that the British Medical Association is in one sense the profession organised, united, and powerful; and that this JOURNAL continues adequately to fulfil its mission as the representative organ and mouthpiece of the best activity, the highest aspirations, and the noblest work of the whole profession, united by its aid throughout the three kingdoms in constant weekly intercourse and association. To this end, we believe the approaching meeting, by knitting closer the bonds of union and of personal and scientific communication between English, Irish, and Scottish practitioners, will largely and healthily contribute.

## THE GENERAL MEDICAL COUNCIL: SESSION 1875.

In another part of this week's Journal, will be found a report of the proceedings of the Session of the General Medical Council down to the time of our going to press.

A large share of the time of the meeting has been occupied in the discussion of the reports of the visitors of examinations. These had been made, as was the case last year, each by two visitors, one being a member of the Council, and the other chosen by the Executive Committee from outside the Council. The examinations reported on were the following: Royal College of Physicians of London (pass examination for license), by Dr. Fleming (member of Council) and Dr. J. K. Barton of Dublin; ditto (pass examination for membership), by Dr. Humphry (member of Council) and Dr. Douglas Maclagan of Edinburgh: Royal College of Surgeons of England (primary examination for membership), by Dr. Fleming and Dr. Barton; ditto (pass examination), by Dr. Parkes (member of Council) and Dr. Struthers of Aberdeen: University of Oxford (first M.B. examination), by Dr. Risdon Bennett (member of Council) and Mr. Henry Power; ditto (second examination for M.B.), Dr. Aquilla Smith (member of Council) and Dr. P. Heron Watson of Edinburgh: University of Cambridge (examination for M.B.), Dr. Aquilla Smith and Dr. P. H. Watson: University of Durham (first examination), Dr. Storrar (member of Council) and Dr. Struthers of Aberdeen: Universities of Aberdeen, Edinburgh, and St. Andrew's, each by Dr. Humphry (member of Council) and Dr. A. W. Barclay: University of Edinburgh (final examination), Dr. Humphry and Dr. A. Wynne Foot of Dublin: King and Queen's College of Physicians in Ireland, and Apothecaries' Hall in Ireland, each by Dr. Risdon Bennett and Mr. William Stokes: University of Dublin, by Dr. Haldane (member of Council) and Mr. G. Busk.

Before these reports were taken into consideration, a copy of the remarks made by the licensing bodies on the reports made by the visitors to the last meeting of Council was presented, and referred to a Committee for consideration.

In the case of the reports presented at this meeting, it was agreed that a copy of each of them should be sent to the body concerned for consideration and remarks. In several instances, this was done with little or no discussion, while in other cases some debate arose on points to which attention had been directed in the reports. An observation in the report on the University of Oxford "that no regular dissection of a special region was required", called forth a discussion on the question whether it was necessary or possible that each candidate should be required to perform dissection in the presence of the examiners. There was an unanimous feeling on the part of the Council that a knowledge of anatomy was of the highest importance; but opinions were divided as to the possibility of insisting on dissection in every instance. The discussion somewhat anticipated a motion which Mr. Macnamara had placed on the programme, and which he brought forward on a subsequent day, to the effect that, *so far as practicable*, every candidate should be required to dissect and to perform surgical operations on the dead body. Ultimately, a resolution was passed, to which Mr. Macnamara expressed his assent, that the Council would recommend that all candidates should understand that any of them may at an examination be called on to show their knowledge of practical anatomy and surgery. It is believed that this will ensure attendance in the dissecting-room, as no one will know that he may not be the candidate called on to dissect.

The report on the University of Edinburgh opened the question of non-professorial examiners, the question apparently being whether the system was carried out in all cases so completely as was intended by the Council. The discussion elicited some information on the practice in the several universities, which will be found in our report of the proceedings.

The visitors of the University of St. Andrew's, in their report, called attention to the system under which, at present, ten medical practitioners may be yearly admitted to the degree. The plan, as at present followed, does not find much favour with them. They advise that the number should be increased, and "a selection made upon well defined grounds of professional distinction, and the possession of such superior knowledge as may be indicated by an examination of a higher order".

When the report of the visitors of the Royal College of Physicians of London was brought under consideration, Sir William Gull called attention to the remarks made on the insufficiency of the clinical examinations, at which, it was reported, only one examiner was present. He proposed an addition to the ordinary motion, calling the special attention of the College to the defect, and to certain deficiencies in the department of medical jurisprudence. This proposal gave rise to some discussion, in the course of which several members expressed their confidence that the matter would be laid before the College by its representative Dr. Bennett; who, indeed, informed the Council that he had already to some extent done so, and that the subject would be brought forward at the first opportunity. Sir W. Gull's proposal, however, was carried by a majority of one.

A similar course was followed by Sir William Gull with reference to the clinical examination at the Royal College of Surgeons of England —he holding that the examination of patients brought to the College was not a sufficient clinical test. He also called attention to the absence of examination in chemistry and materia medica, although these subjects are in the curriculum, and proposed a motion calling the special attention of the College to these defects. The motion was negatived, as was also a similar one proposed by Sir W. Gull in regard to the Apothecaries' Hall of Ireland. Subsequently, when the report of the Committee was brought before the Council for adoption, Dr. Allen Thomson moved, but without success, the omission of the resolution passed regarding the deficiencies in the examination of the Royal College of Physicians of London.

There is a general recognition on the part of the Council of the great value of the visitations and of the improvements which have arisen from them. At the same time, it is perceived, that the process of visiting all the examinations yearly is attended with expense beyond the means at the Council's disposal, and is moreover, now that information as to the practice of the several bodies has been obtained, scarcely necessary. The Council have, therefore, decided that the visitations shall be continued, but that only some of the licensing bodies shall be visited each year. The mode of carrying out the visitations is left in the hands of the Executive Committee, to whom also are referred a suggestion by Dr. Sharpey, that the bodies not visited shall be asked to furnish certain information as to their examination; and one by Mr. Macnamara that, so far as practicable, visitors should report on examinations in other divisions of the kingdom than that in which they are resident.

In the course of the meeting, some important correspondence with departments of the Government has been laid before the Council. At page 848 will be found an extract from Dr. Acland's letter to the Registrar-General, containing recommendations as to the form of certificates of death; and also a copy of a letter from Dr. Acland to Mr. Cross on the question of the conduct of prosecutions by the Medical Council. There was also read a letter from Dr. Acland to the President of the Local Government Board, on the qualifications of Poor-law medical officers, or of practitioners called in consultation by them in certain cases. In the course of the session, the president read to the Council a communication from the Secretary of the Local Government Board, announcing that the former order had been cancelled, and a new one issued in accordance with the policy of the Medical Act.

An application from Matthew Bass Smith, whose name was erased a few years ago on account of gross misconduct, that he should be again allowed to register was rejected; and the names of two practitioners convicted in Ireland for conspiracy to defraud were erased.

A communication from the Counsel to the Speaker of the House of Commons, on the subject of repealing certain portions of the Medical

Act which were unnecessary or supposed to be so, was referred to a small committee, the report of which has not yet been disposed of.

An application was received from Miss Ellen Greenstreet, to be allowed to register a license in midwifery received from the King and Queen's College of Physicians in Ireland. It appeared that the education and examination were only such as to qualify her to act as a midwife and nurse; and, on the advice of Mr. Ouvry, solicitor to the Council, the application was refused.

The report of the Finance Committee shows an increase of income amounting to £878, and of expenditure amounting to £1,073 in 1874, as compared with 1873. The increased expenditure has in great part arisen from the expense of printing the *Pharmacopœia* and *Additions*, and also from the charges incidental on coming into possession of the new premises.

On Thursday, the Council commenced the discussion of the report of the Committee on Mr. Simon's letter regarding the admission of women to the medical profession. It will be seen that, in addition to the report of the majority of the Committee, signed by Mr. Turner as Chairman, two separate reports were presented by members of the Committee—Sir Dominic Corrigan and Dr. Andrew Wood. Sir Dominic's report, which we print in full, is a totally distinct one from that of the Committee. Dr. Andrew Wood has taken the report of the Committee as the basis of his own, and has made some omissions, additions, and verbal changes in it, which do not materially alter its tenor. We shall give a full report of the discussion on this interesting topic in next week's JOURNAL.

## THE DIAGNOSIS OF DRUNKENNESS.

THERE is still another case in which it is asserted that from an error or doubt in diagnosis a man really fatally ill has been locked up as "drunk and incapable". The case is reported in the newspaper, with a penny-a-liner's careless indolence, under the stereotyped heading "Drunk or Dying". The man may have been drunk, but he could not have been dying when in the hands of the police, as he lived six weeks, and died from meningitis, the *indirect* result of the injury. We shall speak very generally of but one or two things, and of those only from a clinical point of view.

For a correct account of the affair, we refer to Dr. Andrews's letter; the newspaper report contains at least one blunder—June 4th for May 4th—a gigantic blunder in such a case as this. In fact, the case, as represented by Dr. Andrews, is ludicrously different from it as given by the newspaper. It is only fair to state that the following critical remarks are in no sense intended to bear on his conduct. His letter completely exonerates him, although he very generously writes apparently with the chief object of exonerating the police.

A man, forty-seven years of age, fell down in the street. His head was bleeding when the policeman reached him. After being charged as drunk and incapable, he was locked up. Dr. Andrews believed him to be drunk, and yet treated his wound carefully. Four hours later, he was sent to the St. Pancras Infirmary, where he died six weeks afterwards.

We would remark of this case, or rather of such a case, that supposing it to have been quite certain that the man was drunk when he fell, it would have been by no means an impossible thing for him to have hæmorrhage into the arachnoid "cavity" as a consequence of the fall; for this variety of intracranial hæmorrhage will result even from very trifling injuries; and the fall of a drunken man is not a trifle. It is a matter of satisfaction that Dr. Andrews, probably having in mind the contingency of which we speak, treated the man as a patient, and did not leave him to be treated by the police as a criminal. In such a case, to dress the wounds and to keep the patient quiet is all that can be done. The man, however, died of "chronic inflammation of the membranes of the brain". Any clinical observer knows that what appears as a very slight injury to the head, occasionally leads some time later to meningitis or cerebral abscess. And any good clinical observer knows, too, that no one can predict such an issue at the time of the slight injury; he could, at the best, only say it was possible, and, disregarding tautology, would insist that it was improbable.

There are two other points in the life-history of the case which may serve for further general remarks. We wish to insist that such a fact as that the man was able to walk to the station-house when helped, does not invalidate the possible existence of fatal intracranial mischief of several kinds, notably meningeal hæmorrhage. The police thought the man was drunk because he gave a wrong address. That even the laity should consider this as evidence in favour of drunkenness in particular surprises us. Probably the conduct of the police is as much misrepresented as that of Dr. Andrews. A man who is fatally ill from intracranial hæmorrhage may, at the early stage of that illness, reply to simple questions—may even struggle and swear. But we urged all this very strongly about a year and a half ago, and as positively as we could find words to do it in. We despair of being able to do it more effectually. The coroner has thought it an useful proceeding to apply the adjective "atrocious" to the conduct of Dr. Andrews. This strikes us as being a rather strange preliminary to the institution of the intended "rigid inquiry". Of the doctor's share in this unhappy affair we have no reason to be ashamed. He treated the man kindly, as well as skilfully.

We are glad to have Dr. Andrews's letter, as it puts an entirely new face on the matter. Nevertheless, it does not at all follow that he will escape blame. Sam Weller's feeling, expressed in the statement that "*Somebody* ought to be wopped for this", is a deep emotion in the mind of the average intelligence, and seems to find appropriate expression in the court of the Coroner for Central Middlesex. We protest, however, that Dr. Andrews ought not to be the victim of the activity prompted by this emotional state.

THE Social Science Association will join the Statistical Society this year in a dinner at Willis's Rooms on the 29th instant.

THE Queen's proposed visit to Aldershot is stated to have been indefinitely postponed, in consequence of the prevalence of scarlatina in the camp.

A LETTER by Harvey has been discovered by Dr. J. H. Aveling. It was found among the Clarendon papers, and is, if the memorandum at the back of Dr. Ward's letter be excepted, the only letter in Harvey's own hand known to exist. This interesting memorial is to be printed in the July number of the *Obstetrical Journal.*

MR. HAVILAND's next lecture on Public Health and the Geography of Disease at St. Thomas's Hospital, will take place at the Medical and Surgical College Lecture Room on Tuesday, the 29th instant, at 1 P.M.; subject, The Geographical Distribution of Fevers in England and Wales.

STRONG language is not always the evidence of strong intelligence: it is rather characteristic of a naughty little boy who has been chidden on all hands for using bad language, to declare with a gesture of defiance, "I don't care; and I will do it again". Dr. Hardwicke, having on a former occasion most foolishly and unjustly pronounced the conduct of one of the medical officers of the University College Hospital to be "atrocious", under circumstances which were plainly such that men of the greatest clinical skill and experience might have been similarly misled, meets the universal and weighty reprobation which his precipitant judgment encountered by taking the first opportunity of repeating the epithet as applied to another medical man. With his usual good luck, Dr. Hardwicke is not only violent, but wrong. Having succeeded in bringing his office under a cloud with the public and the Government by a great lack of discretion in the case of Sir C. Lyell, he seems now determined equally to discredit it with his profession. Mr. Wakley and Dr. Lankester did a great deal to make medical coroners acceptable and useful; Dr. Hardwicke is doing a great deal to make them ridiculous and impossible. He might at least learn from a rather sharp though short experience of public disfavour to cultivate the virtues of modesty and silence. A coroner need not always make a speech or anticipate the result of "a rigid inquiry" by the enunciation in offensive language of a foregone conclusion.

THE present session of the Medical Council has been marked by a very earnest and satisfactory attention to business, and promises to be in some sense memorable. We report the first few days' work in abstract, as it belongs rather to the nature of committee business, and involves mainly a continuance of the steady pressure by which the General Council is gradually advancing the standard of medical examinations throughout the country. Pending readjustment by unification, it could hardly be more usefully employed.

IN the discussion on the important questions of principle involved in Mr. Simon's letter, as to the admission of women to the register, the Council is advancing to a larger debate, and must treat it with a certain statesmanlike breadth and liberality, if it is to maintain its high character and pretensions to influence with the Government and the nation. In the report of the very able and representative committee to which the task of framing a reply was committed, may be seen all the signs of a wise moderation, and of the judicious spirit of compromise with which such thorny questions should be handled in order to be successfully settled. In the debate on Thursday afternoon, there were strong indications of the parochial feeling which has often pervaded the Council's debates. One was for shirking altogether from answering the questions of the Lord President; another for "remitting the subject to the corporations". The clear and well pitched argument of Mr. Rolleston and Sir William Gull effectually demolished these rather thin attempts to shelve the question which the Council was called upon to grapple. The mind of the Council responded sympathetically to the larger view, and a rather verbose discussion on powers of delegation ended, the debate on the main issue was initiated. Meantime, the speeches of Sir William Gull, Dr. Rolleston, Dr. Parkes, and Dr. Humphry, clearly showed which way the master minds of the Council tended, for incidentally they developed an unhesitating liberality of view, and, while by no means omitting from consideration the difficulties which will always prevent more than a limited number of women from entering on the practice of medicine, they declared unequivocally in favour of the removal of the artificial obstacles by which at present those who are able to overcome "physical and moral hindrances" are unfairly handicapped. The discussion was, however, once more drawn off into a wearisome verbal debate by the introduction of a proposed letter by another member of Council, intended as a substitute for the very careful and able report of Mr. Turner's committee. That letter, incorrect in substance and ill-worded as it was, acted as a red-herring over the trail, and the discussion once more wandered. It will, we hope, be resumed on a more satisfactory basis.

IT is in contemplation at the Royal College of Surgeons of England to arrange for the delivery of a certain number of lectures on ophthalmology. There can, we think, be no doubt that the suggestion—not now made for the first time—is a good one. This department of surgery may fairly be said to require at least as much special cultivation as dermatology, which has been provided for at the College. It is, indeed, a subject of much greater complexity, and one which has always been held to occupy a separate province in the wide domain of surgery. Mr. Brudenell Carter of St. George's Hospital has been nominated for the purpose, and his name will be submitted. There are, of course, other names which occur, of senior men, who might fairly expect precedence in such a post, if they were willing to accept it. Among them are those of White Cooper, Critchett, Hulke, Wordsworth, Liebreich, Soelberg Wells, Lawson, Streatfeild, Haynes Walton, Power; and we are not aware whether those gentlemen have been applied to for the purpose of ascertaining whether they would be willing to undertake these duties. But of the younger school of ophthalmologists, Mr. Carter is, both in a practical and in a literary sense, a very able representative. The usual method adopted in such cases is first to ask the Council to affirm the principle, and then subsequently to submit two or three names for selection. That method has, we believe, been departed from in the present instance. It is a question, whether such a mode of proceeding is not likely to lead to ill-feeling and to cover injustice.

WE have omitted lately to chronicle three of the more interesting *conversazioni* of the season—those of the Royal College of Physicians of London, University College, and the Odontological Society. The two former were in every way as successful as the agreeable precedents of former years would lead one to expect. The College of Physicians has adopted an excellent custom in these annual *réunions*, and one which its members find so agreeable that they will not willingly let it die. The number of old members who make on these occasions a sort of annual pilgrimage to the altar at which they plighted their faith to Medicine, and the sprinkling of visitors from the provinces, who make it part of a short holiday, show that it is appreciated by many at more than the conventional value of an ordinary incident in a crowded London season in which a card for another *soirée* is greeted with something between a yawn and a groan. The *soirées* of University College are always particularly well managed, and win a special grace from the presence of ladies, for it must be confessed that a black-coated *conversazione*, enlivened only by microscopes, preparations, and the well-known "novelties" which have done duty all over London, is in itself a grim and desolating parody of worldly pleasure. The evening reception of Mr. Tomes, the president of the Odontological Society, was individualised by the profusion of art treasure, with which some leading dentists of taste had decorated the walls; and by the novelty of the place, for, to the visitors not belonging to the dental profession, this was for the most part the first opportuniy of inspecting the new dental hospital in Leicester Square. Its exterior gives a greater idea of space than is realised on inspection, the frontage being great, but the building shallow. The whole of the fittings are, however, admirable. The operating-room which accommodates, we think, twenty chairs at a time, is well lighted; the museum, of which Mr. Tomes's rich collections form the basis, is very interesting if not unique, as we suspect it to be. And it was not possible to go over the place without mentally stripping it of its holiday contents and festal draping, and reflecting that it demonstrated a very great practical progress in the education of dentists, and a very distinct advance in the method of teaching, and, consequently, in the average practice of a very useful and numerous profession.

THOSE professions, which are half trades also, such as pharmacy and dentistry, present always very puzzling problems to the legislator and the publicist. They have at least two sides and two orders, and yet the temptation of the best men is always to treat them as if they had only one. The difference between a tradesman and a professional man, in the aspect of relation to their respective clients, we suppose to be, that one renders for a fee services on which he puts a price, and the other sells for a sum a thing which has an intrinsic value and a market price mainly irrespective of the vendor. In the one case, it is the man who forms the chief element of consideration; in the other, it is the thing. Thus it is with the druggist; who, however, justly often claims a fancy price for what he sells, on the score of his personal skill in selection, scientific acquirements, and reliability; and with the dentist, who on the same score, likewise, commonly claims a professional status and method of payment. Moreover, druggists keep shops, and, as a rule, dentists do not; in fact, no high-class dentist does. But, on the other hand, there are a large number of druggists who must keep shop, and sell at a small profit and no more; and many dentists who must, if servants and poor people are to have artificial teeth cheaply, as they ought to have, just sell the cheapest set of mineral teeth with vulcanite plate at the lowest price at which they can be manufactured, and trust to a large business to make up small profits by quick returns and "a large turn-over". How are all these to be brought within the range of "professional ethics"? To be told that they must not advertise, must not attract by a show-case, or well-made teeth marked at cheap prices in a shop-window! Why should not dentists advertise as well as druggists? Teeth ought to be stopped cheaply, made well, and sold cheaply; for at present artificial teeth are too much the privilege of the wealthy, whereas they ought to be within the reach of the labourer, or the servant, or the smallest shopkeeper, if trade-principles can be honestly applied to cheapen them. This is, of course, heresy to the Odontological Society; and it is natural and right that it should be, for the higher walks of dentistry enter the domain of surgery; and there are points where the ground is common, and men who have a plot in both. But, on the whole, it seems unlikely and undesirable that dentistry can ever become wholly a profession, although it certainly ought not to be wholly a trade. We presume that, under Dr. Acland's definition, it will remain "a business".

It is stated that the small-pox shows no abatement in Keighley. Twelve fresh cases have been reported during the week, and there have been three or four deaths. There have also been four deaths from scarlet and two from typhoid fever. The Board of Guardians, against whom a writ of mandamus requiring them to enforce the vaccination laws has been issued by the Court of Queen's Bench, have petitioned the Local Government Board not to take proceedings for a fortnight.

### SCARLET FEVER IN LONDON.

DR. STEVENSON, medical officer of health for St. Pancras, reported at the last meeting of the vestry that scarlet fever appeared to be on the increase, especially among the poorer classes, and as a consequence the services of the disinfector had been much in request. Great benefit, he said, seemed to result from the disinfection of the clothing by heat. The same disorder is also very prevalent in the fashionable quarters of South Kensington, where, however, sanitary precautions are less rigidly enforced. We hear this week of a fashionable dinner party, at which every guest present is said to have since been laid up with scarlet fever or the characteristic sore-throat. There is a good deal of carelessness shown by the upper classes in exposing each other to chances of infection, which would be sternly repressed by medical officers and inspectors if it were manifested by their poorer brethren.

### CHANGE IN THE ORGANISATION OF THE MEDICAL DEPARTMENT OF THE FRENCH ARMY.

WE are informed on high authority that a very important reform is on the eve of taking place in the organisation of the medical department of the French army. The military hospitals, both in the field and in garrisons, will be removed from the control and direction of the intendance department, and the medical officers will themselves become invested with full administrative authority over them, subject only to the orders of the general officers in command, to whom they will be directly responsible for the maintenance of discipline and efficiency. Thus, the great change, the necessity for which has been so strongly urged in the medical histories of the Crimean war, and of the Italian campaign of 1859, by Dr. Chenu, and by all the most experienced French army surgeons, as well as by many combatant officers of late years, is at last about to be effected. Evidently the superiority of the administrative system of the medical service in the German army, which made itself so manifest in the war of 1870-71, has forced on the solution of the question. It is a question of principle upon which an infinite number of matters of detail depend, so that many minor changes must follow. Another reform has already taken place. The arrangements for the transport of the wounded in time of war have been materially improved. Hitherto, reliance has been chiefly placed in the French army on mule litters and mule chairs (*cacolets* and *litières*) for the removal of the wounded. When these conveyances have not been forthcoming in sufficient numbers, as they have not been on many occasions, the ordinary vehicles used for the carriage of heavy stores have been employed for the purpose. No carriages have been specially constructed for the purpose of carrying the wounded in time of war. The mule litters and chairs have met the wants of the French army in this respect admirably during all the campaigns in Algeria, and they must still be employed in mountainous countries; but they are far inferior on ordinary roads to four-wheeled carriages on springs for the carriage of sick or wounded soldiers. These carriages have now been made, after long and very thoroughly conducted experiments as to the form admitting of the most easy conveyance of men disabled by wounds. Already a very large number of the new ambulance carriages has been constructed, and the whole are ready for employment in the field at an hour's notice.

### THE LIVERPOOL ROYAL INFIRMARY.

WE understand that the Medical Board, by an unanimous resolution, have recommended to the Committee of the Trustees of the Institution the appointment of an obstetric physician or surgeon to take charge of the Thornton wards, appropriated to the reception of the diseases of women. We congratulate the Medical Board on their judicious, though tardy, recognition of this long felt deficiency in the completeness of the medical staff of this well known representative provincial hospital, and we feel sure the committee will gladly and promptly adopt the recommendation, and thus place their institution on an equality in this respect with kindred establishments in Manchester, Birmingham, Bristol, Sheffield, and other great provincial centres of medical science and education. The original staff of the Liverpool Infirmary, consisting of three physicians and three surgeons, with the recent addition of an assistant-surgeon, might have sufficed to keep pace with the requirements of days gone by; but the present advanced position of medical science and the demands for special scientific knowledge and improved clinical teaching, have enforced the necessity of a division of labour; and it is now out of the question to expect hospital physicians or surgeons, whose attention is sufficiently occupied in their own proper departments, to undertake the charge, or to teach clinically, the special subject of the diseases of women, with credit to their own reputation, with full justice to their patients, or with satisfaction to the students or to the present race of medical practitioners, who naturally expect that our large hospitals will afford opportunities of special advancement and progressive improvement in every department of medical knowledge and practice.

### MEDICAL FEES.

AN action was tried in the County Court at Brompton, last week, in which the plaintiff was Dr. J. C. Webb, a general practitioner, residing in Lower Belgrave Street, who sued a gentleman, residing at Grosvenor Mansions, for the sum of £22, for medical attendance upon him and his late wife; £20 had been paid into court. The leading facts were, according to the statement of plaintiff's counsel, that, in October last, plaintiff was called in to attend defendant's wife for bronchitis, and paid her thirty-six visits at seven shillings a visit. In November, defendant met with an accident to his ankle, and plaintiff attended to him also at the time he visited his wife, charging seven shillings a visit for the extra case. On one occasion he visited his patients twice on the same day, and charged fourteen shillings for each visit. On other days he called, and found his patients (or one of them) away from home, but he charged for his visits the same as if he had seen them.—Dr. Davis of Great Marlborough Street, said he had retired from practice twenty years since. He considered the charges in the bill fair and reasonable. It was the usual custom of the profession, when attending two or more members of the same family, suffering from different ailments, to charge them as separate visits, and it was also customary to charge for the visits all the same if the patients thought proper to be absent from home at the doctor's usual hour of calling.—The defence was that the visits were prolonged farther than was necessary, that many of them were of a friendly rather than a professional character, that the charges for double visits when only one was paid, were exorbitant and unusual.—Mr. James Lawrence, the defendant, said he engaged plaintiff to attend him with a broken ankle, and also Mr. Barnard Holt, who attended him twice, and told him on November 20th that he could go out as soon as he liked. He went out every day up to December 29th. He left home about half-past eleven every morning, and sometimes plaintiff called after he was gone. On the day two visits to his wife were charged, she appeared to be quite well. The last seven visits charged for he did not see the plaintiff. The last time he saw him was on December 16th.—Julia Kaehler, sister-in-law to defendant, said that on several of the days for which attendance was charged Mrs. Lawrance was out either for a walk or a drive.—The Judge, in summing up the case, pointed out that patients were not always the best judges of the necessity or otherwise of the doctor continuing his visits. If a man had a broken leg, for instance, and the medical man left him prematurely, the most serious consequences might ensue, and the doctor be liable to a criminal prosecution.—The jury found a verdict for the plaintiff for the full amount.

### DISMISSAL OF A CHARGE AGAINST A SURGEON.

On Saturday last, Mr. A. H. Buckby appeared before the magistrates at Newark, charged under a warrant with the manslaughter of Mrs. Fletcher, the wife of a Baptist minister of Sutton-on-Trent. Mr. Buckby had attended Mrs. Fletcher during confinement, and it was alleged that he was at the time incapacitated by drink from treating her properly. Mrs. Fletcher died shortly after Mr. Buckby had seen her, and an inquest was held at which a verdict of manslaughter was returned. The evidence given before the magistrates on Saturday was the same as at the inquest. The magistrates finally decided that there was not sufficient evidence to justify them in committing the case for trial, and it was, therefore, dismissed.

### UNIVERSITY COLLEGE HOSPITAL.

In connection with the changes at University College Hospital, to which we referred last week, we are requested to add that, although Mr. Erichsen has resigned the Holme Professorship of Clinical Surgery and also has necessarily relinquished the charge of the wards which are attached to that office, he has, at the request of the Council of the College, readily consented to continue to give his services, as one of the professors of clinical surgery and as surgeon to the hospital, to the institution with which he has been so long and so actively connected; his duties will, however, be far less onerous than they have been hitherto.

### UNSATISFACTORY CERTIFCATES.

Several cases have lately been reported which show the necessity for a closer supervision by the registrar of deaths. Two cases are now before us which have recently occurred in the same district of the metropolis, and which point very strongly in this direction. In one instance, a certificate was filled up and signed by a qualified practitioner, affirming that he had seen the deceased, when, in truth, he had never seen her at all, and she had only been attended by his unqualified assistant. As the practitioner and his assistant both bore a high character, and as the former had been prevented from visiting the patient by the pressure of other engagements, both gentlemen were dismissed, with an admonition from the coroner to be more careful in future. In the other instance, the certificate was given by a practitioner whose only diploma was that of the College of Physicians and Surgeons of Canada, and who was not registered in this country. In cross-examination he said, that he had been in practice for twenty-five years, that he had been in the habit of giving certificates, and that they had never been called in question. In this case, also, the jury returned a verdict of death from natural causes; but, we are glad to observe, that they requested the coroner to communicate with the registrar-general on the subject. We hope that, his attention being thus called to the matter, steps will be taken to render it impossible that such unsatisfactory certificates should be given, for they not only bring censure upon individuals, but they reflect upon the profession which is charged with the performance of these important public duties.

### THE SUSSEX COUNTY HOSPITAL.

The Town Council of Brighton, through its Sanitary Committee, is considering what arrangements can best be made for the treatment of infectious diseases. They have received a letter from Dr. Kebbell, stating that it was never intended by the Hospital Committee to increase the accommodation for fever and other infectious disorders, in fact, to establish a large fever-hospital within the precincts of the borough: doubtless, a very objectionable proceeding. There will not, he continues, be a single additional bed for the reception of fever-cases, or of any other infectious disorder. The only difference will be that, whereas such cases are now placed in wards forming part of the main building, under the proposed new arrangement all infectious disorders will be transferred to a separate and distinct building, which, from the extra precautions the Hospital Committee will be able to take, will enable them to reduce to a minimum any liability which may exist of the spread of infection amongst the inmates of the institution, or the outside public. The Sanitary Committee, on receiving this letter, authorised the town clerk (Mr. J. A. Freeman) to write to the Committee of Management of the County Hospital, requesting them to consider whether the proposed erection of a separate building for the treatment of cases of fever and other contagious and infectious diseases does not afford a favourable opportunity for discontinuing the present practice of treating such cases within the borough, in a building situated in a district which is rapidly becoming covered with houses and other buildings.

### VISIT OF THE SULTAN OF ZANZIBAR TO ST. THOMAS'S HOSPITAL.

Seyyid Burghash bin Said, Sultan of Zanzibar, together with Hamand bin Hamed, Nasir bin Said, Mohamad bin Hamed, and accompanied by Dr. Kirk, the Rev. Dr. G. Percy Badger, and Mr. Clement Hill, visited St. Thomas's Hospital on Wednesday, June 23rd, at 11.45 A.M. They were received at the entrance of the principal corridor by the Treasurer, Sir Francis Hicks, and some of the governors, Mr. Simon, surgeon to the hospital, the resident officers of the institution, and a numerous attendance of the students of the Medical School. The Sultan, on alighting from his carriage and walking down the corridor, passed the Nightingale Home for the training of nurses, and was conducted into the ophthalmic ward, where he made several observations on the admirable arrangements for diminishing or increasing the light. He was afterwards shown the hydraulic lifts for raising the patients, particularly cases of severe accidents, in a recumbent position, from the admission-room to the wards to which they were assigned, and also the lifts for conveying the diet from the basement to the highest floor. The Sultan then passed the linenry. On proceeding down the corridor, he was shown the marble statue of Her Majesty Queen Victoria, presented by Sir John Musgrove, Bart., President of the hospital. Before ascending the main staircase, the Treasurer pointed out the "First Stone", which was laid by the Queen on May 13, 1868. The inscription on the stone was translated to him by Dr. Badger. During the whole of the Sultan's visit, he expressed great pleasure at the space and order observed in the wards, the cleanliness and great attention to sanitary arrangements. On entering Albert ward, named by Her Majesty when she opened the hospital on the 21st of June, 1871, he was struck with the appearance of the patients, and made many inquiries about them, particularly noticing a little boy, only five years of age, whose leg had been amputated close to the hip joint on account of injury. From Albert ward he passed through the chapel, where the ten commandments were explained to him by the Rev. Dr. Badger, also the large painting over the altar, presented by the late Sir Wm. Tite, M.P., and the pulpit and reading desk given by Sir Francis Hicks. On leaving the chapel, the Sultan visited the children's ward (Victoria Ward), named after Her Majesty. He was greatly astonished at the large supply of amusing books and toys, and to see the cheerful faces. On going out on the balcony, at the bottom of the ward, he expressed his admiration of the view of the river Thames and the Houses of Parliament opposite. Before leaving, the

Sultan expressed how much he regretted that his time was so limited, that he could not see more of the hospital, with which he had been greatly gratified. The Sultan and his suite were attended to their carriages by the treasurer and officers, and left amidst the acclamations of the students.

### THE HEALTH OF CROYDON, 1848-73.

DR. EDWARD WESTALL has just published some "Charts showing the rise and fall in the Death-rate, and indicating the prevalence or absence of Zymotic Disease in the parish of Croydon for twenty-six years". This period embraces the years 1848-73, both inclusive. The health of Croydon possesses additional interest, as it affords the means for testing the result of the establishment of a complete drainage-system upon the health of the town. Our last issue contained a detailed account of the Croydon Sewage Farm at Beddington, where on an area of four hundred and eighty acres is received the sewage of the population of Croydon, amounting to about 60,000 persons; this drainage system has been in operation for fifteen years, and it will be useful to glance at Dr. Westall's chart, with a view to judge whether the health of the town has improved since the drainage, about which however there can be but little doubt. In 1848, the death-rate was equal to 28.2 per 1,000, which Dr. Westall says had been the normal rate for some years. In the eight years, 1848-55, the rate averaged 23.5. During the next seven years, the death-rate fell to an average of 17.6, and, after an increase to 20.8 in the four years ending 1866, declined again to 17.9 in the next period of seven years, 1867-73. Excepting the four years, 1863-4-5-6, and 1871, when epidemic diseases, especially scarlatina, were more or less epidemic, although the charts give no information of the extent of their fatality, the rate of mortality in Croydon has been satisfactorily low since the beginning of 1860, and has shown a marked decline from the rate which prevailed in the eleven preceding years, 1848-59. Any information as to the health of Croydon during the period of twenty-six years is full of interest. It is therefore to be regretted that the facts from which these charts were compiled, do not accompany them; especially the population, and the deaths from zymotic diseases in each year.

### MEDICAL CONTRIBUTORS TO THE BLACK AND WHITE EXHIBITION.

THIS exhibition opened on Monday week at the Dudley Gallery; it consists of works in monochrome, and it is remarkable how great a variety in style, subject, and treatment is observable in the room. Some of the most powerful drawings are executed in charcoal; these are chiefly by the French artists. Our medical brethren, who have the sense of the beautiful in nature, and who manifest some considerable power in its realisation, might, we venture to suggest, turn their attention to this particular style of art. Why should they not succeed with this method as well as they do with the etching tools? Their contributions to this gallery consist almost exclusively of etchings; the exceptions are two drawings in Indian ink by Deputy-inspector-General Pilleau, Nos. 68 and 335. No. 68 is an admirable drawing of elephants in motion; there is action, not only in the animals, but in the elements also: it is called "Elephants in a Dust Storm". No. 335 is "A Street in Cairo", which is well worthy of notice. Mr. Evershed sends no fewer than eight etchings—Nos. 24, 209, 345, 367, 382, 492, and 510. No. 209 includes two etchings of a picturesque farm-house, in one frame: it is very spirited and fresh. No. 345, "A Surrey Farm-House", is a dry point, delicate in execution, and beautiful in feeling and effect. This, in its way, is one of the best works in the gallery. We have always understood that dry point is not adapted to the representation of foliage: this etching, however, goes far to prove the contrary. His other contributions are etchings of Hampstead scenery, bits of the heath, with groups of trees, buildings, etc., are all of them drawn with great care and feeling: the foliage and undulations of ground are particularly well expressed. Mr. J. L. Propert has three etchings, Nos. 53 and 147. No. 53 includes two etchings of Venice: they are free and spirited; that of St. Mark's, with distant buildings and water, is particularly good. No. 147, "Forge at Limehouse Dock", is an effective subject, and skilfully treated. In noticing the Royal Academy Exhibition, a few weeks back, we omitted, by accident, a refined and charming water-colour drawing by Deputy Inspector-General Pilleau; it is No. 805, "Fishing Boats, Venice".

### HOSPITAL SUNDAY FUND.

THE anticipations which we expressed last week, with regard to the metropolitan collection on Hospital Sunday, have been fully justified. The following statement, which has been put forward with authority, shows that in some influential quarters, at any rate, the interest created by this movement has not been sustained. Down to last evening (Wednesday) the contributions to the Hospital Sunday Fund from about nine hundred places of worship of all denominations in the metropolis had reached in the aggregate the sum of £22,000. It is expected, in pursuance of the promises previously made, that fully four hundred collections and offertories on Hospital Sunday have still to be accounted for; but it will surprise no one if the fund this year falls somewhat short of that of 1874. Indeed, four-fifths of the collections are below those of last year, and in the remainder the increase, such as it is, will go little or no way to make up the deficit. For instance, taking three collections paid in yesterday, that of St. Paul's, Knightsbridge, (£121 10s. 3d.) is more than £150 less than that in 1874; that of St. Peter's, Eaton Square (with a new district church), is nearly £100 deficient—being, in 1874, £522 12s. 1d., and in 1875, £427 18s. 1d.; and the Spanish and Portuguese Jews' Synagogue (£64 6s. 8d.) is between £40 and £50 below that of the previous year. The personal contributions this year are, however, more numerous and more liberal than on either of the two former occasions.

### RECENT URBAN MORTALITY.

DURING last week, 5,575 births and 3,205 deaths were registered in London and twenty other large towns of the United Kingdom. The mortality was at the annual average rate of 22 deaths in every 1,000 persons living; and varied as follows in the different towns: Portsmouth, 13; Bristol, 17; Sunderland, 18; Leicester and Wolverhampton, 19; London and Salford, 20; Edinburgh, Dublin, Norwich and Birmingham, 21; Leeds, Sheffield and Bradford, 22; Liverpool, 23; Newcastle-upon-Tyne, 24; Manchester, 27; Glasgow, 28; Hull, 29; Oldham, 30; and Nottingham, 31. In the 18 English towns the annual average zymotic death-rate was 3.3 per 1000, and ranged from 0.4 and 1.5 in Portsmouth and Wolverhampton, to 6.6 and 6.8 in Hull and Nottingham. In London, 2,321 births and 1,321 deaths were registered; the births were 108, and the deaths 71, above the average. The annual death-rate was 20.0. The deaths from measles were 27; scarlet fever, 53; diphtheria, 12; whooping-cough, 53; different forms of fever, 22; diarrhœa, 54; and not one from small-pox. These 221 deaths from zymotic diseases were 29 below the average, and were equal to an annual rate of 3.4 per 1,000. The 54 deaths from diarrhœa, included 43 of infants under one year of age, and exceeded the weekly average by 15. There were ten deaths from puerperal fever; more than double the weekly average. The Homerton and Stockwell Fever Hospitals contained 229 patients on the 19th instant; of which 42 were under treatment for fever, 151 for scarlet fever, and 11 for small-pox. In greater London, 2,732 births and 1,530 deaths were registered. The general and the zymotic death-rates in outer London were 14.3 and 2.5 per 1,000 respectively, against 20.0 and 3.4 in inner London. At Greenwich, the mean reading of the barometer during the week was 29.61 inches; the mean temperature was 56.0 deg. or 3.1 deg. below the average; the mean degree of humidity of the air was 76; the general direction of the wind was S.S.W.; the horizontal movement of the air averaged 13.9 miles per hour; and rain fell on four days to the amount of .43 of an inch.

### THE TRAINING OF IDIOTS.

THE Charity Organisation Society has already done good service in promoting concerted action upon various important questions which have an interest for our profession, such as the state of the dwelllings of the poor and the condition of the blind. It is now about to deal with another such subject. Sir Charles Trevelyan is to move in the Council the following resolutions.

"1. That, as by the census returns of 1871, there were in England and Wales, 29,452 idiots or imbeciles, which number is admitted to be 25 per cent. below the mark, showing a total of 36,835, or 1 in every 621 of the population; and, as the condition of many youthful idiots can be altogether altered and improved by adapted training, while a large proportion of the remainder are quite unfit to mix with ordinary members of society—and union-houses and lunatic asylums are, for many reasons, unsuitable receptacles for idiots—training schools should be provided for improvable, and permanent asylums for unimprovable idiots.

"2. That, in order to elicit the sympathy and active co-operation and support of the wealthy and charitable, the training schools should, as far as possible, be conducted upon the voluntary principle, and that with this object the managers of existing asylums depending upon public subscriptions for their support, be invited to modify their rules so as to make their institutions available as part of a national system.

"3. That, besides the general objections to the canvassing and voting system as a means of admission to charitable institutions, it is in an especial manner inapplicable to making provision for idiots, inasmuch as their successful treatment depends upon their being selected at the proper age to be placed either in a training school or permanent asylum, according to the nature of their respective cases.

"4. That the Government be memorialised to allow the capitation-grant of 4s. a week to be paid for poor idiots admitted into training schools or permanent asylums, in the same way as it is now allowed for pauper idiots placed in county lunatic asylums, and also a further capitation-grant to training schools to be paid out of the Parliamentary Grant for Education, provided such schools comply with the conditions which may from time to time be prescribed by the education department, and are open to inspection by the officers of that department; and that further payments be made by friends who are able to do so, or by boards of guardians.

"5. That exertions should be made to establish the necessary additional number of training schools on this principle throughout the country; and that permanent asylums for unimprovable cases needing supervision, shelter, and kind care, should be established upon the grounds of the county lunatic asylums or elsewhere, either singly or for two counties combined; the expense of building and maintenance being defrayed out of the county rates, aided by the Government capitation-grants, and by the contributions of the boards of guardians and the friends of the idiots.

"6. That, in order to facilitate the establishment of training schools and permanent asylums, the Government be asked to introduce a Bill especially for the regulation of idiot asylums, releasing such asylums from the stringent regulations of the Lunacy Act, 8 and 9 Vict., cap. 100, which was passed before an idiot asylum existed, such release being in accordance with the recommendations of the Lunacy Commissioners in their reports to the Lord Chancellor for the years 1865 and 1868."

There are among our Associates many who are thoroughly conversant with the training of imbeciles and idiots. We should be glad to learn their opinions upon the foregoing propositions, and we have no doubt that the Council of the Charity Organisation Society will give them due weight.

THE Kilkenny Board of Guardians have awarded £100 *per annum* superannuation to Mr. Smithwick Carpenter, on his resigning as Medical Officer for the Freshford Dispensary District, from ill health.

## SCOTLAND.

AT a meeting of the Edinburgh University Court, held on the 14th instant, Mr. T. E. Thorpe, of the Yorkshire College of Science, Leeds, was recognised as a lecturer on Chemistry, whose lectures should qualify for graduation in medicine in the University.

TWO medical witnesses who were examined in the Gourock graveyard case, on behalf of the respondents, gave evidence to show that they had examined the graveyard, and found no indications of exhalations coming from the graves. The proof was closed on Thursday, the 24th instant.

### COAL UNDER THE FIRTH OF FORTH.

THE Town Council of Kirkcaldy are in communication with the Commissioners of Woods and Forests as to the minerals on the foreshore *ex adverso* of the burgh, with a view to purchasing them. It appears from the town's charter by Charles I, that the town has a right to the coal and coal-mines within the Royalty. It is asserted there is abundance of coal within the foreshore. Should this prove to be the case, it will be a most valuable addition to the resources of the town, which is at present considerably in debt.

### SUSPICIOUS DEATH OF AN ASYLUM PATIENT.

LAST week, one of the male patients in the Fife and Kinross Lunatic Asylum, near Cupar, was found dead in bed, with marks of violence upon his body. Though he was confined in a sick dormitory, nothing seriously wrong was observed by the medical superintendent on the preceding evening; but, six hours after having gone to bed, he was found lying lifeless. A *post mortem* examination revealed a ruptured liver and two fractured ribs. The circumstances having been communicated to the Procurator Fiscal, one of the attendants has been apprehended on a charge of culpable homicide; and, after having been officially examined before the Sheriff, has been liberated on a bail of £30.

### ABERDEEN ROYAL INFIRMARY AND ASYLUM.

THE quarterly meeting of the managers of these institutions was held on the 14th instant, the Lord Provost presiding. The number of patients in the infirmary was 130. Donations were announced as received during the past quarter to the amount of £720. The expenditure of the last three months amounted to £1,751. With regard to the asylum, the report showed that there were at present 479 inmates, 216 males and 263 females, an increase of 10 men and 23 women over last year. The asylum accounts for the year ending March 31st last, showed that the income amounted to £15,054, and the expenditure to £13,784, leaving a balance of £1,270.

### HEALTH OF EDINBURGH.

THE health of the city of Edinburgh is at present in a very satisfactory condition. Last week the bill of mortality showed a death-rate of only 20 per 1,000; the actual number of deaths being 86 in all (five of these being deducted as country deaths). Of these 86, only 10 were due to zymotic diseases, of which four were from hooping-cough and four from scarlet fever. The city is thus seen to be remarkably free from the more preventable diseases: typhus, typhoid, and the like.

### A POLLUTED WELL.

A CASE under the Public Health Act, in the shape of a petition by the local authority of the parish of Kelso for the shutting up of a well, the water of which is unfit for drinking purposes, came before the Sheriff at Jedburgh on Saturday last. A sample of the water had been sent to Dr. Macadam of Edinburgh for analysis, and that gentleman reported that the water was clear and transparent when received, and free from visible pollution. But, on concentration, the following results were found, the calculation being, to an imperial gallon: salts, 75.92 grains; organic matter and nitrates, 16.76 grains; total matter dissolved in imperial gallon, 92.68 grains. Dr. Macadam concludes his report thus: "The above water is grossly polluted with the products of decomposing organic matter, of animal origin, and derived from sewage. It possesses positively unwholesome properties, and should not be employed for drinking, cooking, or any other dietetic purpose. I have seldom met with water so foul and unwholesome." The Sheriff ordered the immediate shutting up of the well.

### THE GLASGOW ROYAL INFIRMARY.

AN extraordinary meeting of the contributors and subscribers to the Royal Infirmary was held on the 21st instant to consider the advisability of applying for a new charter, which would give them enlarged powers. In addition to this, they proposed that the directors should have power to establish a school of medicine in connection with the hospital. Dr. Gardiner inquired whether the directors under the proposed charter meant to found a school of medicine in connection with the Royal Infirmary in the restricted sense of giving a monopoly of teaching to certain individuals, or whether it was intended to give material aid to as many gentlemen as might propose to give instruction. Mr. M'Ewen explained that the clause in the charter was purely a permissive one. The directors wished to make a door as wide as possible, and they were decidedly opposed to all endowments. The Lord Provost had no doubt the public would take care that the funds of the institution were not misapplied. The motion was then adopted.

### SUNSHINE IN SCOTLAND.

THE quantity of rain which falls in England is very carefully noted in various parts of the kingdom, and the result of the observations is published far and wide, but the amount of sunshine is not so well known. In Scotland, the Registrar-General regularly reports the number of hours of sunshine with which the country is favoured, as shown by the mean of returns from fifty-five stations of the Meteorological Society of Scotland. The hours of sunshine in a year in Scotland most frequently range between 1,650 and 1,750; but in 1874 they reached the large number of 1,815, and these were distributed as follows: 74 in January, 103 in February, 138 in March, 179 in April, 170 in May, 277 in June, 239 in July, 188 in August, 145 in September, 140 in October, 78 in November, and 84 in December. The average was above nine hours a-day in June, and not quite two and a half in January.

## IRELAND.

IN the Glendermot District, Londonderry, there were registered three deaths from scarlet fever, the registrar of the district reporting that two of the deaths occurred in the same house and in the immediate neighbourhood of a large stagnant pool of water, which had been reported upon by the sanitary officer, and pronounced to be a dangerous nuisance, but no action has been taken by the sanitary authorities to have the nuisance abated.

### DROGHEDA WATER SUPPLY.

ALTHOUGH Mr. O'Brien, the Local Government Board inspector, reported last year on the sanitary condition and want of water supply to the inhabitants of Drogheda, nothing so far has been done by the local authorities to remedy the evils complained of, and the poorer classes have altogether to depend upon the supply obtained from wells and pumps, the quality of which analysis has proved to be most deleterious to health.

### DUBLIN SANITARY ASSOCIATION.

THE annual general meeting of this Association was held last week at the Molesworth Hall, Dublin, and from the annual report of the committee it appears that there has been a slight increase of the number of members during the year, they now numbering 272. During the past twelve months, 347 nuisances were reported to the Public Health Committee of the Corporation of Dublin. These nuisances included overcrowding of houses; houses unfit for habitation, and in a state injurious to health; insufficient or defective ashpit and privy accommodation; insufficient water supply; defective sewerage; filthy yards and archways; manure-heaps, and accumulation of filth; unscavenged streets and lanes. The committee state that, in many instances, it was necessary to bring dangerous nuisances repeatedly under the notice of the authorities, before any effectual means were taken to remedy them; and in scarcely any case has the remedy been more than temporary. The report referred to certain localities in which infectious disease had broken out, owing to the want of proper sanitary supervision. As regards the working of the Public Health (Ireland) Act, the committee do not consider that it works satisfactorily; at least, as regards Dublin, owing to the way in which the most important provisions of the Act have been interpreted and applied. A considerable amount of good undoubtedly has been done by the labours of the Association; and it is much to be regretted that the Public Health Committee of the Corporation cannot work more harmoniously with the members of the Association, and receive in good part the suggestions thrown out, from time to time, by a body of gentlemen skilled in sanitary matters, and who have no object to attain but the good of the public.

### IRISH MEDICAL ASSOCIATION.

THE following office-bearers have been elected for 1875-76. *President:* Dr. Chaplin. *Vice-Presidents:* Dr. Darby, Dr. Tagert, Dr. Martin, Dr. Hynes. *Council:* Dr. Bagot, Dr. C. Benson, Dr. Henry Croly, Dr. H. Gray Croly, Dr. Darley, Dr. Davys, Dr. Faussett, Dr. Grimshaw, Mr. Edward Hamilton, Dr. Hayes, Dr. Archibald H. Jacob, Dr. David Jacob, Dr. Bellew Kelly, Dr. Longworth, Mr. C. Lyster, Mr. Rawdon Macnamara, Mr. Mayne, Mr. Humphrey Minchin, Dr. Moloney, Dr. J. Moore, Dr. Nolan, Dr. Perceval, Dr. Pollock, Mr. George H. Porter, Mr. Purcell, Dr. Scully, Dr. Noble Seward, Dr. Smith, Dr. Usher, Mr. Albert J. Walsh, Mr. Wharton, Mr. Whistler.

### SCHOOL OF PHYSIC, TRINITY COLLEGE, DUBLIN.

THE Medical Travelling Prize, value £50, has been obtained by Mr. Cochrane, who also was awarded first place in the Medical Degree Examination, with similar position in the previous medical examination, and has been awarded a special prize of £15. The Surgical Travelling Prize has been obtained by Mr. Thomas Carson Fisher, who got the first place at the M. Ch. examination.

### REGISTRATION IN DUBLIN.

WE understand that, in consequence of deficient registration of births and deaths, and consequent difficulty in enforcing vaccination in Dublin, new arrangements are in course of being made, which are likely to result in a more efficient registration and vaccination service. Our readers are aware that the dispensary medical officers in Ireland are, by right of their office, registrars of births, deaths and marriages, public vaccinators, and medical sanitary officers. It is, therefore, right that each officer should be responsible for the efficient discharge of his duties in all departments. In Dublin this has not been possible, as the city has been divided into seven dispensary districts, each district with two medical officers and one registrar. The districts were worked jointly by the two, and the vaccination was performed jointly, but the registration not exactly jointly. One officer was registrar and the other his deputy, or the apothecary of the dispensary was deputy registrar. The result was that the registrar was not necessarily cognisant of the deaths of patients attended by his colleague, who might not be registrar, and *vice versâ*, and the birth registrar did not, as it should, check the vaccination registrar. The Registrar-General has seen that, by this irregular arrangement, registration and vaccination suffered in efficiency, and therefore an order has been issued, dividing one of the districts into two, one officer to have sole charge of each division for all purposes. We believe this system will be carried out through the whole city, and the result will most certainly be an improvement in the efficiency of registration and vaccination.

## THE APPROACHING ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION IN EDINBURGH.

OUR Edinburgh correspondent writes under date June 21st:—The approaching visit of the Association to Edinburgh is exciting general interest both among the medical and general circles in the town and among our brethren in the country; and, now that the arrangements for the reception and accommodation of the large number of visitors we expect are advancing towards completion, I may as well give you a short sketch of what we intend to do towards welcoming, amusing, and, may be, instructing our guests. A week or two ago, there was a general meeting of all the committees who have charge of different points of detail in connection with the meeting, in order to let each know what the other was doing; and since then matters have assumed a more definite shape. And, first, as to the serious scientific business of the congress—for so it may now be called—the object for which, in great part, the assembly comes together, I understand that the secretaries of sections are getting out very satisfactory lists of papers to be read, and that there is every prospect that the work done here will be as full, good, and original as at any of the former meetings. In the department of Surgery, the number of papers promised already, and the goodly array of names attached to them, is peculiarly promising. It is the intention, I believe, of Professor Lister to give a special and extensive demonstration of his antiseptic system of treatment, including a display of the various methods which he now employs as the best mode of carrying it out. This cannot fail to be an interesting part of the programme to those who have followed the discussions of the subject, without having had an opportunity of seeing it carried out thoroughly and with all that care which Mr. Lister deems essential to success. This is only one department of our professional work, and I hear that, in the other departments also, efforts are being made to bring out prominently the various subjects which are specially connected with the success of the Edinburgh Medical School. The sections, you may be sure, will have their work well cut out for them; and, if they get through all that will be offered them, will fully deserve the relaxation which the more social entertainments of the evenings are to provide. The museum will, as usual, include surgical instruments, new drugs, and pathological preparations and specimens both large and microscopical. It is to be held in a room which was once the Natural History Museum, and is very well suited for the purpose. One point of interest will be the friendly rivalry between the English and Scotch instrument-makers, many of the best of whom have undertaken to exhibit. But little Scotch work in this line has been shown at meetings held in England. The choice of the diseases of bones and joints as a special feature in this year's museum seems a good one, considering the great frequency of such diseases in this part of Scotland, and the brilliant additions made to our knowledge of their pathology and treatment by members of the Edinburgh School, and notably the late Professor Syme. Of course, the Anatomical Museum, with all its wonders, and that of the Royal College of Surgeons, will be thrown open for the inspection of visitors during the days of meeting.

As regards our visitors, we hear on all sides that the meeting is likely to be a very large one, and to comprise a number of distinguished foreigners, who have already signified their intention of being present, as well as a very large number of the leading practitioners of England.

The spare time of the Association, after the labours of the day are over, is mapped out pretty definitely now. On the Tuesday evening, the Royal College of Physicians will give a *conversazione* in the Industrial Museum, the best place for such a purpose in Scotland, containing as it does a great collection of articles illustrating the various branches of industry, science, and art; while, at the same time, the building itself is elegant and the space ample.

On Wednesday, the University have promised an entertainment of a like kind in the upper library-hall, which, if it at all resemble similar entertainments held there on previous occasions, will be a conspicuous success.

Thursday evening will be devoted to the serious duty of eating the annual festival dinner of the Association. The Music Hall has been secured, as the room in Edinburgh best fitted to seat a large number of guests, and matters will be arranged so as to allow of as large a number as possible being accommodated.

On Friday, it is proposed, should the weather be decently obliging, to hold a garden-party in the Botanical Gardens, which, I may mention by the way, have been greatly improved in the last few years, and will doubtless recall to many an old Edinburgh graduate, whom we hope to welcome back again, the days when he used to trudge down there to an eight o'clock morning lecture.

Saturday is as usual assigned to excursions, of which some have been already arranged and others are in embryo. Those who like to go down to the sea in ships, and are none the worse for it, will have an opportunity of gratifying their tastes by an expedition to the Bass Rock and Isle of May, with possibly dredging accompaniments. Those to whom *terra firma* is more congenial will have an opportunity of visiting several of the places most worth seeing in the neighbourhood. Melrose, Abbotsford, and Dryburgh will occupy one party; Rosslin, Hawthornden, etc., another; and others to be subsequently fixed on.

I forgot to mention before that all the section work, the museum, reception-rooms, and, in fact, all the departments of the Association, are to be housed in one building, viz., the University, which has most kindly been put at the disposal of the Association by the authorities. The very great advantage of this will be evident to those who know the difficulties sometimes experienced elsewhere to obtain a number of suitable rooms sufficiently near to each other.

## PRESENTATION OF A TESTIMONIAL TO DR. A. P. STEWART.

ON Monday, the 14th instant, a number of members of the British Medical Association, including several from the country, assembled at the house of T. B. Curling, Esq., F.R.S., President of the Metropolitan Counties Branch, for the purpose of presenting to Dr. A. P. Stewart, late Secretary of the Branch, a testimonial of the high esteem and regard in which he is held. Among those present were: Dr. Barnes (President-elect of the Branch), Sir William Fergusson, Dr. Sibson, Dr. William Farr, Dr. Falconer (Bath), Dr. Eason Wilkinson (Manchester), Dr. Radclyffe Hall (Torquay), Mr. Watkin Williams (Birmingham), Dr. Sieveking, Mr. Henry Lee, Dr. Murchison, Mr. Dunn, Mr. Lord (Hampstead), Mr. Ernest Hart, Dr. Begley, Dr. Harrington Tuke, Dr. Aveling, Dr. Cholmeley, Dr. Ford Anderson, Mr. Fairlie Clarke, Dr. Langmore, Dr. Rugg, Dr. Dickson, Dr. Farquharson, Dr. Henry, and many others.

The sum collected for the testimonial amounted to £509; part of which had been expended in the purchase of a dinner and a breakfast service, with a coffee-pot, while the remainder is, by the desire of Dr. Stewart, to be placed in the hands of the Association for the foundation of a grant for the encouragement of investigation regarding epidemic diseases. The coffee-pot bears the following inscription: "To Alexander Patrick Stewart, M.D., the gift of members of the British Medical Association, 1875."

At half-past nine P.M., Mr. CURLING took the chair, and addressed Dr. Stewart as follows.

Dr. Stewart,—The pleasing duty has devolved on me, as President of the Metropolitan Counties Branch of the British Medical Association, of presenting to you a testimonial from your friends and admirers in recognition of your valuable services to the Association and our profession. The testimonial, though originating, on your retirement from the office of Honorary Secretary to the Branch, in a wish to acknowledge your exertions in establishing and promoting the interests of the Branch, and your arduous untiring labours which contributed so greatly to the success of the annual gathering of the Association in London in 1873, as well as the courtesy and kindness manifested by you in all your relations with the members of the Association, has, let me add, a wider significance. We desire to evince our sense of the public spirit which led you, at the cost of valuable time and at the sacrifice of private interests, to suggest and promote measures calculated to advance sanitary reform and to raise the position of the medical officers in the public services, and still further to mark our high appreciation of the additions you have made to medical knowledge, particularly in the important distinctions of fevers. It will be very gratifying to you to know that the appeal which elicited the testimonial has been responded to by an unanimity and cordiality beyond the sanguine expectations of its promoters. A large number of the members of the Association in the provinces, as well as in London, and some gentlemen not belonging to our profession, have spontaneously and heartily joined in this tribute of esteem and good-will. The subscribers, though deferring entirely to your views in the application of the sum collected, were desirous that the whole amount should be appropriated to a personal testimonial, but, whilst agreeably to our wishes, you have consented to receive some useful personal gifts, with a noble self-denial, in accordance with all the acts of your public life, you have devoted the bulk of the fund to founding a grant, which we propose to call the 'Stewart Grant', for the purpose of encouraging researches into the origin, spread, and prevention of epidemic diseases, a subject which you have helped so greatly to enlighten, and with which hereafter your name will be indissolubly connected. It only remains for me, in handing you the list of subscribers and in presenting the gifts now before me, to express the earnest hope that the blessing of health may rest upon you, that you may long enjoy the relaxation from public toils which you have so richly earned, and that most cheering and gratifying of all human rewards, the sense of a life spent in doing good to your fellow creatures.

Dr. STEWART spoke as follows.

I can honestly say that I never was so much taken by surprise as when, some time ago, I casually heard of the intention of my kind friends in this and other branches of the British Medical Association to confer upon me a public token of their regard. Not that I had any doubt of the esteem they felt towards me, for of that I had had abundant proof in the indulgence they had on many occasions shown to my shortcomings; but because I did not conceive that I had rendered any services that could warrant such an exceptional manifestation of good will. In truth, sir, I have long been accustomed to consider service as its own reward. I serve a Master who, to use His own words, "came not to be ministered unto, but to minister and to give His life a ransom for many"; and feeling, as I do, that the servant should not be above his master, I have always looked upon service rendered to my fellow-men, after the example of Him who went about doing good, much less as a duty than a privilege. The principle that I have always held and endeavoured to secure acceptance for, is that our medical profession ought to get as well as give its due. It has not yet got its due. More than twenty-six years ago, I drew the attention of the profession and the public to the abuses of our medical charities, and the faulty system of gratuitous public service, which still weighs heavily on many of our brethren. I have never had occasion to change the opinions I then expressed, but have had the satisfaction of seeing them very generally adopted, and, thanks to Mr. Fairlie Clarke, Dr. Ford Anderson, and others, both in and out of our profession, every year more extensively reduced to practice. But while I rejoice in the prospect we now have of seeing the labourer receive some acknowledgment, however inadequate, of his services to the public, I trust—in common, I believe, with all here present—that our profession will never become a selfish or a self-seeking one; and that we shall always count it a pleasure to minister to the sufferings of the really needy without fee or reward—"without money and without price". Permit me to say a few words as to the personal part of this testimonial. You, sir, and the other members of the Committee who so kindly consulted me as to the destination of the fund, are aware that I should have preferred the application of the whole of the large sum contributed to a public use. But since you insisted on my accepting something for myself, I preferred the useful to the merely ornamental. I have never aspired to be thought ornamental, but I confess to having always had an ambition to be useful; so I asked for some useful objects as more congenial to my tastes and habits, and more likely, by their frequent use, to remind me, if I needed to be reminded, of those too kind and partial friends who had set so unduly high a value on the services I had been permitted to render to the profession and the public. As regards the Branch of the Association with which I have had the honour to be so long officially connected, we may look back with satisfaction at having been privileged to lead the way in the agitation of several great public questions, to some of which you have referred, and to the elucidation of which our discussions and memorials, and deputations, contributed largely. I think we may find in our past history an indication of the true function to be discharged by the Branches, and especially by this Branch of the Association; namely, to aid by conscientious and intelligent discussion in forming and maturing a correct professional and public opinion on each new question of public medicine that comes up for consideration and decision, and so to prepare the way for legislative action. When that stage has been reached, and the subject has come before Parliament, it falls to be dealt with by the Parliamentary Bills Committee, a body which originated in, and consisted for some years of, members of this Branch alone, but is now recognised by the Association, and is composed of representatives from all its Branches. It has lately been decided to direct the attention of this Branch to the subject of legislation for the restraint of habitual drunkards; and I am sure there are many among its six hundred members who, if they would steadily apply their minds to this difficult question, could offer suggestions of the utmost value for the guidance of the public, and of members of the legislature. Lastly, as to the grant for the recognition and encouragement of important researches into the origin, spread, and prevention of epidemic disease, the field is so large that I fear there is no prospect of its being soon exhausted. I wish, for the sake of poor suffering humanity, there were such a prospect, and that the result of our efforts might be so speedy and so great a diminution in the rates of mortality from zymotic disease, as would gladden the heart of our distinguished friend Dr. Farr, and of all others who now hear me. For I am persuaded that there are not among us any of those who murmur at the efforts now made for the prevention of epidemic disease, and claim a sort of vested interest in its continuance. That there are such beings in existence I know; for they have repeatedly spoken out their thoughts to me, else I should not have affronted this company by any allusion to so distasteful a subject; but I am sure that they are few indeed compared to the many thousands in our noble profession who rejoice in everything that lessens the sum of human misery, and adds to the duration and the enjoyments of human existence. From the bottom of my heart, I return you all my warmest thanks.

Dr. FALCONER (Bath) proposed a vote of thanks to the Testimonial Committee. Speaking on the part of the provincial subscribers to the testimonial, he said they were greatly indebted to the London Committee for the manner in which the work had been carried out. He and all other members of the Association with whom Dr. Stewart had acted had always, both individually and collectively, received from him the best and soundest advice, especially on matters relating to the ethics of the profession.

Dr. SIBSON acknowledged the vote, and said that he and his colleagues on the Committee had felt much gratified at the success of their endeavours to show the esteem and regard in which Dr. Stewart was held. He referred to the valuable assistance which had been received from the Secretaries, Dr. Ford Anderson and Mr. Fairlie Clarke, and also from Dr. Heywood Smith.

Mr. WATKIN WILLIAMS (Birmingham), as a provincial member of the Committee, expressed his high gratification at the success which had attended its labours.

A vote of thanks to the Chairman, proposed by Mr. LORD (Hampstead), brought these interesting proceedings to a close.

## MEDICAL ADVERTISING IN NEWSPAPERS.

AT the annual meeting of the Midland Branch of the British Medical Association held at Derby on Thursday, the 17th instant, A. H. Dolman, Esq., in the chair, at which there was a large attendance, Dr. Beverley Morris of Nottingham brought forward for discussion the subject of the existing practice of medical treatises in the ordinary non-medical newspapers, and proposed the following resolution, which was duly seconded and carried: "That this meeting expresses its opinion that the advertising of medical works in the general papers is undesirable."

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TESTIMONIALS.—A deputation from the inhabitants of Ratho waited on Dr. K. N. Macdonald, at his residence, 7, Lansdowne Crescent, Edinburgh, on the 18th instant, to present him with a handsome timepiece and a pair of vases to match, bearing the following inscription: "Presented to Dr. K. N. Macdonald by the inhabitants of Ratho village and neighbourhood, as a token of their respect and gratitude to him for his great kindness while residing among them. 18th June, 1875."—On Friday, the 18th instant, the officers and men of the South Metropolitan Volunteer Fire Brigade, presented Walter E. Farnfield, L.R.C.P.E., of Brixton, a handsome silver inkstand, chastely engraved, as a token of their respect and appreciation of his services as Honorary Surgeon for the past two years.—Mr. Crossley Dale has been presented with a gold medal and a purse of gold as a token of respect and esteem. The medal bears the following inscription: "Presented to Mr. Crossley Dale, Surgeon, with a purse of gold, by a few friends, on leaving Mcdomsley, June 1875."

# SPECIAL CORRESPONDENCE.

## ABERDEEN.

[FROM OUR OWN CORRESPONDENT.]

*Proposed Scottish Medical Association.—Professorship of Midwifery.—Local Medical Associations.—Accidents to Branch Presidents.—The Medical Council.—Small-pox in Aberdeen.*

IN the far north here, the land of low temperatures and phlegmatic dispositions, we are beginning to look forward to, and arrange for, the annual meeting of the Association. We feel justifiably proud of our metropolis, and the men who represent us there; so you will doubtless have a large turn-out of members over the whole country to welcome the Association to Edinburgh. It is to be hoped that it will strengthen the position of the Association in Scotland, for there has been a proposal mooted here lately to start a "Scottish Medical Association". What good it could achieve without the numbers and influence of the "British Medical" is hard to see. Unless we could get up a backbone such as the British Medical possesses in its JOURNAL, the result would be certain failure. Accordingly, the proposition has been judiciously taken little notice of in the main centres of medical life.

Our Professorship of Midwifery is still vacant, and there are no indications of its being speedily filled up. There is a very strong feeling in favour of a local man, of whom we have more than one equal to the Edinburgh candidates.

The summer meetings of the Local Medical Associations are drawing on. The North of Scotland Medical Association meets next Saturday, and, under the presidency of Dr. Jamieson of the Royal Lunatic Asylum, is sure to go off with *éclat*. There the question of the "Scottish Medical Association" is down for discussion, and Dr. Mackie's Committee on Medical Ethics and Fees are to give in their report. Our medical ethics are in a very good position here, and only the fees require to be raised. May the attempt to do so be successful.

There seems to be an adverse providence at work among our respected Branch presidents. The present as well as last year's presidents have both lately been thrown from their conveyances, but are convalescent.

Your next number will contain a report of the first meeting of the Medical Council. We were visited at the University in April, and are curious to know the impression the inspectors carried off. They cannot report on our too great laxity in granting degrees, at any rate, and any minor faults they may specify will doubtless be easily remedied. Some of our lights did indulge in a little show-off before the visitors in regard to the examinations: surely a mistake, for we have nothing to be ashamed of.

The epidemic of small-pox here seems at an end, and, considering the circumstances, the medical part of its treatment has been most creditable in its results. We wish the same could be said of the management of the Public Health Board. They are still procrastinating with the Epidemic Hospital, and it seems as if it would hardly have moved forwards at all, had it not been for the medical element in our Town Council.

## GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

*The Annual Meeting of the Association.—The Crosshill Extension Bill.—Sanitary Affairs in Paisley.*

THE approaching meeting of the Association in Edinburgh has excited considerable interest in the West of Scotland; and we learn that a large number of new members have been added from Glasgow and neighbourhood in anticipation of the meeting. The interest is all the greater, as it has become apparent that not many years can elapse before the Association will be asked to meet in Glasgow. Everyone is saying that this must be; but, at the same time, they are agreed that it must be a few years still before it can be accomplished. The British Association meets here in 1876; and, after the exertions which will be made to entertain this great body fitly, it will be wise to let a year or two elapse before making a fresh call on the hospitality of the public.

It may not be out of place here to refer to the recent struggle in the House of Commons between Glasgow and its small neighbour Crosshill. It may be remarked that an emphatic testimony to the efficiency of the sanitary arrangements of Glasgow has been just given by the Govan combination parochial board. They resolved by a majority to petition the House of Lords against the Crosshill Extension Bill, which has passed the Commons. Here we have the evidence of a board which comes into daily contact with Glasgow as well as the suburban burghs; for this board, while it includes a small portion of Glasgow, has most of its territory in these small burghs. Several of the members gave quite unqualified praise to the sanitary and police arrangements of Glasgow, and compared them very unfavourably with those of its neighbours. This is the testimony of an independent body on the spot, and may be compared with the statements of the Chairman of the Committee, who had so little mastered the subject as to suppose that Crosshill stands on a hill, whereas the hill is all beyond it. Glasgow having given every attention to its sanitary and police arrangements, and having really brought these to a state of rare efficiency, feels very naturally aggrieved at the evidently prejudiced way in which their case has been treated. Everyone here feels that the case has not had a fair hearing; and we shall not be surprised to find that the whole community will insist on it being tried again in next session of Parliament. It is really on the sanitary relations that the question ought to turn; and this fact should make the struggle of special importance to the medical profession. The high death-rate of Glasgow has induced the authorities to organise a most thorough sanitary staff; and it is really a pity that this excellent machinery should be confined to an arbitrary limit, which does by no means include the actual Glasgow.

A good instance of the manner in which small towns deal with sanitary affairs is afforded by the neighbouring town of Paisley. There has been going on there what we can only call playing with an epidemic of small-pox. The manner in which the thing is managed may be judged from the fact that twelve cases of small-pox originated in the Infirmary there during 1874, so deficient are the arrangements for isolating and treating contagious diseases. The nearness of the suburban burghs to Glasgow makes them look better after their affairs; but they are only comparatively on a more satisfactory footing, and they have a continual tendency to relapse or fall behind.

# ASSOCIATION INTELLIGENCE.

## COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the Queen's Hotel, Birmingham, on Tuesday, the 13th day of July next, at Three o'clock in the afternoon.

FRANCIS FOWKE,
*General Secretary.*

36, Great Queen Street, London, W.C., June 19th, 1875.

## BRITISH MEDICAL ASSOCIATION: FORTY-THIRD ANNUAL MEETING.

THE Forty-third Annual Meeting of the British Medical Association will be held at Edinburgh, on Tuesday, Wednesday, Thursday, and Friday, August 3rd, 4th, 5th, and 6th, 1875.

*President.*—E. COPEMAN, M.D., Senior Physician to the Norfolk and Norwich Hospital.

*President-elect.*—Sir ROBERT CHRISTISON, Bart., M.D., D.C.L., LL.D., F.R.S.Ed.

An Address in Medicine will be given by JAMES WARBURTON BEGBIE, M.D., F.R.C.P.Ed.

An Address in Surgery will be given by JAMES SPENCE, F.R.C.S.Ed., F.R.S.E., Professor of Surgery in the University of Edinburgh.

An Address in Physiology will be given by WILLIAM RUTHERFORD, M.D., F.R.S.E., Professor of the Institutes of Medicine in the University of Edinburgh.

The business of the Association will be transacted in Six Sections, viz.:

SECTION D. PUBLIC MEDICINE.—*President:* Right Hon. Lyon Playfair, M.P., C.B., F.R.S. *Vice-Presidents:* Inspector-General Smart, M.D., C.B.; Dr. Arthur Mitchell. *Secretaries:* Dr. Andrew Smart, 24, Melville Street, Edinburgh; Dr. Fraser, Knutsford.

SECTION A. MEDICINE.—*President:* Dr. Quain, F.R.S., London. *Vice-Presidents:* Professor W. T. Gairdner, Glasgow; Dr. Grainger Stewart, Edinburgh. *Secretaries:* Dr. Claud Muirhead, 7, Heriot Row, Edinburgh; Dr. Stephenson, 33, Buccleuch Street, Edinburgh.

SECTION B. SURGERY.—*President:* Professor Lister, F.R.S. Edinburgh. *Vice-Presidents:* Professor Pirrie, Aberdeen; Professor Macleod, Glasgow. *Secretaries:* Thomas Annandale, Esq., Charlotte Square, Edinburgh; Dr. John Duncan, 8, Ainslie Place, Edinburgh.

SECTION C. OBSTETRIC MEDICINE.—*President:* Dr. Matthews Duncan. *Vice-Presidents:* Dr. Keiller; Professor Simpson. *Secretaries:* Dr. Peel Ritchie, 16, Hill Street, Edinburgh; C. J. Cullingworth, Esq., 260, Oxford Street, Manchester.

SECTION E. PSYCHOLOGY.—*President:* Dr. Lowe, F.R.S., Edinburgh; *Vice-Presidents:* Dr. Sibbald; Dr. Clouston. *Secretaries:* Dr. Brown, Royal Asylum, Edinburgh; Dr. Saundby, Saughton Hall, Edinburgh.

SECTION F. PHYSIOLOGY.—*President:* Professor Burdon Sanderson, F.R.S., London. *Vice-Presidents:* Dr. McKendrick; Professor J. Dewar. *Secretaries:* Dr. Lauder Brunton, F.R.S., 23, Somerset Street, Portman Square, London Dr. Caton, 18, Abercrombie Square, Liverpool.

Honorary Local Secretaries.

Dr. John Batty Tuke, Edinburgh.
John Chiene, Esq., Edinburgh.
Dr. J. G. McKendrick, Edinburgh.
Dr. J. Bishop, Edinburgh.

*Tuesday, August 3rd.*

11 A.M.—SERVICE IN ST. GILES'S CHURCH. Sermon by Rev. D. Macgregor.

1 P.M.—MEETING OF COMMITTEE OF COUNCIL.

3 P.M.—MEETING OF THE COUNCIL, 1874-75.

3.30 P.M.—GENERAL MEETING.—President's Address; Annual Report of Council; and other business.

9 P.M.—RECEPTION IN UNIVERSITY LIBRARY.

*Wednesday, August 4th.*

9.30 A.M.—MEETING OF COUNCIL, 1875-76.

11.30 A.M.—SECOND GENERAL MEETING.

11.30 A.M.—ADDRESS IN MEDICINE.

2 P.M.—SECTIONAL MEETINGS.

9 P.M.—SOIRÉE.—Conversazione given by the Royal College of Physicians.

*Thursday, August 5th.*

9 A.M.—MEETING OF THE COMMITTEE OF COUNCIL.

10 A.M.—THIRD GENERAL MEETING.—Reports of Committees.

11 A.M.—ADDRESS IN SURGERY.

2 P.M.—SECTIONAL MEETINGS.

6.30 P.M.—PUBLIC DINNER.

*Friday, August 6th.*

10 A.M.—ADDRESS IN PHYSIOLOGY.

11 A.M.—SECTIONAL MEETINGS.

1.30 P.M.—CONCLUDING GENERAL MEETING.

4 P.M.—GARDEN PARTY IN THE ROYAL BOTANIC GARDENS.

*Saturday, August 7th.*

EXCURSIONS.—Bass Rock, Melrose, Trossachs, Roslin.

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*Papers.*—The following papers are offered.

Aitken, Lauchlan, M.D. On the Sanitary State of Rome.

Anderson, Mrs. E. Garrett, M.D. On Dysmenorrhœa.

Annandale, Thomas, Esq. 1. Excision of the Head of the Femur in Hip-joint Disease; 2. Successful Case of Distal Ligature for Aortic Aneurism.

Bartlett, H. C., Esq. On Drinking and Table Waters.

Bell, Joseph, Esq. Notes on some Minor Improvements in Operative Surgery.

Bennett, J. Hughes, M.D. On the Necessity of Vivisection both for Advancing and Teaching the Science of Physiology.

Boyd, Robert, M.D. Effect of Various Diseases in 2050 Adults, sane and insane.

Braidwood, P. Murray, M.D., and Vacher, Francis, Esq. First Contribution to the Life History of Contagious Diseases.

Brotherston, Peter, Esq. Provincial Surgery in Scotland, illustrated by Cases treated in the Alloa Hospital.

Browne, J. Crichton, M.D., F.R.S.E. Rhythmical Neuroses.

Brunton, T. Lauder, M.D., F.R.S. On the Means of preventing Death from the Extraction of Teeth under Chloroform.

Buchanan, George, M.D. (Glasgow). Tracheotomy in Croup and Diphtheria.

Cassells, James P., M.D. On Conservative Aural Surgery.

Caton, R., M.D. Report on the Electric Currents of the Brain.

Chiene, John, Esq. 1. Dislocation of the Astragalus; 2. Value of an Antiseptic Catheter.

Clouston, T. S., M.D. On Disorders of Speech in Insanity.

Coghill, J. G. S., M.D. On Uterine Flexions and Displacements; and their Mechanical Treatment.

Croom, J. Halliday, M.B. On Melæna in the New-born Child.

Davenport, John A., Esq. On the Drainage and other Sanitary Conditions of Rural Districts.

Donovan, W., L.R.C.P.Ed. On Placenta Prævia.

Duncan, John, M.D. 1. On the Modes of Administering Mercury in Syphilis; 2. On the Treatment of Nævus.

Eassie, W., Esq. On the Sanitation of Houses.

Ewart, J. H., Esq. Case of Inversion of the Uterus of Three Months' standing.

Fergus, Andrew, M.D. Some Sanitary Remarks on Traps and Soil-Pipes.

Ferrier, David, M.D. The Localisation of Centres of Special Sense.

Fothergill, J. Milner, M.D. The Action of Drugs upon the Intracranial Circulation.

Fox, Cornelius, M.D. Is Enteric Fever ever spontaneously Generated?

Fox, J. M., Esq. Scarlet Fever: its Prevention.

Hardie, James, M.D. 1. On a Case in which a New Nose was formed by Transplanting a portion of one of the Fingers; 2. On the Treatment of some forms of Ulcer by Incision of the Edges.

Hill, Charles, M.D. On Placenta Prævia.

Hill, Matthew, Esq. A New Operation for Ununited Fractures.

Hirschfeld, John C., M.B. On Extirpation of the Tongue.

Hoggan, George, M.D. On a Case of Transfusion by Aveling's Apparatus.

Hoggan, Mrs. Frances E., M.D. On a New Histological Process for Staining Tissues.

Johnston, James, M.B. On Rheumatic Fever and its Treatment.

Jordan, Furneaux, Esq. Note on a Peculiar Form of Encysted Hydrocele of the Cord.

Kenyon, G. A., M.B. On the Comparative Merits of the Water-carriage and Dry Systems of Sewage-disposal from a Sanitary and Economical Point of View.

King, Kelburne, M.D. Two Cases of Punctured Fracture of the Frontal Bone, treated by Trephining; and resulting, one in total, the other in partial Loss of Vision.

Lucas, T. P., L.R.C.P.Ed. On the Action of Stimulants.

Lund, Edward, Esq. 1. Case in which Adams's Operation for Subcutaneous Division of the Neck of the Thigh-bone was performed on both sides in the same patient for Straight Ankylosis; 2. On the Use of Steel Screws in the Treatment of Ununited Fractures, Resections of Joints, etc.

McDiarmid, John, M.B. On the Hypodermic Injection of Morphia in Insanity.

Maclagan, T. J., M.D. On the Nature of Contagion.

Maclaren, R., M.D. On some Cases of Subperiosteal Excision.

Mapother, E. D., M.D. Treatment of Sycosis and Acne by early Incisions.

Mitchell, Arthur, M.D., and Buchan, Alexander, Esq. Some of the Relations of Weather to Death-rate.

M'Rae, Alexander E., M.D. Case of Perforation of the Abdomen (*per Vaginam*): with Remarks.

Nairne, John S., Esq. On the Psychology of Muscle.

Ogston, Francis, jun., M.D. The Nourishment of the Head of the Femur after Intracapsular Fracture.

Page, David, M.D. On a Village Outbreak of Enteric Fever traceable to a specifically polluted Water-supply.

Power, Henry, Esq. On the Action of Certain Drugs on Muscular Contraction.

Roberts, D. Lloyd, M.D. Two Cases of Occlusion of the Os Uteri after Labour.

Robertson, Alexander, M.D. Observations on the Unilateral Phenomena of Mental and Nervous Disorders.

Ross, George, M.D. The Relation of Mortality and Dwellings.

Sibbald, John, M.D. 1. The Relative Amount of Pauper Lunacy in Town and Country. 2. The Extent to which Medical Knowledge can contribute to the Determination of Criminal Responsibility.

Swayne, J. G., M.D. On Obstetrical Statistics.

Taylor, C. Bell, M.D. On the Modern Methods of Extracting Lenticular Cataract: with Illustrative Cases.

Tripe, John W., M.D. On the Death-rate at Different Ages from Epidemic Diseases.

Watson, Eben, M.D. A Case of Femoral Aneurism, with Ligature of the External Iliac.

Watson, P. Heron, M.D. Excision of the Thyroid Gland.

Wilson, George, M.D. On the Sanitary Improvements of Country Villages.

Yeld, H. J., M.D. State Medicine in Relation to Education.

Gentlemen desirous of reading papers, cases, or other communications, are requested to forward the titles to the General Secretary, or to one of the Secretaries of the Section in which the paper is to be read. All papers should be forwarded to one of the above named officers at as early a date as possible.

No paper must exceed twenty minutes in reading, and no subsequent speech must exceed ten minutes; all speeches at the General Meeting must not exceed ten minutes each.

### ANNUAL MUSEUM.

The Eighth Annual Museum of the British Medical Association will be held in the Practical Chemistry Class-room in the University on the 3rd, 4th, 5th, and 6th of August, 1875, and will be open from 10 A.M. to 6 P.M. The Committee appointed to take charge of the arrangements for this museum will be glad to receive for exhibition :

1. Latest Inventions in Medical, Surgical, and Obstetrical Instruments and appliances of all kinds.
2. New Drugs and their Preparations, and New Articles of Diet for Invalids.
3. General Pathological Specimens, with photographs, models, casts, drawings, etc., illustrating Disease.
4. Specimens and Preparations in connection with Injuries and Diseases of Bones and Joints. [It is desired to make this a special feature in the Exhibition.]
5. New Physiological Apparatus.
6. Microscopes and Microscopic Specimens, Pathological and General; New Chemicals and other Appliances used in Histological Research.

The following is a list of the Museum Committee. All communications to be addressed to the Hon. Secretaries :—Professor Turner, Dr. Angus Macdonald, Dr. Argyll Robertson, Dr. John Wyllie, Dr. W. Gordon, Mr. Thomas Annandale, and Mr. A. B. Stirling. Dr. Charles E. Underhill, 8, Coates Crescent, and Dr. John Playfair, 25, Rutland Street, *Hon. Secretaries.*

NOTICE TO EXHIBITORS.—Application for space should be made as soon as possible, and the amount required mentioned. A written or printed description of all objects intended for exhibition must be forwarded for insertion in the Catalogue ; and the Committee earnestly request all intending Exhibitors to bear in mind that it is impossible for their descriptions to be inserted unless sent in early—viz., not later than July 17th. All objects intended for exhibition must be delivered on or before July 27th. They must be addressed "Curator of Museum of British Medical Association, the University, Edinburgh."

N.B.—The Name of the Exhibitor should be written on the outside of each parcel, and a card bearing his name and address should be enclosed, to facilitate the return of the articles.

FRANCIS FOWKE, *General Secretary.*

36, Great Queen Street, June 26th, 1875.

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## METROPOLITAN COUNTIES BRANCH.

THE twenty-third annual meeting of this Branch will be held at the Alexandra Palace on Monday, June 28th, at 4 P.M. precisely ; *President*, T. B. CURLING, Esq., F.R.S. ; *President-elect*, ROBERT BARNES, M.D.

Dinner at 5.30 precisely. Tickets, 15s. each, exclusive of wine.

ALEXANDER HENRY, M.D. } *Hon.*
ROBERT FARQUHARSON, M.D. } *Secs.*

London, June 3rd, 1875.

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## BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE annual meeting of this Branch will be held at the Midland Hotel, New Street, Birmingham, on Tuesday, June 29th, at 3 P.M.; when an address will be delivered by the President, W. F. WADE, Esq., M.B., F.R.C.P.

The annual dinner will also be held at the Midland Hotel, at 5 P.M. precisely. Dinner tickets, exclusive of wine, 7s. 6d.

BALTHAZAR FOSTER, M.D. } *Honorary Secretaries.*
JAMES SAWYER, M.D. }

Birmingham, May 29th, 1875.

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## LANCASHIRE AND CHESHIRE BRANCH.

THE annual meeting of this Branch will be held in the Town Hall, Chester, on Wednesday, June 30th, at 1 P.M.—JOHN SKAIFE, Esq., President ; Dr. DAVIES-COLLEY, President-elect.

The dinner at the Grosvenor Hotel at 5 P.M. Tickets, 7s. 6d., exclusive of wine.

*Communications.*—1. Lymphoma or Lymphadenoma in a Child. By Dr. Oxley.

2. Supracondyloid Amputation of Thigh. By Dr. C. E. Lyster.
3. Note on Cæsarean Operation. By Dr. Lloyd Roberts.
4. Case of Sudden Death after Thoracentesis. By Dr. Glynn.
5. Cancer of Mediastinal Glands. By Dr. Glynn.
6. Hydrophobia. By Dr. Haddon.
7. Note on the Management of the Third Stage of Labour. By Dr. Steele.

Notice of papers (which must not exceed fifteen minutes) should be forwarded at once to the undersigned. None received after June 12th can appear in the circular.

A. B. STEELE, *Honorary Secretary.*

54, Rodney Street, Liverpool, June 9th, 1875.

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## SOUTHERN BRANCH.

THE second annual meeting of the Southern Branch will be held at the South-Western Hotel, Southampton, on Tuesday, June 29th, 1875, at a quarter past Two o'clock P.M. ; when Surgeon-General W. C. MACLEAN, M.D., C.B., will deliver an address.

During the afternoon, excursions will be made to the Royal Victoria Hospital and Netley Abbey.

The dinner will take place punctually at Six P.M. Tickets, 7s. 6d. each, exclusive of wine.

The Committee particularly request that those gentlemen who intend to be present at the dinner will send in their names to Dr. Trend, Southampton, on or before Friday, the 25th of June.

Return tickets for the day at single fares will be given to medical men on application at all the stations on the South-Western Railway.

J. WARD COUSINS, *Honorary Secretary.*

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## SOUTH WALES AND MONMOUTHSHIRE BRANCH.

THE annual meeting of this Branch will be held at Abergavenny, on Friday, July 16th.

Nomination-papers and the titles of communications, etc., must be sent to one of the undersigned by June 26th at the latest, in order that they may appear in the circulars.

Further particulars in the circulars as usual.

ANDREW DAVIES, Swansea. } *Hon. Secs.*
ALFRED SHEEN, M.D., Cardiff. }

Swansea, June 14th, 1875.

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## ABERDEEN, BANFF, AND KINCARDINE BRANCH.

THE annual meeting of the above Branch will be held at Aberdeen, on Saturday, July 17th, at 1.30 o'clock P.M.

Further particulars will be intimated by circular.

ALEXANDER OGSTON, *Honorary Secretary.*

Aberdeen, June 1875.

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## SOUTH-EASTERN BRANCH.

THE thirty-first annual meeting of this Branch will be held at the Royal Surrey County Hospital, Guildford, on Thursday, July 1st, at Twelve o'clock ; JAMES R. STEDMAN, M.D., President-elect.

The President-elect kindly invites all members to luncheon at the Hospital after the meeting.

After luncheon, an excursion will be made to the Surrey County Lunatic Asylum at Brookwood, in carriages provided by the Local Committee for the convenience of members.

The following places of interest will also be freely opened, viz. : the Hospital, the Old Castle and Caverns.

Dinner will be provided at the White Hart Hotel, at 5 o'clock precisely. Tickets, exclusive of wine, 7s. each.

Members intending to be present at the meeting or dinner are requested to give notice not later than Tuesday, June 29th.

CHARLES PARSONS, M.D., *Honorary Secretary.*

2, St. James's Street, Dover, June 14th, 1875.

P.S.—Trains leave Guildford for London at 9.14 P.M.; for Reading and intermediate stations at 8 P.M. ; for Horsham, 5.10 ; for Portsmouth, 8.2 ; for Redhill, for Tunbridge Wells, Ashford, Dover, and Brighton, at 7.32.

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## NORTH OF ENGLAND BRANCH.

THE annual meeting of this Branch will be held in the Town Hall, Darlington, on Thursday, July 8th, at 3 P.M. President, 1874-75, ANDREW LEGAT, M.D.; President-elect, 1875-76, S. E. PIPER, Esq., F.R.C.S.

The annual dinner will take place at the King's Head Hotel, Darlington, at 4.45 P.M. precisely.

G. H. PHILIPSON, M.D., *Honorary Secretary.*

Newcastle-upon-Tyne, May 29th, 1875.

### CAMBRIDGESHIRE AND HUNTINGDONSHIRE, EAST ANGLIAN, AND SOUTH MIDLAND BRANCHES.

The combined annual meeting of the above Branches will be held in the Anatomical Museum, Cambridge, on Friday, July 2nd, at 2.30 P.M.; G. M. HUMPHRY, M.D., F.R.S., President.

The dinner will take place in the Hall of St. Peter's College, at 6.30 P.M Tickets, 17s. 6d. each.

Members intending to read papers, or to be present at the dinner, are requested to intimate their intention, at their earliest convenience, to one of the Honorary Secretaries.

J. B. BRADBURY, M.D., Cambridge.
B. CHEVALLIER, M.D., Ipswich.
J. B. PITT, M.D., Norwich.
J. M. BRYAN, M.D., Northampton.
*Honorary Secretaries.*

# REPORTS OF SOCIETIES.

## MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

WEDNESDAY, JUNE 2ND, 1875.

D. RUTHERFORD HALDANE, M.D., President, in the Chair.

*Patients and Specimens.*—Mr. JOSEPH BELL showed: 1. A Foot and Ankle in a state of Dry Gangrene. He had amputated below the knee in a lady aged 49. The gangrene was the result of plugging of the popliteal artery from embolism. The patient was making a good recovery. 2. A Foot with a large Encephaloid Tumour growing from the dorsal surface, and involving the deeper structures, especially the bones of the distal row of the tarsus, for which he had performed Syme's amputation. 3. A large Sarcomatous Tumour, weighing nearly three pounds, which he had removed by a careful and prolonged dissection from the popliteal space of a young gentleman, a patient of Dr. Kirk of Bathgate. The tumour had existed for about two years. About four inches of the popliteal artery and vein were exposed, and the external popliteal nerve lay in a groove in the tumour. The patient had made a rapid recovery.

Mr. T. ANNANDALE showed: 1. A child on whom he had performed a new operation for aggravated Knock-knee. The result of the operation had been completely to cure the deformity. 2. A man who had suffered from a Compound Dislocation of the Astragalus. The case had been treated by division of the tendo Achillis and antiseptic dressing. Recovery had taken place, with a movable and useful foot. 3. A man aged 42, whose Knee-joint he had excised successfully three months before on account of Acute Inflammation of the joint, the result of a sloughing external wound which had opened into the articulation. 4. The head of a Femur and portion of Acetabulum excised from a case of Hip-disease. 5. Half a Tongue removed for Epithelial Disease. The patient was quite well three weeks afterwards. 6. The Astragalus and lower end of Tibia and Fibula excised from a case of diseased Ankle-joint. 7. A Glandular Tumour, with Cartilaginous Structure in its substance, removed from the anterior triangle of the neck. 8. A Tumour of the Upper Jaw, which he had removed along with the jaw, floor of the orbit, and masseter muscle, which had become involved in the disease. Sloughing of the cornea on the affected side had followed the operation. 9. A new Apparatus for the treatment of Fibrous Ankylosis of the Elbow-joint.

Mr. JOHN CHIENE showed a patient from whose heel he had excised a Corn, leaving a triangular wound an inch each way and half an inch deep. He had dressed it antiseptically, and believed that the blood-clot which filled the wound had become organised, and would fill the gap, without the fear of subsequent contraction of the cicatrix.

*Fluids in Pelvis after Ovariotomy.*— Dr. THOMAS KEITH showed two bottles containing serous fluids, one with about twelve ounces removed during the first twelve, and another of fourteen ounces removed during the next thirty-six, hours after the removal of a large ovarian tumour with many adhesions. The fluids were removed partly by suction, partly by expulsion through a glass tube during the efforts of vomiting. He also showed the tumour itself. He believed that, had these fluids been allowed to remain, septicæmia would certainly have resulted from their decomposition in the pelvis.

Dr. P. H. WATSON showed: 1. An Upper Jaw which he had lately removed. 2. A round Pellet of Lead which he had removed from between the eyelids of a patient. It had been sent up in a fluid state by an explosion of steam. 3. A large Ovarian Tumour which he had recently removed in the operating-theatre of the Infirmary. The patient's habits had been very intemperate. Notwithstanding an alarming attack of suppression of urine a few days after the operation, she was making a good recovery. The pedicle had been treated by ligature by strong Chinese fishing-cord.

Mr. GILRUTH read a paper on the Physiological Effects of Section of the Spinal Cord in the Lower Animals.

*Pathology of the Contracted Granular Kidney.*—Dr. T. J. MACLAGAN of Dundee read a paper on this subject. He believed that the disease was a constitutional rather than a local one, manifesting itself locally in the production of renal mischief. How the one acted on the other, was a subject regarding which there were great differences of opinion. Dr. George Johnson held that the disease consisted essentially of a disintegration and destruction of the gland-cells which line the convoluted tubes; Dr. Dickinson looked to hypertrophy of the intertubular fibrous tissue as the essence of the disease; while Sir William Gull and Dr. Sutton found it in a hyalin-fibroid formation in the outer coat of the vessels, the renal ones not being necessarily first involved. Dr. Maclagan held that microscopic observation alone was not able to settle which of these was primary and which was secondary. He believed the disease to be an insidious constitutional one, in consideration of which microscopic research had only led to differences of opinion; he therefore wished to discuss it from a constitutional point of view. He was led to believe that Dr. George Johnson's view of the initial mischief was the correct one; viz., that it was a loss of the gland-cells of the convoluted tubes. This, he believed, was followed by a hyperæmia of the kidney and hypertrophy of the muscular coat of the small arteries. Dr. Maclagan believed that, first, more blood was brought to the organ, for the remaining gland-cells to perform extra duty. Soon, so few would remain, that urea, etc., would not be properly excreted. Hence they would accumulate, and irritate the renal tissues, which, acting on the vaso-motor centres, would eventually result in contraction of the small arteries and hypertrophy of their muscular coats. He regarded the intertubular fibrous tissue, made so much of by Dr. Dickinson, as a mere result of the increased blood-flow. He then showed how the redness and contracted state of the kidney, and increased flow of urine, could not be fully explained by the other views, but were in accordance with his own modification of them. He alluded to the causes of the cardiac hypertrophy associated with this disease, and indicated what he considered to be its true position in its course. In conclusion, he referred at some length to the changes in the small arteries pointed out by Sir William Gull and Dr. Sutton, showing that they resembled what M. Bouchaud had described as sclerous arteritis in the minute cerebral arteries.—The PRESIDENT had listened with much pleasure to Dr. Maclagan's able communication. For himself, he was inclined to hold the views of Dr. Dickinson, and believed that, as in cirrhosis of the liver, there was in contracted kidney, first an increase in bulk of the fibroid tissue, and then a contraction of the organ. He thought that if, as Dr. Maclagan put it, the starting-point in the disease were to be found in a loss of tubular epithelium, some evidence of this would be found in the urine in the initial stages. Now, the exact reverse of this was the case: the urine was invariably clear, contained no epithelium, and only a few waxy casts. Again, he did not see how this mere loss of cells was to lead to hypertrophy of heart. It was a purely local affection, and the circulation was easily directed elsewhere. If it were the case, the cardiac hypertrophy would be more likely to follow cirrhosis of the liver, which is a larger organ than both the kidneys put together. In his opinion, the cardiac hypertrophy was merely the result of the impure condition of the blood, and secondary to this.—Dr. MATTHEWS DUNCAN wished to know how the contraction of the kidney was explained.—The PRESIDENT said it was analogous to the contraction in cirrhosis of liver or in cicatrised tissue.—Dr. MACLAGAN briefly replied.

# CORRESPONDENCE.

## ARTERIO-CAPILLARY FIBROSIS.

SIR,—We are anxious it should not seem that we are unmindful of the criticisms with which Dr. Johnson has favoured our opinions of "arterio-capillary fibrosis". We, therefore, ask you to kindly allow us to state that we purpose, and shall endeavour, soon to review the objections he has raised, and place before the profession additional evidence, which appears to show that the arterial change we have described is a morbid, and not, as he supposes, an artificial condition.

It may seem that we are slow in so doing; but, if it be borne in mind that we have to examine and consider not simply the morbid condition of the vessels, but the changes in the several organs of the body, of which the vessels are an integral part, it will perhaps be granted that observations on such a subject, to be approximately sound, must be protracted.—We are, sir, yours faithfully,

WILLIAM W. GULL.
HENRY G. SUTTON.

June 23rd, 1875.

### INQUEST AND POLICE.

Sir,—Several of the daily papers on Tuesday contained a sensation paragraph headed "Serious Charge against the Police", and strong remarks relative to a case in which I was the first medical attendant. I consider the police should be exonerated from any censure that may have fallen on them. The facts are as follows. The unfortunate man, Mr. Robert Burns, who gave a wrong address, was found bleeding opposite the "African Chief" public-house at 2 P.M. on Tuesday, May 4th, and not Friday, June 4th, as reported, and at once conveyed to the Police Station in Platt Street. Medical aid was sought directly, and I attended promptly at 2.30 P.M. The man had evidently been drinking, and there was a severe wound of the scalp, with profuse bleeding, which I stopped, and applied suitable dressings. Owing to the struggles and excited state of the patient, I had fear of a return of the hæmorrhage, and requested the constable to watch carefully and keep him perfectly quiet.

The police showed kind attention, and, at 5.30 P.M., very properly sent information of my dressing and bandage being torn off, with a return of hæmorrhage. My assistant was in readiness, and redressed the wound, coinciding in my view, that it was desirable the case should be treated in the St. Pancras Infirmary, which is close to the station, and where he could remain quiet and receive constant medical attention. He was taken there, and died six weeks after admission. It was not my duty to see him again, and I was not aware death had occurred until the newspapers announced it. At the inquest, some remarks were made in my absence about the medical treatment being "atrocious", which I protest against, if directed at me. Much care and vigilance were displayed on the part of the police force.

I am, sir, yours truly, Henry Charles Andrews, M.D.

1, Oakley Square, London, June 23rd, 1875.

### THE CROYDON SEWAGE-FARM.

Sir,—I have to thank you for your impartial review of the inspection of the Beddington sewage-farm. There are, however, two points in the remarks which you have been kind enough to make upon which I should like to make two explanations. First, as to Dr. Hassall's analysis, it was not made for the Farm Committee, but for the Rural Sanitary Authority. I have thought it my duty to point out in plain terms to that body the gross neglect of duty on their part towards the poor inhabitants of the district in leaving them to their fate, and inviting the spread of disease by a total abstinence from attention to their sanitary wants. I pointed this out most fully in the paper to which you have referred. The answer of the Rural Sanitary Authority has been the analysis of our effluent by Dr. Hassall; but whence taken I know not. The full cesspools and ditches overflowing with sewage still remain to contaminate the water-supply and sap the constitutions of those who have to drink the water. I regard it, therefore, as a hostile analysis.

If the effluent water from a sewage-farm be analysed at a time when it is first passing over a newly cleared field just after the carriers have been cleared out, and a quantity of dry cuttings are upon the ground, it is evident that an infusion of hay finds its way into the effluent stream, and qualifies the products. We have reason to believe that the analysis was made from water taken at such a time. The second point upon which I ask leave to comment is the balance-sheet of the farm. The accounts are published by the Croydon Local Board of Health every year, and are accounts which show receipts and expenditure only; they do not show anything of the items which are called unexhausted improvements, such as grubbing shaws, making roads, building cowhouses, fencing, and the like: until a term of years has expired, these items cannot bring back their cost, and, until a seven years' account can be published together, it will not be possible for the Committee to clearly show a balance on the right side. There is one point, however, most conclusive; viz., that, if we had obtained our land at agricultural prices, we should even now be producing a sum very much larger than our annual outlay.—I am, sir, your obedient servant,

Croydon, June 19th, 1875. Alfred Carpenter, M.D.

## MILITARY AND NAVAL MEDICAL SERVICES.

It is stated that it is not intended to fill up the appointment of Deputy Inspector to the Royal Naval Hospital at Yarmouth; and also that the War Office has declined to fill up vacancies among the medical officers of militia regiments. The medical aid required during the annual training is to be supplied by the members of the Army Medical Department.

Surgeon-Major S. Rowe has sailed for Sierra Leone, having been appointed administrator of the Gambia, and Lieutenant-Governor of Her Majesty's West African settlements. Dr. Rowe distinguished himself in the late Ashantee War.

We regret to hear that Dr. Thomas Nelson, R.N., is in so delicate a state of health that he is unable to proceed to the Naval Hospital at Malta, to which he was appointed. Dr. John Bernard, Deputy Inspector-General, has, in consequence, been deputed to proceed immediately to that place, and relieve Dr. Donnett.

A vacancy has occurred in the list of Deputy Inspectors-General to the Navy in consequence of the promotion of Dr. Wm. Macleod to the rank of Inspector-General. The name of the officer selected for promotion is still undecided.

## UNIVERSITY INTELLIGENCE.

### UNIVERSITY OF OXFORD.

Magdalen College.—Mr. A. G. Anderson, from Manchester Grammar School, and Mr. T. W. Stubbs, from Clifton College, were on Saturday last elected to Demyships in Natural Science. The Natural Science Exhibition was at the same time awarded to Mr. H. A. Wilson of Magdalen School. The stipend of the Demyship is £95 *per annum*, and of the Exhibition £75. They are tenable for five years.

### UNIVERSITY OF CAMBRIDGE.

Dr. J. B. Bradbury of Downing College has been appointed Medical Lecturer in Caius College, in the room of Dr. Drosier, resigned. Dr. Bradbury was formerly a member of Caius College.

## MEDICO-PARLIAMENTARY.

### *HOUSE OF LORDS.—Thursday, June 17th.*

*The Artisans' Dwellings Bill* having been read a third time, Lord Rosebery expressed a doubt whether the machinery provided was not too cumbersome, but thanked the Government for their honest and straightforward attempt to deal with a very difficult question.—Lord Nelson commended them for not endeavouring to do too much at once, seeing that the public had to be educated in the matter.—At the instance of Lord Redesdale, and with the sanction of the Duke of Richmond, a proviso was added to one of the clauses that the local or confirming authority should not take property for any scheme unless with the assent of Parliament; and, so amended, the Bill passed.

*Public Health.*—In reply to the Duke of Somerset, the Duke of Richmond said that the consolidation clauses of the Public Health Bill would be distinguished from the amendment clauses; and that he proposed to have it read a second time on Monday week.

### *HOUSE OF COMMONS.—Friday, June 18th.*

*Pharmacy Bill.*—Sir M. Hicks-Beach, in moving the second reading of the Bill, said its object was to carry into effect the unanimous recommendation of a committee which carefully inquired into the subject last session. The Pharmaceutical Society of London objected, however, to the 18th clause, which conferred reciprocity on the Irish and English societies with regard to the granting of legal qualifications to chemists; and he intended at the next stage of the Bill to withdraw the clause.—Dr. Ward objected to the omission of clause 18, because it would tend to increase the number of institutions which could confer legal qualifications.—Mr. Newdegate, on the part of the Pharmaceutical Society, thanked his right hon. friend for proposing to omit the clause in question.

*Small-pox in Staffordshire.*—In reply to Sir C. Forster, Mr. Sclater-Booth said he had received no information in reference to an outbreak of small-pox at Great Barr, in Staffordshire. The last quarterly returns of the Registrar-General showed an unusual mortality in the Walsall Union, of which Great Barr formed a part, and inquiries had been made of the sanitary authorities on the subject. If the outbreak arose from the occupation without previous disinfection of a house in which the disease had existed, the person letting the house would be liable to a penalty of £20. Moreover, if the sanitary authorities had medical certificate to the effect that disinfection was necessary, and it was not done satisfactorily, they might cause the work to be performed, and charge the owner or occupier with the cost.

### *Tuesday, June 22nd.*

*Surgeons in the Royal Navy.*—In reply to Mr. Sullivan, Mr. Hunt said, the acceptance of the resignation of the commission of a surgeon in the navy is in the discretion of the Admiralty, and it must be obvious to the hon. member that officers cannot be allowed to throw up their commissions when and where they choose. Mr. Donovan, of Her Majesty's ship *Dido*, asked leave to resign his commission on the Australian station last year, and was refused. He has stated to the Admiralty that he was denied by the Commodore permission to return to England at his own expense on urgent private affairs. The Commodore has been called upon to report upon that statement, but his report has not yet been received. The facts in connection with Mr. Donovan's dismissal from the service are as follows. Mr. Donovan was granted leave of absence from Sydney to go and bring his wife from Melbourne. Instead of returning to his duty at Sydney, he took ship from Melbourne to England under a false name. On his arrival in this country he was apprehended as a deserter, and put under close arrest, and it was intended to send him back to the station to be tried by court-martial in the usual course. He applied to resign his commission to avoid a court-martial. This was refused. He then wrote admitting that he had deserted, and asking that his case might be dealt with early by the Admiralty, and setting out, among other matters as an excuse for his conduct, the inconveniences he had suffered from want of cabin accommodation, and that he had been refused leave to come home on urgent private affairs. His statements were assumed to be true, and treated as extenuating circumstances, and he was dismissed the service.

### *Thursday, June 24th.*

*Report of the Contagious Diseases Acts.*—The second reading of the Bill for this purpose was moved by Sir H. Johnstone, who quoted statistics and authorities, both foreign and domestic, to show that the principle on which these Acts are based has failed here and elsewhere to check vice and disease. One of his strongest objections to the Acts was the unequal manner in which it dealt with the two sexes. Having defended the conduct of the ladies who first raised the agitation against these Acts, he dwelt on the important service which might be rendered by purely voluntary agencies, and concluded by announcing that so confident was he of ultimate success that he should persevere with the Bill whatever might be the numbers arrayed on the other side, or whatever the force of the statistics quoted against it.—Colonel Alexander moved the rejection of the Bill, contending that both parties in the State were responsible for this legislation. He also quoted statistics to illustrate the beneficial operation of the Acts, and he pointed out that the interference with personal liberty complained of had already been sanctioned by certain provisions in the Poor-law. The State, he insisted, had a right to interfere in this matter, and for one reason, because voluntary action had entirely failed. He defended the conduct of the police, especially with regard to a recent case at Aldershot.—Mr. Hopwood supported the Bill.—Mr. Cave protested against the claim advanced by the supporters of the Bill to a monopoly of fine feelings, etc., and pointed out that their theory, if pushed to a logical extent, would lead to the suppression of all curative means. The Military Return showed that the Acts had diminished disease, and no Government with such information before it could dispense with them. Personally he should prefer a voluntary system, but that had entirely broken down.—Mr. Childers denied the assertion that the late Government was responsible for this legislation because they had proposed a mitigatory system based on the Commission of 1871. But he maintained that the police statistics as to the operation of the Acts had not been broken down, and there was no doubt that the extent and the character of the disease had been much modified. At the same time he held it unwise, if not impossible, to maintain the most stringent parts of these Acts.—Mr. Henley emphatically condemned the Acts.—Mr. Massey as Chairman of the Committee agreed very much with Mr. Childers.—Mr. Stansfeld asserted that the opponents of the Acts were open to any scheme of a nature to relieve the sufferers by misconduct which was free from the objectionable features of the present law. Mr. Stansfeld then entered into an elaborate and intricate examination of the returns to show that the hygienic results were *nil*.—Mr. Hardy said, that the evidence laid before him as to the beneficial effects of these Acts made it impossible for him, as responsible for the welfare of the army, to consent to their repeal. Of these beneficial results he cited numerous cases, insisting chiefly on the moral cures. He censured Mr. Stansfeld for his vehement language, specially out of doors; in one instance, Mr. Stansfeld having gone so far as to lay down that these laws had no claim on our obedience (which Mr. Stansfeld explained meant "moral obedience"); and concluded by an indignant protest, which was vehemently cheered, against the practice pursued by the Association of flooding our houses with its "horrible literature".—On a division, the Bill was thrown out by a majority of 182—308 to 126.

# MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, June 17th, 1875.

Hope, William Anthony, Sunderland
Hopgood, William Charles, Chipping Norton
Price, Ebenezer Edmund, Dowlais, Glamorganshire

The following gentlemen also on the same day passed their primary professional examination.

Clark, John George, London Hospital
Prideaux, Thomas Engledue Peganus, St. Bartholomew's Hospital

## MEDICAL VACANCIES.

The following vacancies are announced:—

AMERSHAM UNION—Medical Officer for the Workhouse and the Amersham District.
BEDWELTY UNION—Medical Officer for the Ebbw Vale District. Salary, £15 per annum.
BOOTH BOROUGH HOSPITAL, Liverpool—House-Surgeon. Salary, £80 per annum, with board, lodging, and washing. Applications on or before July 3rd.
BRIDGNORTH INFIRMARY and DISPENSARY—House-Surgeon. Salary commencing at £120 per annum, with furnished apartments, coals, and gas. Applications on or before the 29th instant.
CHORLTON UNION—Assistant Medical Officer at the Workhouse.
HAY UNION—Medical Officer for the Workhouse. Salary, £55 per annum.
KENSINGTON DISPENSARY—Resident Medical Officer. Salary, £150 per annum, and furnished apartments. Applications on or before July 5th.
LEIGHTON BUZZARD UNION—Medical Officer for the Upper District.
LIVERPOOL NORTHERN HOSPITAL—House-Surgeon, House-Physician, and Assistant House-Surgeon. Salaries, £100, £80, and £50 respectively, with board and residence. Applications on or before July 10th.
LONDON TEMPERANCE HOSPITAL—Visiting Hospital Surgeon. Applications to the Rev. Dawson Burns, Honorary Secretary, 112, Gower Street.
MANCHESTER TOWNSHIP -Junior Assistant Medical Officer for the Workhouse Hospital.
MARLBOROUGH UNION—Medical Officer for the Second District. Salary, £80 per annum, and fees. Applications on or before July 31st.
METROPOLITAN FREE HOSPITAL, Devonshire Square—Assistant House-Surgeon.
NEWCASTLE EMLYN UNION—Medical Officer for the Penbryn District. Salary, £50 per annum.—Medical Officer for the Llandyssul District. Salary, £50 per annum.
NORWICH DISPENSARY—Resident Medical Officer. Salary, £120 per ann., and residence.
POPLAR UNION—Medical Officer for the Western District.
PORTSEA ISLAND UNION—Medical Officer for the Workhouse. Salary, £250 per annum. Applications on or before July 7th.
RAINHILL (Lancashire) COUNTY ASYLUM—Assistant Medical Officer. Salary, £100 per annum, with apartments and board.
ROYAL FREE HOSPITAL, Gray's Inn Road—Surgeon. Applications on or before June 28th.
ROYAL SURREY COUNTY HOSPITAL—House-Surgeon. Salary, £75 per annum, with board, residence, and washing. Applications on or before July 31st.
SAFFRON WALDEN UNION—Medical Officer for the Fifth District. Salary, £15 per annum.
ST. BARTHOLOMEW'S HOSPITAL—Assistant Physician-Accoucheur. Applications on or before July 13th.
STOURBRIDGE UNION—Medical Officer for the First Kingswinford District. Salary, £56 per annum.
WINCANTON UNION—Medical Officer for the Wincanton East District and for the Workhouse. Salary, £161 per annum, and fees. Applications on or before the 29th instant.
WORCESTER COUNTY and CITY LUNATIC ASYLUM—Assistant Medical Officer. Salary, £100 per annum, with furnished apartments and board. Applications on or before the 30th instant.

## MEDICAL APPOINTMENTS.

*Names marked with an asterisk are those of Members of the Association.*

Franklin, G. C., F.R.C.S.Eng., appointed Medical Officer to the Leicester Provident Dispensary.

Smith, G. J. Malcolm, M.B., appointed Demonstrator of Anatomy to the Westminster Hospital School of Medicine.

## BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.*

### MARRIAGE.

Davis—Buch.—On June 17th, at Christ Church, Upper Tean, by the Rev. G. T. Ryves, *William Hancock Davis, M.D., Brooklands Tean, to Sarah, daughter of James Buch, Blyth House, Tean.

## OPERATION DAYS AT THE HOSPITALS.

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|---|---|
| MONDAY ...... | Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M. |
| TUESDAY ...... | Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M. |
| WEDNESDAY .. | St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M. |
| THURSDAY .... | St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M. |
| FRIDAY ......... | Royal Westminster Ophthalmic, 1.30 P.M. — Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M. |
| SATURDAY .... | St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M. |

## NOTICES TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

### THE CONTAGIOUS DISEASES ACTS.

SIR,—Some of my friends have told me that the column headed "Comments" in my letter in this morning's JOURNAL is liable to be understood in a sense opposite to that which is intended, for want of some explanation of the phrases "falling off", "great falling off", etc. It may be understood to mean "disease falling off", or "falling off in improvement". The previous columns in my table showed the reduction of disease in the *large* stations was above twice as rapid before the Acts were in force as afterwards. There was, therefore, a "great falling off" in improvement after the Act.—Yours faithfully, J. BIRKBECK NEVINS.

3, Abercrombie Square, Liverpool, June 19th, 1875.

MR. THOMPSON.—The lectures delivered annually in the College of Surgeons have been brought to a close by Professor William Turner of Edinburgh.

### DURATION OF PREGNANCY.

SIR,—In answer to the query by Dr. Hopgood, I would say that it is impossible for a woman to carry a child eleven months. I have the notes of a case, however—Renouf *v.* Eden—where the period of gestation was 301 days, and a verdict was given for the plaintiff. This case was reported in the *Medical Times and Gazette* on March 12th, 1870, and the late Dr. Tanner was the chief medical witness on the winning side.—Yours, etc., PERCY BOULTON, M.D.

6, Seymour Street, W., June 1875.

### CABMEN'S SHELTERS.

SIR,—In the JOURNAL of the 5th instant you insert a letter from Mr. Davy, putting forward a plea for an extension of the usefulness of cabmen's shelters, by attaching earth-closets and urinals to them. Allow me to acquiesce in this suggestion, and to say that the closets and urinals might be rendered perfectly inoffensive by the adoption of the plan pursued by the Carbon Fertiliser Company at Oldham, where all the excreta of the town are treated by a system of disinfection and deodorisation, in which charcoal plays a principal part, being mixed with the refuse. The resulting manure, judging from its large percentage of ammonia, is very valuable, and no offence whatever is created by the cartage of the mixed product. They treat the urinary refuse in a somewhat different way, on General Scott's plan, which meets the difficulties caused by the greater amount of liquid, and which also would appear to be applicable to any of the metropolitan urinals.

I have little doubt that some such company as the Carbon Fertiliser would undertake the entire management of these much-required conveniences, in such a way as to prevent their being a nuisance. Metropolitan urinals, as at present dealt with, are a disgrace to a civilised community, and certainly improved arrangements are sadly needed.—I am, etc., ROBT. T. COOPER, M.D.

6, Ladbroke Road, W., June 1875.

### ENGLISH PRACTITIONERS IN FRANCE.

M.D. inquires as to what is necessary to be done before an English practitioner can practise in the South of France.

⁂ If an English practitioner wish to practise in France, he must take a French medical qualification. This may be done at Paris, Montpelier, or Nancy. In some exceptional cases, the minister has given a temporary permission to practise without taking any qualification. If the candidate wish to take the degree of one of the above-mentioned faculties, he should write to the secretary, who will forward him all the particulars on the subject.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

### SHIP-SURGEONS.

SIR,—In the Parliamentary Returns just issued, dated March 18th, 1875, of persons who have served in the British merchant service during the past two years as surgeons whose names do not appear in the *Medical Register*, there are no fewer than twenty-three. I presume they are unqualified, as there are six of the age of 19 years, nine of 20 years, and eight of 21 years respectively: there are nine also whose ages are not stated. Surely there is no lack of qualified men who would only be pleased to accept these appointments.—Faithfully yours,

GEORGE CHARLES COLES.

INDICUS.—The extract from the *Times of India*, which our correspondent forwards, is one of those articles which, while it contains a modicum of truth, is calculated to do more harm than good. The passage describing medical officers attached to regiments being "placed below the salt", is mere sensational rubbish. The article is written by some one who is wedded to the old regimental system under which medical officers were commissioned to particular regiments—a system which, by placing them beyond the control of the principal medical officer on the field, was often productive of the worst effects. The grievance of making army surgeons contribute so largely to the mess and band funds when they are merely attached for duty, is real and flagrant, and is one which will probably be redressed when the "unification" system is carried out in its integrity. The curse of the department is its uncertainty; the doing and undoing of the authorities, giving with one hand and taking away with the other. It is not War-office clerks and the House of Commons that are the enemies of the department. War ministers, as a rule, are disposed to do justice, but they have to do with the Treasury on the one hand and the Horse Guards on the other. The Treasury will never consent to give more pay so long as they see that medical recruits are to be had on the present terms. The Horse Guards, again, are jealous of the department, and do all they can to keep it in a position as much subordinate to the military element as possible.

The passages quoted from the *Code for the Bombay Medical Service* are certainly put in needlessly offensive terms; but one of the rules is in substance, after all, only intended to secure to military officers the privilege enjoyed by every civilian of selecting his medical adviser: but the wording of the rule is stupidly and needlessly offensive. The other, ruling that medical officers in the Bombay service are to make *post mortem* examinations for medico-legal purposes without a special fee, is nothing new. I have made a great many on the same terms; but it must be kept in mind that military men (combatants) serve every day on courts of inquiry, inquests, and such like, without any remuneration beyond their pay. All the same; the wording of the rule is offensive in its terms, and needlessly so.

### THE RESPONSIBILITIES OF ACCOUCHEURS.

SIR,—I am glad to see Dr. Matthews Duncan's letter in your JOURNAL of 5th June. What he avers is the real point at issue. If accoucheurs should desist from practice after attending a case of puerperal fever, should not physicians give up practice after visiting a case of confluent small-pox or cholera? or, more stringently still, surgeons remain idle if they happen to have dressed an erysipelatous wound? It is evident (at least so say many authorities) that the septic matter is not carried by the hands alone, but seems to be absorbed and afterwards cast off by the skin or lungs. If we believe this, then it is not necessary to touch the patient ere we contract the disease; the miasm or vapour is in the apartment, emanated from her; and this, adhering very closely to the unlucky gentleman who may chance to be called in as consulting physician, may cause wholesale death among his own patients. Surely this is a little fanciful. I have seen an epidemic of the fever; and, though I admit freely that one case is very likely to follow another, especially if the obstetrician should neglect to disinfect himself, still, when we see the disease appearing in the hands of six different accoucheurs quite independent of one another, as I have seen lately, surely contagion cannot be to blame; is it not more likely that the fever has been epidemic? I trust in the course of a short time to publish full clinical details of the cases to which I refer, and defer any further remarks till then.

In conclusion, I with all due deference beg to say that gentlemen, by stating their own clinical or pathological experience, will throw more light on this subject than by borrowing ideas and putting a new face on them.—I am, etc., A. D. L. N.

June 1875.

### THE USE OF STATISTICS.

SIR,—I see that Dr. Nevins, with a perseverance worthy of a better cause, comes forward again in the BRITISH MEDICAL JOURNAL with yet more statistics unfavourable, as he thinks, to the Contagious Diseases Acts. Well, what is his argument? That the Acts have not yet done much to check syphilis, still less to diminish gonorrhœa. Your columns have abundantly shown that the very contrary is the unanimous opinion of those best fitted to judge. Until they are applied to the population generally, we cannot expect any decisive result on one class only. But let us take it at the worst, and concede, for argument's sake, that the statistical returns so far are not satisfactory, must we therefore cease in our efforts because our well considered schemes appear for the present to be failures? Let us take a case in point—his own town, Liverpool. When the Health of Towns' Commission, in 1845, revealed its unhealthiness, the Town Council immediately bestirred themselves, and obtained, in 1846, a stringent local Act—the Liverpool Sanitary Act—and this, too, before any other town in the kingdom had moved in the matter. It was also the first to appoint a medical officer of health. In 1854, and again in 1864, still more stringent local sanitary acts were obtained. Under these and other general health acts, sanitary improvements costing four millions of money were executed, subjecting both ratepayers and owners of property, especially of cottage property, to a severity of taxation that ruined many. And what were the results? In the ten years 1851-60, during which the more important sanitary works were being carried out, the average mortality was 29.2 in the 1000. During the next ten years—1861-70, when we ought to have been reaping the fruit of our unparalleled exertions and enormous sacrifices for health's sake, the average mortality had risen to 32.3. Now, surely if Dr. Nevins's logic be worth anything, here is a case in point. Liverpool ought to have at once suspended all its sanitary measures, and petitioned for a repeal of those terrible Acts of Parliament, since the statistics plainly showed that, so far from diminishing disease, they increased it. It was reserved for the opponents of the Contagious Diseases Acts to push the argument from statistics so far.—Yours truly, JOHN NEWTON.

20, Marmaduke Street, Liverpool, June 1875.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, twelve o'clock.

### ETHER AND CHLOROFORM.

SIR,—It would appear that in entering my dissent from the impartiality claimed by Dr. Fifield in regard to his judgment on this question, it is just possible that I may have to reply to every M.D. and surgeon in the United States, as it is a fact that they are to a man bound to decry chloroform. In to-day's JOURNAL, Dr. Blackwood of Philadelphia says: "We are in the habit here of respectfully accepting as true remarks such as Dr. Fifield made regarding his impartiality in the choice between chloroform and ether, unless they be proved to be false." Possibly Dr. Blackwood is not aware that we on this side of the Atlantic have similar ethics, only as we are exceedingly bad judges in our own cause, and as all of us are far from being impartial judges, we prefer being judged by others rather than by ourselves. As to the question of impartiality on the part of Dr. Fifield, if I have not proved him to be most prejudiced against chloroform, and that, too, without sufficient reason founded on facts, I give it up. As to convincing either Dr. Fifield or Dr. Blackwood, or any physician or surgeon of the United States, that they are wrong and that I am right, I also give that up.

"O wad some power the giftie gie us
To see oursels as ithers see us!
It wad frae mony a blunder free us
And foolish notion."

I deny with emphasis that I ever charged American obstetricians with ignorance. As I have been misunderstood by one of them, I beg here to repeat my statement. "Dr. Fifield observes, on the employment of anæsthesia in labour in the States, 'that it was gradually dying out', because, when flooding occurred, 'the helpless and unconscious state of the anæsthetised woman rendered her incapable of responding to appeals to second, by her own volition, attempts to cause uterine contraction'. It is evident that Dr. Fifield is either misrepresenting the experience of North American accoucheurs of celebrity, or their practice of anæsthetic midwifery admits of very considerable improvement; or a much more likely solution is to be found in the fact, that their patients much prefer the pains of labour to being stunk out of (pardon the coarseness of the expression) the comforts of house and home by so vile a smelling substance as that of sulphuric ether, during the many hours it may be necessary to give it." If Dr. Blackwood can make out a charge of ignorance against his countrymen in the above quotation, then

"Optics keen it needs, I ween,
To see what is not to be seen."

According to Dr. Blackwood's showing, the real cause of the dropping of anæsthesia in midwifery is, that the curse of the pains in labour has recently been withdrawn from American women. I wonder if this would hold good in the event of a young lady of another nationality squatting down in the States. Dr. Blackwood may be stating what is absolutely true, but his fellow-countryman is of another opinion. Dr. Fifield's observations imply that it is the doctor and not the patient that prefers the pains; at least the consciousness of being in labour. This is somewhat on the principle of old Dr. Meigs of Philadelphia, who argued with the late Sir James Simpson that chloroform or anæsthesia did away with the main guide in introducing the forceps or any instrument—the pain of the patient when he was injuring her. The man who relies on such a guide has no right to use the forceps at all. So far as uterine hæmorrhage is concerned, the cases are too few and far between to constitute the rule in anæsthetic midwifery. I cannot believe that women in America are more exempt from pain during labour than in other countries. Women are not guided altogether by their feelings, but more by their fears, like the rest of mankind; and if doctors frighten their patients with groundless fears of chloroform, ether, or aught else, one does not need to travel far for a reason why anæsthesia is pooh-poohed in midwifery.

Dr. Blackwood makes another mistake: he thinks that I advocate professional chloroformists. On the contrary, I never recommend them. What I desire is, that every student should be taught in hospital the practical use of all anæsthetics by competent hands.

Dr. Blackwood is very jealous of the reputation of his countrymen, and I am delighted to see it—"With all their faults, I dearly love them still." He hopes that I really do not believe that chloroform or any other medicinal agent is proscribed by Americans. This does not alter the fact, admitted by Dr. Fifield himself, and corroborated in the strongest and pithiest language by my friend Dr. Sinclair of Boston, that chloroform is, to all intents and purposes, proscribed in the United States. The words of Dr. Fifield, as quoted by your Liverpool correspondent, are, that "chloroform was almost proscribed in the United States". Facts are stubborn things, and chloroform *is proscribed* in the United States.

If any one doubt the widespread contagion and the universality of the symptoms of the antichloroform delusions of Americans, they have only to observe the painful sameness of the language indulged in in separate States—Massachusetts and Pennsylvania. Chloroform is always talked of or styled the "deadly" anæsthetic, and we ought at least to give "the helpless patient a chance for his life". I have administered chloroform now for twenty-seven years, and I have never had a death. The discoverer of its anæsthetic properties, the late Sir James Simpson, used from five to seven gallons a year in his own practice from 1847 to the year of his death, and he only lost one case, and that was a case of cancerous disease of the ovary, which was being excised, and must have died eventually. It is a remarkable fact, that three-fourths or nearly so of the deaths from chloroform in this country have occurred in London or its neighbourhood.—I am, sir, yours truly,

THOMAS SKINNER, M.D.

Liverpool, June 12th, 1875.

PSYCHOLOGIST.—Mr. J. Wilkes, Dr. R. Nairne, and Mr. J. D. Cleaton, are the medical commissioners in lunacy, with salaries of £1,500 each. The offices are in Whitehall Place.

### TEMPERATURE CHARTS.

SIR,—The temperature charts inquired after by Mr. Houghton in the JOURNAL of May 22nd are to be obtained of W. Lewis, Duke Street, Cardiff, price 4s. per 100. They were devised as companions to a Visiting List introduced by me last year.—Yours, etc.,

ALFRED SHEEN, M.D.

Cardiff, June 2nd, 1875.

M.R.C.S.E.—In the circumstances described, the coroner seems to have behaved properly enough.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

### MULTIPLE TUMOURS.

SIR,—Can any of the readers of our JOURNAL furnish a clue to the following case? On March 23rd, a maiden lady, aged 53, consulted me on account of the appearance of several tumours all over the body. On examination, there were found scattered irregularly over the trunk and limbs eleven or twelve tolerably firm nodular masses, ranging in size from a shot to a chestnut. They were subcutaneous and freely movable, and the superjacent skin had in two or three cases a bluish-mottled tint, which varied somewhat at different times. She stated that they began to appear rather suddenly two or three weeks previously; that they were rather painful and tender on their first appearance; that they increased in size up to a certain point, and then remained stationary; and that after a short time the pain and tenderness mostly disappeared. There was no family history of cancer or other tumours; and the general health, though always rather delicate, was not materially affected. There was no family or personal history of gout or rheumatism, though she had occasionally felt a tingling and aching in the left arm. She was at first treated by iodide of potassium, then by mercury, then by a combination of the two (iodide of potassium 5 grains, liquor hydrargyri perchloridi, a drachm, three times a day), up to a few days ago; but not only have the old masses remained unaffected, but fresh ones have kept constantly appearing. About a month ago, she had pain and tenderness in the joint between the first and second phalanges of the right little finger. This was succeeded by a swelling on the inner side of the joint, which has remained ever since. The tingling and pain of the left arm have gradually become more severe, occasionally preventing sleep, and being of an intermittent character: the right forearm also has lately become similarly affected. The nodules are now very numerous; and, in addition to those on the trunk and limbs, two have appeared on the scalp. Some of them have become softer, but in other respects they remain pretty much in the same indolent condition, and show but little tendency to implicate the skin. She says she has lost flesh lately, but her general health does not seem to be materially affected, nor has her appetite much diminished. Within the last few days the treatment has been changed to soda and colchicum, but as yet with no effect. I may mention that one small nodule appeared just under the right axilla last March twelvemonths, and another about six months afterwards, but no attention was paid to them at the time.—Yours faithfully,

JOHN CROSS, M.B.

7, Stanhope Terrace, Regent's Park, June 1875.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Lincolnshire Herald; The Sunderland Daily Echo; The Melbourne Medical Record; The Hackney and Kingsland Gazette; The Worcestershire Chronicle; The Grocer; The Glasgow Herald; The Cork Examiner; The Scotsman; the Sussex Daily News; The Birmingham Daily Post; etc.

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COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. J. Kent Spender, Bath; Mr. Richard Davy, London; Dr. J. W. F. Smith-Shand, Aberdeen; Mr. E. Priestley, London; Dr. Robert Cooper, London; An Associate; Dr. Norris, Birmingham; Mr. G. C. Coles, London; Mr. G. M. Smith, London; Dr. T. Claye Shaw, Leavesden; Dr. Edis, London; The Secretary of the Royal National Hospital for Consumption; Mr. Donelly, Dublin; Mr. C. F. Tanner, Plymouth; Mr. James Reid, Canning Town; Dr. John Cavafy, London; Mr. J. N. Langley, Newbury; Mr. A. G. Sandberg, Holt; Dr. Joseph Coats, Glasgow: Dr. A. P. Stewart, London; Mr. F. P. Lansdown, Clifton; Dr. Alfred Carpenter, Croydon; Mr. T. Annandale, Edinburgh; The Secretary of the Obstetrical Society; Dr. Finlayson, Glasgow; Mr. W. Fairlie Clarke, London; Dr. J. W. Moore, Dublin; Mr. Alfred Haviland, Northampton; Dr. Tilt, London; Dr. Priestley, London; Dr. J. W. Langmore, London; Mr. Wm. N. Edgill, Chorlton; Dr. J. Birkbeck Nevins, Liverpool; Messrs. Low, Son, and Marston, London; Dr. J. B. Bradbury, Cambridge; Mr. T. Holmes, London; The Secretary of Charing Cross Hospital; Mr. Chapman, Oxford; Mr. W. Gardiner, Uxbridge; Dr. Percy Boulton, London; Mr. H. C. Burdett, Greenwich; Dr. R. Barnes, London; Dr. Horber, Homburg; Dr. Alfred Sheen, Cardiff; Mr. W. E. Farnfield, London; Dr. Meadows, Edinburgh; Dr. Goldie, Leeds; Dr. John Tripe, Hackney; Mr. Woodman, Exeter; Mr. J. A. Coutts, Banchory; Mr. C. G. Wheelhouse, Leeds; Mr. Clement Walter, Dover; Mr. T. M. Ward, Exmouth; The Secretary of the Society of Arts, London; Dr. Philip S. Fentem, Bakewell; Our Dublin Correspondent; Dr. De Chaumont, Woolston; Dr. A. B. Steele, Liverpool; Mr. Llewellyn Thomas, London; Dr. Rutherford Haldane, Edinburgh; Mr. Francis Hollinshead, King's Norton; Our Edinburgh Correspondent; Mr. G. C. Franklin, Leicester; Mr. Eastes, London; Mr. Jabez Hogg, London; Dr. E. J. Syson, Huntingdon; Dr. J. P. Billing, Harlsham; Mr. Rigg, Lytham; Sir William Gull, London; Dr. H. C. Andrews, London; Dr. C. Wotton, King's Langley: Dr. W. Lyon, Aberdeen; Mr. F. W. Wright, Derby; Mr. T. Keith, Edinburgh; Mr. A. Haviland, Northampton; Dr. Ogston, Aberdeen; The Registrar-General, Dublin; Dr. James Sedgwick, Boroughbridge; Mr. Henry Lee, London; Dr. Aveling, London; Mr. T. M. Stone, London; Dr. T. Gaillard Thomas, New York; Dr. C. E. Saunders, London; Dr. Procter, York; Rev. Dr. Gibbes, Tavistock; Dr. R. M. Bowstead, Birmingham; Mr. R. S. Fowler, Bath; Mr. Cullingworth, Manchester; Dr. J. E. Miller, Londonderry; Mr. J. E. Murphy, Lisardagh; Dr. Parsons, Dover; Dr. J. J. Brown, Edinburgh; Mr. Annandale, Edinburgh; Dr. Caton, Liverpool; Dr. Atthill, Dublin; Dr. Dickson, Buxton; Mr. C. White, Warrington; Mr. C. S. Blythman, Swinton; Mr. Fawcett, Conway; Dr. G. Worthington, Conway; Dr. Satchell, Kew; Dr. J. Eaton, Worcester; Dr. A. Smart, Edinburgh; Dr. R. T. Lyons, Paris; Mr. R. Hickman, Newbury; Mr. H. Wood, Birmingham; Dr. Macdonald, Edinburgh; Mr. W. Dobie, Keighley; Dr. J. Johnston, Birmingham; Dr. Cousins, Portsmouth; Dr. Bryan, Northampton; etc.

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